ALBERT A. WEBB ASSOCIATES

Technical Memorandum

To: Adam Schmid, Duke Realty

From: Eliza Laws, Senior Environmental Analyst
Noemi Avila, Assistant Environmental Analyst

Date: April 11, 2018

Re: Air Quality Analysis for the Duke Warehouse at Palmetto Avenue and Alabama Street Project, County of San Bernardino

The following air quality assessment was prepared to evaluate whether the expected criteria air pollutant emissions generated as a result of construction and operation of the proposed Project would cause exceedances of the South Coast Air Quality Management District's (SCAQMD) thresholds for air quality in the Project area. This assessment was conducted within the context of the California Environmental Quality Act (CEQA, California Public Resources Code Sections 21000 et seq.). The methodology follows the *CEQA Air Quality Handbook* prepared by the SCAQMD for quantification of emissions and evaluation of potential impacts to air resources. As recommended by SCAQMD staff, the **Cal**ifornia **E**missions **E**stimator **Mod**el® version 2016.3.2 (CalEEMod) was used to quantify Project-related emissions.

The Project proposes development of an approximate 1,192,671 square-foot high-cube, non-refrigerated warehouse building on approximately 54.76 net acres on the northwestern corner of Alabama Street and Palmetto Avenue, in unincorporated San Bernardino County, California. The Project will include approximately 831,784 square feet of asphalt paving in the parking area and 360,887 square feet of landscaping. The Project's sewer, water, and storm water drainage lines will connect to existing lines along the frontage of the Project within Alabama Street and Palmetto Avenue. The Project will also construct off-site road improvements consisting of partial width improvements to the ultimate cross-section (an additional 12 feet) of Alabama Street and Palmetto Avenue along the Project frontage.

▪ Regional Significance Thresholds

The thresholds contained in the *SCAQMD CEQA Air Quality Handbook*[1] (SCAQMD 1993) are considered regional thresholds and are shown in **Table 1 – SCAQMD CEQA Daily Regional Significance Thresholds**, below. These regional thresholds were developed based on the SCAQMD's treatment of a major stationary source.

[1] South Coast Air Quality Management District, *CEQA Air Quality Handbook*, November 1993. (Available at SCAQMD.)

Table 1 – SCAQMD CEQA Daily Regional Significance Thresholds

Emission Threshold	Units	VOC	NO_X	CO	SO_X	PM-10	PM-2.5
Construction	lbs/day	75	100	550	150	150	55
Operation[1]	lbs/day	55	55	550	150	150	55

Air quality impacts can be described in a short- and long-term perspective. Short-term impacts occur during site grading and Project construction and consist of fugitive dust and other particulate matter, as well as exhaust emissions generated by construction-related vehicles. Long-term air quality impacts occur once the Project is in operation.

The Project will be required to comply with existing SCAQMD rules for the reduction of fugitive dust emissions. SCAQMD Rule 403 establishes these procedures. Compliance with this rule is achieved through application of standard best management practices in construction and operation activities, such as application of water or chemical stabilizers to disturbed soils, managing haul road dust by application of water, covering haul vehicles, restricting vehicle speeds on unpaved roads to 15 mph, sweeping loose dirt from paved site access roadways, cessation of construction activity when winds exceed 25 mph and establishing a permanent, stabilizing ground cover on finished sites. In addition, projects that disturb 50 or more acres or more of soil or move 5,000 cubic yards of materials per day are required to submit a Fugitive Dust Control Plan or a Large Operation Notification Form to SCAQMD. Based on the size of this Project's site (54.76 acres), a Fugitive Dust Control Plan or a Large Operation Notification Form would be required.

Short-Term Analysis

Short-term emissions from Project construction were evaluated using the CalEEMod version 2016.3.2 program. The estimated construction period for the proposed Project is approximately 14 months, beginning no sooner than August 2019. The default parameters within CalEEMod were used and these default values reflect a worst-case scenario, which means that Project emissions are expected to be equal to or less than the estimated emissions. In addition to the default values used, assumptions relevant to model inputs for short-term construction emission estimates used are:

- Construction is anticipated to begin in August 2019 with grading and end with architectural coatings (painting):

Construction Activity	Start Date	End Date	Total Working Days
Grading	August 1, 2019	September 25, 2019	40 days
Building Construction	September 26, 2019	August 26, 2020	240 days
Paving	June 18, 2020	August 26, 2020	50 days
Architectural Coatings	August 1, 2020	September 11, 2020	30 days

- The equipment to be used for each activity is shown below and is based on CalEEMod defaults with the exception of paving and grading. Default paving equipment was reduced to one piece of each type of equipment due to the limited amount of asphalt proposed. Three additional scrapers were analyzed in the grading phase, based on applicant input. Each piece of equipment is assumed to operate 8 hours per day:

Construction Activity	Off-Road Equipment	Unit Amount
Grading	Excavators	2
	Graders	1
	Rubber Tired Dozers	1
	Scrapers	5
	Tractors/Loaders/Backhoes	2

Building Construction	Cranes	1
	Forklifts	3
	Generator Sets	1
	Tractors/Loaders/Backhoes	3
	Welders	1
Paving	Pavers	1
	Paving Equipment	1
	Rollers	1
Architectural Coatings	Air Compressors	1

- To evaluate Project compliance with SCAQMD Rule 403 for fugitive dust control, the Project utilized the mitigation option of watering the Project site three times daily which achieves a control efficiency of 61 percent for PM-10 and PM-2.5 emissions. Two (2) one-way vendor trips were added to the grading and paving activities to account for water truck trips.

- Off-site infrastructure improvements will also be required. Off-site improvements will include half-width buildout of Alabama Street and Palmetto Avenue (additional 12 feet) along the Project frontage. Sewer, water, and storm water drainage lines will connect to existing lines within adjacent streets.

The results of this analysis are summarized below.

Table 2 – Unmitigated Estimated Maximum Daily Construction Emissions

Activity	Peak Daily Emissions (lb/day)					
	VOC	NO_X	CO	SO_2	PM-10	PM-2.5
SCAQMD Daily Construction Thresholds	**75**	**100**	**550**	**150**	**150**	**55**
Grading-2019	8.11	**93.61**	59.00	0.11	9.42	5.28
Building Construction-2019	10.11	72.93	78.95	0.26	15.81	5.43
Building Construction-2020	**9.15**	66.57	**72.45**	**0.25**	**15.53**	**5.17**
Paving-2020	**1.80**	7.27	**7.73**	**0.01**	**0.48**	**0.38**
Architectural Coatings-2020	**381.61**	3.00	**11.71**	**0.03**	**2.47**	**0.77**
Maximum[1]	**392.57**	**93.61**	**91.89**	**0.29**	**18.48**	**6.32**
Exceeds Threshold?	**Yes**	**No**	**No**	**No**	**No**	**No**

Note: [1] Maximum emissions are the greater of grading alone in 2019, or the greater of the sum of building construction, paving and architectural coating in 2020 since these activities overlap. Maximum emissions are shown in bold.

As shown in the table above, the emissions from construction of the Project are below the SCAQMD daily construction thresholds for all the criteria pollutants, except VOC resulting from architectural coatings (painting). Please see the subheading "Recommended Mitigation Measures" for mitigation that reduces the Project's construction emissions.

Long-Term Analysis

Long-term emissions are evaluated at build-out of a project. The Project is assumed to be operational in 2020. Mobile source emissions refer to on-road motor vehicle emissions generated from the Project's traffic and are based on the Project-specific Traffic Impact Analysis (TIA).[2] An average truck trip length of approximately 77 miles was assumed, which is the distance to the Ports of Los Angeles/Long Beach.

[2] Albert A. Webb Associates, *Traffic Impact Analysis (TIA) Duke Realty- Alabama Street and Palmetto Avenue High Cube Warehouse,* April 2018.

On-site service equipment (i.e., forklifts) are assumed to be electric and therefore do not have any direct emissions of criteria pollutants.

Area source emissions from the Project include stationary combustion emissions of natural gas used for space and water heating (shown in a separate row as energy), yard and landscape maintenance, and an average building square footage to be repainted each year. CalEEMod computes area source emissions based upon default factors and land use assumptions. CalEEMod defaults were used and reflect the 2016 Title 24 standards. Separate emissions were computed for both the summer and winter.

Table 3 – Unmitigated Estimated Daily Project Operation Emissions (Summer)

Source	Peak Daily Emissions (lb/day)					
	VOC	NO_X	CO	SO_2	PM-10	PM-2.5
SCAQMD Daily Thresholds	**55**	**55**	**550**	**150**	**150**	**55**
Area	27.21	0.00	0.25	0.00	0.00	0.00
Energy	0.07	0.65	0.55	0.00	0.05	0.05
Mobile	7.42	88.74	117.28	0.58	38.91	10.95
Total	**34.70**	**89.40**	**118.08**	**0.58**	**38.96**	**11.00**
Exceeds Threshold?	**No**	**Yes**	**No**	**No**	**No**	**No**

Note: Emissions reported as zero are rounded and not necessarily equal to zero.

Table 4 – Unmitigated Estimated Daily Project Operation Emissions (Winter)

Source	Peak Daily Emissions (lb/day)					
	VOC	NO_X	CO	SO_2	PM-10	PM-2.5
SCAQMD Daily Thresholds	**55**	**55**	**550**	**150**	**150**	**55**
Area	27.21	0.00	0.25	0.00	0.00	0.00
Energy	0.07	0.65	0.55	0.00	0.05	0.05
Mobile	6.88	90.74	100.51	0.54	38.91	10.95
Total	**34.16**	**91.40**	**101.31**	**0.55**	**38.96**	**11.00**
Exceeds Threshold?	**No**	**Yes**	**No**	**No**	**No**	**No**

Note: Emissions reported as zero are rounded and not necessarily equal to zero.

Evaluation of the data presented on the above tables indicates that criteria pollutant emissions from operation of this Project will exceed the SCAQMD regional daily thresholds for NO_X during summer and winter. Please see the subheading "Recommended Mitigation Measures" for mitigation that reduces the Project's NO_X emissions.

▪ Localized Significance Threshold Analysis

Background

As part of the SCAQMD's environmental justice program, attention has been focused on localized effects of air quality. Staff at SCAQMD has developed localized significance threshold (LST) methodology[3] that can be used by public agencies to determine whether or not a project may generate significant adverse localized air quality impacts (both short- and long-term). LSTs represent the maximum emissions from a project that will not cause or contribute to an exceedance of the state ambient air quality standard, and are developed based on the ambient concentrations of that pollutant for each source receptor area (SRA). The Project is located close to the borderline of SRA-34 and SRA-35. SRA-34 was used because it provides the most conservative thresholds.

[3] South Coast Air Quality Management District, *Final Localized Significance Threshold Methodology*, Revised July 2008. (Available at http://www.aqmd.gov/home/regulations/ceqa/air-quality-analysis-handbook/localized-significance-thresholds, accessed April 2018.)

Short-Term Analysis

According to the LST methodology, only on-site emissions need to be analyzed. Emissions associated with vendor and worker trips are mobile source emissions that occur off site. The emissions analyzed under the LST methodology are NO_2, CO, PM-10, and PM-2.5. SCAQMD has provided LST lookup tables[4] to allow users to readily determine if the daily emissions for proposed construction or operational activities could result in significant localized air quality impacts for projects five acres or smaller. Although the Project site disturbs almost 54.76 acres, it is anticipated that an area of approximately seven acres would be disturbed per day during construction.[5] Although the Project exceeds five acres per day disturbance, per SCAQMD, the LST threshold and tables can be used as a screening tool to determine if dispersion modeling would be necessary. Therefore, the Project's on-site emissions from CalEEMod and LST Look-Up Tables for the 5-acre site were utilized as a screening-level analysis. If the Project emissions do not exceed the screening thresholds for five acres, a more detailed analysis is not required.

The LST thresholds are estimated using the maximum daily disturbed area (in acres) and the distance of the Project to the nearest sensitive receptors (in meters). The closest sensitive receptors to the Project site is the existing Packinghouse Christian Academy on the southwest corner of San Bernardino Avenue and Alabama Street, approximately 810 meters (2,657 feet) south of the Project site. The applicable receptor distance on the LST look-up tables is 500 meters, which provides a conservative analysis. The results are summarized below.

Table 5 – Unmitigated LST Results for Daily Construction Emissions

Source	Peak Daily Emissions (lb/day)			
	NO_X	CO	PM-10	PM-2.5
LST Threshold for 5-acre at 500 meters	**778**	**27,680**	**229**	**120**
Grading	**93.26**	**57.56**	**9.09**	**5.19**
Building Construction 2019	22.71	18.31	1.38	1.30
Building Construction 2020	20.65	17.97	1.19	1.12
Paving 2020	7.03	7.33	0.38	0.35
Architectural Coatings 2020	2.25	2.44	0.15	0.15
Maximum[1]	**93.26**	**57.56**	**9.09**	**5.19**
Exceeds Threshold?	**No**	**No**	**No**	**No**

Note: [1] Maximum emissions are the greater of either grading alone or building construction 2019, or building construction 2020, paving architectural coatings since these activities overlap. Maximum emissions are shown in bold.

Emissions from construction of the Project will be below the LST established by SCAQMD for the Project.

Long-Term Analysis

According to the LST methodology, LSTs only apply to the operational phase if a project includes stationary sources or attracts mobile sources that may spend long periods of time idling at the site, such as warehouse/transfer facilities. The proposed Project will operate as a logistics center and has the potential to attract mobile sources that can reasonably be assumed will idle at the site; therefore, a long-term LST analysis was prepared for this Project.

CalEEMod version 2016.3.2 was utilized to estimate the Project's emissions from cars and trucks traveling on the Project site. An on-site distance of 0.68 miles was conservatively assumed to be

[4] http://www.aqmd.gov/home/regulations/ceqa/air-quality-analysis-handbook/localized-significance-thresholds

[5] http://www.aqmd.gov/docs/default-source/ceqa/handbook/localized-significance-thresholds/caleemod-guidance.pdf?sfvrsn=2

traveled for each one of the Project's trips identified in the Traffic Impact Analysis. The output is attached to this memo and summarized below. Idling emissions from trucks at loading docks is not available in CalEEMod; therefore, PM-10 and PM-2.5 idling emissions were calculated separately to account for 15-minutes of on-site idling per truck per day.[6] The results were added to the total PM-10 and PM-2.5 emissions from CalEEMod and presented in the table below. The closest sensitive receptors to the Project site is the existing Packinghouse Christian Academy on the southwest corner of San Bernardino Avenue and Alabama Street, approximately 810 meters (2,657 feet) south of the Project site. Therefore, a receptor distance of 500 meters (1,640 feet) was used and provides a conservative analysis. The results are summarized below.

Table 6 – Unmitigated LST Results for Daily Operational Emissions

Source	Peak Daily Emissions (lb/day)			
	NO_x	CO	PM-10[1]	PM-2.5[1]
LST Threshold for 5-acre at 500 meters	**778**	**27,680**	**55**	**29**
On-Site Mobile	27.34	12.18	0.93	0.28
Exceeds Threshold?	**No**	**No**	**No**	**No**

Note: The greater of summer or winter emissions from CalEEMod is shown. Output attached herewith.

[1] CalEEMod output emissions added to idling emissions

Therefore, as indicated in the table above, Project-related long-term operational emissions will not exceed any SCAQMD operational LST.

CO Hot Spots Analysis

A carbon monoxide (CO) "hot spot" is a localized concentration of CO that is above the state or federal 1-hour or 8-hour ambient air quality standards (AAQS). Localized high levels of CO are associated with traffic congestion and idling or slow-moving vehicles.

Based on the information presented below, a CO "hot spot" analysis is not needed to determine whether the addition of Project related traffic will contribute to an exceedance of either the state or federal AAQS for CO emissions in the Project area.

The analysis prepared for CO attainment in the South Coast Air Basin by the SCAQMD can be used to assist in evaluating the potential for CO exceedances in the South Coast Air Basin. CO attainment was thoroughly analyzed as part of the SCAQMD's 2003 Air Quality Management Plan (2003 AQMP)[7] and the Revised 1992 Federal Attainment Plan for Carbon Monoxide (1992 CO Plan). [8] As discussed in the 1992 CO Plan, peak carbon monoxide concentrations in the South Coast Air Basin are due to unusual meteorological and topographical conditions, and not due to the impact of particular intersections (2003 AQMP Appendix V, p. V-4-32). Considering the region's unique meteorological conditions and the increasingly stringent CO emissions standards, CO modeling was performed as part of the 1992 CO Plan and subsequent plan updates and air quality management plans.

In the 1992 CO Plan, a CO hot spot analysis was conducted for four busy intersections in Los Angeles at the peak morning and afternoon time periods. The intersections evaluated included: Long Beach Blvd. and Imperial Highway (Lynwood); Wilshire Blvd. and Veteran Ave. (Westwood); Sunset Blvd. and Highland Ave. (Hollywood); and La Cienega Blvd. and Century Blvd. (Inglewood). These analyses did not predict a violation of CO standards. The busiest intersection evaluated in the 1992 CO Plan and

[6] Idling emission factors obtained from CalEEMod; idling calculations attached herewith.

[7] SCAQMD, *2003 Air Quality Management Plan, August 1, 2003.* (Available at http://www.aqmd.gov/home/air-quality/clean-air-plans/air-quality-mgt-plan/2003-aqmp, accessed April 2018.)

[8] SCAQMD, *Revision to the 1992 Carbon Monoxide Attainment Plan*, September 1994. (Available at SCAQMD.)

subsequent 2003 AQMP was that at Wilshire Blvd. and Veteran Ave., which has a daily traffic volume of approximately 100,000 vehicles per day (2003 AQMP Appendix V, Table 4-7). The Los Angeles County Metropolitan Transportation Authority (MTA)[9] evaluated the LOS in the vicinity of the Wilshire Blvd./Veteran Ave. intersection and found it to be level E at peak morning traffic and Level F at peak afternoon traffic (MTA, Exhibit 2-5 and 2-6). This hot spot analysis was conducted at intersections subject to extremes in vehicle volumes and vehicle congestion, and did not predict any violation of CO standards. Considering Project-related traffic as well as existing conditions, ambient growth, and cumulative project traffic, the highest average daily trips would be approximately 39,000 passenger car equivalents (PCE)[10] on Alabama Street between Lugonia Avenue and Interstate 10 (I-10) westbound ramps, which is lower than the values studied by SCAQMD.[11] Therefore, it can reasonably be concluded that Project-related traffic would not have daily traffic volumes exceeding those at the intersections modeled in the 2003 AQMP, nor would there be any reason unique to the meteorology to conclude that intersections affected by the Project would yield higher CO concentrations if modeled in detail. Thus, the Project would not result in CO hot spots.

▪ Recommended Mitigation Measures

The following mitigation measure is recommended to reduce VOC emissions from Project construction:

MM AQ 1: To reduce VOC emissions associated with architectural coating, the Project designer and contractor shall reduce the use of paints and solvents by utilizing pre-coated materials (e.g. bathroom stall dividers, metal awnings), materials that do not require painting, and require coatings and solvents with a VOC content lower than required under Rule 1113 to be utilized. The construction contractor shall be required to utilize "Super-Compliant" VOC paints, which are defined in SCAQMD's Rule 1113. Construction specifications shall be included in building specifications that assure these requirements are implemented. The specifications shall be reviewed by the County of San Bernardino's Building and Safety Division for compliance with this mitigation measure prior to issuance of the Project's building permit.

The following mitigation measures are recommended to reduce NO_X emissions from Project operation:

MM AQ 2: In order to promote alternative fuels, and help support "clean" truck fleets, the developer/successor-in-interest shall provide building occupants and businesses with information related to SCAQMD's Carl Moyer Program, or other state programs that restrict operations to "clean" trucks, such as 2007 or newer model year or 2010 compliant vehicles and information including, but not limited to, the health effect of diesel particulates, benefits of reduced idling time, CARB regulations, and importance of not parking in residential areas. If trucks older than 2007 model year will be used, the developer/successor-in-interest shall require, within one year of signing a lease, future tenants to apply in good-faith for funding for diesel truck replacement/retrofit through grant programs such as the Carl Moyer, Prop 1B, VIP, HVIP, and SOON funding programs, as identified on SCAQMD's website (http://www.aqmd.gov). Tenants will be required to use those funds, if awarded.

MM AQ 3: Service equipment (i.e., yard hostlers and forklifts) used within the site shall be electric or compressed natural gas-powered. Compliance with this mitigation measure shall be required prior to certificate of occupancy.

MM AQ 4: Although the Project does not include refrigerated warehouse space, trucks accessing the Project site may have auxiliary power units (APU) and/or transport refrigeration units (TRUs). Therefore, electrical hookups shall be installed at all loading docks to allow trucks with APU and/or TRUs with

[9] Metropolitan Transportation Authority, *2004 Congestion Management Plan for Los Angeles County*, Adopted July 22, 2004. (Available at http://www.metro.net/images/cmp_2004.pdf, accessed April 2018.)

[10] PCE is defined as the number of passenger cars that will result in the same operational conditions as a single heavy vehicle of a particular type.

[11] Albert A. Webb Associates Traffic Engineers.

electric standby capabilities to plug in when APU/TRUs are in use. The County shall verify electrical hookups have been installed prior to occupancy.

▪ Impacts after Mitigation

Implementation of mitigation measure **MM AQ 1** will reduce the Project's short-term construction-related emissions. **MM AQ 1** has quantitative reductions associated with it available in CalEEMod. The mitigated emissions are shown in **Table 7**, below, and indicate that VOC emissions from architectural coatings (painting) activities will be reduced below the SCAQMD thresholds.

Table 7 – Mitigated Estimated Daily Construction Emissions

Activity	Peak Daily Emissions (lb/day)					
	VOC	NO_X	CO	SO_2	PM-10	PM-2.5
SCAQMD Daily Construction Thresholds	**75**	**100**	**550**	**150**	**150**	**55**
Building Construction-2020[1]	9.15	66.57	72.45	0.25	15.53	5.17
Paving-2020[1]	1.80	7.27	7.73	0.01	0.48	0.38
Architectural Coatings-2020	49.93	3.00	11.71	0.03	2.47	0.77
Maximum[2]	**60.88**	**76.84**	**91.89**	**0.29**	**18.48**	**6.32**
Exceeds Threshold?	**No**	**No**	**No**	**No**	**No**	**No**

Notes: [1]Emissions shown are the Unmitigated Estimated Maximum Daily Construction Emissions from Table 2.
[2] Maximum emissions the sum of building construction, paving and architectural coating in 2020 since these activities overlap.

With implementation of **MM AQ 1**, VOC emissions associated with painting activities will be reduced below applicable thresholds.

Implementation of **MM AQ 2** through **4** will reduce operational emissions of NO_X from transportation emissions; however, they do not have quantitative reductions associated with them available in CalEEMod. Therefore, after implementation of mitigation measures, the operational emissions of NO_X exceed the SCAQMD threshold.

▪ Conclusion

The conclusion of this analysis indicates that construction of the proposed Project will not exceed criteria pollutant thresholds established by SCAQMD on a regional level after implementation of mitigation measures. The analysis also concludes that operation of the proposed Project will exceed criteria pollutant thresholds for NO_X established by SCAQMD on a regional level after implementation of mitigation measures. The Project's construction and operation will not exceed criteria pollutant thresholds established by SCAQMD on a localized level. In addition, the Project will not create a CO hot spot.

Should you have any questions, please contact me at (951) 686-1070.

CALEEMOD OUTPUT FILES

Duke Warehouse at Alabama and Palmetto

San Bernardino-South Coast County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Unrefrigerated Warehouse-No Rail	1,192.67	1000sqft	27.38	1,192,671.00	0
Other Asphalt Surfaces	893.68	1000sqft	20.52	893,684.00	0
Other Non-Asphalt Surfaces	360.89	1000sqft	8.28	360,887.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	32
Climate Zone	10			**Operational Year**	2020
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Duke Warehouse at Alabama and Palmetto - San Bernardino-South Coast County, Summer

Project Characteristics -

Land Use - Per Site Plan

Construction Phase - Per Applicant

Off-road Equipment - Per Applicant

Off-road Equipment - Per Applicant

Off-road Equipment - Per Applicant

Off-road Equipment - Per Applicant

Trips and VMT - Added Water Truck Trips

Architectural Coating -

Vehicle Trips - Per TIA

Energy Use -

Construction Off-road Equipment Mitigation - Per Rule 403

Water Mitigation -

Waste Mitigation -

Fleet Mix - Per TIA

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	75.00	30.00
tblConstructionPhase	NumDays	1,110.00	240.00
tblConstructionPhase	NumDays	110.00	40.00
tblConstructionPhase	NumDays	75.00	50.00
tblFleetMix	HHD	0.06	0.12
tblFleetMix	LDA	0.55	0.56
tblFleetMix	LDT1	0.04	0.04
tblFleetMix	LDT2	0.18	0.18
tblFleetMix	LHD1	0.02	0.00
tblFleetMix	LHD2	5.4600e-003	0.03

tblFleetMix	MCY	6.1170e-003	6.2900e-003
tblFleetMix	MDV	0.12	0.00
tblFleetMix	MH	1.0820e-003	1.1100e-003
tblFleetMix	MHD	0.02	0.05
tblFleetMix	OBUS	1.3370e-003	1.3700e-003
tblFleetMix	SBUS	8.1700e-004	8.4000e-004
tblFleetMix	UBUS	1.6570e-003	1.7000e-003
tblGrading	AcresOfGrading	220.00	275.00
tblLandUse	LandUseSquareFeet	1,192,670.00	1,192,671.00
tblLandUse	LandUseSquareFeet	893,680.00	893,684.00
tblLandUse	LandUseSquareFeet	360,890.00	360,887.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	5.00
tblOffRoadEquipment	UsageHours	6.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblTripsAndVMT	VendorTripNumber	0.00	2.00
tblTripsAndVMT	VendorTripNumber	0.00	2.00
tblVehicleTrips	CNW_TL	6.90	77.00
tblVehicleTrips	CNW_TTP	41.00	20.43
tblVehicleTrips	CW_TTP	59.00	79.57
tblVehicleTrips	DV_TP	5.00	0.00
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PR_TP	92.00	100.00
tblVehicleTrips	ST_TR	1.68	1.40

tblVehicleTrips	SU_TR	1.68	1.40
tblVehicleTrips	WD_TR	1.68	1.40

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					
2019	10.0447	93.6024	78.9470	0.2589	14.0590	3.9042	17.5430	4.1842	3.5919	7.7761						
2020	392.4988	76.8059	91.8800	0.2945	16.4638	2.0057	18.4695	4.4250	1.8870	6.3119						
Maximum	**392.4988**	**93.6024**	**91.8800**	**0.2945**	**16.4638**	**3.9042**	**18.4695**	**4.4250**	**3.5919**	**7.7761**						

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					
2019	10.0447	93.6024	78.9470	0.2589	14.0590	3.9042	15.8053	3.7869	3.5919	5.4302						
2020	392.4988	76.8059	91.8800	0.2945	16.4638	2.0057	18.4695	4.4250	1.8870	6.3119						
Maximum	**392.4988**	**93.6024**	**91.8800**	**0.2945**	**16.4638**	**3.9042**	**18.4695**	**4.4250**	**3.5919**	**6.3119**						

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**4.83**	**4.61**	**0.00**	**16.65**	**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	27.2076	2.3200e-003	0.2515	2.0000e-005		9.0000e-004	9.0000e-004		9.0000e-004	9.0000e-004						
Energy	0.0715	0.6503	0.5463	3.9000e-003		0.0494	0.0494		0.0494	0.0494						
Mobile	7.4175	88.7447	117.2841	0.5765	38.2367	0.6711	38.9077	10.3158	0.6363	10.9521						
Total	**34.6966**	**89.3973**	**118.0819**	**0.5805**	**38.2367**	**0.7214**	**38.9581**	**10.3158**	**0.6866**	**11.0024**						

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	27.2076	2.3200e-003	0.2515	2.0000e-005		9.0000e-004	9.0000e-004		9.0000e-004	9.0000e-004						
Energy	0.0715	0.6503	0.5463	3.9000e-003		0.0494	0.0494		0.0494	0.0494						
Mobile	7.4175	88.7447	117.2841	0.5765	38.2367	0.6711	38.9077	10.3158	0.6363	10.9521						
Total	**34.6966**	**89.3973**	**118.0819**	**0.5805**	**38.2367**	**0.7214**	**38.9581**	**10.3158**	**0.6866**	**11.0024**						

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	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	Grading	Grading	8/1/2019	9/25/2019	5	40	
2	Building Construction	Building Construction	9/26/2019	8/26/2020	5	240	
3	Paving	Paving	6/18/2020	8/26/2020	5	50	
4	Architectural Coating	Architectural Coating	8/1/2020	9/11/2020	5	30	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 275

Acres of Paving: 28.8

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 1,789,007; Non-Residential Outdoor: 596,336; Striped Parking Area: 75,274 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	5	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction	Cranes	1	8.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	1	8.00	130	0.42
Paving	Paving Equipment	1	8.00	132	0.36
Paving	Rollers	1	8.00	80	0.38
Architectural Coating	Air Compressors	1	8.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Grading	11	28.00	2.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	1,028.00	401.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	3	8.00	2.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	206.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

3.2 Grading - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					13.3130	0.0000	13.3130	4.0975	0.0000	4.0975						
Off-Road	7.9347	93.2617	57.5611	0.1074		3.9006	3.9006		3.5886	3.5886						
Total	**7.9347**	**93.2617**	**57.5611**	**0.1074**	**13.3130**	**3.9006**	**17.2137**	**4.0975**	**3.5886**	**7.6861**						

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						
Vendor	7.1700e-003	0.2303	0.0468	5.5000e-004	0.0128	1.4400e-003	0.0143	3.6900e-003	1.3800e-003	5.0700e-003						
Worker	0.1660	0.1104	1.3957	3.2800e-003	0.3130	2.1000e-003	0.3151	0.0830	1.9400e-003	0.0849						
Total	**0.1732**	**0.3407**	**1.4426**	**3.8300e-003**	**0.3258**	**3.5400e-003**	**0.3293**	**0.0867**	**3.3200e-003**	**0.0900**						

3.2 Grading - 2019

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					5.1921	0.0000	5.1921	1.5980	0.0000	1.5980						
Off-Road	7.9347	93.2617	57.5611	0.1074		3.9006	3.9006		3.5886	3.5886						
Total	**7.9347**	**93.2617**	**57.5611**	**0.1074**	**5.1921**	**3.9006**	**9.0927**	**1.5980**	**3.5886**	**5.1866**						

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						
Vendor	7.1700e-003	0.2303	0.0468	5.5000e-004	0.0128	1.4400e-003	0.0143	3.6900e-003	1.3800e-003	5.0700e-003						
Worker	0.1660	0.1104	1.3957	3.2800e-003	0.3130	2.1000e-003	0.3151	0.0830	1.9400e-003	0.0849						
Total	**0.1732**	**0.3407**	**1.4426**	**3.8300e-003**	**0.3258**	**3.5400e-003**	**0.3293**	**0.0867**	**3.3200e-003**	**0.0900**						

3.3 Building Construction - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.5115	22.7062	18.3139	0.0288		1.3802	1.3802		1.2958	1.2958						
Total	**2.5115**	**22.7062**	**18.3139**	**0.0288**		**1.3802**	**1.3802**		**1.2958**	**1.2958**						

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						
Vendor	1.4383	46.1741	9.3894	0.1096	2.5684	0.2888	2.8572	0.7395	0.2763	1.0158						
Worker	6.0949	4.0540	51.2438	0.1205	11.4906	0.0773	11.5679	3.0474	0.0712	3.1185						
Total	**7.5332**	**50.2280**	**60.6331**	**0.2301**	**14.0590**	**0.3661**	**14.4251**	**3.7869**	**0.3474**	**4.1343**						

3.3 Building Construction - 2019

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	2.5115	22.7062	18.3139	0.0288		1.3802	1.3802		1.2958	1.2958						
Total	**2.5115**	**22.7062**	**18.3139**	**0.0288**		**1.3802**	**1.3802**		**1.2958**	**1.2958**						

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						
Vendor	1.4383	46.1741	9.3894	0.1096	2.5684	0.2888	2.8572	0.7395	0.2763	1.0158						
Worker	6.0949	4.0540	51.2438	0.1205	11.4906	0.0773	11.5679	3.0474	0.0712	3.1185						
Total	**7.5332**	**50.2280**	**60.6331**	**0.2301**	**14.0590**	**0.3661**	**14.4251**	**3.7869**	**0.3474**	**4.1343**						

3.3 Building Construction - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.2551	20.6494	17.9678	0.0288		1.1948	1.1948		1.1218	1.1218						
Total	**2.2551**	**20.6494**	**17.9678**	**0.0288**		**1.1948**	**1.1948**		**1.1218**	**1.1218**						

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						
Vendor	1.2173	42.3170	8.2471	0.1088	2.5683	0.1947	2.7631	0.7395	0.1863	0.9258						
Worker	5.6107	3.6009	46.2319	0.1167	11.4906	0.0753	11.5659	3.0474	0.0693	3.1167						
Total	**6.8280**	**45.9179**	**54.4790**	**0.2255**	**14.0590**	**0.2700**	**14.3290**	**3.7869**	**0.2556**	**4.0425**						

3.3 Building Construction - 2020

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	2.2551	20.6494	17.9678	0.0288		1.1948	1.1948		1.1218	1.1218						
Total	**2.2551**	**20.6494**	**17.9678**	**0.0288**		**1.1948**	**1.1948**		**1.1218**	**1.1218**						

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						
Vendor	1.2173	42.3170	8.2471	0.1088	2.5683	0.1947	2.7631	0.7395	0.1863	0.9258						
Worker	5.6107	3.6009	46.2319	0.1167	11.4906	0.0753	11.5659	3.0474	0.0693	3.1167						
Total	**6.8280**	**45.9179**	**54.4790**	**0.2255**	**14.0590**	**0.2700**	**14.3290**	**3.7869**	**0.2556**	**4.0425**						

3.4 Paving - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.6783	7.0328	7.3260	0.0114		0.3764	0.3764		0.3463	0.3463						
Paving	1.0753					0.0000	0.0000		0.0000	0.0000						
Total	**1.7535**	**7.0328**	**7.3260**	**0.0114**		**0.3764**	**0.3764**		**0.3463**	**0.3463**						

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						
Vendor	6.0700e-003	0.2111	0.0411	5.4000e-004	0.0128	9.7000e-004	0.0138	3.6900e-003	9.3000e-004	4.6200e-003						
Worker	0.0437	0.0280	0.3598	9.1000e-004	0.0894	5.9000e-004	0.0900	0.0237	5.4000e-004	0.0243						
Total	**0.0497**	**0.2391**	**0.4009**	**1.4500e-003**	**0.1022**	**1.5600e-003**	**0.1038**	**0.0274**	**1.4700e-003**	**0.0289**						

3.4 Paving - 2020

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	0.6783	7.0328	7.3260	0.0114		0.3764	0.3764		0.3463	0.3463						
Paving	1.0753					0.0000	0.0000		0.0000	0.0000						
Total	**1.7535**	**7.0328**	**7.3260**	**0.0114**		**0.3764**	**0.3764**		**0.3463**	**0.3463**						

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						
Vendor	6.0700e-003	0.2111	0.0411	5.4000e-004	0.0128	9.7000e-004	0.0138	3.6900e-003	9.3000e-004	4.6200e-003						
Worker	0.0437	0.0280	0.3598	9.1000e-004	0.0894	5.9000e-004	0.0900	0.0237	5.4000e-004	0.0243						
Total	**0.0497**	**0.2391**	**0.4009**	**1.4500e-003**	**0.1022**	**1.5600e-003**	**0.1038**	**0.0274**	**1.4700e-003**	**0.0289**						

3.5 Architectural Coating - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	380.1653					0.0000	0.0000		0.0000	0.0000						
Off-Road	0.3229	2.2451	2.4419	3.9600e-003		0.1479	0.1479		0.1479	0.1479						
Total	**380.4882**	**2.2451**	**2.4419**	**3.9600e-003**		**0.1479**	**0.1479**		**0.1479**	**0.1479**						

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						
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						
Worker	1.1243	0.7216	9.2644	0.0234	2.3026	0.0151	2.3177	0.6107	0.0139	0.6246						
Total	**1.1243**	**0.7216**	**9.2644**	**0.0234**	**2.3026**	**0.0151**	**2.3177**	**0.6107**	**0.0139**	**0.6246**						

3.5 Architectural Coating - 2020

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					
Archit. Coating	380.1653					0.0000	0.0000		0.0000	0.0000						
Off-Road	0.3229	2.2451	2.4419	3.9600e-003		0.1479	0.1479		0.1479	0.1479						
Total	**380.4882**	**2.2451**	**2.4419**	**3.9600e-003**		**0.1479**	**0.1479**		**0.1479**	**0.1479**						

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						
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						
Worker	1.1243	0.7216	9.2644	0.0234	2.3026	0.0151	2.3177	0.6107	0.0139	0.6246						
Total	**1.1243**	**0.7216**	**9.2644**	**0.0234**	**2.3026**	**0.0151**	**2.3177**	**0.6107**	**0.0139**	**0.6246**						

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	7.4175	88.7447	117.2841	0.5765	38.2367	0.6711	38.9077	10.3158	0.6363	10.9521						
Unmitigated	7.4175	88.7447	117.2841	0.5765	38.2367	0.6711	38.9077	10.3158	0.6363	10.9521						

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Other Asphalt Surfaces	0.00	0.00	0.00		
Other Non-Asphalt Surfaces	0.00	0.00	0.00		
Unrefrigerated Warehouse-No Rail	1,669.74	1,669.74	1669.74	17,589,117	17,589,117
Total	1,669.74	1,669.74	1,669.74	17,589,117	17,589,117

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Other Asphalt Surfaces	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Other Non-Asphalt Surfaces	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Unrefrigerated Warehouse-No	16.60	8.40	77.00	79.57	0.00	20.43	100	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Other Asphalt Surfaces	0.546179	0.037976	0.179086	0.122965	0.018430	0.005460	0.017497	0.061396	0.001337	0.001657	0.006117	0.000817	0.001082
Other Non-Asphalt Surfaces	0.546179	0.037976	0.179086	0.122965	0.018430	0.005460	0.017497	0.061396	0.001337	0.001657	0.006117	0.000817	0.001082
Unrefrigerated Warehouse-No Rail	0.561300	0.039030	0.184050	0.000000	0.000000	0.034600	0.046400	0.123300	0.001370	0.001700	0.006290	0.000840	0.001110

5.0 Energy Detail

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	0.0715	0.6503	0.5463	3.9000e-003		0.0494	0.0494		0.0494	0.0494						
NaturalGas Unmitigated	0.0715	0.6503	0.5463	3.9000e-003		0.0494	0.0494		0.0494	0.0494						

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					
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000						
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000						
Unrefrigerated Warehouse-No Rail	6633.21	0.0715	0.6503	0.5463	3.9000e-003		0.0494	0.0494		0.0494	0.0494						
Total		**0.0715**	**0.6503**	**0.5463**	**3.9000e-003**		**0.0494**	**0.0494**		**0.0494**	**0.0494**						

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000						
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000						
Unrefrigerated Warehouse-No Rail	6.63321	0.0715	0.6503	0.5463	3.9000e-003		0.0494	0.0494		0.0494	0.0494						
Total		**0.0715**	**0.6503**	**0.5463**	**3.9000e-003**		**0.0494**	**0.0494**		**0.0494**	**0.0494**						

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	27.2076	2.3200e-003	0.2515	2.0000e-005		9.0000e-004	9.0000e-004		9.0000e-004	9.0000e-004						
Unmitigated	27.2076	2.3200e-003	0.2515	2.0000e-005		9.0000e-004	9.0000e-004		9.0000e-004	9.0000e-004						

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	3.1246					0.0000	0.0000		0.0000	0.0000						
Consumer Products	24.0593					0.0000	0.0000		0.0000	0.0000						
Landscaping	0.0237	2.3200e-003	0.2515	2.0000e-005		9.0000e-004	9.0000e-004		9.0000e-004	9.0000e-004						
Total	**27.2076**	**2.3200e-003**	**0.2515**	**2.0000e-005**		**9.0000e-004**	**9.0000e-004**		**9.0000e-004**	**9.0000e-004**						

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	3.1246					0.0000	0.0000		0.0000	0.0000						
Consumer Products	24.0593					0.0000	0.0000		0.0000	0.0000						
Landscaping	0.0237	2.3200e-003	0.2515	2.0000e-005		9.0000e-004	9.0000e-004		9.0000e-004	9.0000e-004						
Total	**27.2076**	**2.3200e-003**	**0.2515**	**2.0000e-005**		**9.0000e-004**	**9.0000e-004**		**9.0000e-004**	**9.0000e-004**						

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Duke Warehouse at Alabama and Palmetto

San Bernardino-South Coast County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Unrefrigerated Warehouse-No Rail	1,192.67	1000sqft	27.38	1,192,671.00	0
Other Asphalt Surfaces	893.68	1000sqft	20.52	893,684.00	0
Other Non-Asphalt Surfaces	360.89	1000sqft	8.28	360,887.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	32
Climate Zone	10			**Operational Year**	2020
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Duke Warehouse at Alabama and Palmetto - San Bernardino-South Coast County, Winter

Project Characteristics -

Land Use - Per Site Plan

Construction Phase - Per Applicant

Off-road Equipment - Per Applicant

Off-road Equipment - Per Applicant

Off-road Equipment - Per Applicant

Off-road Equipment - Per Applicant

Trips and VMT - Added Water Truck Trips

Architectural Coating -

Vehicle Trips - Per TIA

Energy Use -

Construction Off-road Equipment Mitigation - Per Rule 403

Water Mitigation -

Waste Mitigation -

Fleet Mix - Per TIA

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	75.00	30.00
tblConstructionPhase	NumDays	1,110.00	240.00
tblConstructionPhase	NumDays	110.00	40.00
tblConstructionPhase	NumDays	75.00	50.00
tblFleetMix	HHD	0.06	0.12
tblFleetMix	LDA	0.55	0.56
tblFleetMix	LDT1	0.04	0.04
tblFleetMix	LDT2	0.18	0.18
tblFleetMix	LHD1	0.02	0.00
tblFleetMix	LHD2	5.4600e-003	0.03

tblFleetMix	MCY	6.1170e-003	6.2900e-003
tblFleetMix	MDV	0.12	0.00
tblFleetMix	MH	1.0820e-003	1.1100e-003
tblFleetMix	MHD	0.02	0.05
tblFleetMix	OBUS	1.3370e-003	1.3700e-003
tblFleetMix	SBUS	8.1700e-004	8.4000e-004
tblFleetMix	UBUS	1.6570e-003	1.7000e-003
tblGrading	AcresOfGrading	220.00	275.00
tblLandUse	LandUseSquareFeet	1,192,670.00	1,192,671.00
tblLandUse	LandUseSquareFeet	893,680.00	893,684.00
tblLandUse	LandUseSquareFeet	360,890.00	360,887.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	5.00
tblOffRoadEquipment	UsageHours	6.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblTripsAndVMT	VendorTripNumber	0.00	2.00
tblTripsAndVMT	VendorTripNumber	0.00	2.00
tblVehicleTrips	CNW_TL	6.90	77.00
tblVehicleTrips	CNW_TTP	41.00	20.43
tblVehicleTrips	CW_TTP	59.00	79.57
tblVehicleTrips	DV_TP	5.00	0.00
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PR_TP	92.00	100.00
tblVehicleTrips	ST_TR	1.68	1.40

tblVehicleTrips	SU_TR	1.68	1.40
tblVehicleTrips	WD_TR	1.68	1.40

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					
2019	10.1070	93.6069	71.3058	0.2422	14.0590	3.9042	17.5430	4.1842	3.5919	7.7761						
2020	392.5694	76.6882	83.2491	0.2757	16.4638	2.0082	18.4720	4.4250	1.8894	6.3143						
Maximum	**392.5694**	**93.6069**	**83.2491**	**0.2757**	**16.4638**	**3.9042**	**18.4720**	**4.4250**	**3.5919**	**7.7761**						

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					
2019	10.1070	93.6069	71.3058	0.2422	14.0590	3.9042	15.8091	3.7869	3.5919	5.4338						
2020	392.5694	76.6882	83.2491	0.2757	16.4638	2.0082	18.4720	4.4250	1.8894	6.3143						
Maximum	**392.5694**	**93.6069**	**83.2491**	**0.2757**	**16.4638**	**3.9042**	**18.4720**	**4.4250**	**3.5919**	**6.3143**						

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**4.81**	**4.61**	**0.00**	**16.62**	**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	27.2076	2.3200e-003	0.2515	2.0000e-005		9.0000e-004	9.0000e-004		9.0000e-004	9.0000e-004						
Energy	0.0715	0.6503	0.5463	3.9000e-003		0.0494	0.0494		0.0494	0.0494						
Mobile	6.8816	90.7440	100.5114	0.5432	38.2367	0.6733	38.9100	10.3158	0.6385	10.9543						
Total	**34.1607**	**91.3967**	**101.3091**	**0.5471**	**38.2367**	**0.7236**	**38.9603**	**10.3158**	**0.6888**	**11.0046**						

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	27.2076	2.3200e-003	0.2515	2.0000e-005		9.0000e-004	9.0000e-004		9.0000e-004	9.0000e-004						
Energy	0.0715	0.6503	0.5463	3.9000e-003		0.0494	0.0494		0.0494	0.0494						
Mobile	6.8816	90.7440	100.5114	0.5432	38.2367	0.6733	38.9100	10.3158	0.6385	10.9543						
Total	**34.1607**	**91.3967**	**101.3091**	**0.5471**	**38.2367**	**0.7236**	**38.9603**	**10.3158**	**0.6888**	**11.0046**						

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	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	Grading	Grading	8/1/2019	9/25/2019	5	40	
2	Building Construction	Building Construction	9/26/2019	8/26/2020	5	240	
3	Paving	Paving	6/18/2020	8/26/2020	5	50	
4	Architectural Coating	Architectural Coating	8/1/2020	9/11/2020	5	30	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 275

Acres of Paving: 28.8

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 1,789,007; Non-Residential Outdoor: 596,336; Striped Parking Area: 75,274 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	5	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction	Cranes	1	8.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	1	8.00	130	0.42
Paving	Paving Equipment	1	8.00	132	0.36
Paving	Rollers	1	8.00	80	0.38
Architectural Coating	Air Compressors	1	8.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Grading	11	28.00	2.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	1,028.00	401.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	3	8.00	2.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	206.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

3.2 Grading - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					13.3130	0.0000	13.3130	4.0975	0.0000	4.0975						
Off-Road	7.9347	93.2617	57.5611	0.1074		3.9006	3.9006		3.5886	3.5886						
Total	**7.9347**	**93.2617**	**57.5611**	**0.1074**	**13.3130**	**3.9006**	**17.2137**	**4.0975**	**3.5886**	**7.6861**						

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						
Vendor	7.5300e-003	0.2290	0.0539	5.3000e-004	0.0128	1.4600e-003	0.0143	3.6900e-003	1.4000e-003	5.0800e-003						
Worker	0.1658	0.1163	1.1493	2.9400e-003	0.3130	2.1000e-003	0.3151	0.0830	1.9400e-003	0.0849						
Total	**0.1733**	**0.3452**	**1.2031**	**3.4700e-003**	**0.3258**	**3.5600e-003**	**0.3294**	**0.0867**	**3.3400e-003**	**0.0900**						

3.2 Grading - 2019

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					5.1921	0.0000	5.1921	1.5980	0.0000	1.5980						
Off-Road	7.9347	93.2617	57.5611	0.1074		3.9006	3.9006		3.5886	3.5886						
Total	**7.9347**	**93.2617**	**57.5611**	**0.1074**	**5.1921**	**3.9006**	**9.0927**	**1.5980**	**3.5886**	**5.1866**						

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						
Vendor	7.5300e-003	0.2290	0.0539	5.3000e-004	0.0128	1.4600e-003	0.0143	3.6900e-003	1.4000e-003	5.0800e-003						
Worker	0.1658	0.1163	1.1493	2.9400e-003	0.3130	2.1000e-003	0.3151	0.0830	1.9400e-003	0.0849						
Total	**0.1733**	**0.3452**	**1.2031**	**3.4700e-003**	**0.3258**	**3.5600e-003**	**0.3294**	**0.0867**	**3.3400e-003**	**0.0900**						

3.3 Building Construction - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.5115	22.7062	18.3139	0.0288		1.3802	1.3802		1.2958	1.2958						
Total	**2.5115**	**22.7062**	**18.3139**	**0.0288**		**1.3802**	**1.3802**		**1.2958**	**1.2958**						

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						
Vendor	1.5102	45.9088	10.7965	0.1054	2.5684	0.2926	2.8610	0.7395	0.2799	1.0195						
Worker	6.0853	4.2685	42.1954	0.1081	11.4906	0.0773	11.5679	3.0474	0.0712	3.1185						
Total	**7.5955**	**50.1773**	**52.9919**	**0.2134**	**14.0590**	**0.3699**	**14.4289**	**3.7869**	**0.3511**	**4.1380**						

3.3 Building Construction - 2019

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	2.5115	22.7062	18.3139	0.0288		1.3802	1.3802		1.2958	1.2958						
Total	**2.5115**	**22.7062**	**18.3139**	**0.0288**		**1.3802**	**1.3802**		**1.2958**	**1.2958**						

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						
Vendor	1.5102	45.9088	10.7965	0.1054	2.5684	0.2926	2.8610	0.7395	0.2799	1.0195						
Worker	6.0853	4.2685	42.1954	0.1081	11.4906	0.0773	11.5679	3.0474	0.0712	3.1185						
Total	**7.5955**	**50.1773**	**52.9919**	**0.2134**	**14.0590**	**0.3699**	**14.4289**	**3.7869**	**0.3511**	**4.1380**						

3.3 Building Construction - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.2551	20.6494	17.9678	0.0288		1.1948	1.1948		1.1218	1.1218						
Total	**2.2551**	**20.6494**	**17.9678**	**0.0288**		**1.1948**	**1.1948**		**1.1218**	**1.1218**						

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						
Vendor	1.2839	41.9738	9.5585	0.1046	2.5683	0.1972	2.7655	0.7395	0.1886	0.9282						
Worker	5.6137	3.7890	37.9973	0.1046	11.4906	0.0753	11.5659	3.0474	0.0693	3.1167						
Total	**6.8975**	**45.7628**	**47.5557**	**0.2092**	**14.0590**	**0.2725**	**14.3314**	**3.7869**	**0.2580**	**4.0449**						

3.3 Building Construction - 2020

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	2.2551	20.6494	17.9678	0.0288		1.1948	1.1948		1.1218	1.1218						
Total	**2.2551**	**20.6494**	**17.9678**	**0.0288**		**1.1948**	**1.1948**		**1.1218**	**1.1218**						

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						
Vendor	1.2839	41.9738	9.5585	0.1046	2.5683	0.1972	2.7655	0.7395	0.1886	0.9282						
Worker	5.6137	3.7890	37.9973	0.1046	11.4906	0.0753	11.5659	3.0474	0.0693	3.1167						
Total	**6.8975**	**45.7628**	**47.5557**	**0.2092**	**14.0590**	**0.2725**	**14.3314**	**3.7869**	**0.2580**	**4.0449**						

3.4 Paving - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.6783	7.0328	7.3260	0.0114		0.3764	0.3764		0.3463	0.3463						
Paving	1.0753					0.0000	0.0000		0.0000	0.0000						
Total	**1.7535**	**7.0328**	**7.3260**	**0.0114**		**0.3764**	**0.3764**		**0.3463**	**0.3463**						

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						
Vendor	6.4000e-003	0.2094	0.0477	5.2000e-004	0.0128	9.8000e-004	0.0138	3.6900e-003	9.4000e-004	4.6300e-003						
Worker	0.0437	0.0295	0.2957	8.1000e-004	0.0894	5.9000e-004	0.0900	0.0237	5.4000e-004	0.0243						
Total	**0.0501**	**0.2388**	**0.3434**	**1.3300e-003**	**0.1022**	**1.5700e-003**	**0.1038**	**0.0274**	**1.4800e-003**	**0.0289**						

3.4 Paving - 2020

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	0.6783	7.0328	7.3260	0.0114		0.3764	0.3764		0.3463	0.3463						
Paving	1.0753					0.0000	0.0000		0.0000	0.0000						
Total	**1.7535**	**7.0328**	**7.3260**	**0.0114**		**0.3764**	**0.3764**		**0.3463**	**0.3463**						

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						
Vendor	6.4000e-003	0.2094	0.0477	5.2000e-004	0.0128	9.8000e-004	0.0138	3.6900e-003	9.4000e-004	4.6300e-003						
Worker	0.0437	0.0295	0.2957	8.1000e-004	0.0894	5.9000e-004	0.0900	0.0237	5.4000e-004	0.0243						
Total	**0.0501**	**0.2388**	**0.3434**	**1.3300e-003**	**0.1022**	**1.5700e-003**	**0.1038**	**0.0274**	**1.4800e-003**	**0.0289**						

3.5 Architectural Coating - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	380.1653					0.0000	0.0000		0.0000	0.0000						
Off-Road	0.3229	2.2451	2.4419	3.9600e-003		0.1479	0.1479		0.1479	0.1479						
Total	**380.4882**	**2.2451**	**2.4419**	**3.9600e-003**		**0.1479**	**0.1479**		**0.1479**	**0.1479**						

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						
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						
Worker	1.1249	0.7593	7.6142	0.0210	2.3026	0.0151	2.3177	0.6107	0.0139	0.6246						
Total	**1.1249**	**0.7593**	**7.6142**	**0.0210**	**2.3026**	**0.0151**	**2.3177**	**0.6107**	**0.0139**	**0.6246**						

3.5 Architectural Coating - 2020

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					
Archit. Coating	380.1653					0.0000	0.0000		0.0000	0.0000						
Off-Road	0.3229	2.2451	2.4419	3.9600e-003		0.1479	0.1479		0.1479	0.1479						
Total	**380.4882**	**2.2451**	**2.4419**	**3.9600e-003**		**0.1479**	**0.1479**		**0.1479**	**0.1479**						

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						
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						
Worker	1.1249	0.7593	7.6142	0.0210	2.3026	0.0151	2.3177	0.6107	0.0139	0.6246						
Total	**1.1249**	**0.7593**	**7.6142**	**0.0210**	**2.3026**	**0.0151**	**2.3177**	**0.6107**	**0.0139**	**0.6246**						

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	6.8816	90.7440	100.5114	0.5432	38.2367	0.6733	38.9100	10.3158	0.6385	10.9543						
Unmitigated	6.8816	90.7440	100.5114	0.5432	38.2367	0.6733	38.9100	10.3158	0.6385	10.9543						

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Other Asphalt Surfaces	0.00	0.00	0.00		
Other Non-Asphalt Surfaces	0.00	0.00	0.00		
Unrefrigerated Warehouse-No Rail	1,669.74	1,669.74	1669.74	17,589,117	17,589,117
Total	1,669.74	1,669.74	1,669.74	17,589,117	17,589,117

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Other Asphalt Surfaces	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Other Non-Asphalt Surfaces	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Unrefrigerated Warehouse-No	16.60	8.40	77.00	79.57	0.00	20.43	100	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Other Asphalt Surfaces	0.546179	0.037976	0.179086	0.122965	0.018430	0.005460	0.017497	0.061396	0.001337	0.001657	0.006117	0.000817	0.001082
Other Non-Asphalt Surfaces	0.546179	0.037976	0.179086	0.122965	0.018430	0.005460	0.017497	0.061396	0.001337	0.001657	0.006117	0.000817	0.001082
Unrefrigerated Warehouse-No Rail	0.561300	0.039030	0.184050	0.000000	0.000000	0.034600	0.046400	0.123300	0.001370	0.001700	0.006290	0.000840	0.001110

5.0 Energy Detail

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	0.0715	0.6503	0.5463	3.9000e-003		0.0494	0.0494		0.0494	0.0494						
NaturalGas Unmitigated	0.0715	0.6503	0.5463	3.9000e-003		0.0494	0.0494		0.0494	0.0494						

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					
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000						
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000						
Unrefrigerated Warehouse-No Rail	6633.21	0.0715	0.6503	0.5463	3.9000e-003		0.0494	0.0494		0.0494	0.0494						
Total		**0.0715**	**0.6503**	**0.5463**	**3.9000e-003**		**0.0494**	**0.0494**		**0.0494**	**0.0494**						

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000						
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000						
Unrefrigerated Warehouse-No Rail	6.63321	0.0715	0.6503	0.5463	3.9000e-003		0.0494	0.0494		0.0494	0.0494						
Total		**0.0715**	**0.6503**	**0.5463**	**3.9000e-003**		**0.0494**	**0.0494**		**0.0494**	**0.0494**						

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	27.2076	2.3200e-003	0.2515	2.0000e-005		9.0000e-004	9.0000e-004		9.0000e-004	9.0000e-004						
Unmitigated	27.2076	2.3200e-003	0.2515	2.0000e-005		9.0000e-004	9.0000e-004		9.0000e-004	9.0000e-004						

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	3.1246					0.0000	0.0000		0.0000	0.0000						
Consumer Products	24.0593					0.0000	0.0000		0.0000	0.0000						
Landscaping	0.0237	2.3200e-003	0.2515	2.0000e-005		9.0000e-004	9.0000e-004		9.0000e-004	9.0000e-004						
Total	**27.2076**	**2.3200e-003**	**0.2515**	**2.0000e-005**		**9.0000e-004**	**9.0000e-004**		**9.0000e-004**	**9.0000e-004**						

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	3.1246					0.0000	0.0000		0.0000	0.0000						
Consumer Products	24.0593					0.0000	0.0000		0.0000	0.0000						
Landscaping	0.0237	2.3200e-003	0.2515	2.0000e-005		9.0000e-004	9.0000e-004		9.0000e-004	9.0000e-004						
Total	**27.2076**	**2.3200e-003**	**0.2515**	**2.0000e-005**		**9.0000e-004**	**9.0000e-004**		**9.0000e-004**	**9.0000e-004**						

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Duke Warehouse at Alabama and Palmetto - VOC Mitigation

San Bernardino-South Coast County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Unrefrigerated Warehouse-No Rail	1,192.67	1000sqft	27.38	1,192,671.00	0
Other Asphalt Surfaces	893.68	1000sqft	20.52	893,684.00	0
Other Non-Asphalt Surfaces	360.89	1000sqft	8.28	360,887.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	32
Climate Zone	10			**Operational Year**	2020
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Per Site Plan

Construction Phase - Per Applicant

Off-road Equipment - Per Applicant

Off-road Equipment - Per Applicant

Trips and VMT - Added Water Truck Trips

Architectural Coating - VOC Mitigation 10 g/L

Vehicle Trips - Per TIA

Energy Use -

Construction Off-road Equipment Mitigation - Per Rule 403

Water Mitigation -

Waste Mitigation -

Fleet Mix - Per TIA

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	100.00	10.00
tblArchitecturalCoating	EF_Nonresidential_Interior	100.00	10.00
tblConstructionPhase	NumDays	75.00	30.00
tblFleetMix	HHD	0.06	0.12
tblFleetMix	LDA	0.55	0.56
tblFleetMix	LDT1	0.04	0.04
tblFleetMix	LDT2	0.18	0.18
tblFleetMix	LHD1	0.02	0.00
tblFleetMix	LHD2	5.4600e-003	0.03
tblFleetMix	MCY	6.1170e-003	6.2900e-003
tblFleetMix	MDV	0.12	0.00
tblFleetMix	MH	1.0820e-003	1.1100e-003
tblFleetMix	MHD	0.02	0.05
tblFleetMix	OBUS	1.3370e-003	1.3700e-003
tblFleetMix	SBUS	8.1700e-004	8.4000e-004

tblFleetMix	UBUS	1.6570e-003	1.7000e-003
tblLandUse	LandUseSquareFeet	1,192,670.00	1,192,671.00
tblLandUse	LandUseSquareFeet	893,680.00	893,684.00
tblLandUse	LandUseSquareFeet	360,890.00	360,887.00
tblOffRoadEquipment	UsageHours	6.00	8.00
tblVehicleTrips	CNW_TL	6.90	77.00
tblVehicleTrips	CNW_TTP	41.00	20.43
tblVehicleTrips	CW_TTP	59.00	79.57
tblVehicleTrips	DV_TP	5.00	0.00
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PR_TP	92.00	100.00
tblVehicleTrips	ST_TR	1.68	1.40
tblVehicleTrips	SU_TR	1.68	1.40
tblVehicleTrips	WD_TR	1.68	1.40

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					
2020	49.9306	2.9667	11.7063	0.0274	2.3026	0.1630	2.4656	0.6107	0.1618	0.7725						
Maximum	**49.9306**	**2.9667**	**11.7063**	**0.0274**	**2.3026**	**0.1630**	**2.4656**	**0.6107**	**0.1618**	**0.7725**						

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					
2020	49.9306	2.9667	11.7063	0.0274	2.3026	0.1630	2.4656	0.6107	0.1618	0.7725						
Maximum	**49.9306**	**2.9667**	**11.7063**	**0.0274**	**2.3026**	**0.1630**	**2.4656**	**0.6107**	**0.1618**	**0.7725**						

	ROG	**NOx**	**CO**	**SO2**	**Fugitive PM10**	**Exhaust PM10**	**PM10 Total**	**Fugitive PM2.5**	**Exhaust PM2.5**	**PM2.5 Total**	**Bio- CO2**	**NBio-CO2**	**Total CO2**	**CH4**	**N20**	**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	Architectural Coating	Architectural Coating	8/1/2020	9/11/2020	5	30	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 28.8

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 1,789,007; Non-Residential Outdoor: 596,336; Striped Parking

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	8.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Architectural Coating	1	206.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

3.2 Architectural Coating - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	48.4834					0.0000	0.0000		0.0000	0.0000						
Off-Road	0.3229	2.2451	2.4419	3.9600e-003		0.1479	0.1479		0.1479	0.1479						
Total	**48.8063**	**2.2451**	**2.4419**	**3.9600e-003**		**0.1479**	**0.1479**		**0.1479**	**0.1479**						

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						
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						
Worker	1.1243	0.7216	9.2644	0.0234	2.3026	0.0151	2.3177	0.6107	0.0139	0.6246						
Total	**1.1243**	**0.7216**	**9.2644**	**0.0234**	**2.3026**	**0.0151**	**2.3177**	**0.6107**	**0.0139**	**0.6246**						

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					
Archit. Coating	48.4834					0.0000	0.0000		0.0000	0.0000						
Off-Road	0.3229	2.2451	2.4419	3.9600e-003		0.1479	0.1479		0.1479	0.1479						
Total	**48.8063**	**2.2451**	**2.4419**	**3.9600e-003**		**0.1479**	**0.1479**		**0.1479**	**0.1479**						

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						
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						
Worker	1.1243	0.7216	9.2644	0.0234	2.3026	0.0151	2.3177	0.6107	0.0139	0.6246						
Total	**1.1243**	**0.7216**	**9.2644**	**0.0234**	**2.3026**	**0.0151**	**2.3177**	**0.6107**	**0.0139**	**0.6246**						

CalEEMod Version: CalEEMod.2016.3.2

Date: 4/5/2018 10:29 AM

Duke Warehouse at Alabama and Palmetto - VOC Mitigation - San Bernardino-South Coast County, Winter

Duke Warehouse at Alabama and Palmetto - VOC Mitigation

San Bernardino-South Coast County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Unrefrigerated Warehouse-No Rail	1,192.67	1000sqft	27.38	1,192,671.00	0
Other Asphalt Surfaces	893.68	1000sqft	20.52	893,684.00	0
Other Non-Asphalt Surfaces	360.89	1000sqft	8.28	360,887.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	32
Climate Zone	10			**Operational Year**	2020
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Per Site Plan

Construction Phase - Per Applicant

Off-road Equipment - Per Applicant

Off-road Equipment - Per Applicant

Trips and VMT - Added Water Truck Trips

Architectural Coating - VOC Mitigation 10 g/L

Vehicle Trips - Per TIA

Energy Use -

Construction Off-road Equipment Mitigation - Per Rule 403

Water Mitigation -

Waste Mitigation -

Fleet Mix - Per TIA

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	100.00	10.00
tblArchitecturalCoating	EF_Nonresidential_Interior	100.00	10.00
tblConstructionPhase	NumDays	75.00	30.00
tblFleetMix	HHD	0.06	0.12
tblFleetMix	LDA	0.55	0.56
tblFleetMix	LDT1	0.04	0.04
tblFleetMix	LDT2	0.18	0.18
tblFleetMix	LHD1	0.02	0.00
tblFleetMix	LHD2	5.4600e-003	0.03
tblFleetMix	MCY	6.1170e-003	6.2900e-003
tblFleetMix	MDV	0.12	0.00
tblFleetMix	MH	1.0820e-003	1.1100e-003
tblFleetMix	MHD	0.02	0.05
tblFleetMix	OBUS	1.3370e-003	1.3700e-003

tblFleetMix	SBUS	8.1700e-004	8.4000e-004
tblFleetMix	UBUS	1.6570e-003	1.7000e-003
tblLandUse	LandUseSquareFeet	1,192,670.00	1,192,671.00
tblLandUse	LandUseSquareFeet	893,680.00	893,684.00
tblLandUse	LandUseSquareFeet	360,890.00	360,887.00
tblOffRoadEquipment	UsageHours	6.00	8.00
tblVehicleTrips	CNW_TL	6.90	77.00
tblVehicleTrips	CNW_TTP	41.00	20.43
tblVehicleTrips	CW_TTP	59.00	79.57
tblVehicleTrips	DV_TP	5.00	0.00
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PR_TP	92.00	100.00
tblVehicleTrips	ST_TR	1.68	1.40
tblVehicleTrips	SU_TR	1.68	1.40
tblVehicleTrips	WD_TR	1.68	1.40

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					
2020	49.9312	3.0044	10.0561	0.0249	2.3026	0.1630	2.4656	0.6107	0.1618	0.7725						
Maximum	**49.9312**	**3.0044**	**10.0561**	**0.0249**	**2.3026**	**0.1630**	**2.4656**	**0.6107**	**0.1618**	**0.7725**						

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					
2020	49.9312	3.0044	10.0561	0.0249	2.3026	0.1630	2.4656	0.6107	0.1618	0.7725						
Maximum	**49.9312**	**3.0044**	**10.0561**	**0.0249**	**2.3026**	**0.1630**	**2.4656**	**0.6107**	**0.1618**	**0.7725**						

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	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	Architectural Coating	Architectural Coating	8/1/2020	9/11/2020	5	30	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 28.8

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 1,789,007; Non-Residential Outdoor: 596,336; Striped Parking

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	8.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Architectural Coating	1	206.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

3.2 Architectural Coating - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	48.4834					0.0000	0.0000		0.0000	0.0000						
Off-Road	0.3229	2.2451	2.4419	3.9600e-003		0.1479	0.1479		0.1479	0.1479						
Total	**48.8063**	**2.2451**	**2.4419**	**3.9600e-003**		**0.1479**	**0.1479**		**0.1479**	**0.1479**						

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						
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						
Worker	1.1249	0.7593	7.6142	0.0210	2.3026	0.0151	2.3177	0.6107	0.0139	0.6246						
Total	**1.1249**	**0.7593**	**7.6142**	**0.0210**	**2.3026**	**0.0151**	**2.3177**	**0.6107**	**0.0139**	**0.6246**						

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					
Archit. Coating	48.4834					0.0000	0.0000		0.0000	0.0000						
Off-Road	0.3229	2.2451	2.4419	3.9600e-003		0.1479	0.1479		0.1479	0.1479						
Total	**48.8063**	**2.2451**	**2.4419**	**3.9600e-003**		**0.1479**	**0.1479**		**0.1479**	**0.1479**						

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						
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						
Worker	1.1249	0.7593	7.6142	0.0210	2.3026	0.0151	2.3177	0.6107	0.0139	0.6246						
Total	**1.1249**	**0.7593**	**7.6142**	**0.0210**	**2.3026**	**0.0151**	**2.3177**	**0.6107**	**0.0139**	**0.6246**						

CalEEMod Version: CalEEMod.2016.3.2

Date: 4/6/2018 9:06 AM

Duke Warehouse at Alabama and Palmetto - Operation LST - San Bernardino-South Coast County, Summer

Duke Warehouse at Alabama and Palmetto - Operation LST

San Bernardino-South Coast County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Unrefrigerated Warehouse-No Rail	1,192.67	1000sqft	27.38	1,192,671.00	0
Other Asphalt Surfaces	893.68	1000sqft	20.52	893,684.00	0
Other Non-Asphalt Surfaces	360.89	1000sqft	8.28	360,887.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	32
Climate Zone	10			**Operational Year**	2020
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Per Site Plan

Construction Phase - Not Modeled

Off-road Equipment - Per Applicant

Off-road Equipment - Not Modeled

Trips and VMT -

Architectural Coating -

Vehicle Trips - Model onsite Travel

Energy Use -

Construction Off-road Equipment Mitigation - Per Rule 403

Water Mitigation -

Waste Mitigation -

Fleet Mix - Per TIA

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	110.00	0.00
tblFleetMix	HHD	0.06	0.12
tblFleetMix	LDA	0.55	0.56
tblFleetMix	LDT1	0.04	0.04
tblFleetMix	LDT2	0.18	0.18
tblFleetMix	LHD1	0.02	0.00
tblFleetMix	LHD2	5.4600e-003	0.03
tblFleetMix	MCY	6.1170e-003	6.2900e-003
tblFleetMix	MDV	0.12	0.00
tblFleetMix	MH	1.0820e-003	1.1100e-003
tblFleetMix	MHD	0.02	0.05
tblFleetMix	OBUS	1.3370e-003	1.3700e-003
tblFleetMix	SBUS	8.1700e-004	8.4000e-004
tblFleetMix	UBUS	1.6570e-003	1.7000e-003

tblGrading	AcresOfGrading	0.00	275.00
tblLandUse	LandUseSquareFeet	1,192,670.00	1,192,671.00
tblLandUse	LandUseSquareFeet	893,680.00	893,684.00
tblLandUse	LandUseSquareFeet	360,890.00	360,887.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblTripsAndVMT	WorkerTripNumber	0.00	28.00
tblVehicleTrips	CC_TL	8.40	0.68
tblVehicleTrips	CNW_TL	6.90	0.68
tblVehicleTrips	CNW_TTP	41.00	20.43
tblVehicleTrips	CW_TL	16.60	0.68
tblVehicleTrips	CW_TTP	59.00	79.57
tblVehicleTrips	DV_TP	5.00	0.00
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PR_TP	92.00	100.00
tblVehicleTrips	ST_TR	1.68	1.40
tblVehicleTrips	SU_TR	1.68	1.40
tblVehicleTrips	WD_TR	1.68	1.40

2.0 Emissions Summary

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	27.2076	2.3200e-003	0.2515	2.0000e-005		9.0000e-004	9.0000e-004		9.0000e-004	9.0000e-004						
Energy	0.0715	0.6503	0.5463	3.9000e-003		0.0494	0.0494		0.0494	0.0494						
Mobile	2.5497	27.3382	10.5648	0.0473	0.8985	0.0302	0.9287	0.2424	0.0285	0.2709						
Total	**29.8288**	**27.9909**	**11.3625**	**0.0512**	**0.8985**	**0.0805**	**0.9790**	**0.2424**	**0.0788**	**0.3212**						

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	27.2076	2.3200e-003	0.2515	2.0000e-005		9.0000e-004	9.0000e-004		9.0000e-004	9.0000e-004						
Energy	0.0715	0.6503	0.5463	3.9000e-003		0.0494	0.0494		0.0494	0.0494						
Mobile	2.5497	27.3382	10.5648	0.0473	0.8985	0.0302	0.9287	0.2424	0.0285	0.2709						
Total	**29.8288**	**27.9909**	**11.3625**	**0.0512**	**0.8985**	**0.0805**	**0.9790**	**0.2424**	**0.0788**	**0.3212**						

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	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**

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	2.5497	27.3382	10.5648	0.0473	0.8985	0.0302	0.9287	0.2424	0.0285	0.2709						
Unmitigated	2.5497	27.3382	10.5648	0.0473	0.8985	0.0302	0.9287	0.2424	0.0285	0.2709						

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Other Asphalt Surfaces	0.00	0.00	0.00		
Other Non-Asphalt Surfaces	0.00	0.00	0.00		
Unrefrigerated Warehouse-No Rail	1,669.74	1,669.74	1669.74	413,294	413,294
Total	1,669.74	1,669.74	1,669.74	413,294	413,294

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	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
Other Asphalt Surfaces	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Other Non-Asphalt Surfaces	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Unrefrigerated Warehouse-No	0.68	0.68	0.68	79.57	0.00	20.43	100	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Other Asphalt Surfaces	0.546179	0.037976	0.179086	0.122965	0.018430	0.005460	0.017497	0.061396	0.001337	0.001657	0.006117	0.000817	0.001082
Other Non-Asphalt Surfaces	0.546179	0.037976	0.179086	0.122965	0.018430	0.005460	0.017497	0.061396	0.001337	0.001657	0.006117	0.000817	0.001082
Unrefrigerated Warehouse-No Rail	0.561300	0.039030	0.184050	0.000000	0.000000	0.034600	0.046400	0.123300	0.001370	0.001700	0.006290	0.000840	0.001110

CalEEMod Version: CalEEMod.2016.3.2

Date: 4/6/2018 9:08 AM

Duke Warehouse at Alabama and Palmetto - Operation LST

San Bernardino-South Coast County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Unrefrigerated Warehouse-No Rail	1,192.67	1000sqft	27.38	1,192,671.00	0
Other Asphalt Surfaces	893.68	1000sqft	20.52	893,684.00	0
Other Non-Asphalt Surfaces	360.89	1000sqft	8.28	360,887.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	32
Climate Zone	10			**Operational Year**	2020
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Per Site Plan

Construction Phase - Not Modeled

Off-road Equipment - Per Applicant

Off-road Equipment - Not Modeled

Trips and VMT -

Architectural Coating -

Vehicle Trips - Model onsite Travel

Energy Use -

Construction Off-road Equipment Mitigation - Per Rule 403

Water Mitigation -

Waste Mitigation -

Fleet Mix - Per TIA

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	110.00	0.00
tblFleetMix	HHD	0.06	0.12
tblFleetMix	LDA	0.55	0.56
tblFleetMix	LDT1	0.04	0.04
tblFleetMix	LDT2	0.18	0.18
tblFleetMix	LHD1	0.02	0.00
tblFleetMix	LHD2	5.4600e-003	0.03
tblFleetMix	MCY	6.1170e-003	6.2900e-003
tblFleetMix	MDV	0.12	0.00
tblFleetMix	MH	1.0820e-003	1.1100e-003
tblFleetMix	MHD	0.02	0.05
tblFleetMix	OBUS	1.3370e-003	1.3700e-003
tblFleetMix	SBUS	8.1700e-004	8.4000e-004
tblFleetMix	UBUS	1.6570e-003	1.7000e-003

tblGrading	AcresOfGrading	0.00	275.00
tblLandUse	LandUseSquareFeet	1,192,670.00	1,192,671.00
tblLandUse	LandUseSquareFeet	893,680.00	893,684.00
tblLandUse	LandUseSquareFeet	360,890.00	360,887.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblTripsAndVMT	WorkerTripNumber	0.00	28.00
tblVehicleTrips	CC_TL	8.40	0.68
tblVehicleTrips	CNW_TL	6.90	0.68
tblVehicleTrips	CNW_TTP	41.00	20.43
tblVehicleTrips	CW_TL	16.60	0.68
tblVehicleTrips	CW_TTP	59.00	79.57
tblVehicleTrips	DV_TP	5.00	0.00
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PR_TP	92.00	100.00
tblVehicleTrips	ST_TR	1.68	1.40
tblVehicleTrips	SU_TR	1.68	1.40
tblVehicleTrips	WD_TR	1.68	1.40

2.0 Emissions Summary

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	27.2076	2.3200e-003	0.2515	2.0000e-005		9.0000e-004	9.0000e-004		9.0000e-004	9.0000e-004						
Energy	0.0715	0.6503	0.5463	3.9000e-003		0.0494	0.0494		0.0494	0.0494						
Mobile	2.2160	26.4089	12.1792	0.0424	0.8985	0.0325	0.9309	0.2424	0.0307	0.2731						
Total	**29.4951**	**27.0616**	**12.9769**	**0.0463**	**0.8985**	**0.0828**	**0.9812**	**0.2424**	**0.0810**	**0.3234**						

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	27.2076	2.3200e-003	0.2515	2.0000e-005		9.0000e-004	9.0000e-004		9.0000e-004	9.0000e-004						
Energy	0.0715	0.6503	0.5463	3.9000e-003		0.0494	0.0494		0.0494	0.0494						
Mobile	2.2160	26.4089	12.1792	0.0424	0.8985	0.0325	0.9309	0.2424	0.0307	0.2731						
Total	**29.4951**	**27.0616**	**12.9769**	**0.0463**	**0.8985**	**0.0828**	**0.9812**	**0.2424**	**0.0810**	**0.3234**						

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	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**

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	2.2160	26.4089	12.1792	0.0424	0.8985	0.0325	0.9309	0.2424	0.0307	0.2731						
Unmitigated	2.2160	26.4089	12.1792	0.0424	0.8985	0.0325	0.9309	0.2424	0.0307	0.2731						

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Other Asphalt Surfaces	0.00	0.00	0.00		
Other Non-Asphalt Surfaces	0.00	0.00	0.00		
Unrefrigerated Warehouse-No Rail	1,669.74	1,669.74	1669.74	413,294	413,294
Total	1,669.74	1,669.74	1,669.74	413,294	413,294

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	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
Other Asphalt Surfaces	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Other Non-Asphalt Surfaces	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Unrefrigerated Warehouse-No	0.68	0.68	0.68	79.57	0.00	20.43	100	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Other Asphalt Surfaces	0.546179	0.037976	0.179086	0.122965	0.018430	0.005460	0.017497	0.061396	0.001337	0.001657	0.006117	0.000817	0.001082
Other Non-Asphalt Surfaces	0.546179	0.037976	0.179086	0.122965	0.018430	0.005460	0.017497	0.061396	0.001337	0.001657	0.006117	0.000817	0.001082
Unrefrigerated Warehouse-No Rail	0.561300	0.039030	0.184050	0.000000	0.000000	0.034600	0.046400	0.123300	0.001370	0.001700	0.006290	0.000840	0.001110

Particulate Matter Idling Emissions Calculations for Operation LST

Pollutant	Emission Factor*	Idling Time	Daily Truck Trips**	Idling Emissions	Idling Emissions
	(g/hr-veh)	(min)		(g/day)	(lb/day)
LHDT1					
PM-10	0.000961	15	58	0.013935	3.07205E-05
PM-2.5	0.000919	15	58	0.013326	2.93779E-05
MHDT					
PM-10	0.002801	15	78	0.05462	0.000120416
PM-2.5	0.00268	15	78	0.05226	0.000115214
HHDT					
PM-10	0.016843	15	207	0.871625	0.001921615
PM-2.5	0.016115	15	207	0.833951	0.001838557
PM-10 Sub-Total					0.002072751
PM-2.5 Sub-Total					0.001983149
CalEEMod Total					
PM-10 Total					0.9309
PM-2.5 Total					0.2731
Operation LST Total					
PM-10 Total					0.932972751
PM-2.5 Total					0.275083149

* Emission factors from CalEEMod

** Project-specific Traffic Impact Analysis, April 2018