

Appendix C. c) CalEEMod
and d) AERMOD

Sub-Appendix c)
Regional Construction Emissions
CalEEMod Output Files

Summer - Unmitigated

Harvard Westlake Parking Structure Los Angeles-South Coast County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Enclosed Parking with Elevator	750.00	Space	1.90	300,000.00	0
User Defined Parking	0.00	User Defined Unit	1.52	59,921.00	0
User Defined Recreational	64,350.00	User Defined Unit	0.00	64,350.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	33
Climate Zone	11	Operational Year	2019		
Utility Company	Southern California Edison				
CO2 Intensity (lb/MW hr)	630.89	CH4 Intensity (lb/MW hr)	0.029	N2O Intensity (lb/MW hr)	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Athletic Field is under land use category of User defined recreational.
Roadways and landscape are under parking- user defined.

Construction Phase - based on equipment mix provided by the constructor

Off-road Equipment - based on equipment mix provided by the constructor

Off-road Equipment -

Off-road Equipment - based on equipment mix provided by the constructor

Off-road Equipment - based on equipment mix provided by the constructor

Off-road Equipment - based on construction plan

Off-road Equipment - based on equipment mix provided by the constructor

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Trips and VMT - Overlapping phases: 1) Grading, Soil Nailing, and Shotcrete 2) Foundations/Structure, Tower/Ramp 3) Foundations/Structure, Bridge. Haul trucks assumed to travel 13 miles each way. Soil Nailing and Shotcrete trips assumed to be 6.9 miles one-way.

Grading -

Vehicle Emission Factors -

Vehicle Emission Factors -

Vehicle Emission Factors -

Energy Use - Athletic field would have 10 light poles. A conservative assumption that 10 light poles would have 6 light bulb each with each light bulb having rating of 400 W.

Construction Off-road Equipment Mitigation - Details provided by the constructor.

Table Name	Column Name	Default Value	New Value
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	5.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	5.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	11.00
tblConstructionPhase	NumDays	230.00	195.00
tblConstructionPhase	NumDays	230.00	195.00
tblConstructionPhase	NumDays	230.00	290.00

tblConstructionPhase	NumDays	230.00	114.00
tblConstructionPhase	NumDays	230.00	82.00
tblConstructionPhase	NumDays	230.00	165.00
tblConstructionPhase	NumDays	8.00	245.00
tblConstructionPhase	NumDays	18.00	20.00
tblConstructionPhase	NumDays	5.00	20.00
tblConstructionPhase	PhaseEndDate	3/6/2018	4/12/2017
tblConstructionPhase	PhaseEndDate	1/10/2018	4/26/2017
tblConstructionPhase	PhaseEndDate	6/6/2018	7/19/2018
tblConstructionPhase	PhaseEndDate	12/26/2018	3/23/2018
tblConstructionPhase	PhaseStartDate	6/7/2017	7/14/2016
tblConstructionPhase	PhaseStartDate	4/13/2017	7/28/2016
tblConstructionPhase	PhaseStartDate	4/27/2017	6/9/2017
tblConstructionPhase	PhaseStartDate	7/20/2018	10/17/2017
tblConstructionPhase	PhaseStartDate	3/24/2018	3/26/2018
tblEnergyUse	LightingElect	0.00	3.26
tblEnergyUse	NT24E	0.00	3.26
tblEnergyUse	T24E	0.00	3.26
tblGrading	AcresOfGrading	612.50	450.00
tblGrading	MaterialExported	0.00	140,000.00
tblLandUse	LandUseSquareFeet	0.00	59,921.00
tblLandUse	LandUseSquareFeet	0.00	64,350.00
tblLandUse	LotAcreage	6.75	1.90
tblLandUse	LotAcreage	0.00	1.52
tblOffRoadEquipment	HorsePower	162.00	330.00
tblOffRoadEquipment	HorsePower	255.00	207.00
tblOffRoadEquipment	HorsePower	97.00	349.00
tblOffRoadEquipment	HorsePower	97.00	84.00
tblOffRoadEquipment	HorsePower	97.00	96.00
tblOffRoadEquipment	HorsePower	97.00	349.00

tblOffRoadEquipment	HorsePower	97.00	84.00
tblOffRoadEquipment	HorsePower	97.00	349.00
tblOffRoadEquipment	HorsePower	97.00	84.00
tblOffRoadEquipment	HorsePower	97.00	96.00
tblOffRoadEquipment	HorsePower	205.00	160.00
tblOffRoadEquipment	HorsePower	205.00	160.00
tblOffRoadEquipment	HorsePower	361.00	185.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	1.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	6.00	8.00
tblOffRoadEquipment	UsageHours	6.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblProjectCharacteristics	OperationalYear	2014	2019
tblTripsAndVMT	HaulingTripLength	20.00	26.00
tblTripsAndVMT	HaulingTripNumber	17,500.00	17,640.00

tblTripsAndVMT	VendorTripLength	6.90	13.80
tblTripsAndVMT	VendorTripLength	6.90	13.80
tblTripsAndVMT	VendorTripLength	6.90	13.80
tblTripsAndVMT	VendorTripNumber	70.00	3.00
tblTripsAndVMT	VendorTripNumber	70.00	5.00
tblTripsAndVMT	VendorTripNumber	70.00	50.00
tblTripsAndVMT	VendorTripNumber	70.00	2.00
tblTripsAndVMT	VendorTripNumber	0.00	2.00
tblTripsAndVMT	VendorTripNumber	70.00	2.00
tblTripsAndVMT	VendorVehicleClass	HDT_Mix	HHDT
tblTripsAndVMT	WorkerTripNumber	23.00	30.00
tblTripsAndVMT	WorkerTripNumber	178.00	30.00
tblTripsAndVMT	WorkerTripNumber	178.00	30.00
tblTripsAndVMT	WorkerTripNumber	178.00	30.00
tblTripsAndVMT	WorkerTripNumber	178.00	30.00
tblTripsAndVMT	WorkerTripNumber	13.00	30.00
tblTripsAndVMT	WorkerTripNumber	178.00	30.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

Year	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	lb/day										lb/day					
2016	13.7804	141.6023	88.8826	0.2012	11.8118	6.8707	18.6825	4.5274	6.5189	11.0462	0.0000	20,040.06	20,040.066	2.8232	0.0000	20,099.352
												61	1			7
2017	12.6549	129.6330	86.2656	0.2011	12.2396	6.1762	18.4157	4.6324	5.8567	10.4891	0.0000	19,759.88	19,759.885	2.7722	0.0000	19,818.101
												52	2			1
2018	6.9189	72.0539	58.0163	0.1127	1.2845	3.4402	4.7246	0.3461	3.2039	3.5500	0.0000	10,986.00	10,986.007	2.2228	0.0000	11,032.686
												72	2			0

2019	0.7839	7.6257	6.9069	0.0185	0.3478	0.3260	0.6738	0.0925	0.3000	0.3925	0.0000	1,727.6930	1,727.6930	0.4459	0.0000	1,737.0565
Total	34.1382	350.9149	240.0715	0.5334	25.6836	16.8130	42.4967	9.5983	15.8795	25.4778	0.0000	52,513.6515	52,513.6515	8.2640	0.0000	52,687.1962

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	lb/day										lb/day					
2016	13.7804	141.6023	88.8826	0.2012	6.9107	6.8707	13.7814	2.3739	6.5189	8.8927	0.0000	20,040.0661	20,040.0661	2.8232	0.0000	20,099.3527
2017	12.6549	129.6330	86.2656	0.2011	7.3385	6.1762	13.5147	2.4789	5.8567	8.3356	0.0000	19,759.8852	19,759.8852	2.7722	0.0000	19,818.1010
2018	6.9189	72.0539	58.0163	0.1127	1.2845	3.4402	4.7246	0.3461	3.2039	3.5500	0.0000	10,986.0072	10,986.0072	2.2228	0.0000	11,032.6860
2019	0.7839	7.6257	6.9069	0.0185	0.3478	0.3260	0.6738	0.0925	0.3000	0.3925	0.0000	1,727.6930	1,727.6930	0.4459	0.0000	1,737.0565
Total	34.1382	350.9149	240.0715	0.5334	15.8815	16.8130	32.6945	5.2913	15.8795	21.1708	0.0000	52,513.6515	52,513.6515	8.2640	0.0000	52,687.1962

	ROG	NOx	CO	SO2	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	38.17	0.00	23.07	44.87	0.00	16.90	0.00	0.00	0.00	0.00	0.00	0.00

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	11.7305	0.0624	6.7116	5.0000e-004		0.0241	0.0241		0.0241	0.0241		14.2473	14.2473	0.0386		15.0581

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
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
Total	11.7305	0.0624	6.7116	5.0000e-004	0.0000	0.0241	0.0241	0.0000	0.0241	0.0241		14.2473	14.2473	0.0386	0.0000	15.0581

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	lb/day										lb/day						
Area	11.7305	0.0624	6.7116	5.0000e-004		0.0241	0.0241		0.0241	0.0241			14.2473	14.2473	0.0386		15.0581
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
Total	11.7305	0.0624	6.7116	5.0000e-004	0.0000	0.0241	0.0241	0.0000	0.0241	0.0241			14.2473	14.2473	0.0386	0.0000	15.0581

	ROG	NOx	CO	SO2	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	Site Preparation	Site Preparation	6/1/2016	6/28/2016	5	20	
2	Grading	Grading	6/29/2016	6/6/2017	5	245	
3	Soil Nailing	Building Construction	7/14/2016	4/12/2017	5	195	
4	Shotcrete	Building Construction	7/28/2016	4/26/2017	5	195	

5	Foundation/Structure	Building Construction	6/9/2017	7/19/2018	5	290
6	Tower/Ramp	Building Construction	10/17/2017	3/23/2018	5	114
7	Bridge	Building Construction	3/26/2018	7/17/2018	5	82
8	Streetwork	Paving	7/18/2018	8/14/2018	5	20
9	Sitework	Building Construction	8/15/2018	4/2/2019	5	165

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 450

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
Site Preparation	Rubber Tired Dozers	1	8.00	255	0.40
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Grading	Excavators	1	8.00	330	0.38
Grading	Graders	1	8.00	174	0.41
Grading	Rubber Tired Dozers	1	8.00	207	0.40
Grading	Scrapers	2	8.00	185	0.48
Grading	Tractors/Loaders/Backhoes	1	8.00	349	0.37
Grading	Tractors/Loaders/Backhoes	1	8.00	84	0.37
Grading	Tractors/Loaders/Backhoes	2	8.00	96	0.37
Soil Nailing	Air Compressors	2	8.00	78	0.48
Soil Nailing	Bore/Drill Rigs	2	8.00	160	0.50
Soil Nailing	Pumps	2	8.00	84	0.74
Shotcrete	Air Compressors	2	8.00	78	0.48
Shotcrete	Pumps	2	8.00	84	0.74
Foundation/Structure	Air Compressors	1	8.00	78	0.48
Foundation/Structure	Bore/Drill Rigs	1	8.00	160	0.50
Foundation/Structure	Other Construction Equipment	1	8.00	171	0.42

Foundation/Structure	Other Construction Equipment	1	8.00	171	0.42
Foundation/Structure	Pumps	1	8.00	84	0.74
Foundation/Structure	Tractors/Loaders/Backhoes	1	8.00	349	0.37
Foundation/Structure	Tractors/Loaders/Backhoes	2	8.00	84	0.37
Foundation/Structure	Tractors/Loaders/Backhoes	1	8.00	96	0.37
Bridge	Cranes	1	8.00	226	0.29
Streetwork	Graders	1	8.00	174	0.41
Streetwork	Paving Equipment	1	8.00	130	0.36
Streetwork	Plate Compactors	1	8.00	8	0.43
Streetwork	Rollers	1	8.00	80	0.38
Streetwork	Scrapers	1	8.00	361	0.48
Sitework	Tractors/Loaders/Backhoes	1	8.00	349	0.37
Sitework	Tractors/Loaders/Backhoes	1	8.00	84	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
Site Preparation	2	5.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	9	30.00	0.00	17,640.00	14.70	6.90	26.00	LD_Mix	HDT_Mix	HHDT
Soil Nailing	6	30.00	3.00	0.00	14.70	13.80	20.00	LD_Mix	HDT_Mix	HHDT
Shotcrete	4	30.00	5.00	0.00	14.70	13.80	20.00	LD_Mix	HDT_Mix	HHDT
Foundation/Structure	9	30.00	50.00	0.00	14.70	13.80	20.00	LD_Mix	HHDT	HHDT
Tower/Ramp	0			0.00	14.70	6.90				
Bridge	1	30.00	2.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Streetwork	5	30.00	2.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Sitework	2	30.00	2.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

3.2 Site Preparation - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day										lb/day						
Fugitive Dust					6.0221	0.0000	6.0221	3.3102	0.0000	3.3102			0.0000				0.0000
Off-Road	1.5788	17.1258	12.8976	0.0120		0.8960	0.8960		0.8243	0.8243		1,247.1093	1,247.1093	0.3762			1,255.0089
Total	1.5788	17.1258	12.8976	0.0120	6.0221	0.8960	6.9181	3.3102	0.8243	4.1346		1,247.1093	1,247.1093	0.3762			1,255.0089

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	lb/day										lb/day						
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
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
Worker	0.0223	0.0280	0.3469	7.3000e-004	0.0559	5.3000e-004	0.0564	0.0148	4.9000e-004	0.0153		61.4511	61.4511	3.3500e-003			61.5213
Total	0.0223	0.0280	0.3469	7.3000e-004	0.0559	5.3000e-004	0.0564	0.0148	4.9000e-004	0.0153		61.4511	61.4511	3.3500e-003			61.5213

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
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Category	lb/day										lb/day				
Fugitive Dust					2.3486	0.0000	2.3486	1.2910	0.0000	1.2910			0.0000		0.0000
Off-Road	1.5788	17.1258	12.8976	0.0120		0.8960	0.8960		0.8243	0.8243	0.0000	1,247.1093	1,247.1093	0.3762	1,255.0089
Total	1.5788	17.1258	12.8976	0.0120	2.3486	0.8960	3.2446	1.2910	0.8243	2.1153	0.0000	1,247.1093	1,247.1093	0.3762	1,255.0089

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	lb/day										lb/day					
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
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
Worker	0.0223	0.0280	0.3469	7.3000e-004	0.0559	5.3000e-004	0.0564	0.0148	4.9000e-004	0.0153		61.4511	61.4511	3.3500e-003		61.5213
Total	0.0223	0.0280	0.3469	7.3000e-004	0.0559	5.3000e-004	0.0564	0.0148	4.9000e-004	0.0153		61.4511	61.4511	3.3500e-003		61.5213

3.3 Grading - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.0346	0.0000	8.0346	3.5303	0.0000	3.5303			0.0000			0.0000
Off-Road	6.3232	71.5648	31.4699	0.0592		3.5217	3.5217		3.2399	3.2399		6,153.6608	6,153.6608	1.8562		6,192.6402

Total	6.3232	71.5648	31.4699	0.0592	8.0346	3.5217	11.5562	3.5303	3.2399	6.7703		6,153.6608	6,153.6608	1.8562		6,192.6402
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Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	1.5174	25.7991	16.1331	0.0695	2.6716	0.3874	3.0590	0.7019	0.3564	1.0583		7,005.8376	7,005.8376	0.0510		7,006.9085
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
Worker	0.1336	0.1682	2.0811	4.3600e-003	0.3353	3.1700e-003	0.3385	0.0889	2.9100e-003	0.0919		368.7064	368.7064	0.0201		369.1279
Total	1.6511	25.9672	18.2142	0.0738	3.0070	0.3906	3.3975	0.7908	0.3593	1.1502		7,374.5440	7,374.5440	0.0711		7,376.0363

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	lb/day										lb/day					
Fugitive Dust					3.1335	0.0000	3.1335	1.3768	0.0000	1.3768			0.0000			0.0000
Off-Road	6.3232	71.5648	31.4699	0.0592		3.5217	3.5217		3.2399	3.2399	0.0000	6,153.6608	6,153.6608	1.8562		6,192.6402
Total	6.3232	71.5648	31.4699	0.0592	3.1335	3.5217	6.6551	1.3768	3.2399	4.6168	0.0000	6,153.6608	6,153.6608	1.8562		6,192.6402

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	lb/day										lb/day					
Hauling	1.5174	25.7991	16.1331	0.0695	2.6716	0.3874	3.0590	0.7019	0.3564	1.0583		7,005.8376	17,005.8376	0.0510		17,006.9085
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
Worker	0.1336	0.1682	2.0811	4.3600e-003	0.3353	3.1700e-003	0.3385	0.0889	2.9100e-003	0.0919		368.7064	368.7064	0.0201		369.1279
Total	1.6511	25.9672	18.2142	0.0738	3.0070	0.3906	3.3975	0.7908	0.3593	1.1502		7,374.5440	7,374.5440	0.0711		7,376.0363

3.3 Grading - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.0346	0.0000	8.0346	3.5303	0.0000	3.5303			0.0000			0.0000
Off-Road	5.9108	66.1724	30.4275	0.0592		3.2405	3.2405		2.9812	2.9812		6,055.5587	16,055.5587	1.8554		16,094.5224
Total	5.9108	66.1724	30.4275	0.0592	8.0346	3.2405	11.2750	3.5303	2.9812	6.5116		6,055.5587	6,055.5587	1.8554		6,094.5224

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	lb/day										lb/day					

Hauling	1.4417	23.6802	15.4787	0.0694	3.0994	0.3540	3.4534	0.8069	0.3257	1.1326		6,892.1644	6,892.1644	0.0500		6,893.2135
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
Worker	0.1201	0.1521	1.8856	4.3600e-003	0.3353	3.0400e-003	0.3384	0.0889	2.8000e-003	0.0917		354.9083	354.9083	0.0186		355.2978
Total	1.5617	23.8323	17.3643	0.0738	3.4347	0.3570	3.7918	0.8959	0.3285	1.2243		7,247.0727	7,247.0727	0.0685		7,248.5113

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	lb/day										lb/day					
Fugitive Dust					3.1335	0.0000	3.1335	1.3768	0.0000	1.3768			0.0000			0.0000
Off-Road	5.9108	66.1724	30.4275	0.0592		3.2405	3.2405		2.9812	2.9812	0.0000	6,055.5587	6,055.5587	1.8554		6,094.5224
Total	5.9108	66.1724	30.4275	0.0592	3.1335	3.2405	6.3739	1.3768	2.9812	4.3581	0.0000	6,055.5587	6,055.5587	1.8554		6,094.5224

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	lb/day										lb/day					
Hauling	1.4417	23.6802	15.4787	0.0694	3.0994	0.3540	3.4534	0.8069	0.3257	1.1326		6,892.1644	6,892.1644	0.0500		6,893.2135
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
Worker	0.1201	0.1521	1.8856	4.3600e-003	0.3353	3.0400e-003	0.3384	0.0889	2.8000e-003	0.0917		354.9083	354.9083	0.0186		355.2978
Total	1.5617	23.8323	17.3643	0.0738	3.4347	0.3570	3.7918	0.8959	0.3285	1.2243		7,247.0727	7,247.0727	0.0685		7,248.5113

3.4 Soil Nailing - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.1260	26.3481	21.2801	0.0350		1.6938	1.6938		1.6572	1.6572		3,439.8178	3,439.8178	0.6444		3,453.3503
Total	3.1260	26.3481	21.2801	0.0350		1.6938	1.6938		1.6572	1.6572		3,439.8178	3,439.8178	0.6444		3,453.3503

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	lb/day										lb/day					
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
Vendor	0.0349	0.4655	0.3780	1.2600e-003	0.0374	8.0300e-003	0.0454	0.0106	7.3900e-003	0.0180		126.7626	126.7626	8.7000e-004		126.7808
Worker	0.1336	0.1682	2.0811	4.3600e-003	0.3353	3.1700e-003	0.3385	0.0889	2.9100e-003	0.0919		368.7064	368.7064	0.0201		369.1279
Total	0.1685	0.6336	2.4591	5.6200e-003	0.3727	0.0112	0.3839	0.0996	0.0103	0.1099		495.4690	495.4690	0.0209		495.9087

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	lb/day										lb/day					
Off-Road	3.1260	26.3481	21.2801	0.0350		1.6938	1.6938		1.6572	1.6572	0.0000	3,439.8178	3,439.8178	0.6444		3,453.3503
Total	3.1260	26.3481	21.2801	0.0350		1.6938	1.6938		1.6572	1.6572	0.0000	3,439.8178	3,439.8178	0.6444		3,453.3503

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	lb/day										lb/day					
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
Vendor	0.0349	0.4655	0.3780	1.2600e-003	0.0374	8.0300e-003	0.0454	0.0106	7.3900e-003	0.0180		126.7626	126.7626	8.7000e-004		126.7808
Worker	0.1336	0.1682	2.0811	4.3600e-003	0.3353	3.1700e-003	0.3385	0.0889	2.9100e-003	0.0919		368.7064	368.7064	0.0201		369.1279
Total	0.1685	0.6336	2.4591	5.6200e-003	0.3727	0.0112	0.3839	0.0996	0.0103	0.1099		495.4690	495.4690	0.0209		495.9087

3.4 Soil Nailing - 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	lb/day										lb/day					
Off-Road	2.7732	23.3073	21.1142	0.0350		1.4620	1.4620		1.4323	1.4323		3,418.1954	3,418.1954	0.6223		3,431.2627

Total	2.7732	23.3073	21.1142	0.0350		1.4620	1.4620		1.4323	1.4323		3,418.1954	3,418.1954	0.6223		3,431.2627
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Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
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
Vendor	0.0321	0.4222	0.3539	1.2600e-003	0.0374	7.1600e-003	0.0445	0.0106	6.5900e-003	0.0172		124.7417	124.7417	8.4000e-004		124.7593
Worker	0.1201	0.1521	1.8856	4.3600e-003	0.3353	3.0400e-003	0.3384	0.0889	2.8000e-003	0.0917		354.9083	354.9083	0.0186		355.2978
Total	0.1522	0.5742	2.2395	5.6200e-003	0.3727	0.0102	0.3829	0.0996	9.3900e-003	0.1089		479.6500	479.6500	0.0194		480.0571

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	lb/day										lb/day					
Off-Road	2.7732	23.3073	21.1142	0.0350		1.4620	1.4620		1.4323	1.4323	0.0000	3,418.1954	3,418.1954	0.6223		3,431.2627
Total	2.7732	23.3073	21.1142	0.0350		1.4620	1.4620		1.4323	1.4323	0.0000	3,418.1954	3,418.1954	0.6223		3,431.2627

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	lb/day										lb/day					
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
Vendor	0.0321	0.4222	0.3539	1.2600e-003	0.0374	7.1600e-003	0.0445	0.0106	6.5900e-003	0.0172		124.7417	124.7417	8.4000e-004		124.7593
Worker	0.1201	0.1521	1.8856	4.3600e-003	0.3353	3.0400e-003	0.3384	0.0889	2.8000e-003	0.0917		354.9083	354.9083	0.0186		355.2978
Total	0.1522	0.5742	2.2395	5.6200e-003	0.3727	0.0102	0.3829	0.0996	9.3900e-003	0.1089		479.6500	479.6500	0.0194		480.0571

3.5 Shotcrete - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.3201	16.1445	12.7484	0.0211		1.2369	1.2369		1.2369	1.2369		1,996.5973	1,996.5973	0.2091		2,000.9879
Total	2.3201	16.1445	12.7484	0.0211		1.2369	1.2369		1.2369	1.2369		1,996.5973	1,996.5973	0.2091		2,000.9879

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	lb/day										lb/day					

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	0.0581	0.7758	0.6300	2.1000e-003	0.0622	0.0134	0.0756	0.0177	0.0123	0.0300	211.2710	211.2710	1.4500e-003	211.3014	
Worker	0.1336	0.1682	2.0811	4.3600e-003	0.3353	3.1700e-003	0.3385	0.0889	2.9100e-003	0.0919	368.7064	368.7064	0.0201	369.1279	
Total	0.1917	0.9440	2.7111	6.4600e-003	0.3976	0.0166	0.4141	0.1066	0.0152	0.1219	579.9773	579.9773	0.0215	580.4292	

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	lb/day										lb/day					
Off-Road	2.3201	16.1445	12.7484	0.0211		1.2369	1.2369		1.2369	1.2369	0.0000	1,996.5973	1,996.5973	0.2091		2,000.9879
Total	2.3201	16.1445	12.7484	0.0211		1.2369	1.2369		1.2369	1.2369	0.0000	1,996.5973	1,996.5973	0.2091		2,000.9879

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	lb/day										lb/day					
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
Vendor	0.0581	0.7758	0.6300	2.1000e-003	0.0622	0.0134	0.0756	0.0177	0.0123	0.0300	211.2710	211.2710	1.4500e-003	211.3014		
Worker	0.1336	0.1682	2.0811	4.3600e-003	0.3353	3.1700e-003	0.3385	0.0889	2.9100e-003	0.0919	368.7064	368.7064	0.0201	369.1279		
Total	0.1917	0.9440	2.7111	6.4600e-003	0.3976	0.0166	0.4141	0.1066	0.0152	0.1219	579.9773	579.9773	0.0215	580.4292		

3.5 Shotcrete - 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	lb/day										lb/day					
Off-Road	2.0833	14.8911	12.6448	0.0211		1.0915	1.0915		1.0915	1.0915		1,996.5973	1,996.5973	0.1867		2,000.5175
												3				
Total	2.0833	14.8911	12.6448	0.0211		1.0915	1.0915		1.0915	1.0915		1,996.5973	1,996.5973	0.1867		2,000.5175

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	lb/day										lb/day					
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
Vendor	0.0536	0.7036	0.5899	2.1000e-003	0.0623	0.0119	0.0742	0.0177	0.0110	0.0287		207.9029	207.9029	1.3900e-003		207.9322
Worker	0.1201	0.1521	1.8856	4.3600e-003	0.3353	3.0400e-003	0.3384	0.0889	2.8000e-003	0.0917		354.9083	354.9083	0.0186		355.2978
Total	0.1736	0.8557	2.4754	6.4600e-003	0.3976	0.0150	0.4126	0.1066	0.0138	0.1204		562.8112	562.8112	0.0199		563.2300

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	lb/day										lb/day					
Off-Road	2.0833	14.8911	12.6448	0.0211		1.0915	1.0915		1.0915	1.0915	0.0000	1,996.5973	1,996.5973	0.1867		2,000.5175
Total	2.0833	14.8911	12.6448	0.0211		1.0915	1.0915		1.0915	1.0915	0.0000	1,996.5973	1,996.5973	0.1867		2,000.5175

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	lb/day										lb/day					
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
Vendor	0.0536	0.7036	0.5899	2.1000e-003	0.0623	0.0119	0.0742	0.0177	0.0110	0.0287		207.9029	207.9029	1.3900e-003		207.9322
Worker	0.1201	0.1521	1.8856	4.3600e-003	0.3353	3.0400e-003	0.3384	0.0889	2.8000e-003	0.0917		354.9083	354.9083	0.0186		355.2978
Total	0.1736	0.8557	2.4754	6.4600e-003	0.3976	0.0150	0.4126	0.1066	0.0138	0.1204		562.8112	562.8112	0.0199		563.2300

3.6 Foundation/Structure - 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	lb/day										lb/day					
Off-Road	4.1360	41.8050	29.4873	0.0493		2.3673	2.3673		2.2216	2.2216		4,963.8396	4,963.8396	1.3084		4,991.3155
												6				

Total	4.1360	41.8050	29.4873	0.0493		2.3673	2.3673		2.2216	2.2216		4,963.8396	4,963.8396	1.3084		4,991.3155
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Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
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
Vendor	0.6588	9.1834	8.2712	0.0261	0.6012	0.1315	0.7327	0.1647	0.1209	0.2856		2,582.2686	2,582.2686	0.0196		2,582.6809
Worker	0.1201	0.1521	1.8856	4.3600e-003	0.3353	3.0400e-003	0.3384	0.0889	2.8000e-003	0.0917		354.9083	354.9083	0.0186		355.2978
Total	0.7789	9.3355	10.1568	0.0304	0.9366	0.1345	1.0711	0.2536	0.1237	0.3773		2,937.1768	2,937.1768	0.0382		2,937.9787

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	lb/day										lb/day					
Off-Road	4.1360	41.8050	29.4873	0.0493		2.3673	2.3673		2.2216	2.2216	0.0000	4,963.8396	4,963.8396	1.3084		4,991.3155
Total	4.1360	41.8050	29.4873	0.0493		2.3673	2.3673		2.2216	2.2216	0.0000	4,963.8396	4,963.8396	1.3084		4,991.3155

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	lb/day										lb/day					
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
Vendor	0.6588	9.1834	8.2712	0.0261	0.6012	0.1315	0.7327	0.1647	0.1209	0.2856		2,582.2686	2,582.2686	0.0196		2,582.6809
Worker	0.1201	0.1521	1.8856	4.3600e-003	0.3353	3.0400e-003	0.3384	0.0889	2.8000e-003	0.0917		354.9083	354.9083	0.0186		355.2978
Total	0.7789	9.3355	10.1568	0.0304	0.9366	0.1345	1.0711	0.2536	0.1237	0.3773		2,937.1768	2,937.1768	0.0382		2,937.9787

3.6 Foundation/Structure - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.5526	35.4556	28.3748	0.0492		1.9738	1.9738		1.8540	1.8540		4,891.8621	4,891.8621	1.2949		4,919.0554
Total	3.5526	35.4556	28.3748	0.0492		1.9738	1.9738		1.8540	1.8540		4,891.8621	4,891.8621	1.2949		4,919.0554

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	lb/day										lb/day					

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	0.6431	8.5429	8.0783	0.0260	0.6013	0.1313	0.7327	0.1647	0.1208	0.2855	2,539.8193	2,539.8193	0.0199	2,540.2375		
Worker	0.1081	0.1381	1.7133	4.3600e-003	0.3353	2.9400e-003	0.3383	0.0889	2.7200e-003	0.0917	341.9207	341.9207	0.0172	342.2826		
Total	0.7512	8.6809	9.7916	0.0304	0.9367	0.1343	1.0710	0.2536	0.1235	0.3772	2,881.7401	2,881.7401	0.0371	2,882.5201		

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	lb/day										lb/day					
Off-Road	3.5526	35.4556	28.3748	0.0492		1.9738	1.9738		1.8540	1.8540	0.0000	4,891.8621	4,891.8621	1.2949		4,919.0554
Total	3.5526	35.4556	28.3748	0.0492		1.9738	1.9738		1.8540	1.8540	0.0000	4,891.8621	4,891.8621	1.2949		4,919.0554

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	lb/day										lb/day					
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
Vendor	0.6431	8.5429	8.0783	0.0260	0.6013	0.1313	0.7327	0.1647	0.1208	0.2855	2,539.8193	2,539.8193	0.0199	2,540.2375		
Worker	0.1081	0.1381	1.7133	4.3600e-003	0.3353	2.9400e-003	0.3383	0.0889	2.7200e-003	0.0917	341.9207	341.9207	0.0172	342.2826		
Total	0.7512	8.6809	9.7916	0.0304	0.9367	0.1343	1.0710	0.2536	0.1235	0.3772	2,881.7401	2,881.7401	0.0371	2,882.5201		

3.7 Tower/Ramp - 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	lb/day										lb/day					
Hauling					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
Worker					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Total					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000

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	lb/day										lb/day					
Hauling					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
Worker					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Total					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000

3.7 Tower/Ramp - 2018

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	lb/day										lb/day					
Hauling					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
Worker					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Total					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000

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	lb/day										lb/day					
Hauling					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
Worker					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Total					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000

3.8 Bridge - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.5584	6.6732	2.4673	5.6400e-003		0.2888	0.2888		0.2657	0.2657		568.0309	568.0309	0.1768		571.7444

Total	0.5584	6.6732	2.4673	5.6400e-003		0.2888	0.2888		0.2657	0.2657		568.0309	568.0309	0.1768		571.7444
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Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
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
Vendor	0.0145	0.1467	0.1824	4.4000e-004	0.0125	2.3000e-003	0.0148	3.5500e-003	2.1100e-003	5.6600e-003		42.6249	42.6249	3.1000e-004		42.6315
Worker	0.1081	0.1381	1.7133	4.3600e-003	0.3353	2.9400e-003	0.3383	0.0889	2.7200e-003	0.0917		341.9207	341.9207	0.0172		342.2826
Total	0.1226	0.2847	1.8957	4.8000e-003	0.3478	5.2400e-003	0.3531	0.0925	4.8300e-003	0.0973		384.5457	384.5457	0.0175		384.9140

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	lb/day										lb/day					
Off-Road	0.5584	6.6732	2.4673	5.6400e-003		0.2888	0.2888		0.2657	0.2657	0.0000	568.0309	568.0309	0.1768		571.7444
Total	0.5584	6.6732	2.4673	5.6400e-003		0.2888	0.2888		0.2657	0.2657	0.0000	568.0309	568.0309	0.1768		571.7444

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	lb/day										lb/day					
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
Vendor	0.0145	0.1467	0.1824	4.4000e-004	0.0125	2.3000e-003	0.0148	3.5500e-003	2.1100e-003	5.6600e-003		42.6249	42.6249	3.1000e-004		42.6315
Worker	0.1081	0.1381	1.7133	4.3600e-003	0.3353	2.9400e-003	0.3383	0.0889	2.7200e-003	0.0917		341.9207	341.9207	0.0172		342.2826
Total	0.1226	0.2847	1.8957	4.8000e-003	0.3478	5.2400e-003	0.3531	0.0925	4.8300e-003	0.0973		384.5457	384.5457	0.0175		384.9140

3.9 Streetwork - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.4925	27.6327	17.9542	0.0282		1.3269	1.3269		1.2215	1.2215		2,827.8594	2,827.8594	0.8732		2,846.1965
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	2.4925	27.6327	17.9542	0.0282		1.3269	1.3269		1.2215	1.2215		2,827.8594	2,827.8594	0.8732		2,846.1965

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	lb/day										lb/day					

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	0.0145	0.1467	0.1824	4.4000e-004	0.0125	2.3000e-003	0.0148	3.5500e-003	2.1100e-003	5.6600e-003		42.6249	42.6249	3.1000e-004		42.6315
Worker	0.1081	0.1381	1.7133	4.3600e-003	0.3353	2.9400e-003	0.3383	0.0889	2.7200e-003	0.0917		341.9207	341.9207	0.0172		342.2826
Total	0.1226	0.2847	1.8957	4.8000e-003	0.3478	5.2400e-003	0.3531	0.0925	4.8300e-003	0.0973		384.5457	384.5457	0.0175		384.9140

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	lb/day										lb/day					
Off-Road	2.4925	27.6327	17.9542	0.0282		1.3269	1.3269		1.2215	1.2215	0.0000	2,827.8594	2,827.8594	0.8732		2,846.1965
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	2.4925	27.6327	17.9542	0.0282		1.3269	1.3269		1.2215	1.2215	0.0000	2,827.8594	2,827.8594	0.8732		2,846.1965

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	lb/day										lb/day					
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
Vendor	0.0145	0.1467	0.1824	4.4000e-004	0.0125	2.3000e-003	0.0148	3.5500e-003	2.1100e-003	5.6600e-003		42.6249	42.6249	3.1000e-004		42.6315
Worker	0.1081	0.1381	1.7133	4.3600e-003	0.3353	2.9400e-003	0.3383	0.0889	2.7200e-003	0.0917		341.9207	341.9207	0.0172		342.2826
Total	0.1226	0.2847	1.8957	4.8000e-003	0.3478	5.2400e-003	0.3531	0.0925	4.8300e-003	0.0973		384.5457	384.5457	0.0175		384.9140

3.10 Sitework - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.7365	8.3553	5.3155	0.0137		0.3713	0.3713		0.3416	0.3416		1,378.3741	1,378.3741	0.4291		1,387.3854
Total	0.7365	8.3553	5.3155	0.0137		0.3713	0.3713		0.3416	0.3416		1,378.3741	1,378.3741	0.4291		1,387.3854

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	lb/day										lb/day					
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
Vendor	0.0145	0.1467	0.1824	4.4000e-004	0.0125	2.3000e-003	0.0148	3.5500e-003	2.1100e-003	5.6600e-003		42.6249	42.6249	3.1000e-004		42.6315
Worker	0.1081	0.1381	1.7133	4.3600e-003	0.3353	2.9400e-003	0.3383	0.0889	2.7200e-003	0.0917		341.9207	341.9207	0.0172		342.2826
Total	0.1226	0.2847	1.8957	4.8000e-003	0.3478	5.2400e-003	0.3531	0.0925	4.8300e-003	0.0973		384.5457	384.5457	0.0175		384.9140

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	lb/day										lb/day					
Off-Road	0.7365	8.3553	5.3155	0.0137		0.3713	0.3713		0.3416	0.3416	0.0000	1,378.3741	1,378.3741	0.4291		1,387.3854
Total	0.7365	8.3553	5.3155	0.0137		0.3713	0.3713		0.3416	0.3416	0.0000	1,378.3741	1,378.3741	0.4291		1,387.3854

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	lb/day										lb/day					
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
Vendor	0.0145	0.1467	0.1824	4.4000e-004	0.0125	2.3000e-003	0.0148	3.5500e-003	2.1100e-003	5.6600e-003		42.6249	42.6249	3.1000e-004		42.6315
Worker	0.1081	0.1381	1.7133	4.3600e-003	0.3353	2.9400e-003	0.3383	0.0889	2.7200e-003	0.0917		341.9207	341.9207	0.0172		342.2826
Total	0.1226	0.2847	1.8957	4.8000e-003	0.3478	5.2400e-003	0.3531	0.0925	4.8300e-003	0.0973		384.5457	384.5457	0.0175		384.9140

3.10 Sitework - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.6708	7.3638	5.1579	0.0137		0.3210	0.3210		0.2953	0.2953		1,357.4181	1,357.4181	0.4295		1,366.4370

Total	0.6708	7.3638	5.1579	0.0137		0.3210	0.3210		0.2953	0.2953		1,357.4181	1,357.4181	0.4295		1,366.4370
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Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
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
Vendor	0.0138	0.1353	0.1758	4.4000e-004	0.0125	2.1800e-003	0.0147	3.5500e-003	2.0100e-003	5.5600e-003		41.7508	41.7508	3.0000e-004		41.7572
Worker	0.0993	0.1266	1.5733	4.3400e-003	0.3353	2.8700e-003	0.3382	0.0889	2.6600e-003	0.0916		328.5241	328.5241	0.0161		328.8623
Total	0.1131	0.2619	1.7491	4.7800e-003	0.3478	5.0500e-003	0.3529	0.0925	4.6700e-003	0.0972		370.2749	370.2749	0.0164		370.6195

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	lb/day										lb/day					
Off-Road	0.6708	7.3638	5.1579	0.0137		0.3210	0.3210		0.2953	0.2953	0.0000	1,357.4181	1,357.4181	0.4295		1,366.4370
Total	0.6708	7.3638	5.1579	0.0137		0.3210	0.3210		0.2953	0.2953	0.0000	1,357.4181	1,357.4181	0.4295		1,366.4370

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	lb/day										lb/day					
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
Vendor	0.0138	0.1353	0.1758	4.4000e-004	0.0125	2.1800e-003	0.0147	3.5500e-003	2.0100e-003	5.5600e-003		41.7508	41.7508	3.0000e-004		41.7572
Worker	0.0993	0.1266	1.5733	4.3400e-003	0.3353	2.8700e-003	0.3382	0.0889	2.6600e-003	0.0916		328.5241	328.5241	0.0161		328.8623
Total	0.1131	0.2619	1.7491	4.7800e-003	0.3478	5.0500e-003	0.3529	0.0925	4.6700e-003	0.0972		370.2749	370.2749	0.0164		370.6195

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated Annual VMT	Mitigated Annual VMT
	Weekday	Saturday	Sunday		
Enclosed Parking with Elevator	0.00	0.00	0.00		
User Defined Parking	0.00	0.00	0.00		
User Defined Recreational	0.00	0.00	0.00		

Total	0.00	0.00	0.00		
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4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Enclosed Parking with Elevator	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
User Defined Parking	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
User Defined Recreational	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.530902	0.057841	0.178699	0.124790	0.039063	0.006298	0.016951	0.033908	0.002496	0.003149	0.003689	0.000536	0.001678

5.0 Energy Detail

4.4 Fleet Mix

Historical Energy Use: N

5.1 Mitigation Measures Energy

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
lb/day											lb/day					
NaturalGas Mitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Unmitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

5.2 Energy by Land Use - NaturalGas

Unmitigated

	Natural Gas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
User Defined Parking	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
User Defined Recreational	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
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

Mitigated

	Natural Gas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
User Defined Recreational	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
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
User Defined Parking	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
Total		0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	11.7305	0.0624	6.7116	5.0000e-004		0.0241	0.0241		0.0241	0.0241		14.2473	14.2473	0.0386		15.0581
Unmitigated	11.7305	0.0624	6.7116	5.0000e-004		0.0241	0.0241		0.0241	0.0241		14.2473	14.2473	0.0386		15.0581

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	lb/day										lb/day					
Architectural Coating	2.6938					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	8.4006					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	0.6361	0.0624	6.7116	5.0000e-004		0.0241	0.0241		0.0241	0.0241		14.2473	14.2473	0.0386		15.0581
Total	11.7305	0.0624	6.7116	5.0000e-004		0.0241	0.0241		0.0241	0.0241		14.2473	14.2473	0.0386		15.0581

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	lb/day										lb/day					
Architectural Coating	2.6938					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	8.4006					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000

Landscaping	0.6361	0.0624	6.7116	5.0000e-004		0.0241	0.0241		0.0241	0.0241		14.2473	14.2473	0.0386		15.0581
Total	11.7305	0.0624	6.7116	5.0000e-004		0.0241	0.0241		0.0241	0.0241		14.2473	14.2473	0.0386		15.0581

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

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

Summer - Mitigated

Harvard Westlake Parking Structure Los Angeles-South Coast County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Enclosed Parking with Elevator	750.00	Space	1.90	300,000.00	0
User Defined Parking	0.00	User Defined Unit	1.52	59,921.00	0
User Defined Recreational	64,350.00	User Defined Unit	0.00	64,350.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	33
Climate Zone	11	Operational Year	2019		
Utility Company	Southern California Edison				
CO2 Intensity (lb/MW hr)	630.89	CH4 Intensity (lb/MW hr)	0.029	N2O Intensity (lb/MW hr)	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Athletic Field is under land use category of User defined recreational.

Roadways and landscape are under parking- user defined.

Construction Phase - based on equipment mix provided by the constructor

Off-road Equipment - based on equipment mix provided by the constructor

Off-road Equipment -

Off-road Equipment - based on equipment mix provided by the constructor

Off-road Equipment - based on equipment mix provided by the constructor

Off-road Equipment - based on construction plan

Off-road Equipment - based on equipment mix provided by the constructor

Off-road Equipment - based on equipment mix provided by the constructor

Off-road Equipment - based on equipment mix provided by the constructor

Off-road Equipment - based on equipment mix provided by the constructor

Off-road Equipment - based on equipment mix provided by the constructor

Trips and VMT - Overlapping phases: 1) Grading, Soil Nailing, and Shotcrete 2) Foundations/Structure, Tower/Ramp 3) Foundations/Structure, Bridge. Haul trucks assumed to travel 13 miles each way. Soil Nailing and Shotcrete trips assumed to be 6.9 miles one-way.

Grading -

Vehicle Emission Factors -

Vehicle Emission Factors -

Vehicle Emission Factors -

Energy Use - Athletic field would have 10 light poles. A conservative assumption that 10 light poles would have 6 light bulb each with each light bulb having rating of 400 W.

Construction Off-road Equipment Mitigation - Details provided by the constructor.

Table Name	Column Name	Default Value	New Value
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	5.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	5.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	11.00
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 4 Final

tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstructionPhase	NumDays	230.00	195.00
tblConstructionPhase	NumDays	230.00	195.00
tblConstructionPhase	NumDays	230.00	290.00
tblConstructionPhase	NumDays	230.00	114.00
tblConstructionPhase	NumDays	230.00	82.00
tblConstructionPhase	NumDays	230.00	165.00
tblConstructionPhase	NumDays	8.00	245.00
tblConstructionPhase	NumDays	18.00	20.00
tblConstructionPhase	NumDays	5.00	20.00
tblConstructionPhase	PhaseEndDate	3/6/2018	4/12/2017
tblConstructionPhase	PhaseEndDate	1/10/2018	4/26/2017
tblConstructionPhase	PhaseEndDate	6/6/2018	7/19/2018
tblConstructionPhase	PhaseEndDate	12/26/2018	3/23/2018
tblConstructionPhase	PhaseStartDate	6/7/2017	7/14/2016
tblConstructionPhase	PhaseStartDate	4/13/2017	7/28/2016
tblConstructionPhase	PhaseStartDate	4/27/2017	6/9/2017
tblConstructionPhase	PhaseStartDate	7/20/2018	10/17/2017
tblConstructionPhase	PhaseStartDate	3/24/2018	3/26/2018
tblEnergyUse	LightingElect	0.00	3.26
tblEnergyUse	NT24E	0.00	3.26
tblEnergyUse	T24E	0.00	3.26
tblGrading	AcresOfGrading	612.50	450.00
tblGrading	MaterialExported	0.00	140,000.00

tblLandUse	LandUseSquareFeet	0.00	59,921.00
tblLandUse	LandUseSquareFeet	0.00	64,350.00
tblLandUse	LotAcreage	6.75	1.90
tblLandUse	LotAcreage	0.00	1.52
tblOffRoadEquipment	HorsePower	162.00	330.00
tblOffRoadEquipment	HorsePower	255.00	207.00
tblOffRoadEquipment	HorsePower	97.00	349.00
tblOffRoadEquipment	HorsePower	97.00	84.00
tblOffRoadEquipment	HorsePower	97.00	96.00
tblOffRoadEquipment	HorsePower	97.00	349.00
tblOffRoadEquipment	HorsePower	97.00	84.00
tblOffRoadEquipment	HorsePower	97.00	349.00
tblOffRoadEquipment	HorsePower	97.00	84.00
tblOffRoadEquipment	HorsePower	97.00	96.00
tblOffRoadEquipment	HorsePower	205.00	160.00
tblOffRoadEquipment	HorsePower	205.00	160.00
tblOffRoadEquipment	HorsePower	361.00	185.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	1.00
tblOffRoadEquipment	UsageHours	7.00	8.00

tblOffRoadEquipment	UsageHours	6.00	8.00
tblOffRoadEquipment	UsageHours	6.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblProjectCharacteristics	OperationalYear	2014	2019
tblTripsAndVMT	HaulingTripLength	20.00	26.00
tblTripsAndVMT	HaulingTripNumber	17,500.00	17,640.00
tblTripsAndVMT	VendorTripLength	6.90	13.80
tblTripsAndVMT	VendorTripLength	6.90	13.80
tblTripsAndVMT	VendorTripLength	6.90	13.80
tblTripsAndVMT	VendorTripNumber	70.00	3.00
tblTripsAndVMT	VendorTripNumber	70.00	5.00
tblTripsAndVMT	VendorTripNumber	70.00	50.00
tblTripsAndVMT	VendorTripNumber	70.00	2.00
tblTripsAndVMT	VendorTripNumber	0.00	2.00
tblTripsAndVMT	VendorTripNumber	70.00	2.00
tblTripsAndVMT	VendorVehicleClass	HDT_Mix	HHDT
tblTripsAndVMT	WorkerTripNumber	23.00	30.00
tblTripsAndVMT	WorkerTripNumber	178.00	30.00
tblTripsAndVMT	WorkerTripNumber	178.00	30.00
tblTripsAndVMT	WorkerTripNumber	178.00	30.00
tblTripsAndVMT	WorkerTripNumber	178.00	30.00
tblTripsAndVMT	WorkerTripNumber	13.00	30.00
tblTripsAndVMT	WorkerTripNumber	178.00	30.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	6/1/2016	6/28/2016	5	20	
2	Grading	Grading	6/29/2016	6/6/2017	5	245	
3	Soil Nailing	Building Construction	7/14/2016	4/12/2017	5	195	
4	Shotcrete	Building Construction	7/28/2016	4/26/2017	5	195	
5	Foundation/Structure	Building Construction	6/9/2017	7/19/2018	5	290	
6	Tower/Ramp	Building Construction	10/17/2017	3/23/2018	5	114	
7	Bridge	Building Construction	3/26/2018	7/17/2018	5	82	
8	Streetwork	Paving	7/18/2018	8/14/2018	5	20	
9	Sitework	Building Construction	8/15/2018	4/2/2019	5	165	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 450

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
Site Preparation	Rubber Tired Dozers	1	8.00	255	0.40
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Grading	Excavators	1	8.00	330	0.38
Grading	Graders	1	8.00	174	0.41
Grading	Rubber Tired Dozers	1	8.00	207	0.40
Grading	Scrapers	2	8.00	185	0.48
Grading	Tractors/Loaders/Backhoes	1	8.00	349	0.37
Grading	Tractors/Loaders/Backhoes	1	8.00	84	0.37

Grading	Tractors/Loaders/Backhoes	2	8.00	96	0.37
Soil Nailing	Air Compressors	2	8.00	78	0.48
Soil Nailing	Bore/Drill Rigs	2	8.00	160	0.50
Soil Nailing	Pumps	2	8.00	84	0.74
Shotcrete	Air Compressors	2	8.00	78	0.48
Shotcrete	Pumps	2	8.00	84	0.74
Foundation/Structure	Air Compressors	1	8.00	78	0.48
Foundation/Structure	Bore/Drill Rigs	1	8.00	160	0.50
Foundation/Structure	Other Construction Equipment	1	8.00	171	0.42
Foundation/Structure	Other Construction Equipment	1	8.00	171	0.42
Foundation/Structure	Pumps	1	8.00	84	0.74
Foundation/Structure	Tractors/Loaders/Backhoes	1	8.00	349	0.37
Foundation/Structure	Tractors/Loaders/Backhoes	2	8.00	84	0.37
Foundation/Structure	Tractors/Loaders/Backhoes	1	8.00	96	0.37
Bridge	Cranes	1	8.00	226	0.29
Streetwork	Graders	1	8.00	174	0.41
Streetwork	Paving Equipment	1	8.00	130	0.36
Streetwork	Plate Compactors	1	8.00	8	0.43
Streetwork	Rollers	1	8.00	80	0.38
Streetwork	Scrapers	1	8.00	361	0.48
Sitework	Tractors/Loaders/Backhoes	1	8.00	349	0.37
Sitework	Tractors/Loaders/Backhoes	1	8.00	84	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
Site Preparation	2	5.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	9	30.00	0.00	17,640.00	14.70	6.90	26.00	LD_Mix	HDT_Mix	HHDT
Soil Nailing	6	30.00	3.00	0.00	14.70	13.80	20.00	LD_Mix	HDT_Mix	HHDT
Shotcrete	4	30.00	5.00	0.00	14.70	13.80	20.00	LD_Mix	HDT_Mix	HHDT

Category	lb/day										lb/day					
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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000
Worker	0.0223	0.0280	0.3469	7.3000e-004	0.0559	5.3000e-004	0.0564	0.0148	4.9000e-004	0.0153		61.4511	61.4511	3.3500e-003		61.5213
Total	0.0223	0.0280	0.3469	7.3000e-004	0.0559	5.3000e-004	0.0564	0.0148	4.9000e-004	0.0153		61.4511	61.4511	3.3500e-003		61.5213

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	lb/day										lb/day					
Fugitive Dust					2.3486	0.0000	2.3486	1.2910	0.0000	1.2910			0.0000			0.0000
Off-Road	0.1459	0.6323	6.2998	0.0120		0.0195	0.0195		0.0195	0.0195	0.0000	1,247.1093	1,247.1093	0.3762		1,255.0089
Total	0.1459	0.6323	6.2998	0.0120	2.3486	0.0195	2.3681	1.2910	0.0195	1.3105	0.0000	1,247.1093	1,247.1093	0.3762		1,255.0089

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	lb/day										lb/day					
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
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
Worker	0.0223	0.0280	0.3469	7.3000e-004	0.0559	5.3000e-004	0.0564	0.0148	4.9000e-004	0.0153		61.4511	61.4511	3.3500e-003		61.5213

Total	0.0223	0.0280	0.3469	7.3000e-004	0.0559	5.3000e-004	0.0564	0.0148	4.9000e-004	0.0153		61.4511	61.4511	3.3500e-003		61.5213
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3.3 Grading - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day										lb/day						
Fugitive Dust					8.0346	0.0000	8.0346	3.5303	0.0000	3.5303			0.0000				0.0000
Off-Road	6.3232	71.5648	31.4699	0.0592		3.5217	3.5217		3.2399	3.2399		6,153.6608	6,153.6608	1.8562			6,192.6402
Total	6.3232	71.5648	31.4699	0.0592	8.0346	3.5217	11.5562	3.5303	3.2399	6.7703		6,153.6608	6,153.6608	1.8562			6,192.6402

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	lb/day										lb/day						
Hauling	1.5174	25.7991	16.1331	0.0695	2.6716	0.3874	3.0590	0.7019	0.3564	1.0583		7,005.8376	7,005.8376	0.0510			7,006.9085
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
Worker	0.1336	0.1682	2.0811	4.3600e-003	0.3353	3.1700e-003	0.3385	0.0889	2.9100e-003	0.0919		368.7064	368.7064	0.0201			369.1279
Total	1.6511	25.9672	18.2142	0.0738	3.0070	0.3906	3.3975	0.7908	0.3593	1.1502		7,374.5440	7,374.5440	0.0711			7,376.0363

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	lb/day										lb/day					
Fugitive Dust					3.1335	0.0000	3.1335	1.3768	0.0000	1.3768			0.0000			0.0000
Off-Road	0.7285	3.1567	31.2994	0.0592		0.0971	0.0971		0.0971	0.0971	0.0000	6,153.6608	6,153.6608	1.8562		6,192.6402
Total	0.7285	3.1567	31.2994	0.0592	3.1335	0.0971	3.2306	1.3768	0.0971	1.4740	0.0000	6,153.6608	6,153.6608	1.8562		6,192.6402

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	lb/day										lb/day					
Hauling	1.5174	25.7991	16.1331	0.0695	2.6716	0.3874	3.0590	0.7019	0.3564	1.0583		7,005.8376	7,005.8376	0.0510		7,006.9085
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
Worker	0.1336	0.1682	2.0811	4.3600e-003	0.3353	3.1700e-003	0.3385	0.0889	2.9100e-003	0.0919		368.7064	368.7064	0.0201		369.1279
Total	1.6511	25.9672	18.2142	0.0738	3.0070	0.3906	3.3975	0.7908	0.3593	1.1502		7,374.5440	7,374.5440	0.0711		7,376.0363

3.3 Grading - 2017

Unmitigated Construction On-Site

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

Fugitive Dust					8.0346	0.0000	8.0346	3.5303	0.0000	3.5303			0.0000			0.0000
Off-Road	5.9108	66.1724	30.4275	0.0592		3.2405	3.2405		2.9812	2.9812		6,055.5587	6,055.5587	1.8554		6,094.5224
Total	5.9108	66.1724	30.4275	0.0592	8.0346	3.2405	11.2750	3.5303	2.9812	6.5116		6,055.5587	6,055.5587	1.8554		6,094.5224

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	lb/day										lb/day					
Hauling	1.4417	23.6802	15.4787	0.0694	3.0994	0.3540	3.4534	0.8069	0.3257	1.1326		6,892.1644	6,892.1644	0.0500		6,893.2135
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
Worker	0.1201	0.1521	1.8856	4.3600e-003	0.3353	3.0400e-003	0.3384	0.0889	2.8000e-003	0.0917		354.9083	354.9083	0.0186		355.2978
Total	1.5617	23.8323	17.3643	0.0738	3.4347	0.3570	3.7918	0.8959	0.3285	1.2243		7,247.0727	7,247.0727	0.0685		7,248.5113

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	lb/day										lb/day					
Fugitive Dust					3.1335	0.0000	3.1335	1.3768	0.0000	1.3768			0.0000			0.0000
Off-Road	0.7285	3.1567	31.2994	0.0592		0.0971	0.0971		0.0971	0.0971	0.0000	6,055.5587	6,055.5587	1.8554		6,094.5224
Total	0.7285	3.1567	31.2994	0.0592	3.1335	0.0971	3.2306	1.3768	0.0971	1.4740	0.0000	6,055.5587	6,055.5587	1.8554		6,094.5224

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	lb/day										lb/day					
Hauling	1.4417	23.6802	15.4787	0.0694	3.0994	0.3540	3.4534	0.8069	0.3257	1.1326		6,892.1644	6,892.1644	0.0500		6,893.2135
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
Worker	0.1201	0.1521	1.8856	4.3600e-003	0.3353	3.0400e-003	0.3384	0.0889	2.8000e-003	0.0917		354.9083	354.9083	0.0186		355.2978
Total	1.5617	23.8323	17.3643	0.0738	3.4347	0.3570	3.7918	0.8959	0.3285	1.2243		7,247.0727	7,247.0727	0.0685		7,248.5113

3.4 Soil Nailing - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.1260	26.3481	21.2801	0.0350		1.6938	1.6938		1.6572	1.6572		3,439.8178	3,439.8178	0.6444		3,453.3503
Total	3.1260	26.3481	21.2801	0.0350		1.6938	1.6938		1.6572	1.6572		3,439.8178	3,439.8178	0.6444		3,453.3503

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	lb/day										lb/day					
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	0.0349	0.4655	0.3780	1.2600e-003	0.0374	8.0300e-003	0.0454	0.0106	7.3900e-003	0.0180		126.7626	126.7626	8.7000e-004		126.7808
Worker	0.1336	0.1682	2.0811	4.3600e-003	0.3353	3.1700e-003	0.3385	0.0889	2.9100e-003	0.0919		368.7064	368.7064	0.0201		369.1279
Total	0.1685	0.6336	2.4591	5.6200e-003	0.3727	0.0112	0.3839	0.0996	0.0103	0.1099		495.4690	495.4690	0.0209		495.9087

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	lb/day										lb/day					
Off-Road	0.5909	10.3601	23.4403	0.0350		0.1238	0.1238		0.1238	0.1238	0.0000	3,439.8178	3,439.8178	0.6444		3,453.3503
Total	0.5909	10.3601	23.4403	0.0350		0.1238	0.1238		0.1238	0.1238	0.0000	3,439.8178	3,439.8178	0.6444		3,453.3503

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	lb/day										lb/day					
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
Vendor	0.0349	0.4655	0.3780	1.2600e-003	0.0374	8.0300e-003	0.0454	0.0106	7.3900e-003	0.0180		126.7626	126.7626	8.7000e-004		126.7808
Worker	0.1336	0.1682	2.0811	4.3600e-003	0.3353	3.1700e-003	0.3385	0.0889	2.9100e-003	0.0919		368.7064	368.7064	0.0201		369.1279

Total	0.1685	0.6336	2.4591	5.6200e-003	0.3727	0.0112	0.3839	0.0996	0.0103	0.1099		495.4690	495.4690	0.0209		495.9087
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3.4 Soil Nailing - 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	lb/day										lb/day					
Off-Road	2.7732	23.3073	21.1142	0.0350		1.4620	1.4620		1.4323	1.4323		3,418.1954	3,418.1954	0.6223		3,431.2627
Total	2.7732	23.3073	21.1142	0.0350		1.4620	1.4620		1.4323	1.4323		3,418.1954	3,418.1954	0.6223		3,431.2627

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	lb/day										lb/day					
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
Vendor	0.0321	0.4222	0.3539	1.2600e-003	0.0374	7.1600e-003	0.0445	0.0106	6.5900e-003	0.0172		124.7417	124.7417	8.4000e-004		124.7593
Worker	0.1201	0.1521	1.8856	4.3600e-003	0.3353	3.0400e-003	0.3384	0.0889	2.8000e-003	0.0917		354.9083	354.9083	0.0186		355.2978
Total	0.1522	0.5742	2.2395	5.6200e-003	0.3727	0.0102	0.3829	0.0996	9.3900e-003	0.1089		479.6500	479.6500	0.0194		480.0571

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	lb/day										lb/day					
Off-Road	0.5909	10.3601	23.4403	0.0350		0.1238	0.1238		0.1238	0.1238	0.0000	3,418.1954	3,418.1954	0.6223		3,431.2627
Total	0.5909	10.3601	23.4403	0.0350		0.1238	0.1238		0.1238	0.1238	0.0000	3,418.1954	3,418.1954	0.6223		3,431.2627

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	lb/day										lb/day					
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
Vendor	0.0321	0.4222	0.3539	1.2600e-003	0.0374	7.1600e-003	0.0445	0.0106	6.5900e-003	0.0172		124.7417	124.7417	8.4000e-004		124.7593
Worker	0.1201	0.1521	1.8856	4.3600e-003	0.3353	3.0400e-003	0.3384	0.0889	2.8000e-003	0.0917		354.9083	354.9083	0.0186		355.2978
Total	0.1522	0.5742	2.2395	5.6200e-003	0.3727	0.0102	0.3829	0.0996	9.3900e-003	0.1089		479.6500	479.6500	0.0194		480.0571

3.5 Shotcrete - 2016

Unmitigated Construction On-Site

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

Off-Road	2.3201	16.1445	12.7484	0.0211		1.2369	1.2369		1.2369	1.2369		1,996.5973	1,996.5973	0.2091		2,000.9879
Total	2.3201	16.1445	12.7484	0.0211		1.2369	1.2369		1.2369	1.2369		1,996.5973	1,996.5973	0.2091		2,000.9879

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	lb/day										lb/day					
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
Vendor	0.0581	0.7758	0.6300	2.1000e-003	0.0622	0.0134	0.0756	0.0177	0.0123	0.0300		211.2710	211.2710	1.4500e-003		211.3014
Worker	0.1336	0.1682	2.0811	4.3600e-003	0.3353	3.1700e-003	0.3385	0.0889	2.9100e-003	0.0919		368.7064	368.7064	0.0201		369.1279
Total	0.1917	0.9440	2.7111	6.4600e-003	0.3976	0.0166	0.4141	0.1066	0.0152	0.1219		579.9773	579.9773	0.0215		580.4292

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	lb/day										lb/day					
Off-Road	0.4216	9.6264	12.9992	0.0211		0.1012	0.1012		0.1012	0.1012	0.0000	1,996.5973	1,996.5973	0.2091		2,000.9879
Total	0.4216	9.6264	12.9992	0.0211		0.1012	0.1012		0.1012	0.1012	0.0000	1,996.5973	1,996.5973	0.2091		2,000.9879

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	lb/day										lb/day					
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
Vendor	0.0581	0.7758	0.6300	2.1000e-003	0.0622	0.0134	0.0756	0.0177	0.0123	0.0300		211.2710	211.2710	1.4500e-003		211.3014
Worker	0.1336	0.1682	2.0811	4.3600e-003	0.3353	3.1700e-003	0.3385	0.0889	2.9100e-003	0.0919		368.7064	368.7064	0.0201		369.1279
Total	0.1917	0.9440	2.7111	6.4600e-003	0.3976	0.0166	0.4141	0.1066	0.0152	0.1219		579.9773	579.9773	0.0215		580.4292

3.5 Shotcrete - 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	lb/day										lb/day					
Off-Road	2.0833	14.8911	12.6448	0.0211		1.0915	1.0915		1.0915	1.0915		1,996.5973	1,996.5973	0.1867		2,000.5175
Total	2.0833	14.8911	12.6448	0.0211		1.0915	1.0915		1.0915	1.0915		1,996.5973	1,996.5973	0.1867		2,000.5175

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	lb/day										lb/day					
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	0.0536	0.7036	0.5899	2.1000e-003	0.0623	0.0119	0.0742	0.0177	0.0110	0.0287		207.9029	207.9029	1.3900e-003		207.9322
Worker	0.1201	0.1521	1.8856	4.3600e-003	0.3353	3.0400e-003	0.3384	0.0889	2.8000e-003	0.0917		354.9083	354.9083	0.0186		355.2978
Total	0.1736	0.8557	2.4754	6.4600e-003	0.3976	0.0150	0.4126	0.1066	0.0138	0.1204		562.8112	562.8112	0.0199		563.2300

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	lb/day										lb/day					
Off-Road	0.4216	9.6264	12.9992	0.0211		0.1012	0.1012		0.1012	0.1012	0.0000	1,996.5973	1,996.5973	0.1867		2,000.5175
Total	0.4216	9.6264	12.9992	0.0211		0.1012	0.1012		0.1012	0.1012	0.0000	1,996.5973	1,996.5973	0.1867		2,000.5175

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	lb/day										lb/day					
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
Vendor	0.0536	0.7036	0.5899	2.1000e-003	0.0623	0.0119	0.0742	0.0177	0.0110	0.0287		207.9029	207.9029	1.3900e-003		207.9322
Worker	0.1201	0.1521	1.8856	4.3600e-003	0.3353	3.0400e-003	0.3384	0.0889	2.8000e-003	0.0917		354.9083	354.9083	0.0186		355.2978

Total	0.1736	0.8557	2.4754	6.4600e-003	0.3976	0.0150	0.4126	0.1066	0.0138	0.1204		562.8112	562.8112	0.0199		563.2300
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3.6 Foundation/Structure - 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	lb/day										lb/day					
Off-Road	4.1360	41.8050	29.4873	0.0493		2.3673	2.3673		2.2216	2.2216		4,963.8396	4,963.8396	1.3084		4,991.3155
Total	4.1360	41.8050	29.4873	0.0493		2.3673	2.3673		2.2216	2.2216		4,963.8396	4,963.8396	1.3084		4,991.3155

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	lb/day										lb/day					
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
Vendor	0.6588	9.1834	8.2712	0.0261	0.6012	0.1315	0.7327	0.1647	0.1209	0.2856		2,582.2686	2,582.2686	0.0196		2,582.6809
Worker	0.1201	0.1521	1.8856	4.3600e-003	0.3353	3.0400e-003	0.3384	0.0889	2.8000e-003	0.0917		354.9083	354.9083	0.0186		355.2978
Total	0.7789	9.3355	10.1568	0.0304	0.9366	0.1345	1.0711	0.2536	0.1237	0.3773		2,937.1768	2,937.1768	0.0382		2,937.9787

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	lb/day										lb/day					
Off-Road	0.6875	6.8788	32.4783	0.0493		0.1142	0.1142		0.1142	0.1142	0.0000	4,963.8396	4,963.8396	1.3084		4,991.3155
Total	0.6875	6.8788	32.4783	0.0493		0.1142	0.1142		0.1142	0.1142	0.0000	4,963.8396	4,963.8396	1.3084		4,991.3155

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	lb/day										lb/day					
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
Vendor	0.6588	9.1834	8.2712	0.0261	0.6012	0.1315	0.7327	0.1647	0.1209	0.2856		2,582.2686	2,582.2686	0.0196		2,582.6809
Worker	0.1201	0.1521	1.8856	4.3600e-003	0.3353	3.0400e-003	0.3384	0.0889	2.8000e-003	0.0917		354.9083	354.9083	0.0186		355.2978
Total	0.7789	9.3355	10.1568	0.0304	0.9366	0.1345	1.0711	0.2536	0.1237	0.3773		2,937.1768	2,937.1768	0.0382		2,937.9787

3.6 Foundation/Structure - 2018

Unmitigated Construction On-Site

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

Off-Road	3.5526	35.4556	28.3748	0.0492		1.9738	1.9738		1.8540	1.8540		4,891.8621	4,891.8621	1.2949		4,919.0554
Total	3.5526	35.4556	28.3748	0.0492		1.9738	1.9738		1.8540	1.8540		4,891.8621	4,891.8621	1.2949		4,919.0554

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	lb/day										lb/day					
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
Vendor	0.6431	8.5429	8.0783	0.0260	0.6013	0.1313	0.7327	0.1647	0.1208	0.2855		2,539.8193	2,539.8193	0.0199		2,540.2375
Worker	0.1081	0.1381	1.7133	4.3600e-003	0.3353	2.9400e-003	0.3383	0.0889	2.7200e-003	0.0917		341.9207	341.9207	0.0172		342.2826
Total	0.7512	8.6809	9.7916	0.0304	0.9367	0.1343	1.0710	0.2536	0.1235	0.3772		2,881.7401	2,881.7401	0.0371		2,882.5201

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	lb/day										lb/day					
Off-Road	0.6875	6.8788	32.4783	0.0492		0.1142	0.1142		0.1142	0.1142	0.0000	4,891.8621	4,891.8621	1.2949		4,919.0554
Total	0.6875	6.8788	32.4783	0.0492		0.1142	0.1142		0.1142	0.1142	0.0000	4,891.8621	4,891.8621	1.2949		4,919.0554

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	lb/day										lb/day					
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
Vendor	0.6431	8.5429	8.0783	0.0260	0.6013	0.1313	0.7327	0.1647	0.1208	0.2855		2,539.8193	2,539.8193	0.0199		2,540.2375
Worker	0.1081	0.1381	1.7133	4.3600e-003	0.3353	2.9400e-003	0.3383	0.0889	2.7200e-003	0.0917		341.9207	341.9207	0.0172		342.2826
Total	0.7512	8.6809	9.7916	0.0304	0.9367	0.1343	1.0710	0.2536	0.1235	0.3772		2,881.7401	2,881.7401	0.0371		2,882.5201

3.7 Tower/Ramp - 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	lb/day										lb/day					
Hauling					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
Worker					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Total					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000

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	lb/day										lb/day					
Hauling					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
Worker					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Total					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000

3.7 Tower/Ramp - 2018

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	lb/day										lb/day					
Hauling					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
Worker					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Total					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000

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	lb/day										lb/day					
Hauling					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
Worker					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Total					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000

3.8 Bridge - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.5584	6.6732	2.4673	5.6400e-003		0.2888	0.2888		0.2657	0.2657		568.0309	568.0309	0.1768		571.7444
Total	0.5584	6.6732	2.4673	5.6400e-003		0.2888	0.2888		0.2657	0.2657		568.0309	568.0309	0.1768		571.7444

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	lb/day										lb/day					
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
Vendor	0.0145	0.1467	0.1824	4.4000e-004	0.0125	2.3000e-003	0.0148	3.5500e-003	2.1100e-003	5.6600e-003		42.6249	42.6249	3.1000e-004		42.6315
Worker	0.1081	0.1381	1.7133	4.3600e-003	0.3353	2.9400e-003	0.3383	0.0889	2.7200e-003	0.0917		341.9207	341.9207	0.0172		342.2826
Total	0.1226	0.2847	1.8957	4.8000e-003	0.3478	5.2400e-003	0.3531	0.0925	4.8300e-003	0.0973		384.5457	384.5457	0.0175		384.9140

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	lb/day										lb/day					
Off-Road	0.5584	6.6732	2.4673	5.6400e-003		0.2888	0.2888		0.2657	0.2657	0.0000	568.0309	568.0309	0.1768		571.7444
Total	0.5584	6.6732	2.4673	5.6400e-003		0.2888	0.2888		0.2657	0.2657	0.0000	568.0309	568.0309	0.1768		571.7444

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	lb/day										lb/day					
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
Vendor	0.0145	0.1467	0.1824	4.4000e-004	0.0125	2.3000e-003	0.0148	3.5500e-003	2.1100e-003	5.6600e-003		42.6249	42.6249	3.1000e-004		42.6315
Worker	0.1081	0.1381	1.7133	4.3600e-003	0.3353	2.9400e-003	0.3383	0.0889	2.7200e-003	0.0917		341.9207	341.9207	0.0172		342.2826
Total	0.1226	0.2847	1.8957	4.8000e-003	0.3478	5.2400e-003	0.3531	0.0925	4.8300e-003	0.0973		384.5457	384.5457	0.0175		384.9140

3.9 Streetwork - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
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Category	lb/day										lb/day					
Off-Road	2.4925	27.6327	17.9542	0.0282		1.3269	1.3269		1.2215	1.2215		2,827.8594	2,827.8594	0.8732		2,846.1965
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	2.4925	27.6327	17.9542	0.0282		1.3269	1.3269		1.2215	1.2215		2,827.8594	2,827.8594	0.8732		2,846.1965

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	lb/day										lb/day						
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
Vendor	0.0145	0.1467	0.1824	4.4000e-004	0.0125	2.3000e-003	0.0148	3.5500e-003	2.1100e-003	5.6600e-003		42.6249	42.6249	3.1000e-004			42.6315
Worker	0.1081	0.1381	1.7133	4.3600e-003	0.3353	2.9400e-003	0.3383	0.0889	2.7200e-003	0.0917		341.9207	341.9207	0.0172			342.2826
Total	0.1226	0.2847	1.8957	4.8000e-003	0.3478	5.2400e-003	0.3531	0.0925	4.8300e-003	0.0973		384.5457	384.5457	0.0175			384.9140

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	lb/day										lb/day					
Off-Road	0.7910	6.4847	16.0226	0.0282		0.3441	0.3441		0.3201	0.3201	0.0000	2,827.8594	2,827.8594	0.8732		2,846.1965
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000

Total	0.7910	6.4847	16.0226	0.0282		0.3441	0.3441		0.3201	0.3201	0.0000	2,827.8594	2,827.8594	0.8732		2,846.1965
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Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
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
Vendor	0.0145	0.1467	0.1824	4.4000e-004	0.0125	2.3000e-003	0.0148	3.5500e-003	2.1100e-003	5.6600e-003		42.6249	42.6249	3.1000e-004		42.6315
Worker	0.1081	0.1381	1.7133	4.3600e-003	0.3353	2.9400e-003	0.3383	0.0889	2.7200e-003	0.0917		341.9207	341.9207	0.0172		342.2826
Total	0.1226	0.2847	1.8957	4.8000e-003	0.3478	5.2400e-003	0.3531	0.0925	4.8300e-003	0.0973		384.5457	384.5457	0.0175		384.9140

3.10 Sitework - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.7365	8.3553	5.3155	0.0137		0.3713	0.3713		0.3416	0.3416		1,378.3741	1,378.3741	0.4291		1,387.3854
Total	0.7365	8.3553	5.3155	0.0137		0.3713	0.3713		0.3416	0.3416		1,378.3741	1,378.3741	0.4291		1,387.3854

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	lb/day										lb/day					
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
Vendor	0.0145	0.1467	0.1824	4.4000e-004	0.0125	2.3000e-003	0.0148	3.5500e-003	2.1100e-003	5.6600e-003		42.6249	42.6249	3.1000e-004		42.6315
Worker	0.1081	0.1381	1.7133	4.3600e-003	0.3353	2.9400e-003	0.3383	0.0889	2.7200e-003	0.0917		341.9207	341.9207	0.0172		342.2826
Total	0.1226	0.2847	1.8957	4.8000e-003	0.3478	5.2400e-003	0.3531	0.0925	4.8300e-003	0.0973		384.5457	384.5457	0.0175		384.9140

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	lb/day										lb/day					
Off-Road	0.1695	0.7347	7.0386	0.0137		0.0226	0.0226		0.0226	0.0226	0.0000	1,378.3741	1,378.3741	0.4291		1,387.3854
Total	0.1695	0.7347	7.0386	0.0137		0.0226	0.0226		0.0226	0.0226	0.0000	1,378.3741	1,378.3741	0.4291		1,387.3854

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	lb/day										lb/day					

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	0.0145	0.1467	0.1824	4.4000e-004	0.0125	2.3000e-003	0.0148	3.5500e-003	2.1100e-003	5.6600e-003		42.6249	42.6249	3.1000e-004		42.6315
Worker	0.1081	0.1381	1.7133	4.3600e-003	0.3353	2.9400e-003	0.3383	0.0889	2.7200e-003	0.0917		341.9207	341.9207	0.0172		342.2826
Total	0.1226	0.2847	1.8957	4.8000e-003	0.3478	5.2400e-003	0.3531	0.0925	4.8300e-003	0.0973		384.5457	384.5457	0.0175		384.9140

3.10 Sitework - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.6708	7.3638	5.1579	0.0137		0.3210	0.3210		0.2953	0.2953		1,357.4181	1,357.4181	0.4295		1,366.4370
Total	0.6708	7.3638	5.1579	0.0137		0.3210	0.3210		0.2953	0.2953		1,357.4181	1,357.4181	0.4295		1,366.4370

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	lb/day										lb/day					
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
Vendor	0.0138	0.1353	0.1758	4.4000e-004	0.0125	2.1800e-003	0.0147	3.5500e-003	2.0100e-003	5.5600e-003		41.7508	41.7508	3.0000e-004		41.7572
Worker	0.0993	0.1266	1.5733	4.3400e-003	0.3353	2.8700e-003	0.3382	0.0889	2.6600e-003	0.0916		328.5241	328.5241	0.0161		328.8623
Total	0.1131	0.2619	1.7491	4.7800e-003	0.3478	5.0500e-003	0.3529	0.0925	4.6700e-003	0.0972		370.2749	370.2749	0.0164		370.6195

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	lb/day										lb/day					
Off-Road	0.1695	0.7347	7.0386	0.0137		0.0226	0.0226		0.0226	0.0226	0.0000	1,357.4181	1,357.4181	0.4295		1,366.4370
Total	0.1695	0.7347	7.0386	0.0137		0.0226	0.0226		0.0226	0.0226	0.0000	1,357.4181	1,357.4181	0.4295		1,366.4370

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	lb/day										lb/day					
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
Vendor	0.0138	0.1353	0.1758	4.4000e-004	0.0125	2.1800e-003	0.0147	3.5500e-003	2.0100e-003	5.5600e-003		41.7508	41.7508	3.0000e-004		41.7572
Worker	0.0993	0.1266	1.5733	4.3400e-003	0.3353	2.8700e-003	0.3382	0.0889	2.6600e-003	0.0916		328.5241	328.5241	0.0161		328.8623
Total	0.1131	0.2619	1.7491	4.7800e-003	0.3478	5.0500e-003	0.3529	0.0925	4.6700e-003	0.0972		370.2749	370.2749	0.0164		370.6195

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Enclosed Parking with Elevator	0.00	0.00	0.00		
User Defined Parking	0.00	0.00	0.00		
User Defined Recreational	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-	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Enclosed Parking with Elevator	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
User Defined Parking	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
User Defined Recreational	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.530902	0.057841	0.178699	0.124790	0.039063	0.006298	0.016951	0.033908	0.002496	0.003149	0.003689	0.000536	0.001678

5.0 Energy Detail

4.4 Fleet Mix

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Unmitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

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	lb/day										lb/day					
User Defined Parking	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
User Defined Recreational	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
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

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
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Land Use	kBTU/yr	lb/day										lb/day				
User Defined Recreational	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
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
User Defined Parking	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
Total		0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	11.7305	0.0624	6.7116	5.0000e-004		0.0241	0.0241		0.0241	0.0241		14.2473	14.2473	0.0386		15.0581
Unmitigated	11.7305	0.0624	6.7116	5.0000e-004		0.0241	0.0241		0.0241	0.0241		14.2473	14.2473	0.0386		15.0581

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	lb/day										lb/day					
Architectural Coating	2.6938					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000

Consumer Products	8.4006					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	0.6361	0.0624	6.7116	5.0000e-004		0.0241	0.0241		0.0241	0.0241		14.2473	14.2473	0.0386		15.0581
Total	11.7305	0.0624	6.7116	5.0000e-004		0.0241	0.0241		0.0241	0.0241		14.2473	14.2473	0.0386		15.0581

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	lb/day										lb/day					
Architectural Coating	2.6938					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	8.4006					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	0.6361	0.0624	6.7116	5.0000e-004		0.0241	0.0241		0.0241	0.0241		14.2473	14.2473	0.0386		15.0581
Total	11.7305	0.0624	6.7116	5.0000e-004		0.0241	0.0241		0.0241	0.0241		14.2473	14.2473	0.0386		15.0581

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

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

Winter - Unmitigated

Harvard Westlake Parking Structure Los Angeles-South Coast County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Enclosed Parking with Elevator	750.00	Space	1.90	300,000.00	0
User Defined Parking	0.00	User Defined Unit	1.52	59,921.00	0
User Defined Recreational	64,350.00	User Defined Unit	0.00	64,350.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	33
Climate Zone	11	Operational Year	2019		
Utility Company	Southern California Edison				
CO2 Intensity (lb/MW hr)	630.89	CH4 Intensity (lb/MW hr)	0.029	N2O Intensity (lb/MW hr)	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Athletic Field is under land use category of User defined recreational.

Roadways and landscape are under parking- user defined.

Construction Phase - based on equipment mix provided by the constructor

Off-road Equipment - based on equipment mix provided by the constructor

Off-road Equipment -

Off-road Equipment - based on equipment mix provided by the constructor

Off-road Equipment - based on equipment mix provided by the constructor

Off-road Equipment - based on construction plan

Off-road Equipment - based on equipment mix provided by the constructor

Off-road Equipment - based on equipment mix provided by the constructor

Off-road Equipment - based on equipment mix provided by the constructor

Off-road Equipment - based on equipment mix provided by the constructor

Off-road Equipment - based on equipment mix provided by the constructor

Trips and VMT - Overlapping phases: 1) Grading, Soil Nailing, and Shotcrete 2) Foundations/Structure, Tower/Ramp 3) Foundations/Structure, Bridge.
Haul trucks assumed to travel 13 miles each way. Soil Nailing and Shotcrete trips assumed to be 6.9 miles one-way.

Grading -

Vehicle Emission Factors -

Vehicle Emission Factors -

Vehicle Emission Factors -

Energy Use - Athletic field would have 10 light poles. A conservative assumption that 10 light poles would have 6 light bulb each with each light bulb having rating of 400 W.

Construction Off-road Equipment Mitigation - Details provided by the constructor.

Table Name	Column Name	Default Value	New Value
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	5.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	5.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	11.00
tblConstructionPhase	NumDays	230.00	195.00
tblConstructionPhase	NumDays	230.00	195.00
tblConstructionPhase	NumDays	230.00	290.00
tblConstructionPhase	NumDays	230.00	114.00

tblConstructionPhase	NumDays	230.00	82.00
tblConstructionPhase	NumDays	230.00	165.00
tblConstructionPhase	NumDays	8.00	245.00
tblConstructionPhase	NumDays	18.00	20.00
tblConstructionPhase	NumDays	5.00	20.00
tblConstructionPhase	PhaseEndDate	3/6/2018	4/12/2017
tblConstructionPhase	PhaseEndDate	1/10/2018	4/26/2017
tblConstructionPhase	PhaseEndDate	6/6/2018	7/19/2018
tblConstructionPhase	PhaseEndDate	12/26/2018	3/23/2018
tblConstructionPhase	PhaseStartDate	6/7/2017	7/14/2016
tblConstructionPhase	PhaseStartDate	4/13/2017	7/28/2016
tblConstructionPhase	PhaseStartDate	4/27/2017	6/9/2017
tblConstructionPhase	PhaseStartDate	7/20/2018	10/17/2017
tblConstructionPhase	PhaseStartDate	3/24/2018	3/26/2018
tblEnergyUse	LightingElect	0.00	3.26
tblEnergyUse	NT24E	0.00	3.26
tblEnergyUse	T24E	0.00	3.26
tblGrading	AcresOfGrading	612.50	450.00
tblGrading	MaterialExported	0.00	140,000.00
tblLandUse	LandUseSquareFeet	0.00	59,921.00
tblLandUse	LandUseSquareFeet	0.00	64,350.00
tblLandUse	LotAcreage	6.75	1.90
tblLandUse	LotAcreage	0.00	1.52
tblOffRoadEquipment	HorsePower	162.00	330.00
tblOffRoadEquipment	HorsePower	255.00	207.00
tblOffRoadEquipment	HorsePower	97.00	349.00
tblOffRoadEquipment	HorsePower	97.00	84.00
tblOffRoadEquipment	HorsePower	97.00	96.00
tblOffRoadEquipment	HorsePower	97.00	349.00
tblOffRoadEquipment	HorsePower	97.00	84.00

tblOffRoadEquipment	HorsePower	97.00	349.00
tblOffRoadEquipment	HorsePower	97.00	84.00
tblOffRoadEquipment	HorsePower	97.00	96.00
tblOffRoadEquipment	HorsePower	205.00	160.00
tblOffRoadEquipment	HorsePower	205.00	160.00
tblOffRoadEquipment	HorsePower	361.00	185.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	1.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	6.00	8.00
tblOffRoadEquipment	UsageHours	6.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblProjectCharacteristics	OperationalYear	2014	2019
tblTripsAndVMT	HaulingTripLength	20.00	26.00
tblTripsAndVMT	HaulingTripNumber	17,500.00	17,640.00
tblTripsAndVMT	VendorTripLength	6.90	13.80

tblTripsAndVMT	VendorTripLength	6.90	13.80
tblTripsAndVMT	VendorTripLength	6.90	13.80
tblTripsAndVMT	VendorTripNumber	70.00	3.00
tblTripsAndVMT	VendorTripNumber	70.00	5.00
tblTripsAndVMT	VendorTripNumber	70.00	50.00
tblTripsAndVMT	VendorTripNumber	70.00	2.00
tblTripsAndVMT	VendorTripNumber	0.00	2.00
tblTripsAndVMT	VendorTripNumber	70.00	2.00
tblTripsAndVMT	VendorVehicleClass	HDT_Mix	HHDt
tblTripsAndVMT	WorkerTripNumber	23.00	30.00
tblTripsAndVMT	WorkerTripNumber	178.00	30.00
tblTripsAndVMT	WorkerTripNumber	178.00	30.00
tblTripsAndVMT	WorkerTripNumber	178.00	30.00
tblTripsAndVMT	WorkerTripNumber	178.00	30.00
tblTripsAndVMT	WorkerTripNumber	13.00	30.00
tblTripsAndVMT	WorkerTripNumber	178.00	30.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

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	lb/day										lb/day					
2016	13.8779	142.6271	90.9402	0.2003	11.8118	6.8715	18.6833	4.5274	6.5197	11.0470	0.0000	19,963.7896	19,963.7896	2.8237	0.0000	20,023.0877
2017	12.7390	130.5713	88.3498	0.2003	12.2396	6.1769	18.4165	4.6324	5.8574	10.4898	0.0000	19,686.0755	19,686.0755	2.7727	0.0000	19,744.3030
2018	6.9690	72.3725	59.4289	0.1121	1.2845	3.4406	4.7251	0.3461	3.2043	3.5504	0.0000	10,938.6078	10,938.6078	2.2232	0.0000	10,985.2947

2019	0.7886	7.6427	6.8372	0.0182	0.3478	0.3261	0.6739	0.0925	0.3000	0.3925	0.0000	1,708.8333	1,708.8333	0.4459	0.0000	1,718.1970
Total	34.3745	353.2135	245.5560	0.5309	25.6836	16.8151	42.4987	9.5983	15.8813	25.4797	0.0000	52,297.3063	52,297.3063	8.2655	0.0000	52,470.8823

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	lb/day										lb/day					
2016	13.8779	142.6271	90.9402	0.2003	6.9107	6.8715	13.7822	2.3739	6.5197	8.8935	0.0000	19,963.7896	19,963.7896	2.8237	0.0000	20,023.0876
2017	12.7390	130.5713	88.3498	0.2003	7.3385	6.1769	13.5154	2.4789	5.8574	8.3363	0.0000	19,686.0755	19,686.0755	2.7727	0.0000	19,744.3030
2018	6.9690	72.3725	59.4289	0.1121	1.2845	3.4406	4.7251	0.3461	3.2043	3.5504	0.0000	10,938.6078	10,938.6078	2.2232	0.0000	10,985.2947
2019	0.7886	7.6427	6.8372	0.0182	0.3478	0.3261	0.6739	0.0925	0.3000	0.3925	0.0000	1,708.8333	1,708.8333	0.4459	0.0000	1,718.1970
Total	34.3745	353.2135	245.5560	0.5309	15.8815	16.8151	32.6965	5.2913	15.8813	21.1727	0.0000	52,297.3062	52,297.3062	8.2655	0.0000	52,470.8823

	ROG	NOx	CO	SO2	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	38.17	0.00	23.06	44.87	0.00	16.90	0.00	0.00	0.00	0.00	0.00	0.00

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	11.7305	0.0624	6.7116	5.0000e-004		0.0241	0.0241		0.0241	0.0241		14.2473	14.2473	0.0386		15.0581

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
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
Total	11.7305	0.0624	6.7116	5.0000e-004	0.0000	0.0241	0.0241	0.0000	0.0241	0.0241		14.2473	14.2473	0.0386	0.0000	15.0581

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	lb/day										lb/day						
Area	11.7305	0.0624	6.7116	5.0000e-004		0.0241	0.0241		0.0241	0.0241			14.2473	14.2473	0.0386		15.0581
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	
Total	11.7305	0.0624	6.7116	5.0000e-004	0.0000	0.0241	0.0241	0.0000	0.0241	0.0241			14.2473	14.2473	0.0386	0.0000	15.0581

	ROG	NOx	CO	SO2	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	Site Preparation	Site Preparation	6/1/2016	6/28/2016	5	20	
2	Grading	Grading	6/29/2016	6/6/2017	5	245	
3	Soil Nailing	Building Construction	7/14/2016	4/12/2017	5	195	
4	Shotcrete	Building Construction	7/28/2016	4/26/2017	5	195	

5	Foundation/Structure	Building Construction	6/9/2017	7/19/2018	5	290
6	Tower/Ramp	Building Construction	10/17/2017	3/23/2018	5	114
7	Bridge	Building Construction	3/26/2018	7/17/2018	5	82
8	Streetwork	Paving	7/18/2018	8/14/2018	5	20
9	Sitework	Building Construction	8/15/2018	4/2/2019	5	165

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 450

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
Site Preparation	Rubber Tired Dozers	1	8.00	255	0.40
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Grading	Excavators	1	8.00	330	0.38
Grading	Graders	1	8.00	174	0.41
Grading	Rubber Tired Dozers	1	8.00	207	0.40
Grading	Scrapers	2	8.00	185	0.48
Grading	Tractors/Loaders/Backhoes	1	8.00	349	0.37
Grading	Tractors/Loaders/Backhoes	1	8.00	84	0.37
Grading	Tractors/Loaders/Backhoes	2	8.00	96	0.37
Soil Nailing	Air Compressors	2	8.00	78	0.48
Soil Nailing	Bore/Drill Rigs	2	8.00	160	0.50
Soil Nailing	Pumps	2	8.00	84	0.74
Shotcrete	Air Compressors	2	8.00	78	0.48
Shotcrete	Pumps	2	8.00	84	0.74
Foundation/Structure	Air Compressors	1	8.00	78	0.48
Foundation/Structure	Bore/Drill Rigs	1	8.00	160	0.50
Foundation/Structure	Other Construction Equipment	1	8.00	171	0.42

Foundation/Structure	Other Construction Equipment	1	8.00	171	0.42
Foundation/Structure	Pumps	1	8.00	84	0.74
Foundation/Structure	Tractors/Loaders/Backhoes	1	8.00	349	0.37
Foundation/Structure	Tractors/Loaders/Backhoes	2	8.00	84	0.37
Foundation/Structure	Tractors/Loaders/Backhoes	1	8.00	96	0.37
Bridge	Cranes	1	8.00	226	0.29
Streetwork	Graders	1	8.00	174	0.41
Streetwork	Paving Equipment	1	8.00	130	0.36
Streetwork	Plate Compactors	1	8.00	8	0.43
Streetwork	Rollers	1	8.00	80	0.38
Streetwork	Scrapers	1	8.00	361	0.48
Sitework	Tractors/Loaders/Backhoes	1	8.00	349	0.37
Sitework	Tractors/Loaders/Backhoes	1	8.00	84	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
Site Preparation	2	5.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	9	30.00	0.00	17,640.00	14.70	6.90	26.00	LD_Mix	HDT_Mix	HHDT
Soil Nailing	6	30.00	3.00	0.00	14.70	13.80	20.00	LD_Mix	HDT_Mix	HHDT
Shotcrete	4	30.00	5.00	0.00	14.70	13.80	20.00	LD_Mix	HDT_Mix	HHDT
Foundation/Structure	9	30.00	50.00	0.00	14.70	13.80	20.00	LD_Mix	HHDT	HHDT
Tower/Ramp	0			0.00	14.70	6.90				
Bridge	1	30.00	2.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Streetwork	5	30.00	2.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Sitework	2	30.00	2.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

3.2 Site Preparation - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day										lb/day						
Fugitive Dust					6.0221	0.0000	6.0221	3.3102	0.0000	3.3102			0.0000				0.0000
Off-Road	1.5788	17.1258	12.8976	0.0120		0.8960	0.8960		0.8243	0.8243		1,247.1093	1,247.1093	0.3762			1,255.0089
Total	1.5788	17.1258	12.8976	0.0120	6.0221	0.8960	6.9181	3.3102	0.8243	4.1346		1,247.1093	1,247.1093	0.3762			1,255.0089

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	lb/day										lb/day						
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
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
Worker	0.0232	0.0311	0.3257	6.9000e-004	0.0559	5.3000e-004	0.0564	0.0148	4.9000e-004	0.0153		58.0016	58.0016	3.3500e-003			58.0718
Total	0.0232	0.0311	0.3257	6.9000e-004	0.0559	5.3000e-004	0.0564	0.0148	4.9000e-004	0.0153		58.0016	58.0016	3.3500e-003			58.0718

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
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Category	lb/day										lb/day				
Fugitive Dust					2.3486	0.0000	2.3486	1.2910	0.0000	1.2910			0.0000		0.0000
Off-Road	1.5788	17.1258	12.8976	0.0120		0.8960	0.8960		0.8243	0.8243	0.0000	1,247.1093	1,247.1093	0.3762	1,255.0089
Total	1.5788	17.1258	12.8976	0.0120	2.3486	0.8960	3.2446	1.2910	0.8243	2.1153	0.0000	1,247.1093	1,247.1093	0.3762	1,255.0089

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	lb/day										lb/day					
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
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
Worker	0.0232	0.0311	0.3257	6.9000e-004	0.0559	5.3000e-004	0.0564	0.0148	4.9000e-004	0.0153		58.0016	58.0016	3.3500e-003		58.0718
Total	0.0232	0.0311	0.3257	6.9000e-004	0.0559	5.3000e-004	0.0564	0.0148	4.9000e-004	0.0153		58.0016	58.0016	3.3500e-003		58.0718

3.3 Grading - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.0346	0.0000	8.0346	3.5303	0.0000	3.5303			0.0000			0.0000
Off-Road	6.3232	71.5648	31.4699	0.0592		3.5217	3.5217		3.2399	3.2399		6,153.6608	6,153.6608	1.8562		6,192.6402

Total	6.3232	71.5648	31.4699	0.0592	8.0346	3.5217	11.5562	3.5303	3.2399	6.7703		6,153.6608	6,153.6608	1.8562		6,192.6402
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Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	1.5918	26.7292	18.3961	0.0694	2.6716	0.3882	3.0598	0.7019	0.3571	1.0590		6,993.1151	6,993.1151	0.0515		6,994.1966
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
Worker	0.1390	0.1865	1.9541	4.1100e-003	0.3353	3.1700e-003	0.3385	0.0889	2.9100e-003	0.0919		348.0093	348.0093	0.0201		348.4308
Total	1.7308	26.9157	20.3502	0.0735	3.0070	0.3913	3.3983	0.7908	0.3600	1.1508		7,341.1244	7,341.1244	0.0716		7,342.6274

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	lb/day										lb/day					
Fugitive Dust					3.1335	0.0000	3.1335	1.3768	0.0000	1.3768			0.0000			0.0000
Off-Road	6.3232	71.5648	31.4699	0.0592		3.5217	3.5217		3.2399	3.2399	0.0000	6,153.6608	6,153.6608	1.8562		6,192.6402
Total	6.3232	71.5648	31.4699	0.0592	3.1335	3.5217	6.6551	1.3768	3.2399	4.6168	0.0000	6,153.6608	6,153.6608	1.8562		6,192.6402

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	lb/day										lb/day					
Hauling	1.5918	26.7292	18.3961	0.0694	2.6716	0.3882	3.0598	0.7019	0.3571	1.0590		6,993.1151	6,993.1151	0.0515		6,994.1966
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
Worker	0.1390	0.1865	1.9541	4.1100e-003	0.3353	3.1700e-003	0.3385	0.0889	2.9100e-003	0.0919		348.0093	348.0093	0.0201		348.4308
Total	1.7308	26.9157	20.3502	0.0735	3.0070	0.3913	3.3983	0.7908	0.3600	1.1508		7,341.1244	7,341.1244	0.0716		7,342.6274

3.3 Grading - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.0346	0.0000	8.0346	3.5303	0.0000	3.5303			0.0000			0.0000
Off-Road	5.9108	66.1724	30.4275	0.0592		3.2405	3.2405		2.9812	2.9812		6,055.5587	6,055.5587	1.8554		6,094.5224
Total	5.9108	66.1724	30.4275	0.0592	8.0346	3.2405	11.2750	3.5303	2.9812	6.5116		6,055.5587	6,055.5587	1.8554		6,094.5224

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	lb/day										lb/day					

Hauling	1.5060	24.5333	17.7556	0.0693	3.0994	0.3546	3.4540	0.8069	0.3262	1.1332		6,879.6402	6,879.6402	0.0505		6,880.7002
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
Worker	0.1247	0.1687	1.7633	4.1100e-003	0.3353	3.0400e-003	0.3384	0.0889	2.8000e-003	0.0917		334.9606	334.9606	0.0186		335.3502
Total	1.6306	24.7019	19.5189	0.0734	3.4347	0.3577	3.7924	0.8959	0.3290	1.2249		7,214.6008	7,214.6008	0.0690		7,216.0503

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	lb/day										lb/day					
Fugitive Dust					3.1335	0.0000	3.1335	1.3768	0.0000	1.3768			0.0000			0.0000
Off-Road	5.9108	66.1724	30.4275	0.0592		3.2405	3.2405		2.9812	2.9812	0.0000	6,055.5587	6,055.5587	1.8554		6,094.5224
Total	5.9108	66.1724	30.4275	0.0592	3.1335	3.2405	6.3739	1.3768	2.9812	4.3581	0.0000	6,055.5587	6,055.5587	1.8554		6,094.5224

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	lb/day										lb/day					
Hauling	1.5060	24.5333	17.7556	0.0693	3.0994	0.3546	3.4540	0.8069	0.3262	1.1332		6,879.6402	6,879.6402	0.0505		6,880.7002
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
Worker	0.1247	0.1687	1.7633	4.1100e-003	0.3353	3.0400e-003	0.3384	0.0889	2.8000e-003	0.0917		334.9606	334.9606	0.0186		335.3502
Total	1.6306	24.7019	19.5189	0.0734	3.4347	0.3577	3.7924	0.8959	0.3290	1.2249		7,214.6008	7,214.6008	0.0690		7,216.0503

3.4 Soil Nailing - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.1260	26.3481	21.2801	0.0350		1.6938	1.6938		1.6572	1.6572		3,439.8178	3,439.8178	0.6444		3,453.3503
Total	3.1260	26.3481	21.2801	0.0350		1.6938	1.6938		1.6572	1.6572		3,439.8178	3,439.8178	0.6444		3,453.3503

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	lb/day										lb/day					
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
Vendor	0.0374	0.4804	0.4438	1.2600e-003	0.0374	8.0800e-003	0.0454	0.0106	7.4300e-003	0.0181		126.2140	126.2140	8.8000e-004		126.2326
Worker	0.1390	0.1865	1.9541	4.1100e-003	0.3353	3.1700e-003	0.3385	0.0889	2.9100e-003	0.0919		348.0093	348.0093	0.0201		348.4308
Total	0.1764	0.6669	2.3979	5.3700e-003	0.3727	0.0113	0.3839	0.0996	0.0103	0.1099		474.2234	474.2234	0.0210		474.6634

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	lb/day										lb/day					
Off-Road	3.1260	26.3481	21.2801	0.0350		1.6938	1.6938		1.6572	1.6572	0.0000	3,439.8178	3,439.8178	0.6444		3,453.3503
Total	3.1260	26.3481	21.2801	0.0350		1.6938	1.6938		1.6572	1.6572	0.0000	3,439.8178	3,439.8178	0.6444		3,453.3503

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	lb/day										lb/day					
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
Vendor	0.0374	0.4804	0.4438	1.2600e-003	0.0374	8.0800e-003	0.0454	0.0106	7.4300e-003	0.0181		126.2140	126.2140	8.8000e-004		126.2326
Worker	0.1390	0.1865	1.9541	4.1100e-003	0.3353	3.1700e-003	0.3385	0.0889	2.9100e-003	0.0919		348.0093	348.0093	0.0201		348.4308
Total	0.1764	0.6669	2.3979	5.3700e-003	0.3727	0.0113	0.3839	0.0996	0.0103	0.1099		474.2234	474.2234	0.0210		474.6634

3.4 Soil Nailing - 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	lb/day										lb/day					
Off-Road	2.7732	23.3073	21.1142	0.0350		1.4620	1.4620		1.4323	1.4323		3,418.1954	3,418.1954	0.6223		3,431.2627

Total	2.7732	23.3073	21.1142	0.0350		1.4620	1.4620		1.4323	1.4323		3,418.1954	3,418.1954	0.6223		3,431.2627
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Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
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
Vendor	0.0344	0.4355	0.4192	1.2600e-003	0.0374	7.2000e-003	0.0446	0.0106	6.6200e-003	0.0173		124.2008	124.2008	8.5000e-004		124.2186
Worker	0.1247	0.1687	1.7633	4.1100e-003	0.3353	3.0400e-003	0.3384	0.0889	2.8000e-003	0.0917		334.9606	334.9606	0.0186		335.3502
Total	0.1590	0.6042	2.1825	5.3700e-003	0.3727	0.0102	0.3829	0.0996	9.4200e-003	0.1090		459.1614	459.1614	0.0194		459.5688

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	lb/day										lb/day					
Off-Road	2.7732	23.3073	21.1142	0.0350		1.4620	1.4620		1.4323	1.4323	0.0000	3,418.1954	3,418.1954	0.6223		3,431.2627
Total	2.7732	23.3073	21.1142	0.0350		1.4620	1.4620		1.4323	1.4323	0.0000	3,418.1954	3,418.1954	0.6223		3,431.2627

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	lb/day										lb/day					
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
Vendor	0.0344	0.4355	0.4192	1.2600e-003	0.0374	7.2000e-003	0.0446	0.0106	6.6200e-003	0.0173		124.2008	124.2008	8.5000e-004		124.2186
Worker	0.1247	0.1687	1.7633	4.1100e-003	0.3353	3.0400e-003	0.3384	0.0889	2.8000e-003	0.0917		334.9606	334.9606	0.0186		335.3502
Total	0.1590	0.6042	2.1825	5.3700e-003	0.3727	0.0102	0.3829	0.0996	9.4200e-003	0.1090		459.1614	459.1614	0.0194		459.5688

3.5 Shotcrete - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.3201	16.1445	12.7484	0.0211		1.2369	1.2369		1.2369	1.2369		1,996.5973	1,996.5973	0.2091		2,000.9879
Total	2.3201	16.1445	12.7484	0.0211		1.2369	1.2369		1.2369	1.2369		1,996.5973	1,996.5973	0.2091		2,000.9879

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	lb/day										lb/day					

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	0.0624	0.8006	0.7396	2.0900e-003	0.0622	0.0135	0.0757	0.0177	0.0124	0.0301		210.3567	210.3567	1.4700e-003		210.3876
Worker	0.1390	0.1865	1.9541	4.1100e-003	0.3353	3.1700e-003	0.3385	0.0889	2.9100e-003	0.0919		348.0093	348.0093	0.0201		348.4308
Total	0.2014	0.9871	2.6937	6.2000e-003	0.3976	0.0166	0.4142	0.1066	0.0153	0.1219		558.3660	558.3660	0.0215		558.8184

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	lb/day										lb/day					
Off-Road	2.3201	16.1445	12.7484	0.0211		1.2369	1.2369		1.2369	1.2369	0.0000	1,996.5973	1,996.5973	0.2091		2,000.9879
Total	2.3201	16.1445	12.7484	0.0211		1.2369	1.2369		1.2369	1.2369	0.0000	1,996.5973	1,996.5973	0.2091		2,000.9879

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	lb/day										lb/day					
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
Vendor	0.0624	0.8006	0.7396	2.0900e-003	0.0622	0.0135	0.0757	0.0177	0.0124	0.0301		210.3567	210.3567	1.4700e-003		210.3876
Worker	0.1390	0.1865	1.9541	4.1100e-003	0.3353	3.1700e-003	0.3385	0.0889	2.9100e-003	0.0919		348.0093	348.0093	0.0201		348.4308
Total	0.2014	0.9871	2.6937	6.2000e-003	0.3976	0.0166	0.4142	0.1066	0.0153	0.1219		558.3660	558.3660	0.0215		558.8184

3.5 Shotcrete - 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	lb/day										lb/day					
Off-Road	2.0833	14.8911	12.6448	0.0211		1.0915	1.0915		1.0915	1.0915		1,996.5973	1,996.5973	0.1867		2,000.5175
												3				
Total	2.0833	14.8911	12.6448	0.0211		1.0915	1.0915		1.0915	1.0915		1,996.5973	1,996.5973	0.1867		2,000.5175

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	lb/day										lb/day					
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
Vendor	0.0573	0.7259	0.6986	2.0900e-003	0.0623	0.0120	0.0743	0.0177	0.0110	0.0288		207.0013	207.0013	1.4200e-003		207.0310
Worker	0.1247	0.1687	1.7633	4.1100e-003	0.3353	3.0400e-003	0.3384	0.0889	2.8000e-003	0.0917		334.9606	334.9606	0.0186		335.3502
Total	0.1820	0.8945	2.4619	6.2000e-003	0.3976	0.0150	0.4126	0.1066	0.0138	0.1205		541.9619	541.9619	0.0200		542.3812

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	lb/day										lb/day					
Off-Road	2.0833	14.8911	12.6448	0.0211		1.0915	1.0915		1.0915	1.0915	0.0000	1,996.5973	1,996.5973	0.1867		2,000.5175
Total	2.0833	14.8911	12.6448	0.0211		1.0915	1.0915		1.0915	1.0915	0.0000	1,996.5973	1,996.5973	0.1867		2,000.5175

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	lb/day										lb/day					
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
Vendor	0.0573	0.7259	0.6986	2.0900e-003	0.0623	0.0120	0.0743	0.0177	0.0110	0.0288		207.0013	207.0013	1.4200e-003		207.0310
Worker	0.1247	0.1687	1.7633	4.1100e-003	0.3353	3.0400e-003	0.3384	0.0889	2.8000e-003	0.0917		334.9606	334.9606	0.0186		335.3502
Total	0.1820	0.8945	2.4619	6.2000e-003	0.3976	0.0150	0.4126	0.1066	0.0138	0.1205		541.9619	541.9619	0.0200		542.3812

3.6 Foundation/Structure - 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	lb/day										lb/day					
Off-Road	4.1360	41.8050	29.4873	0.0493		2.3673	2.3673		2.2216	2.2216		4,963.8396	4,963.8396	1.3084		4,991.3155
												6				

Total	4.1360	41.8050	29.4873	0.0493		2.3673	2.3673		2.2216	2.2216		4,963.8396	4,963.8396	1.3084		4,991.3155
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Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
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
Vendor	0.7040	9.4905	9.8745	0.0260	0.6012	0.1319	0.7331	0.1647	0.1213	0.2860		2,573.5712	2,573.5712	0.0200		2,573.9910
Worker	0.1247	0.1687	1.7633	4.1100e-003	0.3353	3.0400e-003	0.3384	0.0889	2.8000e-003	0.0917		334.9606	334.9606	0.0186		335.3502
Total	0.8286	9.6591	11.6378	0.0301	0.9366	0.1349	1.0715	0.2536	0.1241	0.3777		2,908.5318	2,908.5318	0.0385		2,909.3412

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	lb/day										lb/day					
Off-Road	4.1360	41.8050	29.4873	0.0493		2.3673	2.3673		2.2216	2.2216	0.0000	4,963.8396	4,963.8396	1.3084		4,991.3155
Total	4.1360	41.8050	29.4873	0.0493		2.3673	2.3673		2.2216	2.2216	0.0000	4,963.8396	4,963.8396	1.3084		4,991.3155

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	lb/day										lb/day					
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
Vendor	0.7040	9.4905	9.8745	0.0260	0.6012	0.1319	0.7331	0.1647	0.1213	0.2860		2,573.5712	2,573.5712	0.0200		2,573.9910
Worker	0.1247	0.1687	1.7633	4.1100e-003	0.3353	3.0400e-003	0.3384	0.0889	2.8000e-003	0.0917		334.9606	334.9606	0.0186		335.3502
Total	0.8286	9.6591	11.6378	0.0301	0.9366	0.1349	1.0715	0.2536	0.1241	0.3777		2,908.5318	2,908.5318	0.0385		2,909.3412

3.6 Foundation/Structure - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.5526	35.4556	28.3748	0.0492		1.9738	1.9738		1.8540	1.8540		4,891.8621	4,891.8621	1.2949		4,919.0554
Total	3.5526	35.4556	28.3748	0.0492		1.9738	1.9738		1.8540	1.8540		4,891.8621	4,891.8621	1.2949		4,919.0554

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	lb/day										lb/day					

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	0.6842	8.8279	9.6835	0.0260	0.6013	0.1318	0.7331	0.1647	0.1212	0.2859		2,531.2617	2,531.2617	0.0203		2,531.6878
Worker	0.1120	0.1531	1.5953	4.1100e-003	0.3353	2.9400e-003	0.3383	0.0889	2.7200e-003	0.0917		322.6775	322.6775	0.0172		323.0394
Total	0.7962	8.9810	11.2788	0.0301	0.9367	0.1347	1.0714	0.2536	0.1239	0.3776		2,853.9393	2,853.9393	0.0375		2,854.7271

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	lb/day										lb/day					
Off-Road	3.5526	35.4556	28.3748	0.0492		1.9738	1.9738		1.8540	1.8540	0.0000	4,891.8621	4,891.8621	1.2949		4,919.0554
Total	3.5526	35.4556	28.3748	0.0492		1.9738	1.9738		1.8540	1.8540	0.0000	4,891.8621	4,891.8621	1.2949		4,919.0554

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	lb/day										lb/day					
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
Vendor	0.6842	8.8279	9.6835	0.0260	0.6013	0.1318	0.7331	0.1647	0.1212	0.2859		2,531.2617	2,531.2617	0.0203		2,531.6878
Worker	0.1120	0.1531	1.5953	4.1100e-003	0.3353	2.9400e-003	0.3383	0.0889	2.7200e-003	0.0917		322.6775	322.6775	0.0172		323.0394
Total	0.7962	8.9810	11.2788	0.0301	0.9367	0.1347	1.0714	0.2536	0.1239	0.3776		2,853.9393	2,853.9393	0.0375		2,854.7271

3.7 Tower/Ramp - 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	lb/day										lb/day					
Hauling					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
Worker					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Total					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000

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	lb/day										lb/day					
Hauling					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
Worker					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Total					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000

3.7 Tower/Ramp - 2018

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	lb/day										lb/day					
Hauling					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
Worker					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Total					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000

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	lb/day										lb/day					
Hauling					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
Worker					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Total					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000

3.8 Bridge - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.5584	6.6732	2.4673	5.6400e-003		0.2888	0.2888		0.2657	0.2657		568.0309	568.0309	0.1768		571.7444

Total	0.5584	6.6732	2.4673	5.6400e-003		0.2888	0.2888		0.2657	0.2657		568.0309	568.0309	0.1768		571.7444
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Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
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
Vendor	0.0159	0.1502	0.2258	4.4000e-004	0.0125	2.3200e-003	0.0148	3.5500e-003	2.1300e-003	5.6800e-003		42.2696	42.2696	3.2000e-004		42.2763
Worker	0.1120	0.1531	1.5953	4.1100e-003	0.3353	2.9400e-003	0.3383	0.0889	2.7200e-003	0.0917		322.6775	322.6775	0.0172		323.0394
Total	0.1278	0.3033	1.8211	4.5500e-003	0.3478	5.2600e-003	0.3531	0.0925	4.8500e-003	0.0973		364.9471	364.9471	0.0176		365.3157

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	lb/day										lb/day					
Off-Road	0.5584	6.6732	2.4673	5.6400e-003		0.2888	0.2888		0.2657	0.2657	0.0000	568.0309	568.0309	0.1768		571.7444
Total	0.5584	6.6732	2.4673	5.6400e-003		0.2888	0.2888		0.2657	0.2657	0.0000	568.0309	568.0309	0.1768		571.7444

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	lb/day										lb/day					
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
Vendor	0.0159	0.1502	0.2258	4.4000e-004	0.0125	2.3200e-003	0.0148	3.5500e-003	2.1300e-003	5.6800e-003		42.2696	42.2696	3.2000e-004		42.2763
Worker	0.1120	0.1531	1.5953	4.1100e-003	0.3353	2.9400e-003	0.3383	0.0889	2.7200e-003	0.0917		322.6775	322.6775	0.0172		323.0394
Total	0.1278	0.3033	1.8211	4.5500e-003	0.3478	5.2600e-003	0.3531	0.0925	4.8500e-003	0.0973		364.9471	364.9471	0.0176		365.3157

3.9 Streetwork - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.4925	27.6327	17.9542	0.0282		1.3269	1.3269		1.2215	1.2215		2,827.8594	2,827.8594	0.8732		2,846.1965
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	2.4925	27.6327	17.9542	0.0282		1.3269	1.3269		1.2215	1.2215		2,827.8594	2,827.8594	0.8732		2,846.1965

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	lb/day										lb/day					

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	0.0159	0.1502	0.2258	4.4000e-004	0.0125	2.3200e-003	0.0148	3.5500e-003	2.1300e-003	5.6800e-003		42.2696	42.2696	3.2000e-004		42.2763
Worker	0.1120	0.1531	1.5953	4.1100e-003	0.3353	2.9400e-003	0.3383	0.0889	2.7200e-003	0.0917		322.6775	322.6775	0.0172		323.0394
Total	0.1278	0.3033	1.8211	4.5500e-003	0.3478	5.2600e-003	0.3531	0.0925	4.8500e-003	0.0973		364.9471	364.9471	0.0176		365.3157

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	lb/day										lb/day					
Off-Road	2.4925	27.6327	17.9542	0.0282		1.3269	1.3269		1.2215	1.2215	0.0000	2,827.8594	2,827.8594	0.8732		2,846.1965
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	2.4925	27.6327	17.9542	0.0282		1.3269	1.3269		1.2215	1.2215	0.0000	2,827.8594	2,827.8594	0.8732		2,846.1965

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	lb/day										lb/day					
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
Vendor	0.0159	0.1502	0.2258	4.4000e-004	0.0125	2.3200e-003	0.0148	3.5500e-003	2.1300e-003	5.6800e-003		42.2696	42.2696	3.2000e-004		42.2763
Worker	0.1120	0.1531	1.5953	4.1100e-003	0.3353	2.9400e-003	0.3383	0.0889	2.7200e-003	0.0917		322.6775	322.6775	0.0172		323.0394
Total	0.1278	0.3033	1.8211	4.5500e-003	0.3478	5.2600e-003	0.3531	0.0925	4.8500e-003	0.0973		364.9471	364.9471	0.0176		365.3157

3.10 Sitework - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.7365	8.3553	5.3155	0.0137		0.3713	0.3713		0.3416	0.3416		1,378.3741	1,378.3741	0.4291		1,387.3854
Total	0.7365	8.3553	5.3155	0.0137		0.3713	0.3713		0.3416	0.3416		1,378.3741	1,378.3741	0.4291		1,387.3854

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	lb/day										lb/day					
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
Vendor	0.0159	0.1502	0.2258	4.4000e-004	0.0125	2.3200e-003	0.0148	3.5500e-003	2.1300e-003	5.6800e-003		42.2696	42.2696	3.2000e-004		42.2763
Worker	0.1120	0.1531	1.5953	4.1100e-003	0.3353	2.9400e-003	0.3383	0.0889	2.7200e-003	0.0917		322.6775	322.6775	0.0172		323.0394
Total	0.1278	0.3033	1.8211	4.5500e-003	0.3478	5.2600e-003	0.3531	0.0925	4.8500e-003	0.0973		364.9471	364.9471	0.0176		365.3157

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	lb/day										lb/day					
Off-Road	0.7365	8.3553	5.3155	0.0137		0.3713	0.3713		0.3416	0.3416	0.0000	1,378.374 1	1,378.3741	0.4291		1,387.3854
Total	0.7365	8.3553	5.3155	0.0137		0.3713	0.3713		0.3416	0.3416	0.0000	1,378.374 1	1,378.3741	0.4291		1,387.3854

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	lb/day										lb/day					
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
Vendor	0.0159	0.1502	0.2258	4.4000e-004	0.0125	2.3200e-003	0.0148	3.5500e-003	2.1300e-003	5.6800e-003		42.2696	42.2696	3.2000e-004		42.2763
Worker	0.1120	0.1531	1.5953	4.1100e-003	0.3353	2.9400e-003	0.3383	0.0889	2.7200e-003	0.0917		322.6775	322.6775	0.0172		323.0394
Total	0.1278	0.3033	1.8211	4.5500e-003	0.3478	5.2600e-003	0.3531	0.0925	4.8500e-003	0.0973		364.9471	364.9471	0.0176		365.3157

3.10 Sitework - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.6708	7.3638	5.1579	0.0137		0.3210	0.3210		0.2953	0.2953		1,357.418 1	1,357.4181	0.4295		1,366.4370

Total	0.6708	7.3638	5.1579	0.0137		0.3210	0.3210		0.2953	0.2953		1,357.4181	1,357.4181	0.4295		1,366.4370
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Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
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
Vendor	0.0150	0.1385	0.2187	4.3000e-004	0.0125	2.2000e-003	0.0147	3.5500e-003	2.0300e-003	5.5800e-003		41.4007	41.4007	3.1000e-004		41.4073
Worker	0.1028	0.1403	1.4606	4.0900e-003	0.3353	2.8700e-003	0.3382	0.0889	2.6600e-003	0.0916		310.0145	310.0145	0.0161		310.3527
Total	0.1178	0.2789	1.6793	4.5200e-003	0.3478	5.0700e-003	0.3529	0.0925	4.6900e-003	0.0972		351.4153	351.4153	0.0164		351.7601

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	lb/day										lb/day					
Off-Road	0.6708	7.3638	5.1579	0.0137		0.3210	0.3210		0.2953	0.2953	0.0000	1,357.4181	1,357.4181	0.4295		1,366.4370
Total	0.6708	7.3638	5.1579	0.0137		0.3210	0.3210		0.2953	0.2953	0.0000	1,357.4181	1,357.4181	0.4295		1,366.4370

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	lb/day										lb/day					
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
Vendor	0.0150	0.1385	0.2187	4.3000e-004	0.0125	2.2000e-003	0.0147	3.5500e-003	2.0300e-003	5.5800e-003		41.4007	41.4007	3.1000e-004		41.4073
Worker	0.1028	0.1403	1.4606	4.0900e-003	0.3353	2.8700e-003	0.3382	0.0889	2.6600e-003	0.0916		310.0145	310.0145	0.0161		310.3527
Total	0.1178	0.2789	1.6793	4.5200e-003	0.3478	5.0700e-003	0.3529	0.0925	4.6900e-003	0.0972		351.4153	351.4153	0.0164		351.7601

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated Annual VMT	Mitigated Annual VMT
	Weekday	Saturday	Sunday		
Enclosed Parking with Elevator	0.00	0.00	0.00		
User Defined Parking	0.00	0.00	0.00		
User Defined Recreational	0.00	0.00	0.00		

Total	0.00	0.00	0.00		
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4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Enclosed Parking with Elevator	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
User Defined Parking	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
User Defined Recreational	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.530902	0.057841	0.178699	0.124790	0.039063	0.006298	0.016951	0.033908	0.002496	0.003149	0.003689	0.000536	0.001678

5.0 Energy Detail

4.4 Fleet Mix

Historical Energy Use: N

5.1 Mitigation Measures Energy

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
lb/day											lb/day					
NaturalGas Mitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Unmitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

5.2 Energy by Land Use - NaturalGas

Unmitigated

	Natural Gas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
User Defined Parking	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
User Defined Recreational	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
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

Mitigated

	Natural Gas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
User Defined Parking	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
User Defined Recreational	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
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	11.7305	0.0624	6.7116	5.0000e-004		0.0241	0.0241		0.0241	0.0241		14.2473	14.2473	0.0386		15.0581
Unmitigated	11.7305	0.0624	6.7116	5.0000e-004		0.0241	0.0241		0.0241	0.0241		14.2473	14.2473	0.0386		15.0581

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	lb/day										lb/day					
Architectural Coating	2.6938					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	8.4006					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	0.6361	0.0624	6.7116	5.0000e-004		0.0241	0.0241		0.0241	0.0241		14.2473	14.2473	0.0386		15.0581
Total	11.7305	0.0624	6.7116	5.0000e-004		0.0241	0.0241		0.0241	0.0241		14.2473	14.2473	0.0386		15.0581

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	lb/day										lb/day					
Architectural Coating	2.6938					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	8.4006					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000

Landscaping	0.6361	0.0624	6.7116	5.0000e-004		0.0241	0.0241		0.0241	0.0241		14.2473	14.2473	0.0386		15.0581
Total	11.7305	0.0624	6.7116	5.0000e-004		0.0241	0.0241		0.0241	0.0241		14.2473	14.2473	0.0386		15.0581

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

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

Winter - Mitigated

Harvard Westlake Parking Structure Los Angeles-South Coast County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Enclosed Parking with Elevator	750.00	Space	1.90	300,000.00	0
User Defined Parking	0.00	User Defined Unit	1.52	59,921.00	0
User Defined Recreational	64,350.00	User Defined Unit	0.00	64,350.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	33
Climate Zone	11			Operational Year	2019
Utility Company	Southern California Edison				
CO2 Intensity (lb/MW hr)	630.89	CH4 Intensity (lb/MW hr)	0.029	N2O Intensity (lb/MW hr)	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Athletic Field is under land use category of User defined recreational.

Roadways and landscape are under parking- user defined.

Construction Phase - based on equipment mix provided by the constructor

Off-road Equipment - based on equipment mix provided by the constructor

Off-road Equipment -

Off-road Equipment - based on equipment mix provided by the constructor

Off-road Equipment - based on equipment mix provided by the constructor

Off-road Equipment - based on construction plan

Off-road Equipment - based on equipment mix provided by the constructor

Off-road Equipment - based on equipment mix provided by the constructor

Off-road Equipment - based on equipment mix provided by the constructor

Off-road Equipment - based on equipment mix provided by the constructor

Off-road Equipment - based on equipment mix provided by the constructor

Trips and VMT - Overlapping phases: 1) Grading, Soil Nailing, and Shotcrete 2) Foundations/Structure, Tower/Ramp 3) Foundations/Structure, Bridge. Haul trucks assumed to travel 13 miles each way. Soil Nailing and Shotcrete trips assumed to be 6.9 miles one-way.

Grading -

Vehicle Emission Factors -

Vehicle Emission Factors -

Vehicle Emission Factors -

Energy Use - Athletic field would have 10 light poles. A conservative assumption that 10 light poles would have 6 light bulb each with each light bulb having rating of 400 W.

Construction Off-road Equipment Mitigation - Details provided by the constructor.

Table Name	Column Name	Default Value	New Value
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	5.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	5.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	11.00
tblConstEquipMitigation	Tier	No Change	Tier 3

tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstructionPhase	NumDays	230.00	195.00
tblConstructionPhase	NumDays	230.00	195.00
tblConstructionPhase	NumDays	230.00	290.00
tblConstructionPhase	NumDays	230.00	114.00
tblConstructionPhase	NumDays	230.00	82.00
tblConstructionPhase	NumDays	230.00	165.00
tblConstructionPhase	NumDays	8.00	245.00
tblConstructionPhase	NumDays	18.00	20.00
tblConstructionPhase	NumDays	5.00	20.00
tblConstructionPhase	PhaseEndDate	3/6/2018	4/12/2017
tblConstructionPhase	PhaseEndDate	1/10/2018	4/26/2017
tblConstructionPhase	PhaseEndDate	6/6/2018	7/19/2018
tblConstructionPhase	PhaseEndDate	12/26/2018	3/23/2018
tblConstructionPhase	PhaseStartDate	6/7/2017	7/14/2016
tblConstructionPhase	PhaseStartDate	4/13/2017	7/28/2016
tblConstructionPhase	PhaseStartDate	4/27/2017	6/9/2017
tblConstructionPhase	PhaseStartDate	7/20/2018	10/17/2017
tblConstructionPhase	PhaseStartDate	3/24/2018	3/26/2018
tblEnergyUse	LightingElect	0.00	3.26
tblEnergyUse	NT24E	0.00	3.26
tblEnergyUse	T24E	0.00	3.26
tblGrading	AcresOfGrading	612.50	450.00

tblGrading	MaterialExported	0.00	140,000.00
tblLandUse	LandUseSquareFeet	0.00	59,921.00
tblLandUse	LandUseSquareFeet	0.00	64,350.00
tblLandUse	LotAcreage	6.75	1.90
tblLandUse	LotAcreage	0.00	1.52
tblOffRoadEquipment	HorsePower	162.00	330.00
tblOffRoadEquipment	HorsePower	255.00	207.00
tblOffRoadEquipment	HorsePower	97.00	349.00
tblOffRoadEquipment	HorsePower	97.00	84.00
tblOffRoadEquipment	HorsePower	97.00	96.00
tblOffRoadEquipment	HorsePower	97.00	349.00
tblOffRoadEquipment	HorsePower	97.00	84.00
tblOffRoadEquipment	HorsePower	97.00	349.00
tblOffRoadEquipment	HorsePower	97.00	84.00
tblOffRoadEquipment	HorsePower	97.00	96.00
tblOffRoadEquipment	HorsePower	205.00	160.00
tblOffRoadEquipment	HorsePower	205.00	160.00
tblOffRoadEquipment	HorsePower	361.00	185.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	1.00

tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	6.00	8.00
tblOffRoadEquipment	UsageHours	6.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblProjectCharacteristics	OperationalYear	2014	2019
tblTripsAndVMT	HaulingTripLength	20.00	26.00
tblTripsAndVMT	HaulingTripNumber	17,500.00	17,640.00
tblTripsAndVMT	VendorTripLength	6.90	13.80
tblTripsAndVMT	VendorTripLength	6.90	13.80
tblTripsAndVMT	VendorTripLength	6.90	13.80
tblTripsAndVMT	VendorTripNumber	70.00	3.00
tblTripsAndVMT	VendorTripNumber	70.00	5.00
tblTripsAndVMT	VendorTripNumber	70.00	50.00
tblTripsAndVMT	VendorTripNumber	70.00	2.00
tblTripsAndVMT	VendorTripNumber	0.00	2.00
tblTripsAndVMT	VendorTripNumber	70.00	2.00
tblTripsAndVMT	VendorVehicleClass	HDT_Mix	HHDT
tblTripsAndVMT	WorkerTripNumber	23.00	30.00
tblTripsAndVMT	WorkerTripNumber	178.00	30.00
tblTripsAndVMT	WorkerTripNumber	178.00	30.00
tblTripsAndVMT	WorkerTripNumber	178.00	30.00
tblTripsAndVMT	WorkerTripNumber	178.00	30.00
tblTripsAndVMT	WorkerTripNumber	13.00	30.00
tblTripsAndVMT	WorkerTripNumber	178.00	30.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

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	lb/day										lb/day					
2016	13.8779	142.6271	90.9402	0.2003	11.8118	6.8715	18.6833	4.5274	6.5197	11.0470	0.0000	19,963.7896	19,963.7896	2.8237	0.0000	20,023.0877
2017	12.7390	130.5713	88.3498	0.2003	12.2396	6.1769	18.4165	4.6324	5.8574	10.4898	0.0000	19,686.0755	19,686.0755	2.7727	0.0000	19,744.3030
2018	6.9690	72.3725	59.4289	0.1121	1.2845	3.4406	4.7251	0.3461	3.2043	3.5504	0.0000	10,938.6078	10,938.6078	2.2232	0.0000	10,985.2947
2019	0.7886	7.6427	6.8372	0.0182	0.3478	0.3261	0.6739	0.0925	0.3000	0.3925	0.0000	1,708.8333	1,708.8333	0.4459	0.0000	1,718.1970
Total	34.3745	353.2135	245.5560	0.5309	25.6836	16.8151	42.4987	9.5983	15.8813	25.4797	0.0000	52,297.3063	52,297.3063	8.2655	0.0000	52,470.8823

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	lb/day										lb/day					
2016	3.8497	51.7129	93.1806	0.2003	6.9107	0.7413	7.6520	2.3739	0.7077	3.0815	0.0000	19,963.7896	19,963.7896	2.8237	0.0000	20,023.0876
2017	3.7126	49.3438	91.9022	0.2003	7.3385	0.7050	8.0435	2.4789	0.6744	3.1533	0.0000	19,686.0755	19,686.0755	2.7727	0.0000	19,744.3030
2018	2.4025	22.8362	61.6008	0.1121	1.2845	0.5982	1.8827	0.3461	0.5630	0.9091	0.0000	10,938.6078	10,938.6078	2.2232	0.0000	10,985.2947
2019	0.2874	1.0135	8.7179	0.0182	0.3478	0.0277	0.3755	0.0925	0.0273	0.1198	0.0000	1,708.8333	1,708.8333	0.4459	0.0000	1,718.1970
Total	10.2521	124.9063	255.4015	0.5309	15.8815	2.0721	17.9536	5.2913	1.9724	7.2637	0.0000	52,297.3062	52,297.3062	8.2655	0.0000	52,470.8823

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
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Percent Reduction	70.18	64.64	-4.01	0.00	38.17	87.68	57.75	44.87	87.58	71.49	0.00	0.00	0.00	0.00	0.00	0.00
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2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	11.7305	0.0624	6.7116	5.0000e-004		0.0241	0.0241		0.0241	0.0241		14.2473	14.2473	0.0386		15.0581
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
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
Total	11.7305	0.0624	6.7116	5.0000e-004	0.0000	0.0241	0.0241	0.0000	0.0241	0.0241		14.2473	14.2473	0.0386	0.0000	15.0581

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	lb/day										lb/day					
Area	11.7305	0.0624	6.7116	5.0000e-004		0.0241	0.0241		0.0241	0.0241		14.2473	14.2473	0.0386		15.0581
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
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
Total	11.7305	0.0624	6.7116	5.0000e-004	0.0000	0.0241	0.0241	0.0000	0.0241	0.0241		14.2473	14.2473	0.0386	0.0000	15.0581

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

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	6/1/2016	6/28/2016	5	20	
2	Grading	Grading	6/29/2016	6/6/2017	5	245	
3	Soil Nailing	Building Construction	7/14/2016	4/12/2017	5	195	
4	Shotcrete	Building Construction	7/28/2016	4/26/2017	5	195	
5	Foundation/Structure	Building Construction	6/9/2017	7/19/2018	5	290	
6	Tower/Ramp	Building Construction	10/17/2017	3/23/2018	5	114	
7	Bridge	Building Construction	3/26/2018	7/17/2018	5	82	
8	Streetwork	Paving	7/18/2018	8/14/2018	5	20	
9	Sitework	Building Construction	8/15/2018	4/2/2019	5	165	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 450

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
Site Preparation	Rubber Tired Dozers	1	8.00	255	0.40
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Grading	Excavators	1	8.00	330	0.38
Grading	Graders	1	8.00	174	0.41
Grading	Rubber Tired Dozers	1	8.00	207	0.40
Grading	Scrapers	2	8.00	185	0.48

Grading	Tractors/Loaders/Backhoes	1	8.00	349	0.37
Grading	Tractors/Loaders/Backhoes	1	8.00	84	0.37
Grading	Tractors/Loaders/Backhoes	2	8.00	96	0.37
Soil Nailing	Air Compressors	2	8.00	78	0.48
Soil Nailing	Bore/Drill Rigs	2	8.00	160	0.50
Soil Nailing	Pumps	2	8.00	84	0.74
Shotcrete	Air Compressors	2	8.00	78	0.48
Shotcrete	Pumps	2	8.00	84	0.74
Foundation/Structure	Air Compressors	1	8.00	78	0.48
Foundation/Structure	Bore/Drill Rigs	1	8.00	160	0.50
Foundation/Structure	Other Construction Equipment	1	8.00	171	0.42
Foundation/Structure	Other Construction Equipment	1	8.00	171	0.42
Foundation/Structure	Pumps	1	8.00	84	0.74
Foundation/Structure	Tractors/Loaders/Backhoes	1	8.00	349	0.37
Foundation/Structure	Tractors/Loaders/Backhoes	2	8.00	84	0.37
Foundation/Structure	Tractors/Loaders/Backhoes	1	8.00	96	0.37
Bridge	Cranes	1	8.00	226	0.29
Streetwork	Graders	1	8.00	174	0.41
Streetwork	Paving Equipment	1	8.00	130	0.36
Streetwork	Plate Compactors	1	8.00	8	0.43
Streetwork	Rollers	1	8.00	80	0.38
Streetwork	Scrapers	1	8.00	361	0.48
Sitework	Tractors/Loaders/Backhoes	1	8.00	349	0.37
Sitework	Tractors/Loaders/Backhoes	1	8.00	84	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
Site Preparation	2	5.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	9	30.00	0.00	17,640.00	14.70	6.90	26.00	LD_Mix	HDT_Mix	HHDT

Soil Nailing	6	30.00	3.00	0.00	14.70	13.80	20.00	LD_Mix	HDT_Mix	HHDT
Shotcrete	4	30.00	5.00	0.00	14.70	13.80	20.00	LD_Mix	HDT_Mix	HHDT
Foundation/Structure	9	30.00	50.00	0.00	14.70	13.80	20.00	LD_Mix	HHDT	HHDT
Tower/Ramp	0			0.00	14.70	6.90				
Bridge	1	30.00	2.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Streetwork	5	30.00	2.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Sitework	2	30.00	2.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Use DPF for Construction Equipment

Water Exposed Area

Clean Paved Roads

3.2 Site Preparation - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.0221	0.0000	6.0221	3.3102	0.0000	3.3102			0.0000			0.0000
Off-Road	1.5788	17.1258	12.8976	0.0120		0.8960	0.8960		0.8243	0.8243		1,247.1093	1,247.1093	0.3762		1,255.0089
Total	1.5788	17.1258	12.8976	0.0120	6.0221	0.8960	6.9181	3.3102	0.8243	4.1346		1,247.1093	1,247.1093	0.3762		1,255.0089

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	lb/day										lb/day					
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
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
Worker	0.0232	0.0311	0.3257	6.9000e-004	0.0559	5.3000e-004	0.0564	0.0148	4.9000e-004	0.0153		58.0016	58.0016	3.3500e-003		58.0718
Total	0.0232	0.0311	0.3257	6.9000e-004	0.0559	5.3000e-004	0.0564	0.0148	4.9000e-004	0.0153		58.0016	58.0016	3.3500e-003		58.0718

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	lb/day										lb/day					
Fugitive Dust					2.3486	0.0000	2.3486	1.2910	0.0000	1.2910			0.0000			0.0000
Off-Road	0.1459	0.6323	6.2998	0.0120		0.0195	0.0195		0.0195	0.0195	0.0000	1,247.1093	1,247.1093	0.3762		1,255.0089
Total	0.1459	0.6323	6.2998	0.0120	2.3486	0.0195	2.3681	1.2910	0.0195	1.3105	0.0000	1,247.1093	1,247.1093	0.3762		1,255.0089

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	lb/day										lb/day					
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

Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0232	0.0311	0.3257	6.9000e-004	0.0559	5.3000e-004	0.0564	0.0148	4.9000e-004	0.0153	58.0016	58.0016	3.3500e-003	58.0718		
Total	0.0232	0.0311	0.3257	6.9000e-004	0.0559	5.3000e-004	0.0564	0.0148	4.9000e-004	0.0153	58.0016	58.0016	3.3500e-003	58.0718		

3.3 Grading - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.0346	0.0000	8.0346	3.5303	0.0000	3.5303			0.0000			0.0000
Off-Road	6.3232	71.5648	31.4699	0.0592		3.5217	3.5217		3.2399	3.2399		6,153.6608	6,153.6608	1.8562		6,192.6402
Total	6.3232	71.5648	31.4699	0.0592	8.0346	3.5217	11.5562	3.5303	3.2399	6.7703		6,153.6608	6,153.6608	1.8562		6,192.6402

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	lb/day										lb/day					
Hauling	1.5918	26.7292	18.3961	0.0694	2.6716	0.3882	3.0598	0.7019	0.3571	1.0590		6,993.1151	6,993.1151	0.0515		6,994.1966
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
Worker	0.1390	0.1865	1.9541	4.1100e-003	0.3353	3.1700e-003	0.3385	0.0889	2.9100e-003	0.0919		348.0093	348.0093	0.0201		348.4308
Total	1.7308	26.9157	20.3502	0.0735	3.0070	0.3913	3.3983	0.7908	0.3600	1.1508		7,341.1244	7,341.1244	0.0716		7,342.6274

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	lb/day										lb/day					
Fugitive Dust					3.1335	0.0000	3.1335	1.3768	0.0000	1.3768			0.0000			0.0000
Off-Road	0.7285	3.1567	31.2994	0.0592		0.0971	0.0971		0.0971	0.0971	0.0000	6,153.6608	6,153.6608	1.8562		6,192.6402
Total	0.7285	3.1567	31.2994	0.0592	3.1335	0.0971	3.2306	1.3768	0.0971	1.4740	0.0000	6,153.6608	6,153.6608	1.8562		6,192.6402

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	lb/day										lb/day					
Hauling	1.5918	26.7292	18.3961	0.0694	2.6716	0.3882	3.0598	0.7019	0.3571	1.0590		6,993.1151	6,993.1151	0.0515		6,994.1966
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
Worker	0.1390	0.1865	1.9541	4.1100e-003	0.3353	3.1700e-003	0.3385	0.0889	2.9100e-003	0.0919		348.0093	348.0093	0.0201		348.4308
Total	1.7308	26.9157	20.3502	0.0735	3.0070	0.3913	3.3983	0.7908	0.3600	1.1508		7,341.1244	7,341.1244	0.0716		7,342.6274

3.3 Grading - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
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Category	lb/day										lb/day				
Fugitive Dust					8.0346	0.0000	8.0346	3.5303	0.0000	3.5303			0.0000		0.0000
Off-Road	5.9108	66.1724	30.4275	0.0592		3.2405	3.2405		2.9812	2.9812		6,055.5587	6,055.5587	1.8554	6,094.5224
Total	5.9108	66.1724	30.4275	0.0592	8.0346	3.2405	11.2750	3.5303	2.9812	6.5116		6,055.5587	6,055.5587	1.8554	6,094.5224

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	lb/day										lb/day					
Hauling	1.5060	24.5333	17.7556	0.0693	3.0994	0.3546	3.4540	0.8069	0.3262	1.1332		6,879.6402	6,879.6402	0.0505		6,880.7002
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
Worker	0.1247	0.1687	1.7633	4.1100e-003	0.3353	3.0400e-003	0.3384	0.0889	2.8000e-003	0.0917		334.9606	334.9606	0.0186		335.3502
Total	1.6306	24.7019	19.5189	0.0734	3.4347	0.3577	3.7924	0.8959	0.3290	1.2249		7,214.6008	7,214.6008	0.0690		7,216.0503

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	lb/day										lb/day					
Fugitive Dust					3.1335	0.0000	3.1335	1.3768	0.0000	1.3768			0.0000			0.0000
Off-Road	0.7285	3.1567	31.2994	0.0592		0.0971	0.0971		0.0971	0.0971	0.0000	6,055.5587	6,055.5587	1.8554		6,094.5224

Total	0.7285	3.1567	31.2994	0.0592	3.1335	0.0971	3.2306	1.3768	0.0971	1.4740	0.0000	6,055.5587	6,055.5587	1.8554		6,094.5224
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Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	1.5060	24.5333	17.7556	0.0693	3.0994	0.3546	3.4540	0.8069	0.3262	1.1332		6,879.6402	6,879.6402	0.0505		6,880.7002
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
Worker	0.1247	0.1687	1.7633	4.1100e-003	0.3353	3.0400e-003	0.3384	0.0889	2.8000e-003	0.0917		334.9606	334.9606	0.0186		335.3502
Total	1.6306	24.7019	19.5189	0.0734	3.4347	0.3577	3.7924	0.8959	0.3290	1.2249		7,214.6008	7,214.6008	0.0690		7,216.0503

3.4 Soil Nailing - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.1260	26.3481	21.2801	0.0350		1.6938	1.6938		1.6572	1.6572		3,439.8178	3,439.8178	0.6444		3,453.3503
Total	3.1260	26.3481	21.2801	0.0350		1.6938	1.6938		1.6572	1.6572		3,439.8178	3,439.8178	0.6444		3,453.3503

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	lb/day										lb/day					
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
Vendor	0.0374	0.4804	0.4438	1.2600e-003	0.0374	8.0800e-003	0.0454	0.0106	7.4300e-003	0.0181		126.2140	126.2140	8.8000e-004		126.2326
Worker	0.1390	0.1865	1.9541	4.1100e-003	0.3353	3.1700e-003	0.3385	0.0889	2.9100e-003	0.0919		348.0093	348.0093	0.0201		348.4308
Total	0.1764	0.6669	2.3979	5.3700e-003	0.3727	0.0113	0.3839	0.0996	0.0103	0.1099		474.2234	474.2234	0.0210		474.6634

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	lb/day										lb/day					
Off-Road	0.5909	10.3601	23.4403	0.0350		0.1238	0.1238		0.1238	0.1238	0.0000	3,439.8178	3,439.8178	0.6444		3,453.3503
Total	0.5909	10.3601	23.4403	0.0350		0.1238	0.1238		0.1238	0.1238	0.0000	3,439.8178	3,439.8178	0.6444		3,453.3503

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	lb/day										lb/day					

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	0.0374	0.4804	0.4438	1.2600e-003	0.0374	8.0800e-003	0.0454	0.0106	7.4300e-003	0.0181		126.2140	126.2140	8.8000e-004	126.2326
Worker	0.1390	0.1865	1.9541	4.1100e-003	0.3353	3.1700e-003	0.3385	0.0889	2.9100e-003	0.0919		348.0093	348.0093	0.0201	348.4308
Total	0.1764	0.6669	2.3979	5.3700e-003	0.3727	0.0113	0.3839	0.0996	0.0103	0.1099		474.2234	474.2234	0.0210	474.6634

3.4 Soil Nailing - 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	lb/day										lb/day					
Off-Road	2.7732	23.3073	21.1142	0.0350		1.4620	1.4620		1.4323	1.4323		3,418.1954	3,418.1954	0.6223		3,431.2627
Total	2.7732	23.3073	21.1142	0.0350		1.4620	1.4620		1.4323	1.4323		3,418.1954	3,418.1954	0.6223		3,431.2627

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	lb/day										lb/day					
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
Vendor	0.0344	0.4355	0.4192	1.2600e-003	0.0374	7.2000e-003	0.0446	0.0106	6.6200e-003	0.0173		124.2008	124.2008	8.5000e-004		124.2186
Worker	0.1247	0.1687	1.7633	4.1100e-003	0.3353	3.0400e-003	0.3384	0.0889	2.8000e-003	0.0917		334.9606	334.9606	0.0186		335.3502
Total	0.1590	0.6042	2.1825	5.3700e-003	0.3727	0.0102	0.3829	0.0996	9.4200e-003	0.1090		459.1614	459.1614	0.0194		459.5688

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	lb/day										lb/day					
Off-Road	0.5909	10.3601	23.4403	0.0350		0.1238	0.1238		0.1238	0.1238	0.0000	3,418.1954	3,418.1954	0.6223		3,431.2627
Total	0.5909	10.3601	23.4403	0.0350		0.1238	0.1238		0.1238	0.1238	0.0000	3,418.1954	3,418.1954	0.6223		3,431.2627

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	lb/day										lb/day					
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
Vendor	0.0344	0.4355	0.4192	1.2600e-003	0.0374	7.2000e-003	0.0446	0.0106	6.6200e-003	0.0173		124.2008	124.2008	8.5000e-004		124.2186
Worker	0.1247	0.1687	1.7633	4.1100e-003	0.3353	3.0400e-003	0.3384	0.0889	2.8000e-003	0.0917		334.9606	334.9606	0.0186		335.3502
Total	0.1590	0.6042	2.1825	5.3700e-003	0.3727	0.0102	0.3829	0.0996	9.4200e-003	0.1090		459.1614	459.1614	0.0194		459.5688

3.5 Shotcrete - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.3201	16.1445	12.7484	0.0211		1.2369	1.2369		1.2369	1.2369		1,996.5973	1,996.5973	0.2091		2,000.9879
Total	2.3201	16.1445	12.7484	0.0211		1.2369	1.2369		1.2369	1.2369		1,996.5973	1,996.5973	0.2091		2,000.9879

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	lb/day										lb/day					
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
Vendor	0.0624	0.8006	0.7396	2.0900e-003	0.0622	0.0135	0.0757	0.0177	0.0124	0.0301		210.3567	210.3567	1.4700e-003		210.3876
Worker	0.1390	0.1865	1.9541	4.1100e-003	0.3353	3.1700e-003	0.3385	0.0889	2.9100e-003	0.0919		348.0093	348.0093	0.0201		348.4308
Total	0.2014	0.9871	2.6937	6.2000e-003	0.3976	0.0166	0.4142	0.1066	0.0153	0.1219		558.3660	558.3660	0.0215		558.8184

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	lb/day										lb/day					
Off-Road	0.4216	9.6264	12.9992	0.0211		0.1012	0.1012		0.1012	0.1012	0.0000	1,996.5973	1,996.5973	0.2091		2,000.9879

Total	0.4216	9.6264	12.9992	0.0211		0.1012	0.1012		0.1012	0.1012	0.0000	1,996.5973	1,996.5973	0.2091		2,000.9879
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Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
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
Vendor	0.0624	0.8006	0.7396	2.0900e-003	0.0622	0.0135	0.0757	0.0177	0.0124	0.0301		210.3567	210.3567	1.4700e-003		210.3876
Worker	0.1390	0.1865	1.9541	4.1100e-003	0.3353	3.1700e-003	0.3385	0.0889	2.9100e-003	0.0919		348.0093	348.0093	0.0201		348.4308
Total	0.2014	0.9871	2.6937	6.2000e-003	0.3976	0.0166	0.4142	0.1066	0.0153	0.1219		558.3660	558.3660	0.0215		558.8184

3.5 Shotcrete - 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	lb/day										lb/day					
Off-Road	2.0833	14.8911	12.6448	0.0211		1.0915	1.0915		1.0915	1.0915		1,996.5973	1,996.5973	0.1867		2,000.5175
Total	2.0833	14.8911	12.6448	0.0211		1.0915	1.0915		1.0915	1.0915		1,996.5973	1,996.5973	0.1867		2,000.5175

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	lb/day										lb/day					
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
Vendor	0.0573	0.7259	0.6986	2.0900e-003	0.0623	0.0120	0.0743	0.0177	0.0110	0.0288		207.0013	207.0013	1.4200e-003		207.0310
Worker	0.1247	0.1687	1.7633	4.1100e-003	0.3353	3.0400e-003	0.3384	0.0889	2.8000e-003	0.0917		334.9606	334.9606	0.0186		335.3502
Total	0.1820	0.8945	2.4619	6.2000e-003	0.3976	0.0150	0.4126	0.1066	0.0138	0.1205		541.9619	541.9619	0.0200		542.3812

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	lb/day										lb/day					
Off-Road	0.4216	9.6264	12.9992	0.0211		0.1012	0.1012		0.1012	0.1012	0.0000	1,996.5973	1,996.5973	0.1867		2,000.5175
Total	0.4216	9.6264	12.9992	0.0211		0.1012	0.1012		0.1012	0.1012	0.0000	1,996.5973	1,996.5973	0.1867		2,000.5175

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	lb/day										lb/day					

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	0.0573	0.7259	0.6986	2.0900e-003	0.0623	0.0120	0.0743	0.0177	0.0110	0.0288	207.0013	207.0013	1.4200e-003	207.0310	
Worker	0.1247	0.1687	1.7633	4.1100e-003	0.3353	3.0400e-003	0.3384	0.0889	2.8000e-003	0.0917	334.9606	334.9606	0.0186	335.3502	
Total	0.1820	0.8945	2.4619	6.2000e-003	0.3976	0.0150	0.4126	0.1066	0.0138	0.1205	541.9619	541.9619	0.0200	542.3812	

3.6 Foundation/Structure - 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	lb/day										lb/day					
Off-Road	4.1360	41.8050	29.4873	0.0493		2.3673	2.3673		2.2216	2.2216		4,963.8396	4,963.8396	1.3084		4,991.3155
Total	4.1360	41.8050	29.4873	0.0493		2.3673	2.3673		2.2216	2.2216		4,963.8396	4,963.8396	1.3084		4,991.3155

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	lb/day										lb/day					
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
Vendor	0.7040	9.4905	9.8745	0.0260	0.6012	0.1319	0.7331	0.1647	0.1213	0.2860		2,573.5712	2,573.5712	0.0200		2,573.9910
Worker	0.1247	0.1687	1.7633	4.1100e-003	0.3353	3.0400e-003	0.3384	0.0889	2.8000e-003	0.0917		334.9606	334.9606	0.0186		335.3502
Total	0.8286	9.6591	11.6378	0.0301	0.9366	0.1349	1.0715	0.2536	0.1241	0.3777		2,908.5318	2,908.5318	0.0385		2,909.3412

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	lb/day										lb/day					
Off-Road	0.6875	6.8788	32.4783	0.0493		0.1142	0.1142		0.1142	0.1142	0.0000	4,963.8396	4,963.8396	1.3084		4,991.3155
Total	0.6875	6.8788	32.4783	0.0493		0.1142	0.1142		0.1142	0.1142	0.0000	4,963.8396	4,963.8396	1.3084		4,991.3155

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	lb/day										lb/day					
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
Vendor	0.7040	9.4905	9.8745	0.0260	0.6012	0.1319	0.7331	0.1647	0.1213	0.2860		2,573.5712	2,573.5712	0.0200		2,573.9910
Worker	0.1247	0.1687	1.7633	4.1100e-003	0.3353	3.0400e-003	0.3384	0.0889	2.8000e-003	0.0917		334.9606	334.9606	0.0186		335.3502
Total	0.8286	9.6591	11.6378	0.0301	0.9366	0.1349	1.0715	0.2536	0.1241	0.3777		2,908.5318	2,908.5318	0.0385		2,909.3412

3.6 Foundation/Structure - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.5526	35.4556	28.3748	0.0492		1.9738	1.9738		1.8540	1.8540		4,891.8621	4,891.8621	1.2949		4,919.0554
Total	3.5526	35.4556	28.3748	0.0492		1.9738	1.9738		1.8540	1.8540		4,891.8621	4,891.8621	1.2949		4,919.0554

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	lb/day										lb/day					
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
Vendor	0.6842	8.8279	9.6835	0.0260	0.6013	0.1318	0.7331	0.1647	0.1212	0.2859		2,531.2617	2,531.2617	0.0203		2,531.6878
Worker	0.1120	0.1531	1.5953	4.1100e-003	0.3353	2.9400e-003	0.3383	0.0889	2.7200e-003	0.0917		322.6775	322.6775	0.0172		323.0394
Total	0.7962	8.9810	11.2788	0.0301	0.9367	0.1347	1.0714	0.2536	0.1239	0.3776		2,853.9393	2,853.9393	0.0375		2,854.7271

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	lb/day										lb/day					
Off-Road	0.6875	6.8788	32.4783	0.0492		0.1142	0.1142		0.1142	0.1142	0.0000	4,891.8621	4,891.8621	1.2949		4,919.0554

Total	0.6875	6.8788	32.4783	0.0492		0.1142	0.1142		0.1142	0.1142	0.0000	4,891.8621	4,891.8621	1.2949		4,919.0554
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Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
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
Vendor	0.6842	8.8279	9.6835	0.0260	0.6013	0.1318	0.7331	0.1647	0.1212	0.2859		2,531.2617	2,531.2617	0.0203		2,531.6878
Worker	0.1120	0.1531	1.5953	4.1100e-003	0.3353	2.9400e-003	0.3383	0.0889	2.7200e-003	0.0917		322.6775	322.6775	0.0172		323.0394
Total	0.7962	8.9810	11.2788	0.0301	0.9367	0.1347	1.0714	0.2536	0.1239	0.3776		2,853.9393	2,853.9393	0.0375		2,854.7271

3.7 Tower/Ramp - 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	lb/day										lb/day					
Hauling					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
Worker					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Total					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000

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	lb/day										lb/day					
Hauling					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
Worker					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Total					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000

3.7 Tower/Ramp - 2018

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	lb/day										lb/day					
Hauling					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
Worker					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Total					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000

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	lb/day										lb/day					
Hauling					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
Worker					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Total					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000

3.8 Bridge - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.5584	6.6732	2.4673	5.6400e-003		0.2888	0.2888		0.2657	0.2657		568.0309	568.0309	0.1768		571.7444
Total	0.5584	6.6732	2.4673	5.6400e-003		0.2888	0.2888		0.2657	0.2657		568.0309	568.0309	0.1768		571.7444

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	lb/day										lb/day					
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

Vendor	0.0159	0.1502	0.2258	4.4000e-004	0.0125	2.3200e-003	0.0148	3.5500e-003	2.1300e-003	5.6800e-003		42.2696	42.2696	3.2000e-004		42.2763
Worker	0.1120	0.1531	1.5953	4.1100e-003	0.3353	2.9400e-003	0.3383	0.0889	2.7200e-003	0.0917		322.6775	322.6775	0.0172		323.0394
Total	0.1278	0.3033	1.8211	4.5500e-003	0.3478	5.2600e-003	0.3531	0.0925	4.8500e-003	0.0973		364.9471	364.9471	0.0176		365.3157

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	lb/day										lb/day					
Off-Road	0.5584	6.6732	2.4673	5.6400e-003		0.2888	0.2888		0.2657	0.2657	0.0000	568.0309	568.0309	0.1768		571.7444
Total	0.5584	6.6732	2.4673	5.6400e-003		0.2888	0.2888		0.2657	0.2657	0.0000	568.0309	568.0309	0.1768		571.7444

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	lb/day										lb/day					
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
Vendor	0.0159	0.1502	0.2258	4.4000e-004	0.0125	2.3200e-003	0.0148	3.5500e-003	2.1300e-003	5.6800e-003		42.2696	42.2696	3.2000e-004		42.2763
Worker	0.1120	0.1531	1.5953	4.1100e-003	0.3353	2.9400e-003	0.3383	0.0889	2.7200e-003	0.0917		322.6775	322.6775	0.0172		323.0394
Total	0.1278	0.3033	1.8211	4.5500e-003	0.3478	5.2600e-003	0.3531	0.0925	4.8500e-003	0.0973		364.9471	364.9471	0.0176		365.3157

3.9 Streetwork - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.4925	27.6327	17.9542	0.0282		1.3269	1.3269		1.2215	1.2215		2,827.8594	2,827.8594	0.8732		2,846.1965
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	2.4925	27.6327	17.9542	0.0282		1.3269	1.3269		1.2215	1.2215		2,827.8594	2,827.8594	0.8732		2,846.1965

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	lb/day										lb/day					
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
Vendor	0.0159	0.1502	0.2258	4.4000e-004	0.0125	2.3200e-003	0.0148	3.5500e-003	2.1300e-003	5.6800e-003		42.2696	42.2696	3.2000e-004		42.2763
Worker	0.1120	0.1531	1.5953	4.1100e-003	0.3353	2.9400e-003	0.3383	0.0889	2.7200e-003	0.0917		322.6775	322.6775	0.0172		323.0394
Total	0.1278	0.3033	1.8211	4.5500e-003	0.3478	5.2600e-003	0.3531	0.0925	4.8500e-003	0.0973		364.9471	364.9471	0.0176		365.3157

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
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Category	lb/day										lb/day					
Off-Road	0.7910	6.4847	16.0226	0.0282		0.3441	0.3441		0.3201	0.3201	0.0000	2,827.8594	2,827.8594	0.8732		2,846.1965
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	0.7910	6.4847	16.0226	0.0282		0.3441	0.3441		0.3201	0.3201	0.0000	2,827.8594	2,827.8594	0.8732		2,846.1965

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	lb/day										lb/day					
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
Vendor	0.0159	0.1502	0.2258	4.4000e-004	0.0125	2.3200e-003	0.0148	3.5500e-003	2.1300e-003	5.6800e-003		42.2696	42.2696	3.2000e-004		42.2763
Worker	0.1120	0.1531	1.5953	4.1100e-003	0.3353	2.9400e-003	0.3383	0.0889	2.7200e-003	0.0917		322.6775	322.6775	0.0172		323.0394
Total	0.1278	0.3033	1.8211	4.5500e-003	0.3478	5.2600e-003	0.3531	0.0925	4.8500e-003	0.0973		364.9471	364.9471	0.0176		365.3157

3.10 Sitework - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.7365	8.3553	5.3155	0.0137		0.3713	0.3713		0.3416	0.3416		1,378.3741	1,378.3741	0.4291		1,387.3854
Total	0.7365	8.3553	5.3155	0.0137		0.3713	0.3713		0.3416	0.3416		1,378.3741	1,378.3741	0.4291		1,387.3854

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	lb/day										lb/day						
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
Vendor	0.0159	0.1502	0.2258	4.4000e-004	0.0125	2.3200e-003	0.0148	3.5500e-003	2.1300e-003	5.6800e-003		42.2696	42.2696	3.2000e-004			42.2763
Worker	0.1120	0.1531	1.5953	4.1100e-003	0.3353	2.9400e-003	0.3383	0.0889	2.7200e-003	0.0917		322.6775	322.6775	0.0172			323.0394
Total	0.1278	0.3033	1.8211	4.5500e-003	0.3478	5.2600e-003	0.3531	0.0925	4.8500e-003	0.0973		364.9471	364.9471	0.0176			365.3157

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	lb/day										lb/day						
Off-Road	0.1695	0.7347	7.0386	0.0137		0.0226	0.0226		0.0226	0.0226	0.0000	1,378.3741	1,378.3741	0.4291			1,387.3854
Total	0.1695	0.7347	7.0386	0.0137		0.0226	0.0226		0.0226	0.0226	0.0000	1,378.3741	1,378.3741	0.4291			1,387.3854

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	lb/day										lb/day					
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
Vendor	0.0159	0.1502	0.2258	4.4000e-004	0.0125	2.3200e-003	0.0148	3.5500e-003	2.1300e-003	5.6800e-003		42.2696	42.2696	3.2000e-004		42.2763
Worker	0.1120	0.1531	1.5953	4.1100e-003	0.3353	2.9400e-003	0.3383	0.0889	2.7200e-003	0.0917		322.6775	322.6775	0.0172		323.0394
Total	0.1278	0.3033	1.8211	4.5500e-003	0.3478	5.2600e-003	0.3531	0.0925	4.8500e-003	0.0973		364.9471	364.9471	0.0176		365.3157

3.10 Sitework - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.6708	7.3638	5.1579	0.0137		0.3210	0.3210		0.2953	0.2953		1,357.4181	1,357.4181	0.4295		1,366.4370
Total	0.6708	7.3638	5.1579	0.0137		0.3210	0.3210		0.2953	0.2953		1,357.4181	1,357.4181	0.4295		1,366.4370

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	lb/day										lb/day					

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	0.0150	0.1385	0.2187	4.3000e-004	0.0125	2.2000e-003	0.0147	3.5500e-003	2.0300e-003	5.5800e-003		41.4007	41.4007	3.1000e-004		41.4073
Worker	0.1028	0.1403	1.4606	4.0900e-003	0.3353	2.8700e-003	0.3382	0.0889	2.6600e-003	0.0916		310.0145	310.0145	0.0161		310.3527
Total	0.1178	0.2789	1.6793	4.5200e-003	0.3478	5.0700e-003	0.3529	0.0925	4.6900e-003	0.0972		351.4153	351.4153	0.0164		351.7601

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	lb/day										lb/day					
Off-Road	0.1695	0.7347	7.0386	0.0137		0.0226	0.0226		0.0226	0.0226	0.0000	1,357.4181	1,357.4181	0.4295		1,366.4370
Total	0.1695	0.7347	7.0386	0.0137		0.0226	0.0226		0.0226	0.0226	0.0000	1,357.4181	1,357.4181	0.4295		1,366.4370

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	lb/day										lb/day					
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
Vendor	0.0150	0.1385	0.2187	4.3000e-004	0.0125	2.2000e-003	0.0147	3.5500e-003	2.0300e-003	5.5800e-003		41.4007	41.4007	3.1000e-004		41.4073
Worker	0.1028	0.1403	1.4606	4.0900e-003	0.3353	2.8700e-003	0.3382	0.0889	2.6600e-003	0.0916		310.0145	310.0145	0.0161		310.3527
Total	0.1178	0.2789	1.6793	4.5200e-003	0.3478	5.0700e-003	0.3529	0.0925	4.6900e-003	0.0972		351.4153	351.4153	0.0164		351.7601

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Enclosed Parking with Elevator	0.00	0.00	0.00		
User Defined Parking	0.00	0.00	0.00		
User Defined Recreational	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-	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Enclosed Parking with Elevator	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
User Defined Parking	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
User Defined Recreational	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.530902	0.057841	0.178699	0.124790	0.039063	0.006298	0.016951	0.033908	0.002496	0.003149	0.003689	0.000536	0.001678

5.0 Energy Detail

4.4 Fleet Mix

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Unmitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

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	lb/day										lb/day					
User Defined Parking	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
User Defined Recreational	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
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

Mitigated

	Natural Gas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
User Defined Parking	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
User Defined Recreational	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
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	11.7305	0.0624	6.7116	5.0000e-004		0.0241	0.0241		0.0241	0.0241		14.2473	14.2473	0.0386		15.0581
Unmitigated	11.7305	0.0624	6.7116	5.0000e-004		0.0241	0.0241		0.0241	0.0241		14.2473	14.2473	0.0386		15.0581

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	lb/day										lb/day					
Architectural Coating	2.6938					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	8.4006					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	0.6361	0.0624	6.7116	5.0000e-004		0.0241	0.0241		0.0241	0.0241			14.2473	14.2473	0.0386	15.0581
Total	11.7305	0.0624	6.7116	5.0000e-004		0.0241	0.0241		0.0241	0.0241			14.2473	14.2473	0.0386	15.0581

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	lb/day										lb/day					
Architectural Coating	2.6938					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	8.4006					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	0.6361	0.0624	6.7116	5.0000e-004		0.0241	0.0241		0.0241	0.0241			14.2473	14.2473	0.0386	15.0581
Total	11.7305	0.0624	6.7116	5.0000e-004		0.0241	0.0241		0.0241	0.0241			14.2473	14.2473	0.0386	15.0581

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

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

Annual - Unmitigated

Harvard Westlake Parking Structure Los Angeles-South Coast County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Enclosed Parking with Elevator	750.00	Space	1.90	300,000.00	0
User Defined Parking	0.00	User Defined Unit	1.52	59,921.00	0
User Defined Recreational	64,350.00	User Defined Unit	0.00	64,350.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	33
Climate Zone	11			Operational Year	2019
Utility Company	Southern California Edison				
CO2 Intensity (lb/MW hr)	630.89	CH4 Intensity (lb/MW hr)	0.029	N2O Intensity (lb/MW hr)	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Athletic Field is under land use category of User defined recreational.

Roadways and landscape are under parking- user defined.

Construction Phase - based on equipment mix provided by the constructor

Off-road Equipment - based on equipment mix provided by the constructor

Off-road Equipment -

Off-road Equipment - based on equipment mix provided by the constructor

Off-road Equipment - based on equipment mix provided by the constructor

Off-road Equipment - based on construction plan

Off-road Equipment - based on equipment mix provided by the constructor

Off-road Equipment - based on equipment mix provided by the constructor

Off-road Equipment - based on equipment mix provided by the constructor

Off-road Equipment - based on equipment mix provided by the constructor

Off-road Equipment - based on equipment mix provided by the constructor

Trips and VMT - Overlapping phases: 1) Grading, Soil Nailing, and Shotcrete 2) Foundations/Structure, Tower/Ramp 3) Foundations/Structure, Bridge.
Haul trucks assumed to travel 13 miles each way. Soil Nailing and Shotcrete trips assumed to be 6.9 miles one-way.

Grading -

Vehicle Emission Factors -

Vehicle Emission Factors -

Vehicle Emission Factors -

Energy Use - Athletic field would have 10 light poles. A conservative assumption that 10 light poles would have 6 light bulb each with each light bulb having rating of 400 W.

Construction Off-road Equipment Mitigation - Details provided by the constructor.

Table Name	Column Name	Default Value	New Value
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	5.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	5.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	11.00
tblConstructionPhase	NumDays	230.00	195.00
tblConstructionPhase	NumDays	230.00	195.00
tblConstructionPhase	NumDays	230.00	290.00

tblConstructionPhase	NumDays	230.00	114.00
tblConstructionPhase	NumDays	230.00	82.00
tblConstructionPhase	NumDays	230.00	165.00
tblConstructionPhase	NumDays	8.00	245.00
tblConstructionPhase	NumDays	18.00	20.00
tblConstructionPhase	NumDays	5.00	20.00
tblConstructionPhase	PhaseEndDate	3/6/2018	4/12/2017
tblConstructionPhase	PhaseEndDate	1/10/2018	4/26/2017
tblConstructionPhase	PhaseEndDate	6/6/2018	7/19/2018
tblConstructionPhase	PhaseEndDate	12/26/2018	3/23/2018
tblConstructionPhase	PhaseStartDate	6/7/2017	7/14/2016
tblConstructionPhase	PhaseStartDate	4/13/2017	7/28/2016
tblConstructionPhase	PhaseStartDate	4/27/2017	6/9/2017
tblConstructionPhase	PhaseStartDate	7/20/2018	10/17/2017
tblConstructionPhase	PhaseStartDate	3/24/2018	3/26/2018
tblEnergyUse	LightingElect	0.00	3.26
tblEnergyUse	NT24E	0.00	3.26
tblEnergyUse	T24E	0.00	3.26
tblGrading	AcresOfGrading	612.50	450.00
tblGrading	MaterialExported	0.00	140,000.00
tblLandUse	LandUseSquareFeet	0.00	59,921.00
tblLandUse	LandUseSquareFeet	0.00	64,350.00
tblLandUse	LotAcreage	6.75	1.90
tblLandUse	LotAcreage	0.00	1.52
tblOffRoadEquipment	HorsePower	162.00	330.00
tblOffRoadEquipment	HorsePower	255.00	207.00
tblOffRoadEquipment	HorsePower	97.00	349.00
tblOffRoadEquipment	HorsePower	97.00	84.00
tblOffRoadEquipment	HorsePower	97.00	96.00
tblOffRoadEquipment	HorsePower	97.00	349.00

tblOffRoadEquipment	HorsePower	97.00	84.00
tblOffRoadEquipment	HorsePower	97.00	349.00
tblOffRoadEquipment	HorsePower	97.00	84.00
tblOffRoadEquipment	HorsePower	97.00	96.00
tblOffRoadEquipment	HorsePower	205.00	160.00
tblOffRoadEquipment	HorsePower	205.00	160.00
tblOffRoadEquipment	HorsePower	361.00	185.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	1.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	6.00	8.00
tblOffRoadEquipment	UsageHours	6.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblProjectCharacteristics	OperationalYear	2014	2019
tblTripsAndVMT	HaulingTripLength	20.00	26.00
tblTripsAndVMT	HaulingTripNumber	17,500.00	17,640.00

tblTripsAndVMT	VendorTripLength	6.90	13.80
tblTripsAndVMT	VendorTripLength	6.90	13.80
tblTripsAndVMT	VendorTripLength	6.90	13.80
tblTripsAndVMT	VendorTripNumber	70.00	3.00
tblTripsAndVMT	VendorTripNumber	70.00	5.00
tblTripsAndVMT	VendorTripNumber	70.00	50.00
tblTripsAndVMT	VendorTripNumber	70.00	2.00
tblTripsAndVMT	VendorTripNumber	0.00	2.00
tblTripsAndVMT	VendorTripNumber	70.00	2.00
tblTripsAndVMT	VendorVehicleClass	HDT_Mix	HHDT
tblTripsAndVMT	WorkerTripNumber	23.00	30.00
tblTripsAndVMT	WorkerTripNumber	178.00	30.00
tblTripsAndVMT	WorkerTripNumber	178.00	30.00
tblTripsAndVMT	WorkerTripNumber	178.00	30.00
tblTripsAndVMT	WorkerTripNumber	178.00	30.00
tblTripsAndVMT	WorkerTripNumber	13.00	30.00
tblTripsAndVMT	WorkerTripNumber	178.00	30.00

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					
2016	0.8910	9.3617	5.8607	0.0130	1.2852	0.4434	1.7286	0.5292	0.4195	0.9486	0.0000	1,173.7741	1,173.7741	0.1683	0.0000	1,177.3075
2017	0.9820	10.4122	7.2304	0.0159	1.2694	0.4838	1.7532	0.5078	0.4551	0.9629	0.0000	1,421.2047	1,421.2047	0.2160	0.0000	1,425.7399
2018	0.4081	4.2058	3.5622	7.3700e-003	0.1005	0.1958	0.2963	0.0271	0.1829	0.2100	0.0000	649.0431	649.0431	0.1224	0.0000	651.6132

2019	0.0258	0.2524	0.2265	6.0000e-004	0.0113	0.0108	0.0220	3.0000e-003	9.9000e-003	0.0129	0.0000	51.3134	51.3134	0.0134	0.0000	51.5937
Total	2.3069	24.2321	16.8798	0.0368	2.6664	1.1337	3.8001	1.0671	1.0673	2.1344	0.0000	3,295.3353	3,295.3353	0.5200	0.0000	3,306.2543

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2016	0.8910	9.3617	5.8607	0.0130	0.6481	0.4434	1.0915	0.2452	0.4195	0.6647	0.0000	1,173.7733	1,173.7733	0.1683	0.0000	1,177.3067
2017	0.9820	10.4122	7.2304	0.0159	0.6691	0.4838	1.1528	0.2440	0.4551	0.6991	0.0000	1,421.2038	1,421.2038	0.2160	0.0000	1,425.7389
2018	0.4081	4.2058	3.5622	7.3700e-003	0.1005	0.1958	0.2963	0.0271	0.1829	0.2100	0.0000	649.0426	649.0426	0.1224	0.0000	651.6127
2019	0.0258	0.2524	0.2265	6.0000e-004	0.0113	0.0108	0.0220	3.0000e-003	9.9000e-003	0.0129	0.0000	51.3133	51.3133	0.0134	0.0000	51.5936
Total	2.3069	24.2321	16.8798	0.0368	1.4289	1.1337	2.5626	0.5193	1.0673	1.5866	0.0000	3,295.3329	3,295.3329	0.5200	0.0000	3,306.2519

	ROG	NOx	CO	SO2	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	46.41	0.00	32.57	51.34	0.00	25.66	0.00	0.00	0.00	0.00	0.00	0.00

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	2.1042	7.7900e-003	0.8390	6.0000e-005		3.0100e-003	3.0100e-003		3.0100e-003	3.0100e-003	0.0000	1.6156	1.6156	4.3800e-003	0.0000	1.7076

Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	758.7266	758.7266	0.0349	7.2200e-003	761.6959
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
Total	2.1042	7.7900e-003	0.8390	6.0000e-005	0.0000	3.0100e-003	3.0100e-003	0.0000	3.0100e-003	3.0100e-003	0.0000	760.3422	760.3422	0.0393	7.2200e-003	763.4034

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	2.1042	7.7900e-003	0.8390	6.0000e-005		3.0100e-003	3.0100e-003		3.0100e-003	3.0100e-003	0.0000	1.6156	1.6156	4.3800e-003	0.0000	1.7076
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	758.7266	758.7266	0.0349	7.2200e-003	761.6959
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
Total	2.1042	7.7900e-003	0.8390	6.0000e-005	0.0000	3.0100e-003	3.0100e-003	0.0000	3.0100e-003	3.0100e-003	0.0000	760.3422	760.3422	0.0393	7.2200e-003	763.4034

	ROG	NOx	CO	SO2	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	Site Preparation	Site Preparation	6/1/2016	6/28/2016	5	20	
2	Grading	Grading	6/29/2016	6/6/2017	5	245	
3	Soil Nailing	Building Construction	7/14/2016	4/12/2017	5	195	
4	Shotcrete	Building Construction	7/28/2016	4/26/2017	5	195	
5	Foundation/Structure	Building Construction	6/9/2017	7/19/2018	5	290	
6	Tower/Ramp	Building Construction	10/17/2017	3/23/2018	5	114	
7	Bridge	Building Construction	3/26/2018	7/17/2018	5	82	
8	Streetwork	Paving	7/18/2018	8/14/2018	5	20	
9	Sitework	Building Construction	8/15/2018	4/2/2019	5	165	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 450

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
Site Preparation	Rubber Tired Dozers	1	8.00	255	0.40
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Grading	Excavators	1	8.00	330	0.38
Grading	Graders	1	8.00	174	0.41
Grading	Rubber Tired Dozers	1	8.00	207	0.40
Grading	Scrapers	2	8.00	185	0.48
Grading	Tractors/Loaders/Backhoes	1	8.00	349	0.37
Grading	Tractors/Loaders/Backhoes	1	8.00	84	0.37
Grading	Tractors/Loaders/Backhoes	2	8.00	96	0.37
Soil Nailing	Air Compressors	2	8.00	78	0.48
Soil Nailing	Bore/Drill Rigs	2	8.00	160	0.50
Soil Nailing	Pumps	2	8.00	84	0.74

Shotcrete	Air Compressors	2	8.00	78	0.48
Shotcrete	Pumps	2	8.00	84	0.74
Foundation/Structure	Air Compressors	1	8.00	78	0.48
Foundation/Structure	Bore/Drill Rigs	1	8.00	160	0.50
Foundation/Structure	Other Construction Equipment	1	8.00	171	0.42
Foundation/Structure	Other Construction Equipment	1	8.00	171	0.42
Foundation/Structure	Pumps	1	8.00	84	0.74
Foundation/Structure	Tractors/Loaders/Backhoes	1	8.00	349	0.37
Foundation/Structure	Tractors/Loaders/Backhoes	2	8.00	84	0.37
Foundation/Structure	Tractors/Loaders/Backhoes	1	8.00	96	0.37
Bridge	Cranes	1	8.00	226	0.29
Streetwork	Graders	1	8.00	174	0.41
Streetwork	Paving Equipment	1	8.00	130	0.36
Streetwork	Plate Compactors	1	8.00	8	0.43
Streetwork	Rollers	1	8.00	80	0.38
Streetwork	Scrapers	1	8.00	361	0.48
Sitework	Tractors/Loaders/Backhoes	1	8.00	349	0.37
Sitework	Tractors/Loaders/Backhoes	1	8.00	84	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
Site Preparation	2	5.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	9	30.00	0.00	17,640.00	14.70	6.90	26.00	LD_Mix	HDT_Mix	HHDT
Soil Nailing	6	30.00	3.00	0.00	14.70	13.80	20.00	LD_Mix	HDT_Mix	HHDT
Shotcrete	4	30.00	5.00	0.00	14.70	13.80	20.00	LD_Mix	HDT_Mix	HHDT
Foundation/Structure	9	30.00	50.00	0.00	14.70	13.80	20.00	LD_Mix	HHDT	HHDT
Tower/Ramp	0			0.00	14.70	6.90				
Bridge	1	30.00	2.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Streetwork	5	30.00	2.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

Sitework	2	30.00	2.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHD
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3.1 Mitigation Measures Construction

Water Exposed Area

3.2 Site Preparation - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0602	0.0000	0.0602	0.0331	0.0000	0.0331	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0158	0.1713	0.1290	1.2000e-004	8.9600e-003	8.9600e-003	8.9600e-003	8.2400e-003	8.2400e-003	8.2400e-003	0.0000	11.3136	11.3136	3.4100e-003	0.0000	11.3853
Total	0.0158	0.1713	0.1290	1.2000e-004	0.0602	8.9600e-003	0.0692	0.0331	8.2400e-003	0.0413	0.0000	11.3136	11.3136	3.4100e-003	0.0000	11.3853

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.2000e-004	3.2000e-004	3.3300e-003	1.0000e-005	5.5000e-004	1.0000e-005	5.5000e-004	1.5000e-004	0.0000	1.5000e-004	0.0000	0.5346	0.5346	3.0000e-005	0.0000	0.5353
Total	2.2000e-004	3.2000e-004	3.3300e-003	1.0000e-005	5.5000e-004	1.0000e-005	5.5000e-004	1.5000e-004	0.0000	1.5000e-004	0.0000	0.5346	0.5346	3.0000e-005	0.0000	0.5353

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					0.0235	0.0000	0.0235	0.0129	0.0000	0.0129	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0158	0.1713	0.1290	1.2000e-004		8.9600e-003	8.9600e-003		8.2400e-003	8.2400e-003	0.0000	11.3136	11.3136	3.4100e-003	0.0000	11.3852
Total	0.0158	0.1713	0.1290	1.2000e-004	0.0235	8.9600e-003	0.0325	0.0129	8.2400e-003	0.0212	0.0000	11.3136	11.3136	3.4100e-003	0.0000	11.3852

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.2000e-004	3.2000e-004	3.3300e-003	1.0000e-005	5.5000e-004	1.0000e-005	5.5000e-004	1.5000e-004	0.0000	1.5000e-004	0.0000	0.5346	0.5346	3.0000e-005	0.0000	0.5353
Total	2.2000e-004	3.2000e-004	3.3300e-003	1.0000e-005	5.5000e-004	1.0000e-005	5.5000e-004	1.5000e-004	0.0000	1.5000e-004	0.0000	0.5346	0.5346	3.0000e-005	0.0000	0.5353

3.3 Grading - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
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Category	tons/yr										MT/yr					
Fugitive Dust					0.9842	0.0000	0.9842	0.4325	0.0000	0.4325	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.4205	4.7591	2.0928	3.9400e-003		0.2342	0.2342		0.2155	0.2155	0.0000	371.2367	371.2367	0.1120	0.0000	373.5883
Total	0.4205	4.7591	2.0928	3.9400e-003	0.9842	0.2342	1.2184	0.4325	0.2155	0.6479	0.0000	371.2367	371.2367	0.1120	0.0000	373.5883

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	0.1043	1.8090	1.1913	4.6200e-003	0.1742	0.0258	0.2000	0.0458	0.0237	0.0696	0.0000	422.3243	422.3243	3.0900e-003	0.0000	422.3892
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	8.7100e-003	0.0127	0.1327	2.8000e-004	0.0219	2.1000e-004	0.0221	5.8100e-003	1.9000e-004	6.0000e-003	0.0000	21.3321	21.3321	1.2100e-003	0.0000	21.3576
Total	0.1130	1.8218	1.3240	4.9000e-003	0.1961	0.0260	0.2221	0.0517	0.0239	0.0756	0.0000	443.6564	443.6564	4.3000e-003	0.0000	443.7467

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					0.3839	0.0000	0.3839	0.1687	0.0000	0.1687	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.4205	4.7591	2.0927	3.9400e-003		0.2342	0.2342		0.2155	0.2155	0.0000	371.2363	371.2363	0.1120	0.0000	373.5878

Total	0.4205	4.7591	2.0927	3.9400e-003	0.3839	0.2342	0.6180	0.1687	0.2155	0.3841	0.0000	371.2363	371.2363	0.1120	0.0000	373.5878
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Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.1043	1.8090	1.1913	4.6200e-003	0.1742	0.0258	0.2000	0.0458	0.0237	0.0696	0.0000	422.3243	422.3243	3.0900e-003	0.0000	422.3892
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	8.7100e-003	0.0127	0.1327	2.8000e-004	0.0219	2.1000e-004	0.0221	5.8100e-003	1.9000e-004	6.0000e-003	0.0000	21.3321	21.3321	1.2100e-003	0.0000	21.3576
Total	0.1130	1.8218	1.3240	4.9000e-003	0.1961	0.0260	0.2221	0.0517	0.0239	0.0756	0.0000	443.6564	443.6564	4.3000e-003	0.0000	443.7467

3.3 Grading - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.9842	0.0000	0.9842	0.4325	0.0000	0.4325	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.3310	3.7057	1.7039	3.3100e-003		0.1815	0.1815		0.1670	0.1670	0.0000	307.6366	307.6366	0.0943	0.0000	309.6160
Total	0.3310	3.7057	1.7039	3.3100e-003	0.9842	0.1815	1.1657	0.4325	0.1670	0.5994	0.0000	307.6366	307.6366	0.0943	0.0000	309.6160

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	0.0832	1.3982	0.9670	3.8900e-003	0.1701	0.0198	0.1900	0.0444	0.0183	0.0626	0.0000	349.8709	349.8709	2.5500e-003	0.0000	349.9244
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.5700e-003	9.7000e-003	0.1009	2.3000e-004	0.0184	1.7000e-004	0.0186	4.8900e-003	1.6000e-004	5.0500e-003	0.0000	17.2907	17.2907	9.4000e-004	0.0000	17.3105
Total	0.0897	1.4079	1.0679	4.1200e-003	0.1886	0.0200	0.2086	0.0492	0.0184	0.0677	0.0000	367.1616	367.1616	3.4900e-003	0.0000	367.2349

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					0.3839	0.0000	0.3839	0.1687	0.0000	0.1687	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.3310	3.7057	1.7039	3.3100e-003		0.1815	0.1815		0.1670	0.1670	0.0000	307.6362	307.6362	0.0943	0.0000	309.6157
Total	0.3310	3.7057	1.7039	3.3100e-003	0.3839	0.1815	0.5653	0.1687	0.1670	0.3356	0.0000	307.6362	307.6362	0.0943	0.0000	309.6157

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	0.0832	1.3982	0.9670	3.8900e-003	0.1701	0.0198	0.1900	0.0444	0.0183	0.0626	0.0000	349.8709	349.8709	2.5500e-003	0.0000	349.9244
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.5700e-003	9.7000e-003	0.1009	2.3000e-004	0.0184	1.7000e-004	0.0186	4.8900e-003	1.6000e-004	5.0500e-003	0.0000	17.2907	17.2907	9.4000e-004	0.0000	17.3105
Total	0.0897	1.4079	1.0679	4.1200e-003	0.1886	0.0200	0.2086	0.0492	0.0184	0.0677	0.0000	367.1616	367.1616	3.4900e-003	0.0000	367.2349

3.4 Soil Nailing - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1907	1.6072	1.2981	2.1300e-003		0.1033	0.1033		0.1011	0.1011	0.0000	190.3536	190.3536	0.0357	0.0000	191.1024
Total	0.1907	1.6072	1.2981	2.1300e-003		0.1033	0.1033		0.1011	0.1011	0.0000	190.3536	190.3536	0.0357	0.0000	191.1024

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	2.2300e-003	0.0299	0.0262	8.0000e-005	2.2400e-003	4.9000e-004	2.7300e-003	6.4000e-004	4.5000e-004	1.0900e-003	0.0000	7.0021	7.0021	5.0000e-005	0.0000	7.0031
Worker	7.9900e-003	0.0117	0.1217	2.6000e-004	0.0201	1.9000e-004	0.0203	5.3300e-003	1.8000e-004	5.5000e-003	0.0000	19.5678	19.5678	1.1100e-003	0.0000	19.5911
Total	0.0102	0.0415	0.1479	3.4000e-004	0.0223	6.8000e-004	0.0230	5.9700e-003	6.3000e-004	6.5900e-003	0.0000	26.5699	26.5699	1.1600e-003	0.0000	26.5942

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	0.1907	1.6072	1.2981	2.1300e-003		0.1033	0.1033		0.1011	0.1011	0.0000	190.3533	190.3533	0.0357	0.0000	191.1022
Total	0.1907	1.6072	1.2981	2.1300e-003		0.1033	0.1033		0.1011	0.1011	0.0000	190.3533	190.3533	0.0357	0.0000	191.1022

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	2.2300e-003	0.0299	0.0262	8.0000e-005	2.2400e-003	4.9000e-004	2.7300e-003	6.4000e-004	4.5000e-004	1.0900e-003	0.0000	7.0021	7.0021	5.0000e-005	0.0000	7.0031
Worker	7.9900e-003	0.0117	0.1217	2.6000e-004	0.0201	1.9000e-004	0.0203	5.3300e-003	1.8000e-004	5.5000e-003	0.0000	19.5678	19.5678	1.1100e-003	0.0000	19.5911
Total	0.0102	0.0415	0.1479	3.4000e-004	0.0223	6.8000e-004	0.0230	5.9700e-003	6.3000e-004	6.5900e-003	0.0000	26.5699	26.5699	1.1600e-003	0.0000	26.5942

3.4 Soil Nailing - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1012	0.8507	0.7707	1.2800e-003		0.0534	0.0534		0.0523	0.0523	0.0000	113.1841	113.1841	0.0206	0.0000	113.6168
Total	0.1012	0.8507	0.7707	1.2800e-003		0.0534	0.0534		0.0523	0.0523	0.0000	113.1841	113.1841	0.0206	0.0000	113.6168

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	1.2300e-003	0.0162	0.0148	5.0000e-005	1.3400e-003	2.6000e-004	1.6000e-003	3.8000e-004	2.4000e-004	6.2000e-004	0.0000	4.1230	4.1230	3.0000e-005	0.0000	4.1235
Worker	4.2800e-003	6.3200e-003	0.0658	1.5000e-004	0.0120	1.1000e-004	0.0121	3.1900e-003	1.0000e-004	3.2900e-003	0.0000	11.2698	11.2698	6.1000e-004	0.0000	11.2827
Total	5.5100e-003	0.0225	0.0805	2.0000e-004	0.0133	3.7000e-004	0.0137	3.5700e-003	3.4000e-004	3.9100e-003	0.0000	15.3928	15.3928	6.4000e-004	0.0000	15.4063

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	0.1012	0.8507	0.7707	1.2800e-003		0.0534	0.0534		0.0523	0.0523	0.0000	113.1840	113.1840	0.0206	0.0000	113.6167

Total	0.1012	0.8507	0.7707	1.2800e-003		0.0534	0.0534		0.0523	0.0523	0.0000	113.1840	113.1840	0.0206	0.0000	113.6167
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Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.2300e-003	0.0162	0.0148	5.0000e-005	1.3400e-003	2.6000e-004	1.6000e-003	3.8000e-004	2.4000e-004	6.2000e-004	0.0000	4.1230	4.1230	3.0000e-005	0.0000	4.1235
Worker	4.2800e-003	6.3200e-003	0.0658	1.5000e-004	0.0120	1.1000e-004	0.0121	3.1900e-003	1.0000e-004	3.2900e-003	0.0000	11.2698	11.2698	6.1000e-004	0.0000	11.2827
Total	5.5100e-003	0.0225	0.0805	2.0000e-004	0.0133	3.7000e-004	0.0137	3.5700e-003	3.4000e-004	3.9100e-003	0.0000	15.3928	15.3928	6.4000e-004	0.0000	15.4063

3.5 Shotcrete - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1299	0.9041	0.7139	1.1800e-003		0.0693	0.0693		0.0693	0.0693	0.0000	101.4318	101.4318	0.0106	0.0000	101.6549
Total	0.1299	0.9041	0.7139	1.1800e-003		0.0693	0.0693		0.0693	0.0693	0.0000	101.4318	101.4318	0.0106	0.0000	101.6549

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	3.4100e-003	0.0457	0.0401	1.2000e-004	3.4300e-003	7.5000e-004	4.1800e-003	9.8000e-004	6.9000e-004	1.6700e-003	0.0000	10.7136	10.7136	7.0000e-005	0.0000	10.7151
Worker	7.3400e-003	0.0107	0.1117	2.3000e-004	0.0184	1.8000e-004	0.0186	4.8900e-003	1.6000e-004	5.0500e-003	0.0000	17.9639	17.9639	1.0200e-003	0.0000	17.9853
Total	0.0108	0.0564	0.1518	3.5000e-004	0.0218	9.3000e-004	0.0228	5.8700e-003	8.5000e-004	6.7200e-003	0.0000	28.6774	28.6774	1.0900e-003	0.0000	28.7004

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	0.1299	0.9041	0.7139	1.1800e-003		0.0693	0.0693		0.0693	0.0693	0.0000	101.4317	101.4317	0.0106	0.0000	101.6548
Total	0.1299	0.9041	0.7139	1.1800e-003		0.0693	0.0693		0.0693	0.0693	0.0000	101.4317	101.4317	0.0106	0.0000	101.6548

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	3.4100e-003	0.0457	0.0401	1.2000e-004	3.4300e-003	7.5000e-004	4.1800e-003	9.8000e-004	6.9000e-004	1.6700e-003	0.0000	10.7136	10.7136	7.0000e-005	0.0000	10.7151
Worker	7.3400e-003	0.0107	0.1117	2.3000e-004	0.0184	1.8000e-004	0.0186	4.8900e-003	1.6000e-004	5.0500e-003	0.0000	17.9639	17.9639	1.0200e-003	0.0000	17.9853
Total	0.0108	0.0564	0.1518	3.5000e-004	0.0218	9.3000e-004	0.0228	5.8700e-003	8.5000e-004	6.7200e-003	0.0000	28.6774	28.6774	1.0900e-003	0.0000	28.7004

3.5 Shotcrete - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0865	0.6180	0.5248	8.7000e-004		0.0453	0.0453		0.0453	0.0453	0.0000	75.1682	75.1682	7.0300e-003	0.0000	75.3158
Total	0.0865	0.6180	0.5248	8.7000e-004		0.0453	0.0453		0.0453	0.0453	0.0000	75.1682	75.1682	7.0300e-003	0.0000	75.3158

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	2.3200e-003	0.0307	0.0280	9.0000e-005	2.5400e-003	5.0000e-004	3.0400e-003	7.2000e-004	4.6000e-004	1.1800e-003	0.0000	7.8129	7.8129	5.0000e-005	0.0000	7.8140
Worker	4.8700e-003	7.1900e-003	0.0748	1.7000e-004	0.0136	1.3000e-004	0.0138	3.6200e-003	1.2000e-004	3.7400e-003	0.0000	12.8136	12.8136	7.0000e-004	0.0000	12.8283
Total	7.1900e-003	0.0379	0.1028	2.6000e-004	0.0162	6.3000e-004	0.0168	4.3400e-003	5.8000e-004	4.9200e-003	0.0000	20.6266	20.6266	7.5000e-004	0.0000	20.6423

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	0.0865	0.6180	0.5248	8.7000e-004		0.0453	0.0453		0.0453	0.0453	0.0000	75.1681	75.1681	7.0300e-003	0.0000	75.3157
Total	0.0865	0.6180	0.5248	8.7000e-004		0.0453	0.0453		0.0453	0.0453	0.0000	75.1681	75.1681	7.0300e-003	0.0000	75.3157

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	2.3200e-003	0.0307	0.0280	9.0000e-005	2.5400e-003	5.0000e-004	3.0400e-003	7.2000e-004	4.6000e-004	1.1800e-003	0.0000	7.8129	7.8129	5.0000e-005	0.0000	7.8140
Worker	4.8700e-003	7.1900e-003	0.0748	1.7000e-004	0.0136	1.3000e-004	0.0138	3.6200e-003	1.2000e-004	3.7400e-003	0.0000	12.8136	12.8136	7.0000e-004	0.0000	12.8283
Total	7.1900e-003	0.0379	0.1028	2.6000e-004	0.0162	6.3000e-004	0.0168	4.3400e-003	5.8000e-004	4.9200e-003	0.0000	20.6266	20.6266	7.5000e-004	0.0000	20.6423

3.6 Foundation/Structure - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.3019	3.0518	2.1526	3.6000e-003		0.1728	0.1728		0.1622	0.1622	0.0000	328.7277	328.7277	0.0867	0.0000	330.5473
Total	0.3019	3.0518	2.1526	3.6000e-003		0.1728	0.1728		0.1622	0.1622	0.0000	328.7277	328.7277	0.0867	0.0000	330.5473

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	0.0503	0.7052	0.6957	1.9000e-003	0.0431	9.6100e-003	0.0528	0.0118	8.8400e-003	0.0207	0.0000	170.7675	170.7675	1.3100e-003	0.0000	170.7950
Worker	8.5700e-003	0.0126	0.1316	3.1000e-004	0.0240	2.2000e-004	0.0242	6.3700e-003	2.0000e-004	6.5800e-003	0.0000	22.5397	22.5397	1.2300e-003	0.0000	22.5655
Total	0.0589	0.7178	0.8273	2.2100e-003	0.0671	9.8300e-003	0.0770	0.0182	9.0400e-003	0.0273	0.0000	193.3072	193.3072	2.5400e-003	0.0000	193.3605

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	0.3019	3.0518	2.1526	3.6000e-003		0.1728	0.1728		0.1622	0.1622	0.0000	328.7273	328.7273	0.0867	0.0000	330.5469

Total	0.3019	3.0518	2.1526	3.6000e-003		0.1728	0.1728		0.1622	0.1622	0.0000	328.7273	328.7273	0.0867	0.0000	330.5469
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Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0503	0.7052	0.6957	1.9000e-003	0.0431	9.6100e-003	0.0528	0.0118	8.8400e-003	0.0207	0.0000	170.7675	170.7675	1.3100e-003	0.0000	170.7950
Worker	8.5700e-003	0.0126	0.1316	3.1000e-004	0.0240	2.2000e-004	0.0242	6.3700e-003	2.0000e-004	6.5800e-003	0.0000	22.5397	22.5397	1.2300e-003	0.0000	22.5655
Total	0.0589	0.7178	0.8273	2.2100e-003	0.0671	9.8300e-003	0.0770	0.0182	9.0400e-003	0.0273	0.0000	193.3072	193.3072	2.5400e-003	0.0000	193.3605

3.6 Foundation/Structure - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.2558	2.5528	2.0430	3.5400e-003		0.1421	0.1421		0.1335	0.1335	0.0000	319.5232	319.5232	0.0846	0.0000	321.2994
Total	0.2558	2.5528	2.0430	3.5400e-003		0.1421	0.1421		0.1335	0.1335	0.0000	319.5232	319.5232	0.0846	0.0000	321.2994

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	0.0483	0.6469	0.6721	1.8700e-003	0.0426	9.4700e-003	0.0520	0.0117	8.7100e-003	0.0204	0.0000	165.6594	165.6594	1.3100e-003	0.0000	165.6869
Worker	7.5800e-003	0.0113	0.1175	3.0000e-004	0.0237	2.1000e-004	0.0239	6.2900e-003	2.0000e-004	6.4800e-003	0.0000	21.4162	21.4162	1.1300e-003	0.0000	21.4398
Total	0.0559	0.6583	0.7897	2.1700e-003	0.0662	9.6800e-003	0.0759	0.0180	8.9100e-003	0.0269	0.0000	187.0755	187.0755	2.4400e-003	0.0000	187.1267

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	0.2558	2.5528	2.0430	3.5400e-003		0.1421	0.1421		0.1335	0.1335	0.0000	319.5229	319.5229	0.0846	0.0000	321.2990
Total	0.2558	2.5528	2.0430	3.5400e-003		0.1421	0.1421		0.1335	0.1335	0.0000	319.5229	319.5229	0.0846	0.0000	321.2990

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					

Total					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
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3.7 Tower/Ramp - 2018

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
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
Worker					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

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
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
Worker					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

3.8 Bridge - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0229	0.2736	0.1012	2.3000e-004		0.0118	0.0118		0.0109	0.0109	0.0000	21.1277	21.1277	6.5800e-003	0.0000	21.2658
Total	0.0229	0.2736	0.1012	2.3000e-004		0.0118	0.0118		0.0109	0.0109	0.0000	21.1277	21.1277	6.5800e-003	0.0000	21.2658

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	6.3000e-004	6.2800e-003	8.8500e-003	2.0000e-005	5.0000e-004	9.0000e-005	6.0000e-004	1.4000e-004	9.0000e-005	2.3000e-004	0.0000	1.5799	1.5799	1.0000e-005	0.0000	1.5801
Worker	4.3200e-003	6.4400e-003	0.0669	1.7000e-004	0.0135	1.2000e-004	0.0136	3.5800e-003	1.1000e-004	3.6900e-003	0.0000	12.1953	12.1953	6.4000e-004	0.0000	12.2088
Total	4.9500e-003	0.0127	0.0758	1.9000e-004	0.0140	2.1000e-004	0.0142	3.7200e-003	2.0000e-004	3.9200e-003	0.0000	13.7752	13.7752	6.5000e-004	0.0000	13.7889

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	0.0229	0.2736	0.1012	2.3000e-004		0.0118	0.0118		0.0109	0.0109	0.0000	21.1276	21.1276	6.5800e-003	0.0000	21.2658
Total	0.0229	0.2736	0.1012	2.3000e-004		0.0118	0.0118		0.0109	0.0109	0.0000	21.1276	21.1276	6.5800e-003	0.0000	21.2658

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	6.3000e-004	6.2800e-003	8.8500e-003	2.0000e-005	5.0000e-004	9.0000e-005	6.0000e-004	1.4000e-004	9.0000e-005	2.3000e-004	0.0000	1.5799	1.5799	1.0000e-005	0.0000	1.5801
Worker	4.3200e-003	6.4400e-003	0.0669	1.7000e-004	0.0135	1.2000e-004	0.0136	3.5800e-003	1.1000e-004	3.6900e-003	0.0000	12.1953	12.1953	6.4000e-004	0.0000	12.2088
Total	4.9500e-003	0.0127	0.0758	1.9000e-004	0.0140	2.1000e-004	0.0142	3.7200e-003	2.0000e-004	3.9200e-003	0.0000	13.7752	13.7752	6.5000e-004	0.0000	13.7889

3.9 Streetwork - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0249	0.2763	0.1795	2.8000e-004		0.0133	0.0133		0.0122	0.0122	0.0000	25.6539	25.6539	7.9200e-003	0.0000	25.8203
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0249	0.2763	0.1795	2.8000e-004		0.0133	0.0133		0.0122	0.0122	0.0000	25.6539	25.6539	7.9200e-003	0.0000	25.8203

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	1.5000e-004	1.5300e-003	2.1600e-003	0.0000	1.2000e-004	2.0000e-005	1.5000e-004	4.0000e-005	2.0000e-005	6.0000e-005	0.0000	0.3853	0.3853	0.0000	0.0000	0.3854
Worker	1.0500e-003	1.5700e-003	0.0163	4.0000e-005	3.2900e-003	3.0000e-005	3.3200e-003	8.7000e-004	3.0000e-005	9.0000e-004	0.0000	2.9745	2.9745	1.6000e-004	0.0000	2.9778
Total	1.2000e-003	3.1000e-003	0.0185	4.0000e-005	3.4100e-003	5.0000e-005	3.4700e-003	9.1000e-004	5.0000e-005	9.6000e-004	0.0000	3.3598	3.3598	1.6000e-004	0.0000	3.3631

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	0.0249	0.2763	0.1795	2.8000e-004		0.0133	0.0133		0.0122	0.0122	0.0000	25.6539	25.6539	7.9200e-003	0.0000	25.8202
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0249	0.2763	0.1795	2.8000e-004		0.0133	0.0133		0.0122	0.0122	0.0000	25.6539	25.6539	7.9200e-003	0.0000	25.8202

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
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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	1.5000e-004	1.5300e-003	2.1600e-003	0.0000	1.2000e-004	2.0000e-005	1.5000e-004	4.0000e-005	2.0000e-005	6.0000e-005	0.0000	0.3853	0.3853	0.0000	0.0000	0.3854
Worker	1.0500e-003	1.5700e-003	0.0163	4.0000e-005	3.2900e-003	3.0000e-005	3.3200e-003	8.7000e-004	3.0000e-005	9.0000e-004	0.0000	2.9745	2.9745	1.6000e-004	0.0000	2.9778
Total	1.2000e-003	3.1000e-003	0.0185	4.0000e-005	3.4100e-003	5.0000e-005	3.4700e-003	9.1000e-004	5.0000e-005	9.6000e-004	0.0000	3.3598	3.3598	1.6000e-004	0.0000	3.3631

3.10 Sitework - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0365	0.4136	0.2631	6.8000e-004		0.0184	0.0184		0.0169	0.0169	0.0000	61.8968	61.8968	0.0193	0.0000	62.3014
Total	0.0365	0.4136	0.2631	6.8000e-004		0.0184	0.0184		0.0169	0.0169	0.0000	61.8968	61.8968	0.0193	0.0000	62.3014

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	7.6000e-004	7.5800e-003	0.0107	2.0000e-005	6.1000e-004	1.1000e-004	7.2000e-004	1.7000e-004	1.0000e-004	2.8000e-004	0.0000	1.9074	1.9074	1.0000e-005	0.0000	1.9077
Worker	5.2100e-003	7.7800e-003	0.0808	2.1000e-004	0.0163	1.5000e-004	0.0164	4.3200e-003	1.3000e-004	4.4600e-003	0.0000	14.7236	14.7236	7.7000e-004	0.0000	14.7399

Total	5.9700e-003	0.0154	0.0915	2.3000e-004	0.0169	2.6000e-004	0.0171	4.4900e-003	2.3000e-004	4.7400e-003	0.0000	16.6310	16.6310	7.8000e-004	0.0000	16.6476
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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	0.0365	0.4136	0.2631	6.8000e-004		0.0184	0.0184		0.0169	0.0169	0.0000	61.8967	61.8967	0.0193	0.0000	62.3014
Total	0.0365	0.4136	0.2631	6.8000e-004		0.0184	0.0184		0.0169	0.0169	0.0000	61.8967	61.8967	0.0193	0.0000	62.3014

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	7.6000e-004	7.5800e-003	0.0107	2.0000e-005	6.1000e-004	1.1000e-004	7.2000e-004	1.7000e-004	1.0000e-004	2.8000e-004	0.0000	1.9074	1.9074	1.0000e-005	0.0000	1.9077
Worker	5.2100e-003	7.7800e-003	0.0808	2.1000e-004	0.0163	1.5000e-004	0.0164	4.3200e-003	1.3000e-004	4.4600e-003	0.0000	14.7236	14.7236	7.7000e-004	0.0000	14.7399
Total	5.9700e-003	0.0154	0.0915	2.3000e-004	0.0169	2.6000e-004	0.0171	4.4900e-003	2.3000e-004	4.7400e-003	0.0000	16.6310	16.6310	7.8000e-004	0.0000	16.6476

3.10 Sitework - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0221	0.2430	0.1702	4.5000e-004		0.0106	0.0106		9.7400e-003	9.7400e-003	0.0000	40.6372	40.6372	0.0129	0.0000	40.9072
Total	0.0221	0.2430	0.1702	4.5000e-004		0.0106	0.0106		9.7400e-003	9.7400e-003	0.0000	40.6372	40.6372	0.0129	0.0000	40.9072

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	4.8000e-004	4.6600e-003	6.8900e-003	1.0000e-005	4.1000e-004	7.0000e-005	4.8000e-004	1.2000e-004	7.0000e-005	1.8000e-004	0.0000	1.2455	1.2455	1.0000e-005	0.0000	1.2457
Worker	3.1900e-003	4.7600e-003	0.0494	1.4000e-004	0.0109	9.0000e-005	0.0109	2.8800e-003	9.0000e-005	2.9700e-003	0.0000	9.4307	9.4307	4.8000e-004	0.0000	9.4408
Total	3.6700e-003	9.4200e-003	0.0562	1.5000e-004	0.0113	1.6000e-004	0.0114	3.0000e-003	1.6000e-004	3.1500e-003	0.0000	10.6762	10.6762	4.9000e-004	0.0000	10.6865

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					

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Enclosed Parking with Elevator	0.00	0.00	0.00		
User Defined Parking	0.00	0.00	0.00		
User Defined Recreational	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-	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Enclosed Parking with Elevator	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
User Defined Parking	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
User Defined Recreational	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.530902	0.057841	0.178699	0.124790	0.039063	0.006298	0.016951	0.033908	0.002496	0.003149	0.003689	0.000536	0.001678

5.0 Energy Detail

4.4 Fleet Mix

Historical Energy Use: N

5.1 Mitigation Measures Energy

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

Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Enclosed Parking with Elevator	2.022e+006	578.6295	0.0266	5.5000e-003	580.8939
User Defined Parking	0	0.0000	0.0000	0.0000	0.0000
User Defined Recreational	629343	180.0971	8.2800e-003	1.7100e-003	180.8019
Total		758.7266	0.0349	7.2100e-003	761.6959

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Enclosed Parking with Elevator	2.022e+006	578.6295	0.0266	5.5000e-003	580.8939
User Defined Parking	0	0.0000	0.0000	0.0000	0.0000
User Defined Recreational	629343	180.0971	8.2800e-003	1.7100e-003	180.8019
Total		758.7266	0.0349	7.2100e-003	761.6959

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	2.1042	7.7900e-003	0.8390	6.0000e-005		3.0100e-003	3.0100e-003		3.0100e-003	3.0100e-003	0.0000	1.6156	1.6156	4.3800e-003	0.0000	1.7076
Unmitigated	2.1042	7.7900e-003	0.8390	6.0000e-005		3.0100e-003	3.0100e-003		3.0100e-003	3.0100e-003	0.0000	1.6156	1.6156	4.3800e-003	0.0000	1.7076

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	0.4916					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	1.5331					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0795	7.7900e-003	0.8390	6.0000e-005		3.0100e-003	3.0100e-003		3.0100e-003	3.0100e-003	0.0000	1.6156	1.6156	4.3800e-003	0.0000	1.7076
Total	2.1042	7.7900e-003	0.8390	6.0000e-005		3.0100e-003	3.0100e-003		3.0100e-003	3.0100e-003	0.0000	1.6156	1.6156	4.3800e-003	0.0000	1.7076

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	0.4916					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	1.5331					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0795	7.7900e-003	0.8390	6.0000e-005		3.0100e-003	3.0100e-003		3.0100e-003	3.0100e-003	0.0000	1.6156	1.6156	4.3800e-003	0.0000	1.7076
Total	2.1042	7.7900e-003	0.8390	6.0000e-005		3.0100e-003	3.0100e-003		3.0100e-003	3.0100e-003	0.0000	1.6156	1.6156	4.3800e-003	0.0000	1.7076

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			
Enclosed Parking with Elevator	0 / 0	0.0000	0.0000	0.0000	0.0000

User Defined Parking	0 / 0	0.0000	0.0000	0.0000	0.0000
User Defined Recreational	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Enclosed Parking with Elevator	0 / 0	0.0000	0.0000	0.0000	0.0000
User Defined Parking	0 / 0	0.0000	0.0000	0.0000	0.0000
User Defined Recreational	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

8.0 Waste Detail

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			
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000
User Defined Parking	0	0.0000	0.0000	0.0000	0.0000
User Defined Recreational	0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000
User Defined Parking	0	0.0000	0.0000	0.0000	0.0000
User Defined Recreational	0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

9.0 Operational Offroad

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

Annual - Mitigated

Harvard Westlake Parking Structure Los Angeles-South Coast County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Enclosed Parking with Elevator	750.00	Space	1.90	300,000.00	0
User Defined Parking	0.00	User Defined Unit	1.52	59,921.00	0
User Defined Recreational	64,350.00	User Defined Unit	0.00	64,350.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	33
Climate Zone	11	Operational Year	2019		
Utility Company	Southern California Edison				
CO2 Intensity (lb/MW hr)	630.89	CH4 Intensity (lb/MW hr)	0.029	N2O Intensity (lb/MW hr)	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Athletic Field is under land use category of User defined recreational.

Roadways and landscape are under parking- user defined.

Construction Phase - based on equipment mix provided by the constructor

Off-road Equipment - based on equipment mix provided by the constructor

Off-road Equipment -

Off-road Equipment - based on equipment mix provided by the constructor

Off-road Equipment - based on equipment mix provided by the constructor

Off-road Equipment - based on construction plan

Off-road Equipment - based on equipment mix provided by the constructor

Off-road Equipment - based on equipment mix provided by the constructor

Off-road Equipment - based on equipment mix provided by the constructor

Off-road Equipment - based on equipment mix provided by the constructor

Off-road Equipment - based on equipment mix provided by the constructor

Trips and VMT - Overlapping phases: 1) Grading, Soil Nailing, and Shotcrete 2) Foundations/Structure, Tower/Ramp 3) Foundations/Structure, Bridge.
Haul trucks assumed to travel 13 miles each way. Soil Nailing and Shotcrete trips assumed to be 6.9 miles one-way.

Grading -

Vehicle Emission Factors -

Vehicle Emission Factors -

Vehicle Emission Factors -

Energy Use - Athletic field would have 10 light poles. A conservative assumption that 10 light poles would have 6 light bulb each with each light bulb having rating of 400 W.

Construction Off-road Equipment Mitigation - Details provided by the constructor.

Table Name	Column Name	Default Value	New Value
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	5.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	5.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	11.00
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 4 Final

tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstructionPhase	NumDays	230.00	195.00
tblConstructionPhase	NumDays	230.00	195.00
tblConstructionPhase	NumDays	230.00	290.00
tblConstructionPhase	NumDays	230.00	114.00
tblConstructionPhase	NumDays	230.00	82.00
tblConstructionPhase	NumDays	230.00	165.00
tblConstructionPhase	NumDays	8.00	245.00
tblConstructionPhase	NumDays	18.00	20.00
tblConstructionPhase	NumDays	5.00	20.00
tblConstructionPhase	PhaseEndDate	3/6/2018	4/12/2017
tblConstructionPhase	PhaseEndDate	1/10/2018	4/26/2017
tblConstructionPhase	PhaseEndDate	6/6/2018	7/19/2018
tblConstructionPhase	PhaseEndDate	12/26/2018	3/23/2018
tblConstructionPhase	PhaseStartDate	6/7/2017	7/14/2016
tblConstructionPhase	PhaseStartDate	4/13/2017	7/28/2016
tblConstructionPhase	PhaseStartDate	4/27/2017	6/9/2017
tblConstructionPhase	PhaseStartDate	7/20/2018	10/17/2017
tblConstructionPhase	PhaseStartDate	3/24/2018	3/26/2018
tblEnergyUse	LightingElect	0.00	3.26
tblEnergyUse	NT24E	0.00	3.26
tblEnergyUse	T24E	0.00	3.26
tblGrading	AcresOfGrading	612.50	450.00
tblGrading	MaterialExported	0.00	140,000.00

tblLandUse	LandUseSquareFeet	0.00	59,921.00
tblLandUse	LandUseSquareFeet	0.00	64,350.00
tblLandUse	LotAcreage	6.75	1.90
tblLandUse	LotAcreage	0.00	1.52
tblOffRoadEquipment	HorsePower	162.00	330.00
tblOffRoadEquipment	HorsePower	255.00	207.00
tblOffRoadEquipment	HorsePower	97.00	349.00
tblOffRoadEquipment	HorsePower	97.00	84.00
tblOffRoadEquipment	HorsePower	97.00	96.00
tblOffRoadEquipment	HorsePower	97.00	349.00
tblOffRoadEquipment	HorsePower	97.00	84.00
tblOffRoadEquipment	HorsePower	97.00	349.00
tblOffRoadEquipment	HorsePower	97.00	84.00
tblOffRoadEquipment	HorsePower	97.00	96.00
tblOffRoadEquipment	HorsePower	205.00	160.00
tblOffRoadEquipment	HorsePower	205.00	160.00
tblOffRoadEquipment	HorsePower	361.00	185.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	1.00
tblOffRoadEquipment	UsageHours	7.00	8.00

tblOffRoadEquipment	UsageHours	6.00	8.00
tblOffRoadEquipment	UsageHours	6.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblProjectCharacteristics	OperationalYear	2014	2019
tblTripsAndVMT	HaulingTripLength	20.00	26.00
tblTripsAndVMT	HaulingTripNumber	17,500.00	17,640.00
tblTripsAndVMT	VendorTripLength	6.90	13.80
tblTripsAndVMT	VendorTripLength	6.90	13.80
tblTripsAndVMT	VendorTripLength	6.90	13.80
tblTripsAndVMT	VendorTripNumber	70.00	3.00
tblTripsAndVMT	VendorTripNumber	70.00	5.00
tblTripsAndVMT	VendorTripNumber	70.00	50.00
tblTripsAndVMT	VendorTripNumber	70.00	2.00
tblTripsAndVMT	VendorTripNumber	0.00	2.00
tblTripsAndVMT	VendorTripNumber	70.00	2.00
tblTripsAndVMT	VendorVehicleClass	HDT_Mix	HHD
tblTripsAndVMT	WorkerTripNumber	23.00	30.00
tblTripsAndVMT	WorkerTripNumber	178.00	30.00
tblTripsAndVMT	WorkerTripNumber	178.00	30.00
tblTripsAndVMT	WorkerTripNumber	178.00	30.00
tblTripsAndVMT	WorkerTripNumber	178.00	30.00
tblTripsAndVMT	WorkerTripNumber	13.00	30.00
tblTripsAndVMT	WorkerTripNumber	178.00	30.00

2.0 Emissions Summary

2.1 Overall Construction

Total	2.1042	7.7900e-003	0.8390	6.0000e-005	0.0000	3.0100e-003	3.0100e-003	0.0000	3.0100e-003	3.0100e-003	0.0000	760.3422	760.3422	0.0393	7.2200e-003	763.4034
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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
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	Site Preparation	Site Preparation	6/1/2016	6/28/2016	5	20	
2	Grading	Grading	6/29/2016	6/6/2017	5	245	
3	Soil Nailing	Building Construction	7/14/2016	4/12/2017	5	195	
4	Shotcrete	Building Construction	7/28/2016	4/26/2017	5	195	
5	Foundation/Structure	Building Construction	6/9/2017	7/19/2018	5	290	
6	Tower/Ramp	Building Construction	10/17/2017	3/23/2018	5	114	
7	Bridge	Building Construction	3/26/2018	7/17/2018	5	82	
8	Streetwork	Paving	7/18/2018	8/14/2018	5	20	
9	Sitework	Building Construction	8/15/2018	4/2/2019	5	165	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 450

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
Site Preparation	Rubber Tired Dozers	1	8.00	255	0.40
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37

Grading	Excavators	1	8.00	330	0.38
Grading	Graders	1	8.00	174	0.41
Grading	Rubber Tired Dozers	1	8.00	207	0.40
Grading	Scrapers	2	8.00	185	0.48
Grading	Tractors/Loaders/Backhoes	1	8.00	349	0.37
Grading	Tractors/Loaders/Backhoes	1	8.00	84	0.37
Grading	Tractors/Loaders/Backhoes	2	8.00	96	0.37
Soil Nailing	Air Compressors	2	8.00	78	0.48
Soil Nailing	Bore/Drill Rigs	2	8.00	160	0.50
Soil Nailing	Pumps	2	8.00	84	0.74
Shotcrete	Air Compressors	2	8.00	78	0.48
Shotcrete	Pumps	2	8.00	84	0.74
Foundation/Structure	Air Compressors	1	8.00	78	0.48
Foundation/Structure	Bore/Drill Rigs	1	8.00	160	0.50
Foundation/Structure	Other Construction Equipment	1	8.00	171	0.42
Foundation/Structure	Other Construction Equipment	1	8.00	171	0.42
Foundation/Structure	Pumps	1	8.00	84	0.74
Foundation/Structure	Tractors/Loaders/Backhoes	1	8.00	349	0.37
Foundation/Structure	Tractors/Loaders/Backhoes	2	8.00	84	0.37
Foundation/Structure	Tractors/Loaders/Backhoes	1	8.00	96	0.37
Bridge	Cranes	1	8.00	226	0.29
Streetwork	Graders	1	8.00	174	0.41
Streetwork	Paving Equipment	1	8.00	130	0.36
Streetwork	Plate Compactors	1	8.00	8	0.43
Streetwork	Rollers	1	8.00	80	0.38
Streetwork	Scrapers	1	8.00	361	0.48
Sitework	Tractors/Loaders/Backhoes	1	8.00	349	0.37
Sitework	Tractors/Loaders/Backhoes	1	8.00	84	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
Site Preparation	2	5.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	9	30.00	0.00	17,640.00	14.70	6.90	26.00	LD_Mix	HDT_Mix	HHDT
Soil Nailing	6	30.00	3.00	0.00	14.70	13.80	20.00	LD_Mix	HDT_Mix	HHDT
Shotcrete	4	30.00	5.00	0.00	14.70	13.80	20.00	LD_Mix	HDT_Mix	HHDT
Foundation/Structure	9	30.00	50.00	0.00	14.70	13.80	20.00	LD_Mix	HHDT	HHDT
Tower/Ramp	0			0.00	14.70	6.90				
Bridge	1	30.00	2.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Streetwork	5	30.00	2.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Sitework	2	30.00	2.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Use DPF for Construction Equipment

Water Exposed Area

Clean Paved Roads

3.2 Site Preparation - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0602	0.0000	0.0602	0.0331	0.0000	0.0331	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0158	0.1713	0.1290	1.2000e-004	8.9600e-003	8.9600e-003	8.9600e-003	8.2400e-003	8.2400e-003	8.2400e-003	0.0000	11.3136	11.3136	3.4100e-003	0.0000	11.3853
Total	0.0158	0.1713	0.1290	1.2000e-004	0.0602	8.9600e-003	0.0692	0.0331	8.2400e-003	0.0413	0.0000	11.3136	11.3136	3.4100e-003	0.0000	11.3853

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.2000e-004	3.2000e-004	3.3300e-003	1.0000e-005	5.5000e-004	1.0000e-005	5.5000e-004	1.5000e-004	0.0000	1.5000e-004	0.0000	0.5346	0.5346	3.0000e-005	0.0000	0.5353
Total	2.2000e-004	3.2000e-004	3.3300e-003	1.0000e-005	5.5000e-004	1.0000e-005	5.5000e-004	1.5000e-004	0.0000	1.5000e-004	0.0000	0.5346	0.5346	3.0000e-005	0.0000	0.5353

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					0.0235	0.0000	0.0235	0.0129	0.0000	0.0129	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.4600e-003	6.3200e-003	0.0630	1.2000e-004		1.9000e-004	1.9000e-004		1.9000e-004	1.9000e-004	0.0000	11.3136	11.3136	3.4100e-003	0.0000	11.3852
Total	1.4600e-003	6.3200e-003	0.0630	1.2000e-004	0.0235	1.9000e-004	0.0237	0.0129	1.9000e-004	0.0131	0.0000	11.3136	11.3136	3.4100e-003	0.0000	11.3852

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
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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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.2000e-004	3.2000e-004	3.3300e-003	1.0000e-005	5.5000e-004	1.0000e-005	5.5000e-004	1.5000e-004	0.0000	1.5000e-004	0.0000	0.5346	0.5346	3.0000e-005	0.0000	0.5353
Total	2.2000e-004	3.2000e-004	3.3300e-003	1.0000e-005	5.5000e-004	1.0000e-005	5.5000e-004	1.5000e-004	0.0000	1.5000e-004	0.0000	0.5346	0.5346	3.0000e-005	0.0000	0.5353

3.3 Grading - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.9842	0.0000	0.9842	0.4325	0.0000	0.4325	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.4205	4.7591	2.0928	3.9400e-003		0.2342	0.2342		0.2155	0.2155	0.0000	371.2367	371.2367	0.1120	0.0000	373.5883
Total	0.4205	4.7591	2.0928	3.9400e-003	0.9842	0.2342	1.2184	0.4325	0.2155	0.6479	0.0000	371.2367	371.2367	0.1120	0.0000	373.5883

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	0.1043	1.8090	1.1913	4.6200e-003	0.1742	0.0258	0.2000	0.0458	0.0237	0.0696	0.0000	422.3243	422.3243	3.0900e-003	0.0000	422.3892
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	8.7100e-003	0.0127	0.1327	2.8000e-004	0.0219	2.1000e-004	0.0221	5.8100e-003	1.9000e-004	6.0000e-003	0.0000	21.3321	21.3321	1.2100e-003	0.0000	21.3576

Total	0.1130	1.8218	1.3240	4.9000e-003	0.1961	0.0260	0.2221	0.0517	0.0239	0.0756	0.0000	443.6564	443.6564	4.3000e-003	0.0000	443.7467
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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					0.3839	0.0000	0.3839	0.1687	0.0000	0.1687	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0484	0.2099	2.0814	3.9400e-003		6.4600e-003	6.4600e-003		6.4600e-003	6.4600e-003	0.0000	371.2363	371.2363	0.1120	0.0000	373.5878
Total	0.0484	0.2099	2.0814	3.9400e-003	0.3839	6.4600e-003	0.3903	0.1687	6.4600e-003	0.1751	0.0000	371.2363	371.2363	0.1120	0.0000	373.5878

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	0.1043	1.8090	1.1913	4.6200e-003	0.1742	0.0258	0.2000	0.0458	0.0237	0.0696	0.0000	422.3243	422.3243	3.0900e-003	0.0000	422.3892
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	8.7100e-003	0.0127	0.1327	2.8000e-004	0.0219	2.1000e-004	0.0221	5.8100e-003	1.9000e-004	6.0000e-003	0.0000	21.3321	21.3321	1.2100e-003	0.0000	21.3576
Total	0.1130	1.8218	1.3240	4.9000e-003	0.1961	0.0260	0.2221	0.0517	0.0239	0.0756	0.0000	443.6564	443.6564	4.3000e-003	0.0000	443.7467

3.3 Grading - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.9842	0.0000	0.9842	0.4325	0.0000	0.4325	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.3310	3.7057	1.7039	3.3100e-003		0.1815	0.1815		0.1670	0.1670	0.0000	307.6366	307.6366	0.0943	0.0000	309.6160
Total	0.3310	3.7057	1.7039	3.3100e-003	0.9842	0.1815	1.1657	0.4325	0.1670	0.5994	0.0000	307.6366	307.6366	0.0943	0.0000	309.6160

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	0.0832	1.3982	0.9670	3.8900e-003	0.1701	0.0198	0.1900	0.0444	0.0183	0.0626	0.0000	349.8709	349.8709	2.5500e-003	0.0000	349.9244
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.5700e-003	9.7000e-003	0.1009	2.3000e-004	0.0184	1.7000e-004	0.0186	4.8900e-003	1.6000e-004	5.0500e-003	0.0000	17.2907	17.2907	9.4000e-004	0.0000	17.3105
Total	0.0897	1.4079	1.0679	4.1200e-003	0.1886	0.0200	0.2086	0.0492	0.0184	0.0677	0.0000	367.1616	367.1616	3.4900e-003	0.0000	367.2349

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					0.3839	0.0000	0.3839	0.1687	0.0000	0.1687	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0408	0.1768	1.7528	3.3100e-003		5.4400e-003	5.4400e-003		5.4400e-003	5.4400e-003	0.0000	307.6362	307.6362	0.0943	0.0000	309.6157
Total	0.0408	0.1768	1.7528	3.3100e-003	0.3839	5.4400e-003	0.3893	0.1687	5.4400e-003	0.1741	0.0000	307.6362	307.6362	0.0943	0.0000	309.6157

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	0.0832	1.3982	0.9670	3.8900e-003	0.1701	0.0198	0.1900	0.0444	0.0183	0.0626	0.0000	349.8709	349.8709	2.5500e-003	0.0000	349.9244
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.5700e-003	9.7000e-003	0.1009	2.3000e-004	0.0184	1.7000e-004	0.0186	4.8900e-003	1.6000e-004	5.0500e-003	0.0000	17.2907	17.2907	9.4000e-004	0.0000	17.3105
Total	0.0897	1.4079	1.0679	4.1200e-003	0.1886	0.0200	0.2086	0.0492	0.0184	0.0677	0.0000	367.1616	367.1616	3.4900e-003	0.0000	367.2349

3.4 Soil Nailing - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1907	1.6072	1.2981	2.1300e-003		0.1033	0.1033		0.1011	0.1011	0.0000	190.3536	190.3536	0.0357	0.0000	191.1024
Total	0.1907	1.6072	1.2981	2.1300e-003		0.1033	0.1033		0.1011	0.1011	0.0000	190.3536	190.3536	0.0357	0.0000	191.1024

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	2.2300e-003	0.0299	0.0262	8.0000e-005	2.2400e-003	4.9000e-004	2.7300e-003	6.4000e-004	4.5000e-004	1.0900e-003	0.0000	7.0021	7.0021	5.0000e-005	0.0000	7.0031
Worker	7.9900e-003	0.0117	0.1217	2.6000e-004	0.0201	1.9000e-004	0.0203	5.3300e-003	1.8000e-004	5.5000e-003	0.0000	19.5678	19.5678	1.1100e-003	0.0000	19.5911
Total	0.0102	0.0415	0.1479	3.4000e-004	0.0223	6.8000e-004	0.0230	5.9700e-003	6.3000e-004	6.5900e-003	0.0000	26.5699	26.5699	1.1600e-003	0.0000	26.5942

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	0.0361	0.6320	1.4299	2.1300e-003		7.5500e-003	7.5500e-003		7.5500e-003	7.5500e-003	0.0000	190.3533	190.3533	0.0357	0.0000	191.1022
Total	0.0361	0.6320	1.4299	2.1300e-003		7.5500e-003	7.5500e-003		7.5500e-003	7.5500e-003	0.0000	190.3533	190.3533	0.0357	0.0000	191.1022

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
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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	2.2300e-003	0.0299	0.0262	8.0000e-005	2.2400e-003	4.9000e-004	2.7300e-003	6.4000e-004	4.5000e-004	1.0900e-003	0.0000	7.0021	7.0021	5.0000e-005	0.0000	7.0031
Worker	7.9900e-003	0.0117	0.1217	2.6000e-004	0.0201	1.9000e-004	0.0203	5.3300e-003	1.8000e-004	5.5000e-003	0.0000	19.5678	19.5678	1.1100e-003	0.0000	19.5911
Total	0.0102	0.0415	0.1479	3.4000e-004	0.0223	6.8000e-004	0.0230	5.9700e-003	6.3000e-004	6.5900e-003	0.0000	26.5699	26.5699	1.1600e-003	0.0000	26.5942

3.4 Soil Nailing - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1012	0.8507	0.7707	1.2800e-003		0.0534	0.0534		0.0523	0.0523	0.0000	113.1841	113.1841	0.0206	0.0000	113.6168
Total	0.1012	0.8507	0.7707	1.2800e-003		0.0534	0.0534		0.0523	0.0523	0.0000	113.1841	113.1841	0.0206	0.0000	113.6168

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	1.2300e-003	0.0162	0.0148	5.0000e-005	1.3400e-003	2.6000e-004	1.6000e-003	3.8000e-004	2.4000e-004	6.2000e-004	0.0000	4.1230	4.1230	3.0000e-005	0.0000	4.1235
Worker	4.2800e-003	6.3200e-003	0.0658	1.5000e-004	0.0120	1.1000e-004	0.0121	3.1900e-003	1.0000e-004	3.2900e-003	0.0000	11.2698	11.2698	6.1000e-004	0.0000	11.2827

Total	5.5100e-003	0.0225	0.0805	2.0000e-004	0.0133	3.7000e-004	0.0137	3.5700e-003	3.4000e-004	3.9100e-003	0.0000	15.3928	15.3928	6.4000e-004	0.0000	15.4063
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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	0.0216	0.3781	0.8556	1.2800e-003		4.5200e-003	4.5200e-003		4.5200e-003	4.5200e-003	0.0000	113.1840	113.1840	0.0206	0.0000	113.6167
Total	0.0216	0.3781	0.8556	1.2800e-003		4.5200e-003	4.5200e-003		4.5200e-003	4.5200e-003	0.0000	113.1840	113.1840	0.0206	0.0000	113.6167

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	1.2300e-003	0.0162	0.0148	5.0000e-005	1.3400e-003	2.6000e-004	1.6000e-003	3.8000e-004	2.4000e-004	6.2000e-004	0.0000	4.1230	4.1230	3.0000e-005	0.0000	4.1235
Worker	4.2800e-003	6.3200e-003	0.0658	1.5000e-004	0.0120	1.1000e-004	0.0121	3.1900e-003	1.0000e-004	3.2900e-003	0.0000	11.2698	11.2698	6.1000e-004	0.0000	11.2827
Total	5.5100e-003	0.0225	0.0805	2.0000e-004	0.0133	3.7000e-004	0.0137	3.5700e-003	3.4000e-004	3.9100e-003	0.0000	15.3928	15.3928	6.4000e-004	0.0000	15.4063

3.5 Shotcrete - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1299	0.9041	0.7139	1.1800e-003		0.0693	0.0693		0.0693	0.0693	0.0000	101.4318	101.4318	0.0106	0.0000	101.6549
Total	0.1299	0.9041	0.7139	1.1800e-003		0.0693	0.0693		0.0693	0.0693	0.0000	101.4318	101.4318	0.0106	0.0000	101.6549

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	3.4100e-003	0.0457	0.0401	1.2000e-004	3.4300e-003	7.5000e-004	4.1800e-003	9.8000e-004	6.9000e-004	1.6700e-003	0.0000	10.7136	10.7136	7.0000e-005	0.0000	10.7151
Worker	7.3400e-003	0.0107	0.1117	2.3000e-004	0.0184	1.8000e-004	0.0186	4.8900e-003	1.6000e-004	5.0500e-003	0.0000	17.9639	17.9639	1.0200e-003	0.0000	17.9853
Total	0.0108	0.0564	0.1518	3.5000e-004	0.0218	9.3000e-004	0.0228	5.8700e-003	8.5000e-004	6.7200e-003	0.0000	28.6774	28.6774	1.0900e-003	0.0000	28.7004

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	0.0236	0.5391	0.7280	1.1800e-003		5.6700e-003	5.6700e-003		5.6700e-003	5.6700e-003	0.0000	101.4317	101.4317	0.0106	0.0000	101.6548
Total	0.0236	0.5391	0.7280	1.1800e-003		5.6700e-003	5.6700e-003		5.6700e-003	5.6700e-003	0.0000	101.4317	101.4317	0.0106	0.0000	101.6548

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	3.4100e-003	0.0457	0.0401	1.2000e-004	3.4300e-003	7.5000e-004	4.1800e-003	9.8000e-004	6.9000e-004	1.6700e-003	0.0000	10.7136	10.7136	7.0000e-005	0.0000	10.7151
Worker	7.3400e-003	0.0107	0.1117	2.3000e-004	0.0184	1.8000e-004	0.0186	4.8900e-003	1.6000e-004	5.0500e-003	0.0000	17.9639	17.9639	1.0200e-003	0.0000	17.9853
Total	0.0108	0.0564	0.1518	3.5000e-004	0.0218	9.3000e-004	0.0228	5.8700e-003	8.5000e-004	6.7200e-003	0.0000	28.6774	28.6774	1.0900e-003	0.0000	28.7004

3.5 Shotcrete - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0865	0.6180	0.5248	8.7000e-004		0.0453	0.0453		0.0453	0.0453	0.0000	75.1682	75.1682	7.0300e-003	0.0000	75.3158
Total	0.0865	0.6180	0.5248	8.7000e-004		0.0453	0.0453		0.0453	0.0453	0.0000	75.1682	75.1682	7.0300e-003	0.0000	75.3158

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	2.3200e-003	0.0307	0.0280	9.0000e-005	2.5400e-003	5.0000e-004	3.0400e-003	7.2000e-004	4.6000e-004	1.1800e-003	0.0000	7.8129	7.8129	5.0000e-005	0.0000	7.8140
Worker	4.8700e-003	7.1900e-003	0.0748	1.7000e-004	0.0136	1.3000e-004	0.0138	3.6200e-003	1.2000e-004	3.7400e-003	0.0000	12.8136	12.8136	7.0000e-004	0.0000	12.8283
Total	7.1900e-003	0.0379	0.1028	2.6000e-004	0.0162	6.3000e-004	0.0168	4.3400e-003	5.8000e-004	4.9200e-003	0.0000	20.6266	20.6266	7.5000e-004	0.0000	20.6423

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	0.0175	0.3995	0.5395	8.7000e-004		4.2000e-003	4.2000e-003		4.2000e-003	4.2000e-003	0.0000	75.1681	75.1681	7.0300e-003	0.0000	75.3157
Total	0.0175	0.3995	0.5395	8.7000e-004		4.2000e-003	4.2000e-003		4.2000e-003	4.2000e-003	0.0000	75.1681	75.1681	7.0300e-003	0.0000	75.3157

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
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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	2.3200e-003	0.0307	0.0280	9.0000e-005	2.5400e-003	5.0000e-004	3.0400e-003	7.2000e-004	4.6000e-004	1.1800e-003	0.0000	7.8129	7.8129	5.0000e-005	0.0000	7.8140
Worker	4.8700e-003	7.1900e-003	0.0748	1.7000e-004	0.0136	1.3000e-004	0.0138	3.6200e-003	1.2000e-004	3.7400e-003	0.0000	12.8136	12.8136	7.0000e-004	0.0000	12.8283
Total	7.1900e-003	0.0379	0.1028	2.6000e-004	0.0162	6.3000e-004	0.0168	4.3400e-003	5.8000e-004	4.9200e-003	0.0000	20.6266	20.6266	7.5000e-004	0.0000	20.6423

3.6 Foundation/Structure - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.3019	3.0518	2.1526	3.6000e-003		0.1728	0.1728		0.1622	0.1622	0.0000	328.7277	328.7277	0.0867	0.0000	330.5473
Total	0.3019	3.0518	2.1526	3.6000e-003		0.1728	0.1728		0.1622	0.1622	0.0000	328.7277	328.7277	0.0867	0.0000	330.5473

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	0.0503	0.7052	0.6957	1.9000e-003	0.0431	9.6100e-003	0.0528	0.0118	8.8400e-003	0.0207	0.0000	170.7675	170.7675	1.3100e-003	0.0000	170.7950
Worker	8.5700e-003	0.0126	0.1316	3.1000e-004	0.0240	2.2000e-004	0.0242	6.3700e-003	2.0000e-004	6.5800e-003	0.0000	22.5397	22.5397	1.2300e-003	0.0000	22.5655

Total	0.0589	0.7178	0.8273	2.2100e-003	0.0671	9.8300e-003	0.0770	0.0182	9.0400e-003	0.0273	0.0000	193.3072	193.3072	2.5400e-003	0.0000	193.3605
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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	0.0502	0.5022	2.3709	3.6000e-003		8.3300e-003	8.3300e-003		8.3300e-003	8.3300e-003	0.0000	328.7273	328.7273	0.0867	0.0000	330.5469
Total	0.0502	0.5022	2.3709	3.6000e-003		8.3300e-003	8.3300e-003		8.3300e-003	8.3300e-003	0.0000	328.7273	328.7273	0.0867	0.0000	330.5469

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	0.0503	0.7052	0.6957	1.9000e-003	0.0431	9.6100e-003	0.0528	0.0118	8.8400e-003	0.0207	0.0000	170.7675	170.7675	1.3100e-003	0.0000	170.7950
Worker	8.5700e-003	0.0126	0.1316	3.1000e-004	0.0240	2.2000e-004	0.0242	6.3700e-003	2.0000e-004	6.5800e-003	0.0000	22.5397	22.5397	1.2300e-003	0.0000	22.5655
Total	0.0589	0.7178	0.8273	2.2100e-003	0.0671	9.8300e-003	0.0770	0.0182	9.0400e-003	0.0273	0.0000	193.3072	193.3072	2.5400e-003	0.0000	193.3605

3.6 Foundation/Structure - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.2558	2.5528	2.0430	3.5400e-003		0.1421	0.1421		0.1335	0.1335	0.0000	319.5232	319.5232	0.0846	0.0000	321.2994
Total	0.2558	2.5528	2.0430	3.5400e-003		0.1421	0.1421		0.1335	0.1335	0.0000	319.5232	319.5232	0.0846	0.0000	321.2994

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	0.0483	0.6469	0.6721	1.8700e-003	0.0426	9.4700e-003	0.0520	0.0117	8.7100e-003	0.0204	0.0000	165.6594	165.6594	1.3100e-003	0.0000	165.6869
Worker	7.5800e-003	0.0113	0.1175	3.0000e-004	0.0237	2.1000e-004	0.0239	6.2900e-003	2.0000e-004	6.4800e-003	0.0000	21.4162	21.4162	1.1300e-003	0.0000	21.4398
Total	0.0559	0.6583	0.7897	2.1700e-003	0.0662	9.6800e-003	0.0759	0.0180	8.9100e-003	0.0269	0.0000	187.0755	187.0755	2.4400e-003	0.0000	187.1267

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					

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
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
Worker					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

3.7 Tower/Ramp - 2018

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
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
Worker					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Mitigated Construction Off-Site

Vendor	6.3000e-004	6.2800e-003	8.8500e-003	2.0000e-005	5.0000e-004	9.0000e-005	6.0000e-004	1.4000e-004	9.0000e-005	2.3000e-004	0.0000	1.5799	1.5799	1.0000e-005	0.0000	1.5801
Worker	4.3200e-003	6.4400e-003	0.0669	1.7000e-004	0.0135	1.2000e-004	0.0136	3.5800e-003	1.1000e-004	3.6900e-003	0.0000	12.1953	12.1953	6.4000e-004	0.0000	12.2088
Total	4.9500e-003	0.0127	0.0758	1.9000e-004	0.0140	2.1000e-004	0.0142	3.7200e-003	2.0000e-004	3.9200e-003	0.0000	13.7752	13.7752	6.5000e-004	0.0000	13.7889

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	0.0229	0.2736	0.1012	2.3000e-004		0.0118	0.0118		0.0109	0.0109	0.0000	21.1276	21.1276	6.5800e-003	0.0000	21.2658
Total	0.0229	0.2736	0.1012	2.3000e-004		0.0118	0.0118		0.0109	0.0109	0.0000	21.1276	21.1276	6.5800e-003	0.0000	21.2658

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	6.3000e-004	6.2800e-003	8.8500e-003	2.0000e-005	5.0000e-004	9.0000e-005	6.0000e-004	1.4000e-004	9.0000e-005	2.3000e-004	0.0000	1.5799	1.5799	1.0000e-005	0.0000	1.5801
Worker	4.3200e-003	6.4400e-003	0.0669	1.7000e-004	0.0135	1.2000e-004	0.0136	3.5800e-003	1.1000e-004	3.6900e-003	0.0000	12.1953	12.1953	6.4000e-004	0.0000	12.2088
Total	4.9500e-003	0.0127	0.0758	1.9000e-004	0.0140	2.1000e-004	0.0142	3.7200e-003	2.0000e-004	3.9200e-003	0.0000	13.7752	13.7752	6.5000e-004	0.0000	13.7889

3.9 Streetwork - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0249	0.2763	0.1795	2.8000e-004		0.0133	0.0133		0.0122	0.0122	0.0000	25.6539	25.6539	7.9200e-003	0.0000	25.8203
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0249	0.2763	0.1795	2.8000e-004		0.0133	0.0133		0.0122	0.0122	0.0000	25.6539	25.6539	7.9200e-003	0.0000	25.8203

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	1.5000e-004	1.5300e-003	2.1600e-003	0.0000	1.2000e-004	2.0000e-005	1.5000e-004	4.0000e-005	2.0000e-005	6.0000e-005	0.0000	0.3853	0.3853	0.0000	0.0000	0.3854
Worker	1.0500e-003	1.5700e-003	0.0163	4.0000e-005	3.2900e-003	3.0000e-005	3.3200e-003	8.7000e-004	3.0000e-005	9.0000e-004	0.0000	2.9745	2.9745	1.6000e-004	0.0000	2.9778
Total	1.2000e-003	3.1000e-003	0.0185	4.0000e-005	3.4100e-003	5.0000e-005	3.4700e-003	9.1000e-004	5.0000e-005	9.6000e-004	0.0000	3.3598	3.3598	1.6000e-004	0.0000	3.3631

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
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Category	tons/yr										MT/yr					
	Off-Road	7.9100e-003	0.0649	0.1602	2.8000e-004		3.4400e-003	3.4400e-003		3.2000e-003	3.2000e-003	0.0000	25.6539	25.6539	7.9200e-003	0.0000
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	7.9100e-003	0.0649	0.1602	2.8000e-004		3.4400e-003	3.4400e-003		3.2000e-003	3.2000e-003	0.0000	25.6539	25.6539	7.9200e-003	0.0000	25.8202

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	1.5000e-004	1.5300e-003	2.1600e-003	0.0000	1.2000e-004	2.0000e-005	1.5000e-004	4.0000e-005	2.0000e-005	6.0000e-005	0.0000	0.3853	0.3853	0.0000	0.0000	0.3854
Worker	1.0500e-003	1.5700e-003	0.0163	4.0000e-005	3.2900e-003	3.0000e-005	3.3200e-003	8.7000e-004	3.0000e-005	9.0000e-004	0.0000	2.9745	2.9745	1.6000e-004	0.0000	2.9778
Total	1.2000e-003	3.1000e-003	0.0185	4.0000e-005	3.4100e-003	5.0000e-005	3.4700e-003	9.1000e-004	5.0000e-005	9.6000e-004	0.0000	3.3598	3.3598	1.6000e-004	0.0000	3.3631

3.10 Sitework - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0365	0.4136	0.2631	6.8000e-004		0.0184	0.0184		0.0169	0.0169	0.0000	61.8968	61.8968	0.0193	0.0000	62.3014
Total	0.0365	0.4136	0.2631	6.8000e-004		0.0184	0.0184		0.0169	0.0169	0.0000	61.8968	61.8968	0.0193	0.0000	62.3014

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	7.6000e-004	7.5800e-003	0.0107	2.0000e-005	6.1000e-004	1.1000e-004	7.2000e-004	1.7000e-004	1.0000e-004	2.8000e-004	0.0000	1.9074	1.9074	1.0000e-005	0.0000	1.9077
Worker	5.2100e-003	7.7800e-003	0.0808	2.1000e-004	0.0163	1.5000e-004	0.0164	4.3200e-003	1.3000e-004	4.4600e-003	0.0000	14.7236	14.7236	7.7000e-004	0.0000	14.7399
Total	5.9700e-003	0.0154	0.0915	2.3000e-004	0.0169	2.6000e-004	0.0171	4.4900e-003	2.3000e-004	4.7400e-003	0.0000	16.6310	16.6310	7.8000e-004	0.0000	16.6476

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	8.3900e-003	0.0364	0.3484	6.8000e-004		1.1200e-003	1.1200e-003		1.1200e-003	1.1200e-003	0.0000	61.8967	61.8967	0.0193	0.0000	62.3014
Total	8.3900e-003	0.0364	0.3484	6.8000e-004		1.1200e-003	1.1200e-003		1.1200e-003	1.1200e-003	0.0000	61.8967	61.8967	0.0193	0.0000	62.3014

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	7.6000e-004	7.5800e-003	0.0107	2.0000e-005	6.1000e-004	1.1000e-004	7.2000e-004	1.7000e-004	1.0000e-004	2.8000e-004	0.0000	1.9074	1.9074	1.0000e-005	0.0000	1.9077
Worker	5.2100e-003	7.7800e-003	0.0808	2.1000e-004	0.0163	1.5000e-004	0.0164	4.3200e-003	1.3000e-004	4.4600e-003	0.0000	14.7236	14.7236	7.7000e-004	0.0000	14.7399
Total	5.9700e-003	0.0154	0.0915	2.3000e-004	0.0169	2.6000e-004	0.0171	4.4900e-003	2.3000e-004	4.7400e-003	0.0000	16.6310	16.6310	7.8000e-004	0.0000	16.6476

3.10 Sitework - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0221	0.2430	0.1702	4.5000e-004		0.0106	0.0106		9.7400e-003	9.7400e-003	0.0000	40.6372	40.6372	0.0129	0.0000	40.9072
Total	0.0221	0.2430	0.1702	4.5000e-004		0.0106	0.0106		9.7400e-003	9.7400e-003	0.0000	40.6372	40.6372	0.0129	0.0000	40.9072

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	4.8000e-004	4.6600e-003	6.8900e-003	1.0000e-005	4.1000e-004	7.0000e-005	4.8000e-004	1.2000e-004	7.0000e-005	1.8000e-004	0.0000	1.2455	1.2455	1.0000e-005	0.0000	1.2457
Worker	3.1900e-003	4.7600e-003	0.0494	1.4000e-004	0.0109	9.0000e-005	0.0109	2.8800e-003	9.0000e-005	2.9700e-003	0.0000	9.4307	9.4307	4.8000e-004	0.0000	9.4408
Total	3.6700e-003	9.4200e-003	0.0562	1.5000e-004	0.0113	1.6000e-004	0.0114	3.0000e-003	1.6000e-004	3.1500e-003	0.0000	10.6762	10.6762	4.9000e-004	0.0000	10.6865

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	5.5900e-003	0.0242	0.2323	4.5000e-004		7.5000e-004	7.5000e-004		7.5000e-004	7.5000e-004	0.0000	40.6371	40.6371	0.0129	0.0000	40.9071
Total	5.5900e-003	0.0242	0.2323	4.5000e-004		7.5000e-004	7.5000e-004		7.5000e-004	7.5000e-004	0.0000	40.6371	40.6371	0.0129	0.0000	40.9071

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	4.8000e-004	4.6600e-003	6.8900e-003	1.0000e-005	4.1000e-004	7.0000e-005	4.8000e-004	1.2000e-004	7.0000e-005	1.8000e-004	0.0000	1.2455	1.2455	1.0000e-005	0.0000	1.2457
Worker	3.1900e-003	4.7600e-003	0.0494	1.4000e-004	0.0109	9.0000e-005	0.0109	2.8800e-003	9.0000e-005	2.9700e-003	0.0000	9.4307	9.4307	4.8000e-004	0.0000	9.4408
Total	3.6700e-003	9.4200e-003	0.0562	1.5000e-004	0.0113	1.6000e-004	0.0114	3.0000e-003	1.6000e-004	3.1500e-003	0.0000	10.6762	10.6762	4.9000e-004	0.0000	10.6865

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Enclosed Parking with Elevator	0.00	0.00	0.00		
User Defined Parking	0.00	0.00	0.00		
User Defined Recreational	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-	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Enclosed Parking with Elevator	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
User Defined Parking	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
User Defined Recreational	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.530902	0.057841	0.178699	0.124790	0.039063	0.006298	0.016951	0.033908	0.002496	0.003149	0.003689	0.000536	0.001678

Total		0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
--------------	--	--------	--------	--------	--------	--	--------	--------	--	--------	--------	--------	--------	--------	--------	--------	--------

Mitigated

	Natural Gas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
User Defined Parking	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
User Defined Recreational	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
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Enclosed Parking with Elevator	2.022e+006	578.6295	0.0266	5.5000e-003	580.8939
User Defined Parking	0	0.0000	0.0000	0.0000	0.0000
User Defined Recreational	629343	180.0971	8.2800e-003	1.7100e-003	180.8019
Total		758.7266	0.0349	7.2100e-003	761.6959

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Enclosed Parking with Elevator	2.022e+006	578.6295	0.0266	5.5000e-003	580.8939
User Defined Parking	0	0.0000	0.0000	0.0000	0.0000
User Defined Recreational	629343	180.0971	8.2800e-003	1.7100e-003	180.8019
Total		758.7266	0.0349	7.2100e-003	761.6959

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	2.1042	7.7900e-003	0.8390	6.0000e-005		3.0100e-003	3.0100e-003		3.0100e-003	3.0100e-003	0.0000	1.6156	1.6156	4.3800e-003	0.0000	1.7076
Unmitigated	2.1042	7.7900e-003	0.8390	6.0000e-005		3.0100e-003	3.0100e-003		3.0100e-003	3.0100e-003	0.0000	1.6156	1.6156	4.3800e-003	0.0000	1.7076

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	0.4916					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
Consumer Products	1.5331					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
Landscaping	0.0795	7.7900e-003	0.8390	6.0000e-005		3.0100e-003	3.0100e-003		3.0100e-003	3.0100e-003	0.0000	1.6156	1.6156	4.3800e-003	0.0000	1.7076
Total	2.1042	7.7900e-003	0.8390	6.0000e-005		3.0100e-003	3.0100e-003		3.0100e-003	3.0100e-003	0.0000	1.6156	1.6156	4.3800e-003	0.0000	1.7076

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	0.4916					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	1.5331					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0795	7.7900e-003	0.8390	6.0000e-005		3.0100e-003	3.0100e-003		3.0100e-003	3.0100e-003	0.0000	1.6156	1.6156	4.3800e-003	0.0000	1.7076
Total	2.1042	7.7900e-003	0.8390	6.0000e-005		3.0100e-003	3.0100e-003		3.0100e-003	3.0100e-003	0.0000	1.6156	1.6156	4.3800e-003	0.0000	1.7076

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			
Enclosed Parking with Elevator	0 / 0	0.0000	0.0000	0.0000	0.0000
User Defined Parking	0 / 0	0.0000	0.0000	0.0000	0.0000
User Defined Recreational	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Enclosed Parking with Elevator	0 / 0	0.0000	0.0000	0.0000	0.0000
User Defined Parking	0 / 0	0.0000	0.0000	0.0000	0.0000
User Defined Recreational	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

8.0 Waste Detail

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			
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000
User Defined Parking	0	0.0000	0.0000	0.0000	0.0000
User Defined Recreational	0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000
User Defined Parking	0	0.0000	0.0000	0.0000	0.0000
User Defined Recreational	0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

9.0 Operational Offroad

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

Sub-Appendix d)
Localized Construction Emissions
AERMOD Output Files


```

** Lakes Environmental AERMOD MPI
**
*****
**
** AERMOD INPUT PRODUCED BY:
** AERMOD VIEW VER. 9.0.0
** LAKES ENVIRONMENTAL SOFTWARE INC.
** DATE: 4/12/2016
** FILE: E:\AERMOD\HW\HW-CONST-PM10\HW-CONST-PM10.ADI
**
*****
**
**
*****
** AERMOD CONTROL PATHWAY
*****
**
**
CO STARTING
TITLEONE HARVARD-WESTLAKE UPPER SCHOOL INFRASTRUCTURE PROJECT
TITLETWO LOCALIZED CONSTRUCTION EMISSIONS PM10
MODELOPT DFAULT CONC
AVERTIME 24
URBAOFT 9862049
POLLUTID PM_10
FLAGPOLE 0.00
RUNORNOT RUN
ERRORFIL "LOCALIZED PM10.ERR"
CO FINISHED
**
*****
** AERMOD SOURCE PATHWAY
*****
**
**
SO STARTING
** SOURCE LOCATION **
** SOURCE ID - TYPE - X COORD. - Y COORD. **
LOCATION PAREA2 AREAPOLY 369660.257 3778556.833 213.640
** SOURCE PARAMETERS **
SRCPARAM PAREA2 8.9511E-06 0.305 33 1.000
AREAVERT PAREA2 369660.257 3778556.833 369661.524 3778533.552
AREAVERT PAREA2 369664.830 3778478.969 369678.151 3778435.245
AREAVERT PAREA2 369711.086 3778364.454 369724.654 3778340.037
AREAVERT PAREA2 369717.873 3778335.178 369713.234 3778334.172
AREAVERT PAREA2 369706.397 3778332.087 369701.531 3778331.792
AREAVERT PAREA2 369687.817 3778333.634 369637.086 3778316.105
AREAVERT PAREA2 369633.277 3778317.953 369636.408 3778326.494
AREAVERT PAREA2 369625.824 3778322.169 369597.654 3778338.655
AREAVERT PAREA2 369577.640 3778350.454 369574.501 3778357.510
AREAVERT PAREA2 369577.747 3778364.184 369583.791 3778368.267
AREAVERT PAREA2 369593.280 3778363.256 369608.333 3778368.570
AREAVERT PAREA2 369586.854 3778427.846 369580.814 3778444.511
AREAVERT PAREA2 369593.897 3778459.096 369600.471 3778473.527
AREAVERT PAREA2 369615.050 3778479.995 369633.063 3778486.684
AREAVERT PAREA2 369642.601 3778498.204 369648.459 3778530.072
AREAVERT PAREA2 369650.951 3778547.224 369651.938 3778574.625
AREAVERT PAREA2 369660.093 3778574.426
URBANSRC ALL
** VARIABLE EMISSIONS TYPE: "BY HOUR-OF-DAY (HROFDY)"
** VARIABLE EMISSION SCENARIO: "PM2.5"
EMISFACT PAREA2 HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT PAREA2 HROFDY 0.0 0.0 1.0 1.0 1.0 1.0
EMISFACT PAREA2 HROFDY 1.0 1.0 1.0 1.0 0.0 0.0
EMISFACT PAREA2 HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
SRCGROUP ALL
SO FINISHED
**
*****
** AERMOD RECEPTOR PATHWAY
*****
**
**
RE STARTING
** DESCRREC **
DISCCART 369697.92 3778529.05 212.42 426.30 0.00
DISCCART 369691.90 3778578.43 207.99 426.30 0.00
DISCCART 369709.39 3778565.24 207.94 426.30 0.00
DISCCART 369733.82 3778565.24 206.84 426.30 0.00
DISCCART 369760.43 3778565.24 209.83 426.30 0.00
DISCCART 369684.96 3778627.64 207.32 426.30 0.00
DISCCART 369709.39 3778627.64 206.06 426.30 0.00
DISCCART 369733.82 3778627.64 205.89 426.30 0.00
DISCCART 369760.43 3778627.64 207.95 426.30 0.00
DISCCART 369684.56 3778740.79 204.99 426.30 0.00
DISCCART 369708.99 3778740.79 204.66 426.30 0.00
DISCCART 369733.42 3778740.79 205.01 426.30 0.00
DISCCART 369760.02 3778740.79 206.13 426.30 0.00
DISCCART 369684.59 3778685.54 206.13 426.30 0.00
DISCCART 369709.02 3778685.54 205.87 426.30 0.00
DISCCART 369733.45 3778685.54 206.02 426.30 0.00
DISCCART 369760.06 3778685.54 206.95 426.30 0.00
DISCCART 369682.12 3778778.17 203.68 426.30 0.00
DISCCART 369724.72 3778778.17 203.46 426.30 0.00
DISCCART 369767.32 3778778.17 203.68 426.30 0.00
DISCCART 369809.92 3778778.17 204.88 426.30 0.00
DISCCART 369852.52 3778778.17 205.66 426.30 0.00
DISCCART 369983.65 3778767.63 207.77 426.30 0.00
DISCCART 369914.44 3778779.51 206.11 426.30 0.00
DISCCART 369883.78 3778779.51 205.88 426.30 0.00
DISCCART 369949.38 3778777.05 206.95 426.30 0.00
DISCCART 369810.59 3778741.35 207.18 426.30 0.00
DISCCART 369828.20 3778628.60 224.76 426.30 0.00
DISCCART 369866.96 3778657.96 228.72 426.30 0.00
DISCCART 369904.54 3778679.10 227.35 426.30 0.00
DISCCART 369858.74 3778708.37 217.44 426.30 0.00
DISCCART 369905.71 3778639.08 232.62 426.30 0.00
DISCCART 369885.75 3778619.11 237.90 426.30 0.00
DISCCART 369638.62 3778030.06 238.10 426.30 0.00
DISCCART 369698.03 3778231.80 263.90 426.30 0.00
DISCCART 369682.83 3778161.33 253.73 426.30 0.00
DISCCART 369653.81 3778099.15 245.00 426.30 0.00
DISCCART 369666.25 3778059.08 234.83 426.30 0.00

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DISCCART 369722.90 3778230.42 255.52 426.30 0.00
DISCCART 369715.99 3778190.35 251.04 426.30 0.00
DISCCART 369703.56 3778158.57 247.54 426.30 0.00
DISCCART 369686.98 3778126.79 246.29 426.30 0.00
DISCCART 369675.92 3778097.77 240.88 426.30 0.00
DISCCART 369703.56 3778108.82 232.42 426.30 0.00
DISCCART 369727.05 3778139.22 227.77 426.30 0.00
DISCCART 369903.91 3778552.37 260.00 426.30 0.00
DISCCART 369866.61 3778563.43 256.91 426.30 0.00
DISCCART 369873.52 3778516.45 252.21 426.30 0.00
DISCCART 369887.33 3778491.57 248.95 426.30 0.00
DISCCART 369859.70 3778444.59 244.77 426.30 0.00
DISCCART 369854.17 3778327.22 240.53 426.30 0.00
DISCCART 369643.37 3778672.46 207.95 426.30 0.00
DISCCART 369644.15 3778798.32 203.31 426.30 0.00
DISCCART 369649.67 3779013.88 197.04 426.30 0.00
DISCCART 369649.67 3778913.01 199.59 426.30 0.00
DISCCART 369580.58 3779019.41 196.04 426.30 0.00
DISCCART 369573.68 3778911.63 200.43 426.30 0.00
DISCCART 369575.06 3778832.87 202.18 426.30 0.00
DISCCART 369591.64 3778749.96 208.62 426.30 0.00
DISCCART 369640.00 3778638.03 208.27 426.30 0.00
DISCCART 369590.26 3778698.83 212.41 426.30 0.00
DISCCART 369569.53 3778751.34 209.35 426.30 0.00
DISCCART 369552.95 3778835.63 202.71 426.30 0.00
DISCCART 369547.42 3778906.10 201.22 426.30 0.00
DISCCART 369619.40 3778570.86 230.54 426.30 0.00
DISCCART 369551.26 3778615.39 234.41 426.30 0.00
DISCCART 369491.97 3778688.07 228.37 426.30 0.00
DISCCART 369486.23 3778783.69 227.34 426.30 0.00
DISCCART 369554.34 3778511.60 263.68 426.30 0.00
DISCCART 369467.11 3778588.61 255.71 426.30 0.00
DISCCART 369442.24 3778525.50 257.11 426.30 0.00
DISCCART 369426.94 3778653.64 251.18 426.30 0.00
DISCCART 369430.77 3778596.26 249.51 426.30 0.00
DISCCART 369382.96 3778730.14 249.69 426.30 0.00
DISCCART 369384.87 3778676.59 240.29 426.30 0.00
DISCCART 369398.26 3778498.73 253.73 426.30 0.00
DISCCART 369245.26 3778531.24 217.92 426.30 0.00
DISCCART 369245.26 3778441.35 219.52 426.30 0.00
DISCCART 369247.17 3778341.90 222.87 426.30 0.00
DISCCART 369803.41 3778176.93 220.61 426.30 0.00
DISCCART 369381.69 3778367.12 260.46 426.30 0.00
DISCCART 369397.35 3778405.93 259.63 426.30 0.00
DISCCART 369486.97 3778466.99 288.56 426.30 0.00
DISCCART 369583.98 3778531.08 254.27 426.30 0.00
DISCCART 369807.29 3778237.38 216.45 426.30 0.00
DISCCART 369829.19 3778203.30 218.14 426.30 0.00
DISCCART 369819.96 3778183.97 219.31 426.30 0.00

```

RE FINISHED

**

** AERMOD METEOROLOGY PATHWAY

**

ME STARTING

SURFFILE ..\..\BURK8.SFC

PROFFILE ..\..\BURK8.PFL

SURFDATA 0 2008

UAIIRDATA 3190 2008

PROFBASE 175.0 METERS

ME FINISHED

**

** AERMOD OUTPUT PATHWAY

**

OU STARTING

RECTABLE ALLAVE 1ST

RECTABLE 24 1ST

** AUTO-GENERATED PLOTFILES

PLOTFILE 24 ALL 1ST HW-CONST-PM10.AD\24HIGALL.PLT 31

SUMMFILE "LOCALIZED PM10.SUM"

OU FINISHED

**

*** SETUP Finishes Successfully ***

*** AERMOD - VERSION 14134 *** ** HARVARD-WESTLAKE UPPER SCHOOL INFRASTRUCTURE PROJECT *** 04/12/16

*** AERMET - VERSION 14134 *** ** LOCALIZED CONSTRUCTION EMISSIONS PM10 *** 14:54:06

PAGE 1

**MODELOPTs: RegDFault CONC ELEV FLGPOL

*** MODEL SETUP OPTIONS SUMMARY ***

**Model Is Setup For Calculation of Average CONcentration Values.

-- DEPOSITION LOGIC --

**NO GAS DEPOSITION Data Provided.

**NO PARTICLE DEPOSITION Data Provided.

**Model Uses NO DRY DEPLETION. DRYDPLT = F

**Model Uses NO WET DEPLETION. WETDPLT = F

**Model Uses URBAN Dispersion Algorithm for the SBL for 1 Source(s),

for Total of 1 Urban Area(s):

Urban Population = 9862049.0 ; Urban Roughness Length = 1.000 m

**Model Uses Regulatory DEFAULT Options:

1. Stack-tip Downwash.
2. Model Accounts for ELEvated Terrain Effects.
3. Use Calms Processing Routine.
4. Use Missing Data Processing Routine.
5. No Exponential Decay for URBAN/Non-SO2.
6. Urban Roughness Length of 1.0 Meter Assumed.

**Other Options Specified:

TEMP_Sub - Meteorological data includes TEMP substitutions

**Model Accepts FLAGPOLE Receptor Heights.

```

**The User Specified a Pollutant Type of: PM10
**Model Calculates 1 Short Term Average(s) of: 24-HR
**This Run Includes: 1 Source(s); 1 Source Group(s); and 87 Receptor(s)
**Model Set To Continue RUNNING After the Setup Testing.
**The AERMET Input Meteorological Data Version Date: 14134

**Output Options Selected:
Model Outputs Tables of Highest Short Term Values by Receptor (RECTABLE Keyword)
Model Outputs External File(s) of High Values for Plotting (PLOTFILE Keyword)
Model Outputs Separate Summary File of High Ranked Values (SUMMFILE Keyword)

**NOTE: The Following Flags May Appear Following CONC Values: c for Calm Hours
m for Missing Hours
b for Both Calm and Missing Hours

**Misc. Inputs: Base Elev. for Pot. Temp. Profile (m MSL) = 175.00 ; Decay Coef. = 0.000 ; Rot. Angle = 0.0
Emission Units = GRAMS/SEC ; Emission Rate Unit Factor = 0.10000E+07
Output Units = MICROGRAMS/M**3

**Approximate Storage Requirements of Model = 3.5 MB of RAM.

**Detailed Error/Message File: LOCALIZED PM10.ERR
**File for Summary of Results: LOCALIZED PM10.SUM
*** AERMOD - VERSION 14134 *** ** HARVARD-WESTLAKE UPPER SCHOOL INFRASTRUCTURE PROJECT *** 04/12/16
*** AERMET - VERSION 14134 *** ** LOCALIZED CONSTRUCTION EMISSIONS PM10 *** 14:54:06
PAGE 2

**MODELOPTs: RegDFault CONC ELEV FLGPOL

*** AREAPOLY SOURCE DATA ***

SOURCE NUMBER EMISSION RATE LOCATION OF AREA BASE RELEASE NUMBER INIT. URBAN EMISSION RATE
ID PART. (GRAMS/SEC) X Y ELEV. HEIGHT OF VERTS. SZ SOURCE SCALAR VARY
CATS. /METER**2 (METERS) (METERS) (METERS) (METERS) (METERS) (METERS) BY

-----
PAREA2 0 0.89511E-05 369660.3 3778556.8 213.6 0.31 33 1.00 YES HROFDY
*** AERMOD - VERSION 14134 *** ** HARVARD-WESTLAKE UPPER SCHOOL INFRASTRUCTURE PROJECT *** 04/12/16
*** AERMET - VERSION 14134 *** ** LOCALIZED CONSTRUCTION EMISSIONS PM10 *** 14:54:06
PAGE 3

**MODELOPTs: RegDFault CONC ELEV FLGPOL

*** SOURCE IDs DEFINING SOURCE GROUPS ***

SRCGROUP ID SOURCE IDs
-----
ALL PAREA2
*** AERMOD - VERSION 14134 *** ** HARVARD-WESTLAKE UPPER SCHOOL INFRASTRUCTURE PROJECT *** 04/12/16
*** AERMET - VERSION 14134 *** ** LOCALIZED CONSTRUCTION EMISSIONS PM10 *** 14:54:06
PAGE 4

**MODELOPTs: RegDFault CONC ELEV FLGPOL

*** SOURCE IDs DEFINED AS URBAN SOURCES ***

URBAN ID URBAN POP SOURCE IDs
-----
9862049. PAREA2
*** AERMOD - VERSION 14134 *** ** HARVARD-WESTLAKE UPPER SCHOOL INFRASTRUCTURE PROJECT *** 04/12/16
*** AERMET - VERSION 14134 *** ** LOCALIZED CONSTRUCTION EMISSIONS PM10 *** 14:54:06
PAGE 5

**MODELOPTs: RegDFault CONC ELEV FLGPOL

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOURLY SCALAR HOURLY SCALAR HOURLY SCALAR HOURLY SCALAR HOURLY SCALAR HOURLY SCALAR
-----
SOURCE ID = PAREA2 ; SOURCE TYPE = AREAPOLY :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6 .00000E+00
7 .00000E+00 8 .00000E+00 9 .00000E+00 10 .00000E+00 11 .00000E+00 12 .00000E+00
13 .00000E+01 14 .00000E+01 15 .00000E+01 16 .00000E+01 17 .00000E+00 18 .00000E+00
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

*** AERMOD - VERSION 14134 *** ** HARVARD-WESTLAKE UPPER SCHOOL INFRASTRUCTURE PROJECT *** 04/12/16
*** AERMET - VERSION 14134 *** ** LOCALIZED CONSTRUCTION EMISSIONS PM10 *** 14:54:06
PAGE 6

**MODELOPTs: RegDFault CONC ELEV FLGPOL

*** DISCRETE CARTESIAN RECEPTORS ***
(X-COORD, Y-COORD, ZELEV, ZHILL, ZFLAG)
(METERS)

( 369697.9, 3778529.0, 212.4, 426.3, 0.0); ( 369691.9, 3778578.4, 208.0, 426.3, 0.0);
( 369709.4, 3778565.2, 207.9, 426.3, 0.0); ( 369733.8, 3778565.2, 206.8, 426.3, 0.0);
( 369760.4, 3778565.2, 209.8, 426.3, 0.0); ( 369685.0, 3778627.6, 207.3, 426.3, 0.0);
( 369709.4, 3778627.6, 206.1, 426.3, 0.0); ( 369733.8, 3778627.6, 205.9, 426.3, 0.0);
( 369760.4, 3778627.6, 208.0, 426.3, 0.0); ( 369684.6, 3778740.8, 205.0, 426.3, 0.0);
( 369709.0, 3778740.8, 204.7, 426.3, 0.0); ( 369733.4, 3778740.8, 205.0, 426.3, 0.0);
( 369760.0, 3778740.8, 206.1, 426.3, 0.0); ( 369684.6, 3778685.5, 206.1, 426.3, 0.0);
( 369709.0, 3778685.5, 205.9, 426.3, 0.0); ( 369733.5, 3778685.5, 206.0, 426.3, 0.0);
( 369760.1, 3778685.5, 207.0, 426.3, 0.0); ( 369682.1, 3778778.2, 203.7, 426.3, 0.0);
( 369724.7, 3778778.2, 203.5, 426.3, 0.0); ( 369767.3, 3778778.2, 203.7, 426.3, 0.0);
( 369809.9, 3778778.2, 204.9, 426.3, 0.0); ( 369852.5, 3778778.2, 205.7, 426.3, 0.0);
( 369883.6, 3778767.6, 207.8, 426.3, 0.0); ( 369914.4, 3778779.5, 206.1, 426.3, 0.0);
( 369883.8, 3778779.5, 205.9, 426.3, 0.0); ( 369949.4, 3778777.0, 207.0, 426.3, 0.0);
( 369810.6, 3778741.3, 207.2, 426.3, 0.0); ( 369828.2, 3778628.6, 224.8, 426.3, 0.0);
( 369867.0, 3778658.0, 228.7, 426.3, 0.0); ( 369904.5, 3778679.1, 227.4, 426.3, 0.0);
( 369858.7, 3778708.4, 217.4, 426.3, 0.0); ( 369905.7, 3778639.1, 232.6, 426.3, 0.0);
( 369885.8, 3778619.1, 237.9, 426.3, 0.0); ( 369638.6, 3778030.1, 238.1, 426.3, 0.0);
( 369698.0, 3778231.8, 263.9, 426.3, 0.0); ( 369682.8, 3778161.3, 253.7, 426.3, 0.0);
( 369653.8, 3778099.1, 245.0, 426.3, 0.0); ( 369666.2, 3778059.1, 234.8, 426.3, 0.0);
( 369722.9, 3778230.4, 255.5, 426.3, 0.0); ( 369716.0, 3778190.3, 251.0, 426.3, 0.0);
( 369703.6, 3778158.6, 247.5, 426.3, 0.0); ( 369687.0, 3778126.8, 246.3, 426.3, 0.0);

```


369760.43 3778565.24 2.15775 (09041024) 369684.96 3778627.64 2.78231m (10090824)
369709.39 3778627.64 2.12594m (10090824) 369733.82 3778627.64 1.82034 (10121924)
369760.43 3778627.64 1.61109 (10121924) 369684.56 3778740.79 1.24275m (10090824)
369708.99 3778740.79 1.13702m (10090824) 369733.42 3778740.79 0.96635m (10090824)
369760.02 3778740.79 0.87261 (12121424) 369684.59 3778685.54 1.76858m (10090824)
369709.02 3778685.54 1.52612m (10090824) 369733.45 3778685.54 1.21219m (10090824)
369760.06 3778685.54 1.20588 (10121924) 369682.12 3778778.17 1.01066m (10090824)
369724.72 3778778.17 0.87857m (10090824) 369767.32 3778778.17 0.71556 (12121424)
369809.92 3778778.17 0.73267 (12121424) 369852.52 3778778.17 0.67681 (12121424)
369836.65 3778767.63 0.38876 (10112024) 369914.44 3778779.51 0.52052 (12121424)
369883.78 3778779.51 0.60361 (12121424) 369949.38 3778777.05 0.45775 (10112024)
369810.59 3778741.35 0.84513 (10121924) 369828.20 3778628.60 1.02796 (10112024)
369866.96 3778657.96 0.77330 (10112024) 369904.54 3778679.10 0.60214 (10112024)
369858.74 3778708.37 0.75695 (12121424) 369905.71 3778639.08 0.58177 (09040324)
369885.75 3778619.11 0.65610 (09040324) 369638.62 3778030.06 0.37659 (11050124)
369698.03 3778231.80 0.98448m (10102524) 369682.83 3778161.33 0.61810 (08020424)
369653.81 3778099.15 0.50975 (11050124) 369666.25 3778059.08 0.40644 (11050124)
369722.90 3778230.42 1.18932 (10112824) 369715.99 3778190.35 0.83715m (10102524)
369703.56 3778158.57 0.66592 (08020424) 369686.98 3778126.79 0.56044 (08020424)
369675.92 3778097.77 0.47397 (08020424) 369703.56 3778108.82 0.57728 (08020424)
369727.05 3778139.22 0.72961 (10112824) 369903.91 3778552.37 0.66566 (09122824)
369866.61 3778563.43 0.70226 (09122824) 369873.52 3778516.45 0.89994 (12121724)
369887.33 3778491.57 1.03674 (12121724) 369859.70 3778444.59 1.42594 (12121724)
369854.17 3778327.22 1.62349 (08010724) 369643.37 3778672.46 1.98307m (10090824)
369644.15 3778798.32 0.85742m (10090824) 369649.67 3779013.88 0.33493 (10122224)
369649.67 3778913.01 0.49815m (10090824) 369580.58 3779019.41 0.32621 (10122224)
369573.68 3778911.63 0.46835m (11010824) 369575.06 3778832.87 0.76184m (11010824)
369591.64 3778749.96 1.19118m (11010824) 369640.00 3778638.03 2.69360m (10090824)
369590.26 3778698.83 1.81288m (11010824) 369569.53 3778751.34 1.36052m (11010824)
369552.95 3778835.63 0.87168m (11010824) 369547.42 3778906.10 0.60560m (11010824)
369619.40 3778570.86 4.79434m (11010824) 369551.26 3778615.39 2.77148m (11010824)
369491.97 3778688.07 1.59400m (09121124) 369486.23 3778783.69 1.07367m (09121124)
369554.34 3778511.60 3.29520m (10102024) 369467.11 3778588.61 1.57131m (10102024)
369442.24 3778525.50 1.42395m (10102024) 369426.94 3778653.64 0.99082m (10102024)
369430.77 3778596.26 1.35035m (10102024) 369382.96 3778730.14 0.60351 (12112924)
369384.87 3778676.59 0.83574m (10102024) 369398.26 3778498.73 0.91541m (11072424)
369245.26 3778531.24 0.52347m (12120524) 369245.26 3778441.35 0.50744 (09082024)
369247.17 3778341.90 0.25297m (12080524) 369803.41 3778176.93 1.12256 (10112824)

*** AERMOD - VERSION 14134 *** ** HARVARD-WESTLAKE UPPER SCHOOL INFRASTRUCTURE PROJECT *** 04/12/16
*** AERMET - VERSION 14134 *** ** LOCALIZED CONSTRUCTION EMISSIONS PM10 *** 14:54:06
PAGE 10

**MODELOPTs: RegDFault CONC ELEV FLGPOL
*** THE 1ST HIGHEST 24-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): PAREA2

*** DISCRETE CARTESIAN RECEPTOR POINTS ***
** CONC OF PM10 IN MICROGRAMS/M**3 **
X-COORD (M) Y-COORD (M) CONC (YMMDDHH) X-COORD (M) Y-COORD (M) CONC (YMMDDHH)
369381.69 3778367.12 0.50198m (12080524) 369397.35 3778405.93 0.74840 (09082024)
369486.97 3778466.99 1.22095m (10102024) 369583.98 3778531.08 4.18628m (11010824)
369807.29 3778237.38 1.32708 (09112824) 369829.19 3778203.30 0.92259 (08052124)
369819.96 3778183.97 0.96837 (10112824)

*** AERMOD - VERSION 14134 *** ** HARVARD-WESTLAKE UPPER SCHOOL INFRASTRUCTURE PROJECT *** 04/12/16
*** AERMET - VERSION 14134 *** ** LOCALIZED CONSTRUCTION EMISSIONS PM10 *** 14:54:06
PAGE 11

**MODELOPTs: RegDFault CONC ELEV FLGPOL
*** THE SUMMARY OF HIGHEST 24-HR RESULTS ***

** CONC OF PM10 IN MICROGRAMS/M**3 **
GROUP ID AVERAGE CONC DATE (YMMDDHH) RECEPTOR (XR, YR, ZELEV, ZHILL, ZFLAG) OF TYPE NETWORK GRID-ID
ALL HIGH 1ST HIGH VALUE IS 5.14396m ON 11030124: AT (369697.92, 3778529.05, 212.42, 426.30, 0.00) DC

*** RECEPTOR TYPES: GC = GRIDCART
GP = GRIDPOLR
DC = DISCCART
DP = DISCPOLR
*** AERMOD - VERSION 14134 *** ** HARVARD-WESTLAKE UPPER SCHOOL INFRASTRUCTURE PROJECT *** 04/12/16
*** AERMET - VERSION 14134 *** ** LOCALIZED CONSTRUCTION EMISSIONS PM10 *** 14:54:06
PAGE 12

**MODELOPTs: RegDFault CONC ELEV FLGPOL
*** Message Summary : AERMOD Model Execution ***
----- Summary of Total Messages -----
A Total of 0 Fatal Error Message(s)
A Total of 0 Warning Message(s)
A Total of 1275 Informational Message(s)
A Total of 43848 Hours Were Processed
A Total of 13 Calm Hours Identified
A Total of 1262 Missing Hours Identified (2.88 Percent)

***** FATAL ERROR MESSAGES *****
*** NONE ***
***** WARNING MESSAGES *****
*** NONE ***

*** AERMOD Finishes Successfully ***

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** Lakes Environmental AERMOD MPI
**
*****
**
** AERMOD INPUT PRODUCED BY:
** AERMOD VIEW VER. 9.0.0
** LAKES ENVIRONMENTAL SOFTWARE INC.
** DATE: 4/12/2016
** FILE: E:\AERMOD\HW\HW-CONST-PM25\HW-CONST-PM25.ADI
**
*****
**
**
*****
** AERMOD CONTROL PATHWAY
*****
**
**
CO STARTING
TITLEONE HARVARD-WESTLAKE UPPER SCHOOL INFRASTRUCTURE PROJECT
TITLETWO LOCALIZED CONSTRUCTION EMISSIONS PM2.2
MODELOPT DFAULT CONC
AVERTIME 24
URBAOFT 9862049
POLLUTID PM_2_5
FLAGPOLE 0.00
RUNORNOT RUN
ERRORFIL "LOCALIZED PM2.ERR"
CO FINISHED
**
*****
** AERMOD SOURCE PATHWAY
*****
**
**
SO STARTING
** SOURCE LOCATION **
** SOURCE ID - TYPE - X COORD. - Y COORD. **
LOCATION PAREA2 AREAPOLY 369660.257 3778556.833 213.640
** SOURCE PARAMETERS **
SRCPARAM PAREA2 3.7346E-06 0.305 33 1.000
AREAVERT PAREA2 369660.257 3778556.833 369661.524 3778533.552
AREAVERT PAREA2 369664.830 3778478.969 369678.151 3778435.245
AREAVERT PAREA2 369711.086 3778364.454 369724.654 3778340.037
AREAVERT PAREA2 369717.873 3778335.178 369713.234 3778334.172
AREAVERT PAREA2 369706.397 3778332.087 369701.531 3778331.792
AREAVERT PAREA2 369687.817 3778333.634 369637.086 3778316.105
AREAVERT PAREA2 369633.277 3778317.953 369636.408 3778326.494
AREAVERT PAREA2 369625.824 3778322.169 369597.654 3778338.655
AREAVERT PAREA2 369577.640 3778350.454 369574.501 3778357.510
AREAVERT PAREA2 369577.747 3778364.184 369583.791 3778368.267
AREAVERT PAREA2 369593.280 3778363.256 369608.333 3778368.570
AREAVERT PAREA2 369586.854 3778427.846 369580.814 3778444.511
AREAVERT PAREA2 369593.897 3778459.096 369600.471 3778473.527
AREAVERT PAREA2 369615.050 3778479.995 369633.063 3778486.684
AREAVERT PAREA2 369642.601 3778498.204 369648.459 3778530.072
AREAVERT PAREA2 369650.951 3778547.224 369651.938 3778574.625
AREAVERT PAREA2 369660.093 3778574.426
URBANSRC ALL
** VARIABLE EMISSIONS TYPE: "BY HOUR-OF-DAY (HROFDY)"
** VARIABLE EMISSION SCENARIO: "PM2.5"
EMISFACT PAREA2 HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT PAREA2 HROFDY 0.0 0.0 1.0 1.0 1.0 1.0
EMISFACT PAREA2 HROFDY 1.0 1.0 1.0 1.0 0.0 0.0
EMISFACT PAREA2 HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
SRCGROUP ALL
SO FINISHED
**
*****
** AERMOD RECEPTOR PATHWAY
*****
**
**
RE STARTING
** DESCRREC **
DISCCART 369697.92 3778529.05 212.42 426.30 0.00
DISCCART 369691.90 3778578.43 207.99 426.30 0.00
DISCCART 369709.39 3778565.24 207.94 426.30 0.00
DISCCART 369733.82 3778565.24 206.84 426.30 0.00
DISCCART 369760.43 3778565.24 209.83 426.30 0.00
DISCCART 369684.96 3778627.64 207.32 426.30 0.00
DISCCART 369709.39 3778627.64 206.06 426.30 0.00
DISCCART 369733.82 3778627.64 205.89 426.30 0.00
DISCCART 369760.43 3778627.64 207.95 426.30 0.00
DISCCART 369684.56 3778740.79 204.99 426.30 0.00
DISCCART 369708.99 3778740.79 204.66 426.30 0.00
DISCCART 369733.42 3778740.79 205.01 426.30 0.00
DISCCART 369760.02 3778740.79 206.13 426.30 0.00
DISCCART 369684.59 3778685.54 206.13 426.30 0.00
DISCCART 369709.02 3778685.54 205.87 426.30 0.00
DISCCART 369733.45 3778685.54 206.02 426.30 0.00
DISCCART 369760.06 3778685.54 206.95 426.30 0.00
DISCCART 369682.12 3778778.17 203.68 426.30 0.00
DISCCART 369724.72 3778778.17 203.46 426.30 0.00
DISCCART 369767.32 3778778.17 203.68 426.30 0.00
DISCCART 369809.92 3778778.17 204.88 426.30 0.00
DISCCART 369852.52 3778778.17 205.66 426.30 0.00
DISCCART 369983.65 3778767.63 207.77 426.30 0.00
DISCCART 369914.44 3778779.51 206.11 426.30 0.00
DISCCART 369883.78 3778779.51 205.88 426.30 0.00
DISCCART 369949.38 3778777.05 206.95 426.30 0.00
DISCCART 369810.59 3778741.35 207.18 426.30 0.00
DISCCART 369828.20 3778628.60 224.76 426.30 0.00
DISCCART 369866.96 3778657.96 228.72 426.30 0.00
DISCCART 369904.54 3778679.10 227.35 426.30 0.00
DISCCART 369858.74 3778708.37 217.44 426.30 0.00
DISCCART 369905.71 3778639.08 232.62 426.30 0.00
DISCCART 369885.75 3778619.11 237.90 426.30 0.00
DISCCART 369638.62 3778030.06 238.10 426.30 0.00
DISCCART 369698.03 3778231.80 263.90 426.30 0.00
DISCCART 369682.83 3778161.33 253.73 426.30 0.00
DISCCART 369653.81 3778099.15 245.00 426.30 0.00
DISCCART 369666.25 3778059.08 234.83 426.30 0.00

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DISCCART 369722.90 3778230.42 255.52 426.30 0.00
DISCCART 369715.99 3778190.35 251.04 426.30 0.00
DISCCART 369703.56 3778158.57 247.54 426.30 0.00
DISCCART 369686.98 3778126.79 246.29 426.30 0.00
DISCCART 369675.92 3778097.77 240.88 426.30 0.00
DISCCART 369703.56 3778108.82 232.42 426.30 0.00
DISCCART 369727.05 3778139.22 227.77 426.30 0.00
DISCCART 369903.91 3778552.37 260.00 426.30 0.00
DISCCART 369866.61 3778563.43 256.91 426.30 0.00
DISCCART 369873.52 3778516.45 252.21 426.30 0.00
DISCCART 369887.33 3778491.57 248.95 426.30 0.00
DISCCART 369859.70 3778444.59 244.77 426.30 0.00
DISCCART 369854.17 3778327.22 240.53 426.30 0.00
DISCCART 369643.37 3778672.46 207.95 426.30 0.00
DISCCART 369644.15 3778798.32 203.31 426.30 0.00
DISCCART 369649.67 3779013.88 197.04 426.30 0.00
DISCCART 369649.67 3778913.01 199.59 426.30 0.00
DISCCART 369580.58 3779019.41 196.04 426.30 0.00
DISCCART 369573.68 3778911.63 200.43 426.30 0.00
DISCCART 369575.06 3778832.87 202.18 426.30 0.00
DISCCART 369591.64 3778749.96 208.62 426.30 0.00
DISCCART 369640.00 3778638.03 208.27 426.30 0.00
DISCCART 369590.26 3778698.83 212.41 426.30 0.00
DISCCART 369569.53 3778751.34 209.35 426.30 0.00
DISCCART 369552.95 3778835.63 202.71 426.30 0.00
DISCCART 369547.42 3778906.10 201.22 426.30 0.00
DISCCART 369619.40 3778570.86 230.54 426.30 0.00
DISCCART 369551.26 3778615.39 234.41 426.30 0.00
DISCCART 369491.97 3778688.07 228.37 426.30 0.00
DISCCART 369486.23 3778783.69 227.34 426.30 0.00
DISCCART 369554.34 3778511.60 263.68 426.30 0.00
DISCCART 369467.11 3778588.61 255.71 426.30 0.00
DISCCART 369442.24 3778525.50 257.11 426.30 0.00
DISCCART 369426.94 3778653.64 251.18 426.30 0.00
DISCCART 369430.77 3778596.26 249.51 426.30 0.00
DISCCART 369382.96 3778730.14 249.69 426.30 0.00
DISCCART 369384.87 3778676.59 240.29 426.30 0.00
DISCCART 369398.26 3778498.73 253.73 426.30 0.00
DISCCART 369245.26 3778531.24 217.92 426.30 0.00
DISCCART 369245.26 3778441.35 219.52 426.30 0.00
DISCCART 369247.17 3778341.90 222.87 426.30 0.00
DISCCART 369803.41 3778176.93 220.61 426.30 0.00
DISCCART 369381.69 3778367.12 260.46 426.30 0.00
DISCCART 369397.35 3778405.93 259.63 426.30 0.00
DISCCART 369486.97 3778466.99 288.56 426.30 0.00
DISCCART 369583.98 3778531.08 254.27 426.30 0.00
DISCCART 369807.29 3778237.38 216.45 426.30 0.00
DISCCART 369829.19 3778203.30 218.14 426.30 0.00
DISCCART 369819.96 3778183.97 219.31 426.30 0.00

```

RE FINISHED

**

** AERMOD METEOROLOGY PATHWAY

**

ME STARTING

SURFFILE ..\..\BURK8.SFC

PROFFILE ..\..\BURK8.PFL

SURFDATA 0 2008

UAIADATA 3190 2008

PROFBASE 175.0 METERS

ME FINISHED

**

** AERMOD OUTPUT PATHWAY

**

OU STARTING

RECTABLE ALLAVE 1ST

RECTABLE 24 1ST

** AUTO-GENERATED PLOTFILES

PLOTFILE 24 ALL 1ST HW-CONST-PM25.AD\24HIGALL.PLT 31

SUMMFILE "LOCALIZED PM2.SUM"

OU FINISHED

**

*** SETUP Finishes Successfully ***

**

*** AERMOD - VERSION 14134 *** ** HARVARD-WESTLAKE UPPER SCHOOL INFRASTRUCTURE PROJECT *** 04/12/16

*** AERMET - VERSION 14134 *** ** LOCALIZED CONSTRUCTION EMISSIONS PM2.2 *** 14:14:25

MODELOPTs: RegDFault CONC ELEV FLGPOL * MODEL SETUP OPTIONS SUMMARY *** PAGE 1

**Model Is Setup For Calculation of Average CONcentration Values.

-- DEPOSITION LOGIC --

**NO GAS DEPOSITION Data Provided.

**NO PARTICLE DEPOSITION Data Provided.

**Model Uses NO DRY DEPLETION. DRYDPLT = F

**Model Uses NO WET DEPLETION. WETDPLT = F

**Model Uses URBAN Dispersion Algorithm for the SBL for 1 Source(s),

for Total of 1 Urban Area(s):

Urban Population = 9862049.0 ; Urban Roughness Length = 1.000 m

**Model Uses Regulatory DEFAULT Options:

1. Stack-tip Downwash.
2. Model Accounts for ELEvated Terrain Effects.
3. Use Calms Processing Routine.
4. Use Missing Data Processing Routine.
5. No Exponential Decay for URBAN/Non-SO2.
6. Urban Roughness Length of 1.0 Meter Assumed.

**Other Options Specified:

TEMP_Sub - Meteorological data includes TEMP substitutions

**Model Accepts FLAGPOLE Receptor Heights.

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**The User Specified a Pollutant Type of: PM_2.5
**Model Calculates 1 Short Term Average(s) of: 24-HR
**This Run Includes: 1 Source(s); 1 Source Group(s); and 87 Receptor(s)
**Model Set To Continue RUNNING After the Setup Testing.
**The AERMET Input Meteorological Data Version Date: 14134
**Output Options Selected:
  Model Outputs Tables of Highest Short Term Values by Receptor (RECTABLE Keyword)
  Model Outputs External File(s) of High Values for Plotting (PLOTFILE Keyword)
  Model Outputs Separate Summary File of High Ranked Values (SUMMFILE Keyword)
**NOTE: The Following Flags May Appear Following CONC Values: c for Calm Hours
  m for Missing Hours
  b for Both Calm and Missing Hours
**Misc. Inputs: Base Elev. for Pot. Temp. Profile (m MSL) = 175.00 ; Decay Coef. = 0.000 ; Rot. Angle = 0.0
  Emission Units = GRAMS/SEC ; Emission Rate Unit Factor = 0.10000E+07
  Output Units = MICROGRAMS/M**3
**Approximate Storage Requirements of Model = 3.5 MB of RAM.
**Detailed Error/Message File: LOCALIZED PM2.ERR
**File for Summary of Results: LOCALIZED PM2.SUM
*** AERMOD - VERSION 14134 *** ** HARVARD-WESTLAKE UPPER SCHOOL INFRASTRUCTURE PROJECT *** 04/12/16
*** AERMET - VERSION 14134 *** ** LOCALIZED CONSTRUCTION EMISSIONS PM2.2 *** 14:14:25
  PAGE 2
**MODELOPTs: RegDFault CONC ELEV FLGPOL
  *** AREAPOLY SOURCE DATA ***
  SOURCE NUMBER EMISSION RATE LOCATION OF AREA BASE RELEASE NUMBER INIT. URBAN EMISSION RATE
  ID PART. (GRAMS/SEC X Y ELEV. HEIGHT OF VERTS. SZ SOURCE SCALAR VARY
  CATS. /METER**2) (METERS) (METERS) (METERS) (METERS) (METERS)
-----
PAREA2 0 0.37346E-05 369660.3 3778556.8 213.6 0.31 33 1.00 YES HROFDY
*** AERMOD - VERSION 14134 *** ** HARVARD-WESTLAKE UPPER SCHOOL INFRASTRUCTURE PROJECT *** 04/12/16
*** AERMET - VERSION 14134 *** ** LOCALIZED CONSTRUCTION EMISSIONS PM2.2 *** 14:14:25
  PAGE 3
**MODELOPTs: RegDFault CONC ELEV FLGPOL
  *** SOURCE IDs DEFINING SOURCE GROUPS ***
SRCGROUP ID SOURCE IDs
-----
ALL PAREA2
*** AERMOD - VERSION 14134 *** ** HARVARD-WESTLAKE UPPER SCHOOL INFRASTRUCTURE PROJECT *** 04/12/16
*** AERMET - VERSION 14134 *** ** LOCALIZED CONSTRUCTION EMISSIONS PM2.2 *** 14:14:25
  PAGE 4
**MODELOPTs: RegDFault CONC ELEV FLGPOL
  *** SOURCE IDs DEFINED AS URBAN SOURCES ***
URBAN ID URBAN POP SOURCE IDs
-----
9862049. PAREA2
*** AERMOD - VERSION 14134 *** ** HARVARD-WESTLAKE UPPER SCHOOL INFRASTRUCTURE PROJECT *** 04/12/16
*** AERMET - VERSION 14134 *** ** LOCALIZED CONSTRUCTION EMISSIONS PM2.2 *** 14:14:25
  PAGE 5
**MODELOPTs: RegDFault CONC ELEV FLGPOL
  * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *
  HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR
-----
SOURCE ID = PAREA2 ; SOURCE TYPE = AREAPOLY :
  1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6 .00000E+00
  7 .00000E+00 8 .00000E+00 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01
  13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .00000E+00 18 .00000E+00
  19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00
*** AERMOD - VERSION 14134 *** ** HARVARD-WESTLAKE UPPER SCHOOL INFRASTRUCTURE PROJECT *** 04/12/16
*** AERMET - VERSION 14134 *** ** LOCALIZED CONSTRUCTION EMISSIONS PM2.2 *** 14:14:25
  PAGE 6
**MODELOPTs: RegDFault CONC ELEV FLGPOL
  *** DISCRETE CARTESIAN RECEPTORS ***
  (X-COORD, Y-COORD, ZELEV, ZHILL, ZFLAG)
  (METERS)
  ( 369697.9, 3778529.0, 212.4, 426.3, 0.0); ( 369691.9, 3778578.4, 208.0, 426.3, 0.0);
  ( 369709.4, 3778565.2, 207.9, 426.3, 0.0); ( 369733.8, 3778565.2, 206.8, 426.3, 0.0);
  ( 369760.4, 3778565.2, 209.8, 426.3, 0.0); ( 369685.0, 3778627.6, 207.3, 426.3, 0.0);
  ( 369709.4, 3778627.6, 206.1, 426.3, 0.0); ( 369733.8, 3778627.6, 205.9, 426.3, 0.0);
  ( 369760.4, 3778627.6, 208.0, 426.3, 0.0); ( 369684.6, 3778740.8, 205.0, 426.3, 0.0);
  ( 369709.0, 3778740.8, 204.7, 426.3, 0.0); ( 369733.4, 3778740.8, 205.0, 426.3, 0.0);
  ( 369760.0, 3778740.8, 206.1, 426.3, 0.0); ( 369684.6, 3778685.5, 206.1, 426.3, 0.0);
  ( 369709.0, 3778685.5, 205.9, 426.3, 0.0); ( 369733.5, 3778685.5, 206.0, 426.3, 0.0);
  ( 369760.1, 3778685.5, 207.0, 426.3, 0.0); ( 369682.1, 3778778.2, 203.7, 426.3, 0.0);
  ( 369724.7, 3778778.2, 203.5, 426.3, 0.0); ( 369767.3, 3778778.2, 203.7, 426.3, 0.0);
  ( 369809.9, 3778778.2, 204.9, 426.3, 0.0); ( 369852.5, 3778778.2, 205.7, 426.3, 0.0);
  ( 369883.6, 3778767.6, 207.8, 426.3, 0.0); ( 369914.4, 3778779.5, 206.1, 426.3, 0.0);
  ( 369883.8, 3778779.5, 205.9, 426.3, 0.0); ( 369949.4, 3778777.0, 207.0, 426.3, 0.0);
  ( 369810.6, 3778741.3, 207.2, 426.3, 0.0); ( 369828.2, 3778628.6, 224.8, 426.3, 0.0);
  ( 369867.0, 3778658.0, 228.7, 426.3, 0.0); ( 369904.5, 3778679.1, 227.4, 426.3, 0.0);
  ( 369858.7, 3778708.4, 217.4, 426.3, 0.0); ( 369905.7, 3778639.1, 232.6, 426.3, 0.0);
  ( 369885.8, 3778619.1, 237.9, 426.3, 0.0); ( 369638.6, 3778030.1, 238.1, 426.3, 0.0);
  ( 369698.0, 3778231.8, 263.9, 426.3, 0.0); ( 369682.8, 3778161.3, 253.7, 426.3, 0.0);
  ( 369653.8, 3778099.1, 245.0, 426.3, 0.0); ( 369666.2, 3778059.1, 234.8, 426.3, 0.0);
  ( 369722.9, 3778230.4, 255.5, 426.3, 0.0); ( 369716.0, 3778190.3, 251.0, 426.3, 0.0);
  ( 369703.6, 3778158.6, 247.5, 426.3, 0.0); ( 369687.0, 3778126.8, 246.3, 426.3, 0.0);

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369760.43	3778565.24	0.90026	(09041024)	369684.96	3778627.64	1.16084m	(10090824)
369709.39	3778627.64	0.88699m	(10090824)	369733.82	3778627.64	0.75949	(10121924)
369760.43	3778627.64	0.67218	(10121924)	369684.56	3778740.79	0.51850m	(10090824)
369708.99	3778740.79	0.47439m	(10090824)	369733.42	3778740.79	0.40318m	(10090824)
369760.02	3778740.79	0.36407	(12121424)	369684.59	3778685.54	0.73789m	(10090824)
369709.02	3778685.54	0.63673m	(10090824)	369733.45	3778685.54	0.50575m	(10090824)
369760.06	3778685.54	0.50312	(10121924)	369682.12	3778778.17	0.42167m	(10090824)
369724.72	3778778.17	0.36656m	(10090824)	369767.32	3778778.17	0.29855	(12121424)
369809.92	3778778.17	0.30569	(12121424)	369852.52	3778778.17	0.28238	(12121424)
369836.65	3778767.63	0.16220	(10112024)	369914.44	3778779.51	0.21717	(12121424)
369883.78	3778779.51	0.25184	(12121424)	369949.38	3778777.05	0.19098	(10112024)
369810.59	3778741.35	0.35261	(10121924)	369828.20	3778628.60	0.42889	(10112024)
369866.96	3778657.96	0.32264	(10112024)	369904.54	3778679.10	0.25123	(10112024)
369858.74	3778708.37	0.31582	(12121424)	369905.71	3778639.08	0.24273	(09040324)
369885.75	3778619.11	0.27374	(09040324)	369638.62	3778030.06	0.15712	(11050124)
369698.03	3778231.80	0.41075m	(10102524)	369682.83	3778161.33	0.25789	(08020424)
369653.81	3778099.15	0.21268	(11050124)	369666.25	3778059.08	0.16958	(11050124)
369722.90	3778230.42	0.49621	(10112824)	369715.99	3778190.35	0.34928m	(10102524)
369703.56	3778158.57	0.27784	(08020424)	369686.98	3778126.79	0.23383	(08020424)
369675.92	3778097.77	0.19775	(08020424)	369703.56	3778108.82	0.24085	(08020424)
369727.05	3778139.22	0.30441	(10112824)	369903.91	3778552.37	0.27773	(09122824)
369866.61	3778563.43	0.29300	(09122824)	369873.52	3778516.45	0.37547	(12121724)
369887.33	3778491.57	0.43255	(12121724)	369859.70	3778444.59	0.59493	(12121724)
369854.17	3778327.22	0.67736	(08010724)	369643.37	3778672.46	0.82738m	(10090824)
369644.15	3778798.32	0.35773m	(10090824)	369649.67	3779013.88	0.13974	(10122224)
369649.67	3778913.01	0.20784m	(10090824)	369580.58	3779019.41	0.13610	(10122224)
369573.68	3778911.63	0.19540m	(11010824)	369575.06	3778832.87	0.31786m	(11010824)
369591.64	3778749.96	0.49699m	(11010824)	369640.00	3778638.03	1.12383m	(10090824)
369590.26	3778698.83	0.75637m	(11010824)	369569.53	3778751.34	0.56764m	(11010824)
369552.95	3778835.63	0.36368m	(11010824)	369547.42	3778906.10	0.25267m	(11010824)
369619.40	3778570.86	2.00031m	(11010824)	369551.26	3778615.39	1.15632m	(11010824)
369491.97	3778688.07	0.66505m	(09121124)	369486.23	3778783.69	0.44796m	(09121124)
369554.34	3778511.60	1.37483m	(10102024)	369467.11	3778588.61	0.65558m	(10102024)
369442.24	3778525.50	0.59410m	(10102024)	369426.94	3778653.64	0.41339m	(10102024)
369430.77	3778596.26	0.56340m	(10102024)	369382.96	3778730.14	0.25180	(12112924)
369384.87	3778676.59	0.34869m	(10102024)	369398.26	3778498.73	0.38193m	(11072424)
369245.26	3778531.24	0.21840m	(12120524)	369245.26	3778441.35	0.21172	(09082024)
369247.17	3778341.90	0.10554m	(12080524)	369803.41	3778176.93	0.46836	(10112824)

*** AERMOD - VERSION 14134 *** HARVARD-WESTLAKE UPPER SCHOOL INFRASTRUCTURE PROJECT *** 04/12/16
 *** AERMET - VERSION 14134 *** LOCALIZED CONSTRUCTION EMISSIONS PM2.2 *** 14:14:25
 **MODELOPTs: RegDFault CONC ELEV FLGPOL PAGE 10

*** THE 1ST HIGHEST 24-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
 INCLUDING SOURCE(S): PAREA2 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM2.5 IN MICROGRAMS/M**3				**			
X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
369381.69	3778367.12	0.20944m	(12080524)	369397.35	3778405.93	0.31225	(09082024)
369486.97	3778466.99	0.50941m	(10102024)	369583.98	3778531.08	1.74661m	(11010824)
369807.29	3778237.38	0.55369	(09112824)	369829.19	3778203.30	0.38493	(08052124)
369819.96	3778183.97	0.40403	(10112824)				

*** AERMOD - VERSION 14134 *** HARVARD-WESTLAKE UPPER SCHOOL INFRASTRUCTURE PROJECT *** 04/12/16
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*** THE SUMMARY OF HIGHEST 24-HR RESULTS ***

** CONC OF PM2.5 IN MICROGRAMS/M**3 **

GROUP ID	AVERAGE CONC	DATE (YYMMDDHH)	RECEPTOR (XR, YR, ZELEV, ZHILL, ZFLAG)	OF TYPE	NETWORK GRID-ID
ALL	HIGH	1ST HIGH VALUE IS	2.14618m ON 11030124: AT (369697.92, 3778529.05, 212.42, 426.30, 0.00)	DC	

*** RECEPTOR TYPES: GC = GRIDCART
 GP = GRIDPOLR
 DC = DISCCART
 DP = DISCPOLR

*** AERMOD - VERSION 14134 *** HARVARD-WESTLAKE UPPER SCHOOL INFRASTRUCTURE PROJECT *** 04/12/16
 *** AERMET - VERSION 14134 *** LOCALIZED CONSTRUCTION EMISSIONS PM2.2 *** 14:14:25
 **MODELOPTs: RegDFault CONC ELEV FLGPOL PAGE 12

*** Message Summary : AERMOD Model Execution ***
 ----- Summary of Total Messages -----
 A Total of 0 Fatal Error Message(s)
 A Total of 0 Warning Message(s)
 A Total of 1275 Informational Message(s)
 A Total of 43848 Hours Were Processed
 A Total of 13 Calm Hours Identified
 A Total of 1262 Missing Hours Identified (2.88 Percent)

***** FATAL ERROR MESSAGES *****
 *** NONE ***
 ***** WARNING MESSAGES *****
 *** NONE ***

***** AERMOD Finishes Successfully *****