



## Technical Memorandum

To: Jonah Chodosh, WPT Arrow Boulevard, LP

From: Eliza Laws, Senior Environmental Analyst  
Monica Tobias, Associate Environmental Analyst

Date: May 20, 2021

Re: Air Quality/Greenhouse Gas Analysis for the 15719 and 15755 Arrow Route Warehouse Project (CUP No. 2020-00235) County of San Bernardino, California

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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. The greenhouse gas (GHG) assessment was prepared to evaluate whether the expected GHG emissions generated as a result of construction and operation of the proposed Project would be consistent with the *San Bernardino County Greenhouse Gas Emissions Reduction Plan* (2011)<sup>1</sup> and *Greenhouse Gas Development Review Processes* (DRP), updated in 2015.<sup>2</sup>. 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 **California Emissions Estimator Model®** version 2016.3.2 (CalEEMod) was used to quantify Project-related emissions.

The Project proposes development of a speculative non-refrigerated warehouse buildings, on approximately 9.23 net acres on the southern side of Arrow Route, west of Tokay Avenue, and east of Lime Avenue in an unincorporated area of San Bernardino County, California. The warehouse building is approximately 196,654-square-foot (SF), with 4,000 SF of office space. Approximately 22 dock doors will be provided on the south side of the proposed building. The Project Applicant has committed to achieve LEED “Certified” status for the building. The Project will include concrete pavement in the parking area and at least 15 percent lot coverage for landscaping. The Project’s water pipelines will connect to existing pipelines along the frontage of the Project within Arrow Route. Off-site road improvements will consist of partial width improvements of Arrow Route along the Project frontage.

<sup>1</sup> County of San Bernardino Greenhouse Gas Emissions Reduction Plan, September 2011. (Available at <http://www.sbccounty.gov/Uploads/lus/GreenhouseGas/FinalGHGFull.pdf>, accessed May 18, 2021.)

<sup>2</sup> County of San Bernardino Greenhouse Gas Emissions, Development Review Processes, Updated March 2015. (Available at <http://www.sbccounty.gov/Uploads/lus/GreenhouseGas/FinalGHGUpdate.pdf>, accessed May 18, 2021.)

## ▪ **Regional Significance Thresholds**

The thresholds contained in the *SCAQMD CEQA Air Quality Handbook*<sup>3</sup> (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.

**Table 1 – SCAQMD CEQA Daily Regional Significance Thresholds**

Emission Threshold	Units	VOC	NO <sub>x</sub>	CO	SO <sub>x</sub>	PM-10	PM-2.5
Construction	lbs/day	75	100	550	150	150	55
Operation	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 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 (approximately 9.53 total acres), a Fugitive Dust Control Plan or a Large Operation Notification Form would not 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 10 months, beginning no sooner than January 2022. 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 January 2022 with demolition and end with paving and architectural coatings (painting):

Construction Activity	Start Date	End Date	Total Working Days
Demolition	January 1, 2022	January 31, 2022	21
Grading	February 1, 2022	February 21, 2022	15
Building Construction	February 22, 2022	October 31, 2022	180
Paving	October 1, 2022	October 31, 2022	21
Architectural Coatings	October 1, 2022	October 31, 2022	21

<sup>3</sup> South Coast Air Quality Management District, *CEQA Air Quality Handbook*, November 1993. (Available at SCAQMD.)

- The equipment to be used for each activity is shown below and is based on CalEEMod defaults and information from the Applicant. Each piece of equipment is assumed to operate 8 hours per day:

<b>Construction Activity</b>	<b>Off-Road Equipment</b>	<b>Unit Amount</b>
Demolition	Concrete/Industrial Saws	1
	Excavators	3
	Rubber Tired Dozers	2
	Rubber Tired Loader	1
Grading	Rubber Tired Loader	1
	Graders	1
	Roller	1
	Scrapers	3
	Tractors/Loaders/Backhoes	1
Building Construction	Crane	1
	Forklifts	3
	Generator Set	4
	Tractor/Loader/Backhoe	3
	Welder	2
	Excavators	1
	Aerial Lifts	6
	Laser Screed (Pump)	1
	Cement and Mortar Mixers (concrete finishing machines)	5
Paving	Paver	1
	Paving Equipment	2
	Rollers	2
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 per day were added to the demolition, grading and paving activities to account for water truck trips.
- The existing buildings totaling 26,560 SF will be demolished.
- The Project site will balance; no soil import or export is required.
- Off-site infrastructure improvements will also be required. Off-site improvements to Arrow Route will include expanding the existing 36-foot roadway to 40 feet, adding curb and gutter, and adding landscaping along the Project site's frontage. Potable water pipelines will connect to existing pipelines within Arrow Route. Wastewater generated by the Project site will be treated by a septic system.
- The VOC content of interior and exterior architectural coatings were changed to 50 grams per liter, pursuant to SCAQMD Rule 1113.

The results of this analysis are summarized below.

**Table 2 – Unmitigated Estimated Maximum Daily Construction Emissions**

Activity	Peak Daily Emissions (lb/day)					
	VOC	NO <sub>x</sub>	CO	SO <sub>2</sub>	PM-10	PM-2.5
<b>SCAQMD Daily Construction Thresholds</b>	<b>75</b>	<b>100</b>	<b>550</b>	<b>150</b>	<b>150</b>	<b>55</b>
Demolition	3.06	30.20	23.05	0.05	2.15	1.41
Grading	3.60	38.88	27.28	0.07	2.00	1.48
Building Construction	<b>5.15</b>	<b>43.67</b>	<b>53.01</b>	<b>0.11</b>	<b>4.15</b>	<b>1.75</b>
Paving	<b>0.97</b>	<b>9.25</b>	<b>12.22</b>	<b>0.02</b>	<b>0.63</b>	<b>0.47</b>
Architectural Coatings	<b>46.74</b>	<b>1.98</b>	<b>3.75</b>	<b>0.01</b>	<b>0.50</b>	<b>0.22</b>
<b>Maximum<sup>1</sup></b>	<b>52.86</b>	<b>54.90</b>	<b>68.98</b>	<b>0.14</b>	<b>5.28</b>	<b>2.44</b>
<b>Exceeds Threshold?</b>	<b>No</b>	<b>No</b>	<b>No</b>	<b>No</b>	<b>No</b>	<b>No</b>

Note: <sup>1</sup> Maximum emissions are the greater of either demolition alone or grading alone, or the sum of building construction, paving and architectural coating 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.

### Long-Term Analysis

Long-term emissions are evaluated at build-out of a project. The Project is assumed to be operational in 2022. Mobile source emissions refer to on-road motor vehicle emissions generated from the Project's traffic and are based on the trip generation provided in Project-specific Traffic Impact Analysis and Vehicle Miles Traveled Screening Analysis (hereinafter referred to as the Traffic Analysis).<sup>4</sup> An average truck trip length of approximately 55 miles was assumed, which is based on the weighted average distance to the following destinations: the Ports of Los Angeles/Long Beach (70 miles), the Banning Pass (46 miles), the San Diego County line (61 miles), the Cajon Pass (30 miles), and Downtown Los Angeles (52 miles). 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. The Project's energy emissions were adjusted to reflect the improvements expected from 2019 Title 24 standards, which became effective January 1, 2020.<sup>5</sup> Separate emissions were computed for both the summer and winter.

<sup>4</sup> Albert A. Webb Associates, *Memorandum, Traffic Impact Analysis (TIA) and Vehicle Miles Traveled (VMT) Screening Analysis for WPT Arrow Industrial Warehouse Development at 15755 Arrow Boulevard in the County of San Bernardino, California (TRSTY-2021-00006)*, April 13, 2021.

<sup>5</sup> The 2019 Title 24 standards are 7 percent more efficient for residential uses and 30 percent more efficient for non-residential uses than the 2016 standards in CalEEMod: [https://www.energy.ca.gov/sites/default/files/2020-03/Title\\_24\\_2019\\_Building\\_Standards\\_FAQ\\_ada.pdf](https://www.energy.ca.gov/sites/default/files/2020-03/Title_24_2019_Building_Standards_FAQ_ada.pdf)

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

Source	Peak Daily Emissions (lb/day)					
	VOC	NO <sub>x</sub>	CO	SO <sub>2</sub>	PM-10	PM-2.5
<b>SCAQMD Daily Thresholds</b>	<b>55</b>	<b>55</b>	<b>550</b>	<b>150</b>	<b>150</b>	<b>55</b>
Area	4.49	0.00	0.02	0.00	0.00	0.00
Energy	0.01	0.08	0.06	0.00	0.01	0.01
Mobile	1.46	24.45	20.12	0.15	8.37	2.35
<b>Total</b>	<b>5.96</b>	<b>24.53</b>	<b>20.20</b>	<b>0.15</b>	<b>8.38</b>	<b>2.36</b>
<b>Exceeds Threshold?</b>	<b>No</b>	<b>No</b>	<b>No</b>	<b>No</b>	<b>No</b>	<b>No</b>

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 <sub>x</sub>	CO	SO <sub>2</sub>	PM-10	PM-2.5
<b>SCAQMD Daily Thresholds</b>	<b>55</b>	<b>55</b>	<b>550</b>	<b>150</b>	<b>150</b>	<b>55</b>
Area	4.49	0.00	0.02	0.00	0.00	0.00
Energy	0.01	0.08	0.06	0.00	0.01	0.01
Mobile	1.39	24.87	17.77	0.14	8.37	2.35
<b>Total</b>	<b>5.89</b>	<b>24.95</b>	<b>17.85</b>	<b>0.14</b>	<b>8.38</b>	<b>2.36</b>
<b>Exceeds Threshold?</b>	<b>No</b>	<b>No</b>	<b>No</b>	<b>No</b>	<b>No</b>	<b>No</b>

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 not exceed the SCAQMD regional daily thresholds during summer or winter.

## ▪ 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<sup>6</sup> 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 in SRA-34.

### 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<sub>2</sub>, CO, PM-10, and PM-2.5. SCAQMD has provided LST lookup tables<sup>7</sup> 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 approximately 9.53 acres, it is anticipated that an area of approximately four acres would be disturbed per day during construction.<sup>8</sup> Therefore, the Project's on-site emissions from CalEEMod and LST Look-Up Tables were utilized as a screening-level analysis. If the Project emissions do not exceed the screening thresholds, a more detailed analysis is not required.

<sup>6</sup> 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 May 2021.)

<sup>7</sup> <http://www.aqmd.gov/home/regulations/ceqa/air-quality-analysis-handbook/localized-significance-thresholds>

<sup>8</sup> <http://www.aqmd.gov/docs/default-source/ceqa/handbook/localized-significance-thresholds/caleemod-guidance.pdf?sfvrsn=2>

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 are existing residences to the south and east of the Project site, approximately 341 meters (1,120 feet) and 410 meters (1,345 feet). LST thresholds are provided for distances to sensitive receptors of 25, 50, 100, 200, and 500 meters. Therefore, a receptor distance of 200 meters (656 feet) was used ensure a conservative analysis. The results are summarized below.

**Table 5 – Unmitigated LST Results for Daily Construction Emissions**

Source	Peak Daily Emissions (lb/day)			
	NO <sub>x</sub>	CO	PM-10	PM-2.5
<b>LST for 4-acre at 200 meters<sup>1</sup></b>	<b>450</b>	<b>7,803</b>	<b>98</b>	<b>32</b>
Demolition	28.76	22.13	1.83	1.32
Grading	38.64	26.56	1.79	1.42
Building Construction	<b>36.96</b>	<b>45.26</b>	<b>1.74</b>	<b>1.68</b>
Paving	<b>9.03</b>	<b>11.70</b>	<b>0.47</b>	<b>0.43</b>
Architectural Coatings	<b>1.88</b>	<b>2.42</b>	<b>0.11</b>	<b>0.11</b>
<b>Maximum<sup>2</sup></b>	<b>47.87</b>	<b>59.38</b>	<b>2.32</b>	<b>2.22</b>
<b>Exceeds Threshold?</b>	<b>No</b>	<b>No</b>	<b>No</b>	<b>No</b>

Note: <sup>1</sup> LST for 4-acre site predicted using Appendix K of SCAQMD LST Methodology

<sup>2</sup> Maximum emissions are the greater of either demolition alone or grading alone, or the sum of building construction, paving and architectural coating 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 warehouse 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 trucks traveling on the Project site. An on-site distance of 0.31 miles was conservatively assumed to be traveled for each one of the Project's truck trips identified in the Traffic 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.<sup>9</sup> The results were added to the total PM-10 and PM-2.5 emissions from CalEEMod and presented in the table below. As stated above, the closest sensitive receptors to the Project site are the existing residences to the south and east of the Project site, approximately 341 and 410 meters away. Therefore, a receptor distance of 200 meters (656 feet) was used to provide a conservative analysis. The results are summarized in **Table 6 – Unmitigated LST Results for Daily Operational Emissions**.

<sup>9</sup> Idling emission factors obtained from EMFAC2017; idling calculations attached herewith.

**Table 6 – Unmitigated LST Results for Daily Operational Emissions**

Source	Peak Daily Emissions (lb/day)			
	NO <sub>x</sub>	CO	PM-10 <sup>1</sup>	PM-2.5 <sup>1</sup>
LST Threshold for 5-acre at 200 meters	486	8,532	26	9
On-Site Mobile	8.60	1.43	0.05	0.02
<b>Exceeds Threshold?</b>	<b>No</b>	<b>No</b>	<b>No</b>	<b>No</b>

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

<sup>1</sup> 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)<sup>10</sup> and the Revised 1992 Federal Attainment Plan for Carbon Monoxide (1992 CO Plan). <sup>11</sup> 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 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)<sup>12</sup> 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 that Project-related traffic would result in an increase of 343 daily trips on local

<sup>10</sup> 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 May 2021.)

<sup>11</sup> SCAQMD, *Revision to the 1992 Carbon Monoxide Attainment Plan*, September 1994. (Available at SCAQMD.)

<sup>12</sup> 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](http://www.metro.net/images/cmp_2004.pdf), accessed May 2021.)

roadways<sup>13</sup>, 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.

## ▪ Greenhouse Gas Analysis

Greenhouse gases (GHG) are not presented in lbs/day like criteria pollutants; they are typically evaluated on an annual basis using the metric system. Additionally, unlike criteria pollutants, GHG do not have adopted significance thresholds associated with them at this time. Several agencies, at various levels, have proposed draft GHG significance thresholds for use in CEQA documents. SCAQMD has been working on GHG thresholds for development projects. The most recent draft proposal was in September 2010<sup>14</sup> and included significance thresholds for residential, commercial, and mixed-use projects at 3,500, 1,400, and 3,000 MTCO<sub>2</sub>E/yr, respectively. Alternatively, a lead agency has the option to use 3,000 MTCO<sub>2</sub>E/yr as a threshold for all non-industrial projects. Although both options are recommended by SCAQMD, a lead agency is advised to use only one option and to use it consistently. In December 2008, the SCAQMD adopted a threshold of 10,000 metric tonnes per year of carbon dioxide equivalents (MTCO<sub>2</sub>E/yr) for stationary source projects where SCAQMD is the lead agency. The SCAQMD significance thresholds also evaluate construction emissions by amortizing them over an expected project life of 30 years. More recently, the County has adopted a GHG reduction plan, as discussed below.

### **San Bernardino County Greenhouse Gas Reduction Plan**

As stated above, the County of San Bernardino adopted the Greenhouse Gas Reduction Plan (GHG Plan) in 2011, which provides guidance on how to analyze GHG emissions and determine significance during the CEQA review of proposed development projects within the County of San Bernardino. The reduction strategies in the GHG Plan correspond to reduction measures. Measurable reductions in GHG emissions are achieved through adherence to the County's DRP procedures.<sup>15</sup>

The Count's DRP specifies a two-step approach in quantifying GHG emissions. First, a screening threshold of 3,000 MT CO<sub>2</sub>E per year is used to determine if additional analysis is required. Projects that exceed the 3,000 MTCO<sub>2</sub>E per year are required to either achieve a minimum 100 points per the Screening Tables or will be required to quantify project-specific GHG emissions that achieve the equivalent level of GHG emissions efficiency as a 100-point project. Therefore, the analysis herein utilizes this screening threshold.

## **Short-Term Analysis**

### **Construction-Related Emissions**

The CalEEMod model calculates GHG emissions from fuel usage by construction equipment and construction-related activities, like construction worker trips, for the Project. The CalEEMod estimate does not analyze emissions from construction-related electricity or natural gas. Construction-related electricity and natural gas emissions vary based on the amount of electric power used during construction and other unknown factors which make them too speculative to quantify. The CalEEMod

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<sup>13</sup> Albert A. Webb Associates, *Memorandum, Traffic Impact Analysis (TIA) and Vehicle Miles Traveled (VMT) Screening Analysis for WPT Arrow Industrial Warehouse Development at 15755 Arrow Boulevard in the County of San Bernardino, California (TRSTY-2021-00006)*, April 13, 2021.

<sup>14</sup> [http://www.aqmd.gov/docs/default-source/ceqa/handbook/greenhouse-gases-\(ghg\)-ceqa-significance-thresholds/year-2008-2009/ghg-meeting-15/ghg-meeting-15-main-presentation.pdf?sfvrsn=2](http://www.aqmd.gov/docs/default-source/ceqa/handbook/greenhouse-gases-(ghg)-ceqa-significance-thresholds/year-2008-2009/ghg-meeting-15/ghg-meeting-15-main-presentation.pdf?sfvrsn=2)

<sup>15</sup> County of San Bernardino, *Greenhouse Gas Emissions, Development Review Processes*, Updated March 2015. (Available at <http://www.sbcounty.gov/Uploads/lus/GreenhouseGas/FinalGHGUpdate.pdf>, accessed May 18, 2021.)

output results for construction-related GHG emissions present the GHG emissions estimates for the Project for CO<sub>2</sub>, methane (CH<sub>4</sub>), nitrous oxide (N<sub>2</sub>O), and CO<sub>2</sub>E.<sup>16</sup>

**Table 7 – Project Construction Equipment GHG Emissions**

Year	Metric Tons per year (MT/yr)			
	Total CO <sub>2</sub>	Total CH <sub>4</sub>	Total N <sub>2</sub> O	Total CO <sub>2</sub> E
2022	993.82	0.15	0.00	997.66
			<b>Amortized</b>	<b>33.26</b>

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

Evaluation of the table above indicates that an estimated 33.26 MTCO<sub>2</sub>E will occur from Project construction equipment over the course of the estimated construction period. The draft SCAQMD GHG threshold Guidance document released in October 2008<sup>17</sup> recommends that construction emissions be amortized for a project lifetime of 30 years to ensure that GHG reduction measures address construction GHG emissions as part of the operational reduction strategies. Therefore, the total GHG emissions from Project construction were amortized and are included in **Table 9**, below.

### Vegetation Change

CalEEMod estimates the GHG emissions associated with the one-time change in vegetation resulting from development and the GHG emissions sequestered as a result of planting new trees on a project site. Planting trees as part of the Project will sequester CO<sub>2</sub> while they are actively growing.

Approximately 137 trees from miscellaneous species are estimated to be planted as part of this Project based on the conceptual landscaping plan.<sup>18</sup> As shown in the CalEEMod output (attached), the estimated one-time sequestration of CO<sub>2</sub> from the planting of Project trees is 96.99 MTCO<sub>2</sub>E. Assuming a Project life of 30 years, this equates to a net reduction of 3.23 MTCO<sub>2</sub>E annually. These results were included in the analysis of the Project's total operational emissions below in **Table 9**.

### Long-Term Analysis

#### Area Source Emissions

CalEEMod estimates the GHG emissions associated with area sources which include landscape equipment emissions, architectural coating, consumer products, and hearths. Landscape equipment servicing the Project site create CO<sub>2</sub> resulting from fuel combustion based on the Project's land uses. Consumer products consist of consumer use of solvents and personal care products and architectural coatings consist of an average building square footage to be repainted each year. Hearth emissions do not apply to the Project because no dwelling units are proposed. **Table 9** summarizes the Project's area source emissions.

#### Energy-Related Emissions

CalEEMod estimates the GHG emissions associated with building electricity and natural gas usage (non-hearth) for each land use type. Electricity and natural gas used in buildings is typically generated at an off-site power plant which indirectly generates GHG emissions. The default energy usage values used in CalEEMod are based on the CEC sponsored California Commercial End Use Survey and Residential Appliance Saturation Survey studies and reflect 2016 Title 24 improvements (CalEEMod User's Guide, Appendix A). The default CO<sub>2</sub> electricity intensity factors within CalEEMod for Southern California Edison (SCE), which reflect 2012 data, were adjusted to reflect the most recent data available for 2019.<sup>19</sup> As stated above, the Project's energy emissions were also adjusted to reflect the 2019 Title 24 standards,

<sup>16</sup> CO<sub>2</sub>E is the sum of CO<sub>2</sub> emissions estimated plus the sum of CH<sub>4</sub> and N<sub>2</sub>O emissions estimated multiplied by their respective global warming potential (GWP).

<sup>17</sup> [http://www.aqmd.gov/docs/default-source/ceqa/handbook/greenhouse-gases-\(ghg\)-ceqa-significance-thresholds/year-2008-2009/ghg-meeting-6/ghg-meeting-6-guidance-document-discussion.pdf?sfvrsn=2](http://www.aqmd.gov/docs/default-source/ceqa/handbook/greenhouse-gases-(ghg)-ceqa-significance-thresholds/year-2008-2009/ghg-meeting-6/ghg-meeting-6-guidance-document-discussion.pdf?sfvrsn=2)

<sup>18</sup> Albert A Webb Associates, *Conceptual Landscape Plan*, 15719 & 15755 Arrow Route, December 11, 2020.

<sup>19</sup> <https://www.edison.com/content/dam/eix/documents/sustainability/eix-2019-sustainability-report-scorecard.pdf>

which are 30 percent more efficient for nonresidential uses.<sup>20</sup> The following table summarizes the GHG emissions estimates for the Project.

**Table 8 – Energy-Related GHG Emissions**

Source	Metric Tons per year (MT/yr)			
	CO <sub>2</sub>	CH <sub>4</sub>	N <sub>2</sub> O	Total CO <sub>2</sub> E
Electricity	125.06	0.01	0.00	125.65
Natural Gas	15.01	0.00	0.00	15.1
<b>Total</b>	<b>140.07</b>	<b>0.01</b>	<b>0.00</b>	<b>140.75</b>

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

### Mobile Source Emissions

CalEEMod estimates the annual GHG emissions from Project-related vehicle usage based on trip generation data contained in defaults or in a project-specific traffic analyses. The trip generation data used in the model was based on data contained in the Project-specific Traffic Analysis.<sup>21</sup> As stated above, an average truck trip length of approximately 55 miles was assumed. **Table 9** shows the mobile source emissions from the Project.

### Solid Waste Emissions

CalEEMod also calculates the GHG emissions associated with the disposal of solid waste into landfills based on default data contained within the model for waste disposal rates, composition, and the characteristics of landfills throughout the state. A large percentage of this waste will be diverted from landfills by a variety of means, such as reducing the amount of waste generated, recycling, and/or composting. The remainder of the waste not diverted will be disposed of at a landfill. This analysis assumes a solid waste diversion from the landfills consistent with the most recent data provided by the state, 37 percent.<sup>22</sup> The waste diversion rate was evaluated in the model by selecting the mitigation option for solid waste and **Table 9** shows the solid waste emissions from the Project utilizing this waste reduction rate.

### Water-Related Energy Usage

Electricity is also indirectly used in water supply, treatment, and distribution, as well as wastewater treatment in Southern California and plays a large role in GHG production.

There are three processes necessary to supply potable water to urban users (i.e., residential, commercial, and industrial): (1) supply and conveyance of the water from the source; (2) treatment of the water to potable standards; and (3) distribution of the water to individual users. After use, the wastewater is treated and either reused as reclaimed/recycled water or returned to the environment. CalEEMod calculates the GHG emissions from these processes based on default emissions factors and water/wastewater generation rates for a project's location. Default values were used for electricity intensity factor associated with the supply and conveyance of water from its source which assumes that the water is being imported from Northern California. Warehouse water usage was calculated based on rates within the Countywide Plan Program Environmental Impact Report (PEIR),<sup>23</sup> while the outdoor water consumption was estimated per the Project Landscape Plan. The Project's emissions were also adjusted to account for the CalGreen building code which requires a 20 percent reduction in indoor water use. Compliance with the CalGreen code was evaluated in the model by selecting the mitigation

<sup>20</sup> The 2019 Title 24 standards are seven and 30 percent more efficient for residential and non-residential uses than the 2016 standards in CalEEMod: [https://www.energy.ca.gov/sites/default/files/2020-03/Title\\_24\\_2019\\_Building\\_Standards\\_FAQ\\_ada.pdf](https://www.energy.ca.gov/sites/default/files/2020-03/Title_24_2019_Building_Standards_FAQ_ada.pdf)

<sup>21</sup> Albert A. Webb Associates, *Memorandum, Traffic Impact Analysis (TIA) and Vehicle Miles Traveled (VMT) Screening Analysis for WPT Arrow Industrial Warehouse Development at 15755 Arrow Boulevard in the County of San Bernardino, California (TRSTY-2021-00006)*, April 13, 2021.

<sup>22</sup> CalRecycle, *California's 2019 Per Capita Disposal Rate Estimate*, webpage. Available at: <https://www.calrecycle.ca.gov/lcentral/goalmeasure/disposalrate/mostrecent>, accessed May 19, 2021.

<sup>23</sup> County of San Bernardino, *San Bernardino Countywide Plan Program Environmental Impact Report*, Certified October 27, 2020. Available at: [http://countywideplan.com/wp-content/uploads/2019/06/Ch\\_05-18-USS.pdf](http://countywideplan.com/wp-content/uploads/2019/06/Ch_05-18-USS.pdf), accessed May 20, 2021.

option for reduction in indoor water use and **Table 9** shows the resulting GHG emissions from water-related energy usage for the Project.

### Total Project GHG Emissions

As shown on **Table 9 – Total Project-Related GHG Emissions**, using all the emissions quantified above, the total GHG emissions generated from the Project is approximately 2,738.39 MTCO<sub>2</sub>E/yr which includes construction-related emissions amortized over a typical project life of 30 years.

**Table 9 – Total Project-Related GHG Emissions**

Source	Metric Tons per year (MT/yr)			
	CO <sub>2</sub>	CH <sub>4</sub>	N <sub>2</sub> O	Total CO <sub>2</sub> E
Amortized Construction	--	--	--	33.26
Vegetation	--	--	--	-3.23
Area	0.01	0.00	0.00	0.01
Energy	140.07	0.01	0.00	140.75
Mobile	2,480.69	0.10	0.00	2,483.11
Solid Waste	23.64	1.40	0.00	58.57
Water	19.85	0.19	0.00	25.92
<b>Total</b>	<b>2,664.26</b>	<b>1.70</b>	<b>0.00</b>	<b>2,738.39</b>

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

The total GHG emissions from the Project are below the County's screening level of 3,000 MTCO<sub>2</sub>E/yr.

### ▪ Conclusion

The conclusion of this analysis indicates that construction and operation of the proposed Project will not exceed criteria pollutant thresholds established by SCAQMD on a regional or localized level. In addition, the Project will not create a CO hot spot. The Project's total GHG emissions do not exceed the County screening threshold of 3,000 MTCO<sub>2</sub>E/yr. No mitigation is required.

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

## **CALEEMOD OUTPUT FILES**

## 15755 Arrow Route Warehouse Project - San Bernardino-South Coast County, Summer

**15755 Arrow Route Warehouse Project**  
**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	196.65	1000sqft	4.51	196,650.00	0
Other Asphalt Surfaces	0.07	Acre	0.07	3,049.20	0
Other Non-Asphalt Surfaces	4.95	Acre	4.95	215,622.00	0

**1.2 Other Project Characteristics**

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	32
Climate Zone	10			Operational Year	2022
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	531.44	CH4 Intensity (lb/MWhr)	0.029	N2O Intensity (lb/MWhr)	0.006

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

## 15755 Arrow Route Warehouse Project - San Bernardino-South Coast County, Summer

Project Characteristics - SCE carbon intensity per 2019 SCE data

Land Use - Per Site Plan; Onsite and Offsite

Construction Phase - Per Applicant

Off-road Equipment - Per Applicant/ 8 hours per day

Demolition - Per Engineer

Trips and VMT - 2 daily water truck trips added to demolition, grading, and paving activities

Architectural Coating - 50 VOC/L per Rule 1113

Vehicle Trips - Per VMT Memo; weighted truck trip length estimated

Fleet Mix - Per VMT Memo

Energy Use - Added 0.35 to Lighting Energy Intensity to account for parking lot lighting

Water And Wastewater - Per CWP FEIR total water demand is 0.1 gallons/square feet/day

Sequestration - Per Landscape Plan

Construction Off-road Equipment Mitigation - Per Rule 403

Energy Mitigation - 2019 Title 24

Water Mitigation - Per Cal Green

Waste Mitigation - 2019 Statewide Average

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	100.00	50.00
tblArchitecturalCoating	EF_Nonresidential_Interior	100.00	50.00
tblConstructionPhase	NumDays	20.00	21.00
tblConstructionPhase	NumDays	230.00	180.00
tblConstructionPhase	NumDays	20.00	21.00

## 15755 Arrow Route Warehouse Project - San Bernardino-South Coast County, Summer

tblConstructionPhase	NumDays	20.00	15.00
tblConstructionPhase	NumDays	20.00	21.00
tblConstructionPhase	PhaseEndDate	3/24/2023	10/31/2022
tblConstructionPhase	PhaseEndDate	1/27/2023	10/31/2022
tblConstructionPhase	PhaseEndDate	1/28/2022	1/31/2022
tblConstructionPhase	PhaseEndDate	3/11/2022	2/21/2022
tblConstructionPhase	PhaseEndDate	2/24/2023	10/31/2022
tblConstructionPhase	PhaseStartDate	2/25/2023	10/1/2022
tblConstructionPhase	PhaseStartDate	3/12/2022	2/22/2022
tblConstructionPhase	PhaseStartDate	2/12/2022	2/1/2022
tblConstructionPhase	PhaseStartDate	1/28/2023	10/1/2022
tblEnergyUse	LightingElect	0.00	0.35
tblEnergyUse	LightingElect	0.00	0.35
tblFleetMix	HHD	0.06	0.22
tblFleetMix	LDA	0.55	0.46
tblFleetMix	LDT1	0.04	0.03
tblFleetMix	LDT2	0.18	0.15
tblFleetMix	LHD1	0.02	0.00
tblFleetMix	LHD2	5.1010e-003	0.06
tblFleetMix	MCY	5.9030e-003	4.9600e-003
tblFleetMix	MDV	0.12	0.00
tblFleetMix	MH	9.4400e-004	7.9000e-004
tblFleetMix	MHD	0.02	0.07
tblFleetMix	OBUS	1.3570e-003	1.1400e-003
tblFleetMix	SBUS	8.0800e-004	6.8000e-004
tblFleetMix	UBUS	1.5650e-003	1.3200e-003
tblGrading	AcresOfGrading	52.50	10.00

## 15755 Arrow Route Warehouse Project - San Bernardino-South Coast County, Summer

tblOffRoadEquipment	LoadFactor	0.36	0.36
tblOffRoadEquipment	LoadFactor	0.36	0.36
tblOffRoadEquipment	LoadFactor	0.38	0.38
tblOffRoadEquipment	LoadFactor	0.48	0.48
tblOffRoadEquipment	OffRoadEquipmentType		Rubber Tired Loaders
tblOffRoadEquipment	OffRoadEquipmentType		Rubber Tired Loaders
tblOffRoadEquipment	OffRoadEquipmentType		Rollers
tblOffRoadEquipment	OffRoadEquipmentType		Scrapers
tblOffRoadEquipment	OffRoadEquipmentType		Excavators
tblOffRoadEquipment	OffRoadEquipmentType		Aerial Lifts
tblOffRoadEquipment	OffRoadEquipmentType		Cement and Mortar Mixers
tblOffRoadEquipment	OffRoadEquipmentType		Pumps
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	UsageHours	6.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblProjectCharacteristics	CO2IntensityFactor	702.44	531.44
tblSequestration	NumberOfNewTrees	0.00	137.00
tblTripsAndVMT	VendorTripNumber	0.00	2.00
tblTripsAndVMT	VendorTripNumber	0.00	2.00
tblTripsAndVMT	VendorTripNumber	0.00	2.00
tblVehicleTrips	CC_TL	8.40	55.00

## 15755 Arrow Route Warehouse Project - San Bernardino-South Coast County, Summer

tblVehicleTrips	CC_TTP	0.00	34.40
tblVehicleTrips	CNW_TTP	41.00	0.00
tblVehicleTrips	CW_TTP	59.00	65.60
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	1.74
tblVehicleTrips	SU_TR	1.68	1.74
tblVehicleTrips	WD_TR	1.68	1.74
tblWater	IndoorWaterUseRate	45,475,312.50	7,172,171.00
tblWater	OutdoorWaterUseRate	0.00	5,700.00

## 2.0 Emissions Summary

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15755 Arrow Route Warehouse Project - San Bernardino-South Coast County, Summer

## 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						
2022	52.8446	54.8963	68.9878	0.1408	2.9298	2.3469	5.2767	0.7872	2.2437	3.0309	0.0000	13,610.1208	13,610.1208	2.0947	0.0000	13,662.4892	
Maximum	52.8446	54.8963	68.9878	0.1408	2.9298	2.3469	5.2767	0.7872	2.2437	3.0309	0.0000	13,610.1208	13,610.1208	2.0947	0.0000	13,662.4892	

## **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						
2022	52.8446	54.8963	68.9878	0.1408	2.9298	2.3469	5.2767	0.7872	2.2437	3.0309	0.0000	13,610.12 08	13,610.12 08	2.0947	0.0000	13,662.48 92	
Maximum	52.8446	54.8963	68.9878	0.1408	2.9298	2.3469	5.2767	0.7872	2.2437	3.0309	0.0000	13,610.12 08	13,610.12 08	2.0947	0.0000	13,662.48 92	

## 15755 Arrow Route Warehouse Project - San Bernardino-South Coast County, Summer

**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	4.4891	1.9000e-004	0.0206	0.0000		7.0000e-005	7.0000e-005		7.0000e-005	7.0000e-005		0.0441	0.0441	1.2000e-004		0.0471	
Energy	0.0118	0.1072	0.0901	6.4000e-004		8.1500e-003	8.1500e-003		8.1500e-003	8.1500e-003		128.6703	128.6703	2.4700e-003	2.3600e-003	129.4349	
Mobile	1.4572	24.4459	20.1226	0.1489	8.2526	0.1126	8.3652	2.2444	0.1068	2.3512		15,486.44 91	15,486.44 91	0.5824		15,501.00 85	
Total	5.9581	24.5533	20.2333	0.1495	8.2526	0.1208	8.3734	2.2444	0.1150	2.3594		15,615.16 35	15,615.16 35	0.5850	2.3600e-003	15,630.49 04	

**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	4.4891	1.9000e-004	0.0206	0.0000		7.0000e-005	7.0000e-005		7.0000e-005	7.0000e-005		0.0441	0.0441	1.2000e-004		0.0471	
Energy	8.3100e-003	0.0755	0.0635	4.5000e-004		5.7400e-003	5.7400e-003		5.7400e-003	5.7400e-003		90.6397	90.6397	1.7400e-003	1.6600e-003	91.1783	
Mobile	1.4572	24.4459	20.1226	0.1489	8.2526	0.1126	8.3652	2.2444	0.1068	2.3512		15,486.44 91	15,486.44 91	0.5824		15,501.00 85	
Total	5.9547	24.5216	20.2066	0.1493	8.2526	0.1184	8.3710	2.2444	0.1126	2.3570		15,577.13 29	15,577.13 29	0.5842	1.6600e-003	15,592.23 38	

## 15755 Arrow Route Warehouse Project - San Bernardino-South Coast County, Summer

	ROG	NOx	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	0.06	0.13	0.13	0.13	0.00	1.99	0.03	0.00	2.10	0.10	0.00	0.24	0.24	0.12	29.66	0.24

### 3.0 Construction Detail

#### Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	1/1/2022	1/31/2022	5	21	
2	Grading	Grading	2/1/2022	2/21/2022	5	15	
3	Building Construction	Building Construction	2/22/2022	10/31/2022	5	180	
4	Paving	Paving	10/1/2022	10/31/2022	5	21	
5	Architectural Coating	Architectural Coating	10/1/2022	10/31/2022	5	21	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 10

Acres of Paving: 5.02

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 294,975; Non-Residential Outdoor: 98,325; Striped Parking Area: 13,120 (Architectural Coating – sqft)

#### OffRoad Equipment

## 15755 Arrow Route Warehouse Project - San Bernardino-South Coast County, Summer

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	8.00	78	0.48
Demolition	Excavators	3	8.00	158	0.38
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Grading	Excavators	0	8.00	158	0.38
Building Construction	Cranes	1	8.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	4	8.00	84	0.74
Paving	Pavers	1	8.00	130	0.42
Paving	Rollers	2	8.00	80	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Grading	Rubber Tired Dozers	0	8.00	247	0.40
Building Construction	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Grading	Graders	1	8.00	187	0.41
Grading	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Paving	Paving Equipment	2	8.00	132	0.36
Demolition	Rubber Tired Loaders	1	8.00	203	0.36
Grading	Rubber Tired Loaders	1	8.00	203	0.36
Building Construction	Welders	2	8.00	46	0.45
Grading	Rollers	1	8.00	80	0.38
Grading	Scrapers	3	8.00	367	0.48
Building Construction	Excavators	1	8.00	158	0.38
Building Construction	Aerial Lifts	6	8.00	63	0.31
Building Construction	Cement and Mortar Mixers	5	8.00	9	0.56
Building Construction	Pumps	1	8.00	84	0.74

Trips and VMT

## 15755 Arrow Route Warehouse Project - San Bernardino-South Coast County, Summer

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	7	18.00	2.00	121.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	7	18.00	2.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	26	174.00	68.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	5	13.00	2.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	35.00	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 Demolition - 2022****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					1.2464	0.0000	1.2464	0.1887	0.0000	0.1887			0.0000			0.0000
Off-Road	2.9320	28.7595	22.1330	0.0451		1.3446	1.3446		1.2491	1.2491	4,355.473 8	4,355.473 8	1.2493			4,386.706 3
Total	2.9320	28.7595	22.1330	0.0451	1.2464	1.3446	2.5910	0.1887	1.2491	1.4378	4,355.473 8	4,355.473 8	1.2493			4,386.706 3

## 15755 Arrow Route Warehouse Project - San Bernardino-South Coast County, Summer

**3.2 Demolition - 2022****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	0.0324	1.2054	0.1973	4.4300e-003	0.1008	3.0800e-003	0.1039	0.0276	2.9500e-003	0.0306	470.1836	470.1836	0.0249			470.8056
Vendor	4.8200e-003	0.1829	0.0336	5.4000e-004	0.0128	2.8000e-004	0.0131	3.6900e-003	2.7000e-004	3.9500e-003	56.4615	56.4615	3.4700e-003			56.5483
Worker	0.0854	0.0508	0.6846	1.9100e-003	0.2012	1.2500e-003	0.2025	0.0534	1.1500e-003	0.0545	189.8284	189.8284	5.0300e-003			189.9541
<b>Total</b>	<b>0.1226</b>	<b>1.4391</b>	<b>0.9154</b>	<b>6.8800e-003</b>	<b>0.3148</b>	<b>4.6100e-003</b>	<b>0.3195</b>	<b>0.0847</b>	<b>4.3700e-003</b>	<b>0.0891</b>		<b>716.4735</b>	<b>716.4735</b>	<b>0.0334</b>		<b>717.3080</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.4861	0.0000	0.4861	0.0736	0.0000	0.0736			0.0000			0.0000
Off-Road	2.9320	28.7595	22.1330	0.0451		1.3446	1.3446		1.2491	1.2491	0.0000	4,355.4738	4,355.4738	1.2493		4,386.7062
<b>Total</b>	<b>2.9320</b>	<b>28.7595</b>	<b>22.1330</b>	<b>0.0451</b>	<b>0.4861</b>	<b>1.3446</b>	<b>1.8307</b>	<b>0.0736</b>	<b>1.2491</b>	<b>1.3227</b>	<b>0.0000</b>	<b>4,355.4738</b>	<b>4,355.4738</b>	<b>1.2493</b>		<b>4,386.7062</b>

## 15755 Arrow Route Warehouse Project - San Bernardino-South Coast County, Summer

**3.2 Demolition - 2022****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	0.0324	1.2054	0.1973	4.4300e-003	0.1008	3.0800e-003	0.1039	0.0276	2.9500e-003	0.0306		470.1836	470.1836	0.0249		470.8056	
Vendor	4.8200e-003	0.1829	0.0336	5.4000e-004	0.0128	2.8000e-004	0.0131	3.6900e-003	2.7000e-004	3.9500e-003		56.4615	56.4615	3.4700e-003		56.5483	
Worker	0.0854	0.0508	0.6846	1.9100e-003	0.2012	1.2500e-003	0.2025	0.0534	1.1500e-003	0.0545		189.8284	189.8284	5.0300e-003		189.9541	
Total	0.1226	1.4391	0.9154	6.8800e-003	0.3148	4.6100e-003	0.3195	0.0847	4.3700e-003	0.0891		716.4735	716.4735	0.0334		717.3080	

**3.3 Grading - 2022****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					0.7070	0.0000	0.7070	0.0763	0.0000	0.0763		0.0000				0.0000
Off-Road	3.5067	38.6421	26.5585	0.0644		1.5101	1.5101		1.3893	1.3893		6,235.0407	6,235.0407	2.0165		6,285.4542
Total	3.5067	38.6421	26.5585	0.0644	0.7070	1.5101	2.2171	0.0763	1.3893	1.4656		6,235.0407	6,235.0407	2.0165		6,285.4542

## 15755 Arrow Route Warehouse Project - San Bernardino-South Coast County, Summer

**3.3 Grading - 2022****Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day											lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
Vendor	4.8200e-003	0.1829	0.0336	5.4000e-004	0.0128	2.8000e-004	0.0131	3.6900e-003	2.7000e-004	3.9500e-003	56.4615	56.4615	3.4700e-003	56.5483			
Worker	0.0854	0.0508	0.6846	1.9100e-003	0.2012	1.2500e-003	0.2025	0.0534	1.1500e-003	0.0545	189.8284	189.8284	5.0300e-003	189.9541			
Total	<b>0.0902</b>	<b>0.2338</b>	<b>0.7181</b>	<b>2.4500e-003</b>	<b>0.2140</b>	<b>1.5300e-003</b>	<b>0.2155</b>	<b>0.0571</b>	<b>1.4200e-003</b>	<b>0.0585</b>	<b>246.2900</b>	<b>246.2900</b>	<b>8.5000e-003</b>		<b>246.5025</b>		

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.2757	0.0000	0.2757	0.0298	0.0000	0.0298	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.5067	38.6421	26.5585	0.0644		1.5101	1.5101		1.3893	1.3893	0.0000	6,235.0407	6,235.0407	2.0165		6,285.4542
Total	<b>3.5067</b>	<b>38.6421</b>	<b>26.5585</b>	<b>0.0644</b>	<b>0.2757</b>	<b>1.5101</b>	<b>1.7858</b>	<b>0.0298</b>	<b>1.3893</b>	<b>1.4191</b>	<b>0.0000</b>	<b>6,235.0407</b>	<b>6,235.0407</b>	<b>2.0165</b>		<b>6,285.4542</b>

## 15755 Arrow Route Warehouse Project - San Bernardino-South Coast County, Summer

**3.3 Grading - 2022****Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day											lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
Vendor	4.8200e-003	0.1829	0.0336	5.4000e-004	0.0128	2.8000e-004	0.0131	3.6900e-003	2.7000e-004	3.9500e-003	56.4615	56.4615	3.4700e-003	56.5483			
Worker	0.0854	0.0508	0.6846	1.9100e-003	0.2012	1.2500e-003	0.2025	0.0534	1.1500e-003	0.0545	189.8284	189.8284	5.0300e-003	189.9541			
Total	0.0902	0.2338	0.7181	2.4500e-003	0.2140	1.5300e-003	0.2155	0.0571	1.4200e-003	0.0585	246.2900	246.2900	8.5000e-003			246.5025	

**3.4 Building Construction - 2022****Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day											lb/day					
Off-Road	4.1459	36.9631	45.2560	0.0765		1.7447	1.7447		1.6805	1.6805	7,165.0839	7,165.0839	1.3200			7,198.0839	
Total	4.1459	36.9631	45.2560	0.0765		1.7447	1.7447		1.6805	1.6805	7,165.0839	7,165.0839	1.3200			7,198.0839	

## 15755 Arrow Route Warehouse Project - San Bernardino-South Coast County, Summer

**3.4 Building Construction - 2022****Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day											lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
Vendor	0.1639	6.2194	1.1409	0.0182	0.4355	9.4400e-003	0.4450	0.1254	9.0300e-003	0.1344	1,919.6916	1,919.6916	0.1181	1,922.6431			
Worker	0.8256	0.4913	6.6173	0.0184	1.9449	0.0121	1.9570	0.5158	0.0111	0.5269	1,835.0082	1,835.0082	0.0486	1,836.2232			
Total	<b>0.9896</b>	<b>6.7107</b>	<b>7.7582</b>	<b>0.0366</b>	<b>2.3804</b>	<b>0.0215</b>	<b>2.4020</b>	<b>0.6412</b>	<b>0.0202</b>	<b>0.6614</b>	<b>3,754.6998</b>	<b>3,754.6998</b>	<b>0.1667</b>			<b>3,758.8663</b>	

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day											lb/day					
Off-Road	4.1459	36.9631	45.2560	0.0765		1.7447	1.7447		1.6805	1.6805	0.0000	7,165.0839	7,165.0839	1.3200		7,198.0839	
Total	<b>4.1459</b>	<b>36.9631</b>	<b>45.2560</b>	<b>0.0765</b>		<b>1.7447</b>	<b>1.7447</b>		<b>1.6805</b>	<b>1.6805</b>	<b>0.0000</b>	<b>7,165.0839</b>	<b>7,165.0839</b>	<b>1.3200</b>		<b>7,198.0839</b>	

## 15755 Arrow Route Warehouse Project - San Bernardino-South Coast County, Summer

**3.4 Building Construction - 2022****Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day											lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
Vendor	0.1639	6.2194	1.1409	0.0182	0.4355	9.4400e-003	0.4450	0.1254	9.0300e-003	0.1344	1,919.6916	1,919.6916	0.1181	1,922.6431			
Worker	0.8256	0.4913	6.6173	0.0184	1.9449	0.0121	1.9570	0.5158	0.0111	0.5269	1,835.0082	1,835.0082	0.0486	1,836.2232			
Total	0.9896	6.7107	7.7582	0.0366	2.3804	0.0215	2.4020	0.6412	0.0202	0.6614	3,754.6998	3,754.6998	0.1667	3,758.8663			

**3.5 Paving - 2022****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	0.8959	9.0260	11.6966	0.0181	0.4682	0.4682	0.4682	0.4307	0.4307	0.4307	1,752.4024	1,752.4024	0.5668	1,766.5714			
Paving	8.7300e-003				0.0000	0.0000		0.0000	0.0000		0.0000		0.0000		0.0000		
Total	0.9047	9.0260	11.6966	0.0181	0.4682	0.4682	0.4682	0.4307	0.4307	0.4307	1,752.4024	1,752.4024	0.5668	1,766.5714			

## 15755 Arrow Route Warehouse Project - San Bernardino-South Coast County, Summer

**3.5 Paving - 2022****Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day											lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
Vendor	4.8200e-003	0.1829	0.0336	5.4000e-004	0.0128	2.8000e-004	0.0131	3.6900e-003	2.7000e-004	3.9500e-003	56.4615	56.4615	3.4700e-003			56.5483	
Worker	0.0617	0.0367	0.4944	1.3800e-003	0.1453	9.0000e-004	0.1462	0.0385	8.3000e-004	0.0394	137.0983	137.0983	3.6300e-003			137.1891	
Total	<b>0.0665</b>	<b>0.2196</b>	<b>0.5280</b>	<b>1.9200e-003</b>	<b>0.1581</b>	<b>1.1800e-003</b>	<b>0.1593</b>	<b>0.0422</b>	<b>1.1000e-003</b>	<b>0.0433</b>	<b>193.5598</b>	<b>193.5598</b>	<b>7.1000e-003</b>			<b>193.7374</b>	

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day											lb/day					
Off-Road	0.8959	9.0260	11.6966	0.0181		0.4682	0.4682		0.4307	0.4307	0.0000	1,752.402 4	1,752.402 4	0.5668		1,766.571 4	
Paving	8.7300e-003					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000	
Total	<b>0.9047</b>	<b>9.0260</b>	<b>11.6966</b>	<b>0.0181</b>		<b>0.4682</b>	<b>0.4682</b>		<b>0.4307</b>	<b>0.4307</b>	<b>0.0000</b>	<b>1,752.402 4</b>	<b>1,752.402 4</b>	<b>0.5668</b>		<b>1,766.571 4</b>	

## 15755 Arrow Route Warehouse Project - San Bernardino-South Coast County, Summer

**3.5 Paving - 2022****Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day											lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
Vendor	4.8200e-003	0.1829	0.0336	5.4000e-004	0.0128	2.8000e-004	0.0131	3.6900e-003	2.7000e-004	3.9500e-003	56.4615	56.4615	3.4700e-003	56.5483			
Worker	0.0617	0.0367	0.4944	1.3800e-003	0.1453	9.0000e-004	0.1462	0.0385	8.3000e-004	0.0394	137.0983	137.0983	3.6300e-003	137.1891			
Total	0.0665	0.2196	0.5280	1.9200e-003	0.1581	1.1800e-003	0.1593	0.0422	1.1000e-003	0.0433	193.5598	193.5598	7.1000e-003			193.7374	

**3.6 Architectural Coating - 2022****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	46.2992						0.0000	0.0000		0.0000	0.0000		0.0000			0.0000
Off-Road	0.2727	1.8780	2.4181	3.9600e-003		0.1090	0.1090		0.1090	0.1090	375.2641	375.2641	0.0244			375.8749
Total	46.5720	1.8780	2.4181	3.9600e-003		0.1090	0.1090		0.1090	0.1090	375.2641	375.2641	0.0244			375.8749

## 15755 Arrow Route Warehouse Project - San Bernardino-South Coast County, Summer

**3.6 Architectural Coating - 2022****Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day											lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000	0.0000	0.0000	
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000	0.0000	0.0000	
Worker	0.1661	0.0988	1.3311	3.7100e-003	0.3912	2.4300e-003	0.3937	0.1038	2.2400e-003	0.1060			369.1109	369.1109	9.7800e-003	369.3552	
<b>Total</b>	<b>0.1661</b>	<b>0.0988</b>	<b>1.3311</b>	<b>3.7100e-003</b>	<b>0.3912</b>	<b>2.4300e-003</b>	<b>0.3937</b>	<b>0.1038</b>	<b>2.2400e-003</b>	<b>0.1060</b>			<b>369.1109</b>	<b>369.1109</b>	<b>9.7800e-003</b>	<b>369.3552</b>	

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day											lb/day					
Archit. Coating	46.2992						0.0000	0.0000		0.0000	0.0000			0.0000		0.0000	
Off-Road	0.2727	1.8780	2.4181	3.9600e-003		0.1090	0.1090		0.1090	0.1090	0.0000	375.2641	375.2641	0.0244		375.8749	
<b>Total</b>	<b>46.5720</b>	<b>1.8780</b>	<b>2.4181</b>	<b>3.9600e-003</b>		<b>0.1090</b>	<b>0.1090</b>		<b>0.1090</b>	<b>0.1090</b>	<b>0.0000</b>	<b>375.2641</b>	<b>375.2641</b>	<b>0.0244</b>		<b>375.8749</b>	

## 15755 Arrow Route Warehouse Project - San Bernardino-South Coast County, Summer

**3.6 Architectural Coating - 2022****Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day											lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
Worker	0.1661	0.0988	1.3311	3.7100e-003	0.3912	2.4300e-003	0.3937	0.1038	2.2400e-003	0.1060	369.1109	369.1109	9.7800e-003			369.3552	
Total	0.1661	0.0988	1.3311	3.7100e-003	0.3912	2.4300e-003	0.3937	0.1038	2.2400e-003	0.1060		369.1109	369.1109	9.7800e-003		369.3552	

**4.0 Operational Detail - Mobile****4.1 Mitigation Measures Mobile**

## 15755 Arrow Route Warehouse Project - San Bernardino-South Coast County, Summer

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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	1.4572	24.4459	20.1226	0.1489	8.2526	0.1126	8.3652	2.2444	0.1068	2.3512	15,486.44 91	15,486.44 91	0.5824			15,501.00 85	
Unmitigated	1.4572	24.4459	20.1226	0.1489	8.2526	0.1126	8.3652	2.2444	0.1068	2.3512	15,486.44 91	15,486.44 91	0.5824			15,501.00 85	

**4.2 Trip Summary Information**

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	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	342.17	342.17	342.17	3,712,793	3,712,793
Total	342.17	342.17	342.17	3,712,793	3,712,793

**4.3 Trip Type Information**

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
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	55.00	6.90	65.60	34.40	0.00	100	0	0

**4.4 Fleet Mix**

## 15755 Arrow Route Warehouse Project - San Bernardino-South Coast County, Summer

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Other Asphalt Surfaces	0.553113	0.036408	0.180286	0.116335	0.016165	0.005101	0.018218	0.063797	0.001357	0.001565	0.005903	0.000808	0.000944
Other Non-Asphalt Surfaces	0.553113	0.036408	0.180286	0.116335	0.016165	0.005101	0.018218	0.063797	0.001357	0.001565	0.005903	0.000808	0.000944
Unrefrigerated Warehouse-No Rail	0.464940	0.030600	0.151550	0.000000	0.000000	0.058310	0.069970	0.215740	0.001140	0.001320	0.004960	0.000680	0.000790

## 5.0 Energy Detail

Historical Energy Use: N

### 5.1 Mitigation Measures Energy

Exceed Title 24

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	8.3100e-003	0.0755	0.0635	4.5000e-004		5.7400e-003	5.7400e-003		5.7400e-003	5.7400e-003		90.6397	90.6397	1.7400e-003	1.6600e-003	91.1783
NaturalGas Unmitigated	0.0118	0.1072	0.0901	6.4000e-004		8.1500e-003	8.1500e-003		8.1500e-003	8.1500e-003		128.6703	128.6703	2.4700e-003	2.3600e-003	129.4349

## 15755 Arrow Route Warehouse Project - San Bernardino-South Coast County, Summer

**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		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		0.0000	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	1093.7	0.0118	0.1072	0.0901	6.4000e-004		8.1500e-003	8.1500e-003		8.1500e-003	8.1500e-003		128.6703	128.6703	2.4700e-003	2.3600e-003	129.4349
<b>Total</b>		<b>0.0118</b>	<b>0.1072</b>	<b>0.0901</b>	<b>6.4000e-004</b>		<b>8.1500e-003</b>	<b>8.1500e-003</b>		<b>8.1500e-003</b>	<b>8.1500e-003</b>		<b>128.6703</b>	<b>128.6703</b>	<b>2.4700e-003</b>	<b>2.3600e-003</b>	<b>129.4349</b>

**Mitigated**

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	0.770437	8.3100e-003	0.0755	0.0635	4.5000e-004		5.7400e-003	5.7400e-003		5.7400e-003	5.7400e-003		90.6397	90.6397	1.7400e-003	1.6600e-003	91.1783
<b>Total</b>		<b>8.3100e-003</b>	<b>0.0755</b>	<b>0.0635</b>	<b>4.5000e-004</b>		<b>5.7400e-003</b>	<b>5.7400e-003</b>		<b>5.7400e-003</b>	<b>5.7400e-003</b>		<b>90.6397</b>	<b>90.6397</b>	<b>1.7400e-003</b>	<b>1.6600e-003</b>	<b>91.1783</b>

## 15755 Arrow Route Warehouse Project - San Bernardino-South Coast County, Summer

**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	4.4891	1.9000e-004	0.0206	0.0000			7.0000e-005	7.0000e-005		7.0000e-005	7.0000e-005	0.0441	0.0441	1.2000e-004		0.0471
Unmitigated	4.4891	1.9000e-004	0.0206	0.0000			7.0000e-005	7.0000e-005		7.0000e-005	7.0000e-005	0.0441	0.0441	1.2000e-004		0.0471

## 15755 Arrow Route Warehouse Project - San Bernardino-South Coast County, Summer

**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	0.5161						0.0000	0.0000		0.0000	0.0000		0.0000			0.0000
Consumer Products	3.9711						0.0000	0.0000		0.0000	0.0000		0.0000			0.0000
Landscaping	1.9200e-003	1.9000e-004	0.0206	0.0000		7.0000e-005	7.0000e-005		7.0000e-005	7.0000e-005		0.0441	0.0441	1.2000e-004		0.0471
<b>Total</b>	<b>4.4891</b>	<b>1.9000e-004</b>	<b>0.0206</b>	<b>0.0000</b>		<b>7.0000e-005</b>	<b>7.0000e-005</b>		<b>7.0000e-005</b>	<b>7.0000e-005</b>		<b>0.0441</b>	<b>0.0441</b>	<b>1.2000e-004</b>		<b>0.0471</b>

**Mitigated**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.5161						0.0000	0.0000		0.0000	0.0000		0.0000			0.0000
Consumer Products	3.9711						0.0000	0.0000		0.0000	0.0000		0.0000			0.0000
Landscaping	1.9200e-003	1.9000e-004	0.0206	0.0000		7.0000e-005	7.0000e-005		7.0000e-005	7.0000e-005		0.0441	0.0441	1.2000e-004		0.0471
<b>Total</b>	<b>4.4891</b>	<b>1.9000e-004</b>	<b>0.0206</b>	<b>0.0000</b>		<b>7.0000e-005</b>	<b>7.0000e-005</b>		<b>7.0000e-005</b>	<b>7.0000e-005</b>		<b>0.0441</b>	<b>0.0441</b>	<b>1.2000e-004</b>		<b>0.0471</b>

**7.0 Water Detail**

## 7.1 Mitigation Measures Water

Apply Water Conservation Strategy

## 8.0 Waste Detail

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### 8.1 Mitigation Measures Waste

Institute Recycling and Composting Services

## 9.0 Operational Offroad

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

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### Fire Pumps and Emergency Generators

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

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

Equipment Type	Number
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## 11.0 Vegetation

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## 15755 Arrow Route Warehouse Project - San Bernardino-South Coast County, Winter

**15755 Arrow Route Warehouse Project**  
**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	196.65	1000sqft	4.51	196,650.00	0
Other Asphalt Surfaces	0.07	Acre	0.07	3,049.20	0
Other Non-Asphalt Surfaces	4.95	Acre	4.95	215,622.00	0

**1.2 Other Project Characteristics**

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	32
Climate Zone	10			Operational Year	2022
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	531.44	CH4 Intensity (lb/MWhr)	0.029	N2O Intensity (lb/MWhr)	0.006

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

## 15755 Arrow Route Warehouse Project - San Bernardino-South Coast County, Winter

Project Characteristics - SCE carbon intensity per 2019 SCE data

Land Use - Per Site Plan; Onsite and Offsite

Construction Phase - Per Applicant

Off-road Equipment - Per Applicant/ 8 hours per day

Demolition - Per Engineer

Trips and VMT - 2 daily water truck trips added to demolition, grading, and paving activities

Architectural Coating - 50 VOC/L per Rule 1113

Vehicle Trips - Per VMT Memo; weighted truck trip length estimated

Fleet Mix - Per VMT Memo

Energy Use - Added 0.35 to Lighting Energy Intensity to account for parking lot lighting

Water And Wastewater - Per CWP FEIR total water demand is 0.1 gallons/square feet/day

Sequestration - Per Landscape Plan

Construction Off-road Equipment Mitigation - Per Rule 403

Energy Mitigation - 2019 Title 24

Water Mitigation - Per Cal Green

Waste Mitigation - 2019 Statewide Average

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	100.00	50.00
tblArchitecturalCoating	EF_Nonresidential_Interior	100.00	50.00
tblConstructionPhase	NumDays	20.00	21.00
tblConstructionPhase	NumDays	230.00	180.00
tblConstructionPhase	NumDays	20.00	21.00

## 15755 Arrow Route Warehouse Project - San Bernardino-South Coast County, Winter

tblConstructionPhase	NumDays	20.00	15.00
tblConstructionPhase	NumDays	20.00	21.00
tblConstructionPhase	PhaseEndDate	3/24/2023	10/31/2022
tblConstructionPhase	PhaseEndDate	1/27/2023	10/31/2022
tblConstructionPhase	PhaseEndDate	1/28/2022	1/31/2022
tblConstructionPhase	PhaseEndDate	3/11/2022	2/21/2022
tblConstructionPhase	PhaseEndDate	2/24/2023	10/31/2022
tblConstructionPhase	PhaseStartDate	2/25/2023	10/1/2022
tblConstructionPhase	PhaseStartDate	3/12/2022	2/22/2022
tblConstructionPhase	PhaseStartDate	2/12/2022	2/1/2022
tblConstructionPhase	PhaseStartDate	1/28/2023	10/1/2022
tblEnergyUse	LightingElect	0.00	0.35
tblEnergyUse	LightingElect	0.00	0.35
tblFleetMix	HHD	0.06	0.22
tblFleetMix	LDA	0.55	0.46
tblFleetMix	LDT1	0.04	0.03
tblFleetMix	LDT2	0.18	0.15
tblFleetMix	LHD1	0.02	0.00
tblFleetMix	LHD2	5.1010e-003	0.06
tblFleetMix	MCY	5.9030e-003	4.9600e-003
tblFleetMix	MDV	0.12	0.00
tblFleetMix	MH	9.4400e-004	7.9000e-004
tblFleetMix	MHD	0.02	0.07
tblFleetMix	OBUS	1.3570e-003	1.1400e-003
tblFleetMix	SBUS	8.0800e-004	6.8000e-004
tblFleetMix	UBUS	1.5650e-003	1.3200e-003
tblGrading	AcresOfGrading	52.50	10.00

## 15755 Arrow Route Warehouse Project - San Bernardino-South Coast County, Winter

tblOffRoadEquipment	LoadFactor	0.36	0.36
tblOffRoadEquipment	LoadFactor	0.36	0.36
tblOffRoadEquipment	LoadFactor	0.38	0.38
tblOffRoadEquipment	LoadFactor	0.48	0.48
tblOffRoadEquipment	OffRoadEquipmentType		Rubber Tired Loaders
tblOffRoadEquipment	OffRoadEquipmentType		Rubber Tired Loaders
tblOffRoadEquipment	OffRoadEquipmentType		Rollers
tblOffRoadEquipment	OffRoadEquipmentType		Scrapers
tblOffRoadEquipment	OffRoadEquipmentType		Excavators
tblOffRoadEquipment	OffRoadEquipmentType		Aerial Lifts
tblOffRoadEquipment	OffRoadEquipmentType		Cement and Mortar Mixers
tblOffRoadEquipment	OffRoadEquipmentType		Pumps
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	UsageHours	6.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblProjectCharacteristics	CO2IntensityFactor	702.44	531.44
tblSequestration	NumberOfNewTrees	0.00	137.00
tblTripsAndVMT	VendorTripNumber	0.00	2.00
tblTripsAndVMT	VendorTripNumber	0.00	2.00
tblTripsAndVMT	VendorTripNumber	0.00	2.00
tblVehicleTrips	CC_TL	8.40	55.00

## 15755 Arrow Route Warehouse Project - San Bernardino-South Coast County, Winter

tblVehicleTrips	CC_TTP	0.00	34.40
tblVehicleTrips	CNW_TTP	41.00	0.00
tblVehicleTrips	CW_TTP	59.00	65.60
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	1.74
tblVehicleTrips	SU_TR	1.68	1.74
tblVehicleTrips	WD_TR	1.68	1.74
tblWater	IndoorWaterUseRate	45,475,312.50	7,172,171.00
tblWater	OutdoorWaterUseRate	0.00	5,700.00

## 2.0 Emissions Summary

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## 15755 Arrow Route Warehouse Project - San Bernardino-South Coast County, Winter

## 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						
2022	52.8601	54.8532	67.6635	0.1376	2.9298	2.3472	5.2770	0.7872	2.2440	3.0311	0.0000	13,291.98	13,291.98	2.1005	0.0000	13,344.50	
Maximum	52.8601	54.8532	67.6635	0.1376	2.9298	2.3472	5.2770	0.7872	2.2440	3.0311	0.0000	13,291.98	13,291.98	2.1005	0.0000	13,344.50	

## **Mitigated Construction**

## 15755 Arrow Route Warehouse Project - San Bernardino-South Coast County, Winter

**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	4.4891	1.9000e-004	0.0206	0.0000		7.0000e-005	7.0000e-005		7.0000e-005	7.0000e-005		0.0441	0.0441	1.2000e-004		0.0471	
Energy	0.0118	0.1072	0.0901	6.4000e-004		8.1500e-003	8.1500e-003		8.1500e-003	8.1500e-003		128.6703	128.6703	2.4700e-003	2.3600e-003	129.4349	
Mobile	1.3904	24.8693	17.7732	0.1427	8.2526	0.1132	8.3658	2.2444	0.1073	2.3517		14,860.48	14,860.48	0.5984		14,875.44	
Total	5.8913	24.9768	17.8839	0.1433	8.2526	0.1214	8.3740	2.2444	0.1155	2.3599		14,989.19	14,989.19	0.6009	2.3600e-003	15,004.92	
												70	70			32	

**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	4.4891	1.9000e-004	0.0206	0.0000		7.0000e-005	7.0000e-005		7.0000e-005	7.0000e-005		0.0441	0.0441	1.2000e-004		0.0471	
Energy	8.3100e-003	0.0755	0.0635	4.5000e-004		5.7400e-003	5.7400e-003		5.7400e-003	5.7400e-003		90.6397	90.6397	1.7400e-003	1.6600e-003	91.1783	
Mobile	1.3904	24.8693	17.7732	0.1427	8.2526	0.1132	8.3658	2.2444	0.1073	2.3517		14,860.48	14,860.48	0.5984		14,875.44	
Total	5.8879	24.9451	17.8572	0.1431	8.2526	0.1190	8.3716	2.2444	0.1131	2.3575		14,951.16	14,951.16	0.6002	1.6600e-003	14,966.66	
												63	63			66	

## 15755 Arrow Route Warehouse Project - San Bernardino-South Coast County, Winter

	ROG	NOx	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	0.06	0.13	0.15	0.13	0.00	1.98	0.03	0.00	2.09	0.10	0.00	0.25	0.25	0.12	29.66	0.25

### 3.0 Construction Detail

#### Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	1/1/2022	1/31/2022	5	21	
2	Grading	Grading	2/1/2022	2/21/2022	5	15	
3	Building Construction	Building Construction	2/22/2022	10/31/2022	5	180	
4	Paving	Paving	10/1/2022	10/31/2022	5	21	
5	Architectural Coating	Architectural Coating	10/1/2022	10/31/2022	5	21	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 10

Acres of Paving: 5.02

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 294,975; Non-Residential Outdoor: 98,325; Striped Parking Area: 13,120 (Architectural Coating – sqft)

#### OffRoad Equipment

## 15755 Arrow Route Warehouse Project - San Bernardino-South Coast County, Winter

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	8.00	78	0.48
Demolition	Excavators	3	8.00	158	0.38
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Grading	Excavators	0	8.00	158	0.38
Building Construction	Cranes	1	8.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	4	8.00	84	0.74
Paving	Pavers	1	8.00	130	0.42
Paving	Rollers	2	8.00	80	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Grading	Rubber Tired Dozers	0	8.00	247	0.40
Building Construction	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Grading	Graders	1	8.00	187	0.41
Grading	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Paving	Paving Equipment	2	8.00	132	0.36
Demolition	Rubber Tired Loaders	1	8.00	203	0.36
Grading	Rubber Tired Loaders	1	8.00	203	0.36
Building Construction	Welders	2	8.00	46	0.45
Grading	Rollers	1	8.00	80	0.38
Grading	Scrapers	3	8.00	367	0.48
Building Construction	Excavators	1	8.00	158	0.38
Building Construction	Aerial Lifts	6	8.00	63	0.31
Building Construction	Cement and Mortar Mixers	5	8.00	9	0.56
Building Construction	Pumps	1	8.00	84	0.74

Trips and VMT

## 15755 Arrow Route Warehouse Project - San Bernardino-South Coast County, Winter

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	7	18.00	2.00	121.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	7	18.00	2.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	26	174.00	68.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	5	13.00	2.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	35.00	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 Demolition - 2022****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					1.2464	0.0000	1.2464	0.1887	0.0000	0.1887			0.0000			0.0000
Off-Road	2.9320	28.7595	22.1330	0.0451		1.3446	1.3446		1.2491	1.2491	4,355.473 8	4,355.473 8	1.2493			4,386.706 3
Total	2.9320	28.7595	22.1330	0.0451	1.2464	1.3446	2.5910	0.1887	1.2491	1.4378	4,355.473 8	4,355.473 8	1.2493			4,386.706 3

## 15755 Arrow Route Warehouse Project - San Bernardino-South Coast County, Winter

**3.2 Demolition - 2022****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	0.0339	1.2075	0.2250	4.3100e-003	0.1008	3.1300e-003	0.1040	0.0276	2.9900e-003	0.0306		457.7295	457.7295	0.0270		458.4052	
Vendor	5.1200e-003	0.1808	0.0394	5.1000e-004	0.0128	2.9000e-004	0.0131	3.6900e-003	2.7000e-004	3.9600e-003		54.2513	54.2513	3.8500e-003		54.3476	
Worker	0.0858	0.0534	0.5606	1.7100e-003	0.2012	1.2500e-003	0.2025	0.0534	1.1500e-003	0.0545		170.3063	170.3063	4.4100e-003		170.4166	
Total	0.1248	1.4417	0.8249	6.5300e-003	0.3148	4.6700e-003	0.3195	0.0847	4.4100e-003	0.0891		682.2870	682.2870	0.0353		683.1694	

**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					0.4861	0.0000	0.4861	0.0736	0.0000	0.0736		0.0000	0.0000			0.0000	
Off-Road	2.9320	28.7595	22.1330	0.0451		1.3446	1.3446		1.2491	1.2491	0.0000	4,355.4738	4,355.4738	1.2493		4,386.7062	
Total	2.9320	28.7595	22.1330	0.0451	0.4861	1.3446	1.8307	0.0736	1.2491	1.3227	0.0000	4,355.4738	4,355.4738	1.2493		4,386.7062	

## 15755 Arrow Route Warehouse Project - San Bernardino-South Coast County, Winter

**3.2 Demolition - 2022****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	0.0339	1.2075	0.2250	4.3100e-003	0.1008	3.1300e-003	0.1040	0.0276	2.9900e-003	0.0306		457.7295	457.7295	0.0270		458.4052	
Vendor	5.1200e-003	0.1808	0.0394	5.1000e-004	0.0128	2.9000e-004	0.0131	3.6900e-003	2.7000e-004	3.9600e-003		54.2513	54.2513	3.8500e-003		54.3476	
Worker	0.0858	0.0534	0.5606	1.7100e-003	0.2012	1.2500e-003	0.2025	0.0534	1.1500e-003	0.0545		170.3063	170.3063	4.4100e-003		170.4166	
Total	0.1248	1.4417	0.8249	6.5300e-003	0.3148	4.6700e-003	0.3195	0.0847	4.4100e-003	0.0891		682.2870	682.2870	0.0353		683.1694	

**3.3 Grading - 2022****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					0.7070	0.0000	0.7070	0.0763	0.0000	0.0763		0.0000				0.0000
Off-Road	3.5067	38.6421	26.5585	0.0644		1.5101	1.5101		1.3893	1.3893		6,235.0407	6,235.0407	2.0165		6,285.4542
Total	3.5067	38.6421	26.5585	0.0644	0.7070	1.5101	2.2171	0.0763	1.3893	1.4656		6,235.0407	6,235.0407	2.0165		6,285.4542

## 15755 Arrow Route Warehouse Project - San Bernardino-South Coast County, Winter

**3.3 Grading - 2022****Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day											lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
Vendor	5.1200e-003	0.1808	0.0394	5.1000e-004	0.0128	2.9000e-004	0.0131	3.6900e-003	2.7000e-004	3.9600e-003	54.2513	54.2513	3.8500e-003	54.3476			
Worker	0.0858	0.0534	0.5606	1.7100e-003	0.2012	1.2500e-003	0.2025	0.0534	1.1500e-003	0.0545	170.3063	170.3063	4.4100e-003	170.4166			
Total	<b>0.0909</b>	<b>0.2342</b>	<b>0.6000</b>	<b>2.2200e-003</b>	<b>0.2140</b>	<b>1.5400e-003</b>	<b>0.2156</b>	<b>0.0571</b>	<b>1.4200e-003</b>	<b>0.0585</b>	<b>224.5575</b>	<b>224.5575</b>	<b>8.2600e-003</b>		<b>224.7642</b>		

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.2757	0.0000	0.2757	0.0298	0.0000	0.0298	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.5067	38.6421	26.5585	0.0644		1.5101	1.5101		1.3893	1.3893	0.0000	6,235.0407	6,235.0407	2.0165		6,285.4542
Total	<b>3.5067</b>	<b>38.6421</b>	<b>26.5585</b>	<b>0.0644</b>	<b>0.2757</b>	<b>1.5101</b>	<b>1.7858</b>	<b>0.0298</b>	<b>1.3893</b>	<b>1.4191</b>	<b>0.0000</b>	<b>6,235.0407</b>	<b>6,235.0407</b>	<b>2.0165</b>		<b>6,285.4542</b>

## 15755 Arrow Route Warehouse Project - San Bernardino-South Coast County, Winter

**3.3 Grading - 2022****Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day											lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
Vendor	5.1200e-003	0.1808	0.0394	5.1000e-004	0.0128	2.9000e-004	0.0131	3.6900e-003	2.7000e-004	3.9600e-003	54.2513	54.2513	3.8500e-003	54.3476			
Worker	0.0858	0.0534	0.5606	1.7100e-003	0.2012	1.2500e-003	0.2025	0.0534	1.1500e-003	0.0545	170.3063	170.3063	4.4100e-003	170.4166			
Total	0.0909	0.2342	0.6000	2.2200e-003	0.2140	1.5400e-003	0.2156	0.0571	1.4200e-003	0.0585	224.5575	224.5575	8.2600e-003	224.7642			

**3.4 Building Construction - 2022****Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	4.1459	36.9631	45.2560	0.0765		1.7447	1.7447		1.6805	1.6805	7,165.083 9	7,165.083 9	1.3200			7,198.083 9
Total	4.1459	36.9631	45.2560	0.0765		1.7447	1.7447		1.6805	1.6805	7,165.083 9	7,165.083 9	1.3200			7,198.083 9

## 15755 Arrow Route Warehouse Project - San Bernardino-South Coast County, Winter

**3.4 Building Construction - 2022****Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day											lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
Vendor	0.1741	6.1463	1.3400	0.0175	0.4355	9.7200e-003	0.4452	0.1254	9.3000e-003	0.1347	1,844.5425	1,844.5425	0.1311		1,847.8190		
Worker	0.8296	0.5166	5.4187	0.0165	1.9449	0.0121	1.9570	0.5158	0.0111	0.5269	1,646.2940	1,646.2940	0.0427		1,647.3607		
Total	1.0037	6.6628	6.7587	0.0340	2.3804	0.0218	2.4022	0.6412	0.0204	0.6616	3,490.8365	3,490.8365	0.1737		3,495.1797		

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day											lb/day					
Off-Road	4.1459	36.9631	45.2560	0.0765		1.7447	1.7447		1.6805	1.6805	0.0000	7,165.0839	7,165.0839	1.3200		7,198.0839	
Total	4.1459	36.9631	45.2560	0.0765		1.7447	1.7447		1.6805	1.6805	0.0000	7,165.0839	7,165.0839	1.3200		7,198.0839	

## 15755 Arrow Route Warehouse Project - San Bernardino-South Coast County, Winter

**3.4 Building Construction - 2022****Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day											lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
Vendor	0.1741	6.1463	1.3400	0.0175	0.4355	9.7200e-003	0.4452	0.1254	9.3000e-003	0.1347	1,844.5425	1,844.5425	0.1311		1,847.8190		
Worker	0.8296	0.5166	5.4187	0.0165	1.9449	0.0121	1.9570	0.5158	0.0111	0.5269	1,646.2940	1,646.2940	0.0427		1,647.3607		
Total	1.0037	6.6628	6.7587	0.0340	2.3804	0.0218	2.4022	0.6412	0.0204	0.6616	3,490.8365	3,490.8365	0.1737		3,495.1797		

**3.5 Paving - 2022****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	0.8959	9.0260	11.6966	0.0181		0.4682	0.4682		0.4307	0.4307	1,752.4024	1,752.4024	0.5668		1,766.5714		
Paving	8.7300e-003					0.0000	0.0000		0.0000	0.0000		0.0000			0.0000		
Total	0.9047	9.0260	11.6966	0.0181		0.4682	0.4682		0.4307	0.4307		1,752.4024	1,752.4024	0.5668		1,766.5714	

## 15755 Arrow Route Warehouse Project - San Bernardino-South Coast County, Winter

**3.5 Paving - 2022****Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day											lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000	
Vendor	5.1200e-003	0.1808	0.0394	5.1000e-004	0.0128	2.9000e-004	0.0131	3.6900e-003	2.7000e-004	3.9600e-003	54.2513	54.2513	3.8500e-003			54.3476	
Worker	0.0620	0.0386	0.4048	1.2300e-003	0.1453	9.0000e-004	0.1462	0.0385	8.3000e-004	0.0394	122.9990	122.9990	3.1900e-003			123.0787	
Total	<b>0.0671</b>	<b>0.2194</b>	<b>0.4443</b>	<b>1.7400e-003</b>	<b>0.1581</b>	<b>1.1900e-003</b>	<b>0.1593</b>	<b>0.0422</b>	<b>1.1000e-003</b>	<b>0.0433</b>		<b>177.2502</b>	<b>177.2502</b>	<b>7.0400e-003</b>		<b>177.4263</b>	

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day											lb/day					
Off-Road	0.8959	9.0260	11.6966	0.0181		0.4682	0.4682		0.4307	0.4307	0.0000	1,752.402 4	1,752.402 4	0.5668		1,766.571 4	
Paving	8.7300e-003					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000	
Total	<b>0.9047</b>	<b>9.0260</b>	<b>11.6966</b>	<b>0.0181</b>		<b>0.4682</b>	<b>0.4682</b>		<b>0.4307</b>	<b>0.4307</b>	<b>0.0000</b>	<b>1,752.402 4</b>	<b>1,752.402 4</b>	<b>0.5668</b>		<b>1,766.571 4</b>	

## 15755 Arrow Route Warehouse Project - San Bernardino-South Coast County, Winter

**3.5 Paving - 2022****Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day											lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000	
Vendor	5.1200e-003	0.1808	0.0394	5.1000e-004	0.0128	2.9000e-004	0.0131	3.6900e-003	2.7000e-004	3.9600e-003		54.2513	54.2513	3.8500e-003		54.3476	
Worker	0.0620	0.0386	0.4048	1.2300e-003	0.1453	9.0000e-004	0.1462	0.0385	8.3000e-004	0.0394		122.9990	122.9990	3.1900e-003		123.0787	
Total	<b>0.0671</b>	<b>0.2194</b>	<b>0.4443</b>	<b>1.7400e-003</b>	<b>0.1581</b>	<b>1.1900e-003</b>	<b>0.1593</b>	<b>0.0422</b>	<b>1.1000e-003</b>	<b>0.0433</b>		<b>177.2502</b>	<b>177.2502</b>	<b>7.0400e-003</b>		<b>177.4263</b>	

**3.6 Architectural Coating - 2022****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	46.2992						0.0000	0.0000		0.0000	0.0000		0.0000			0.0000	
Off-Road	0.2727	1.8780	2.4181	3.9600e-003		0.1090	0.1090		0.1090	0.1090		375.2641	375.2641	0.0244		375.8749	
Total	<b>46.5720</b>	<b>1.8780</b>	<b>2.4181</b>	<b>3.9600e-003</b>		<b>0.1090</b>	<b>0.1090</b>		<b>0.1090</b>	<b>0.1090</b>		<b>375.2641</b>	<b>375.2641</b>	<b>0.0244</b>		<b>375.8749</b>	

## 15755 Arrow Route Warehouse Project - San Bernardino-South Coast County, Winter

**3.6 Architectural Coating - 2022****Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day											lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000	0.0000	0.0000	
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000	0.0000	0.0000	
Worker	0.1669	0.1039	1.0900	3.3200e-003	0.3912	2.4300e-003	0.3937	0.1038	2.2400e-003	0.1060			331.1511	331.1511	8.5800e-003	331.3657	
<b>Total</b>	<b>0.1669</b>	<b>0.1039</b>	<b>1.0900</b>	<b>3.3200e-003</b>	<b>0.3912</b>	<b>2.4300e-003</b>	<b>0.3937</b>	<b>0.1038</b>	<b>2.2400e-003</b>	<b>0.1060</b>			<b>331.1511</b>	<b>331.1511</b>	<b>8.5800e-003</b>	<b>331.3657</b>	

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day											lb/day					
Archit. Coating	46.2992						0.0000	0.0000		0.0000	0.0000			0.0000		0.0000	
Off-Road	0.2727	1.8780	2.4181	3.9600e-003		0.1090	0.1090		0.1090	0.1090	0.0000	375.2641	375.2641	0.0244		375.8749	
<b>Total</b>	<b>46.5720</b>	<b>1.8780</b>	<b>2.4181</b>	<b>3.9600e-003</b>		<b>0.1090</b>	<b>0.1090</b>		<b>0.1090</b>	<b>0.1090</b>	<b>0.0000</b>	<b>375.2641</b>	<b>375.2641</b>	<b>0.0244</b>		<b>375.8749</b>	

## 15755 Arrow Route Warehouse Project - San Bernardino-South Coast County, Winter

**3.6 Architectural Coating - 2022****Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day											lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
Worker	0.1669	0.1039	1.0900	3.3200e-003	0.3912	2.4300e-003	0.3937	0.1038	2.2400e-003	0.1060	331.1511	331.1511	8.5800e-003			331.3657	
Total	0.1669	0.1039	1.0900	3.3200e-003	0.3912	2.4300e-003	0.3937	0.1038	2.2400e-003	0.1060		331.1511	331.1511	8.5800e-003		331.3657	

**4.0 Operational Detail - Mobile****4.1 Mitigation Measures Mobile**

## 15755 Arrow Route Warehouse Project - San Bernardino-South Coast County, Winter

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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	1.3904	24.8693	17.7732	0.1427	8.2526	0.1132	8.3658	2.2444	0.1073	2.3517	14,860.48 26	14,860.48 26	0.5984		14,875.44 13		
Unmitigated	1.3904	24.8693	17.7732	0.1427	8.2526	0.1132	8.3658	2.2444	0.1073	2.3517	14,860.48 26	14,860.48 26	0.5984		14,875.44 13		

**4.2 Trip Summary Information**

Land Use	Average Daily Trip Rate			Unmitigated		Mitigated	
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT	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	342.17	342.17	342.17	3,712,793		3,712,793	
Total	342.17	342.17	342.17	3,712,793		3,712,793	

**4.3 Trip Type Information**

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
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	55.00	6.90	65.60	34.40	0.00	100	0	0

**4.4 Fleet Mix**

## 15755 Arrow Route Warehouse Project - San Bernardino-South Coast County, Winter

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Other Asphalt Surfaces	0.553113	0.036408	0.180286	0.116335	0.016165	0.005101	0.018218	0.063797	0.001357	0.001565	0.005903	0.000808	0.000944
Other Non-Asphalt Surfaces	0.553113	0.036408	0.180286	0.116335	0.016165	0.005101	0.018218	0.063797	0.001357	0.001565	0.005903	0.000808	0.000944
Unrefrigerated Warehouse-No Rail	0.464940	0.030600	0.151550	0.000000	0.000000	0.058310	0.069970	0.215740	0.001140	0.001320	0.004960	0.000680	0.000790

## 5.0 Energy Detail

Historical Energy Use: N

### 5.1 Mitigation Measures Energy

Exceed Title 24

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	8.3100e-003	0.0755	0.0635	4.5000e-004		5.7400e-003	5.7400e-003		5.7400e-003	5.7400e-003		90.6397	90.6397	1.7400e-003	1.6600e-003	91.1783
NaturalGas Unmitigated	0.0118	0.1072	0.0901	6.4000e-004		8.1500e-003	8.1500e-003		8.1500e-003	8.1500e-003		128.6703	128.6703	2.4700e-003	2.3600e-003	129.4349

## 15755 Arrow Route Warehouse Project - San Bernardino-South Coast County, Winter

**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		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		0.0000	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	1093.7	0.0118	0.1072	0.0901	6.4000e-004		8.1500e-003	8.1500e-003		8.1500e-003	8.1500e-003		128.6703	128.6703	2.4700e-003	2.3600e-003	129.4349
<b>Total</b>		<b>0.0118</b>	<b>0.1072</b>	<b>0.0901</b>	<b>6.4000e-004</b>		<b>8.1500e-003</b>	<b>8.1500e-003</b>		<b>8.1500e-003</b>	<b>8.1500e-003</b>		<b>128.6703</b>	<b>128.6703</b>	<b>2.4700e-003</b>	<b>2.3600e-003</b>	<b>129.4349</b>

**Mitigated**

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	0.770437	8.3100e-003	0.0755	0.0635	4.5000e-004		5.7400e-003	5.7400e-003		5.7400e-003	5.7400e-003		90.6397	90.6397	1.7400e-003	1.6600e-003	91.1783
<b>Total</b>		<b>8.3100e-003</b>	<b>0.0755</b>	<b>0.0635</b>	<b>4.5000e-004</b>		<b>5.7400e-003</b>	<b>5.7400e-003</b>		<b>5.7400e-003</b>	<b>5.7400e-003</b>		<b>90.6397</b>	<b>90.6397</b>	<b>1.7400e-003</b>	<b>1.6600e-003</b>	<b>91.1783</b>

## 15755 Arrow Route Warehouse Project - San Bernardino-South Coast County, Winter

**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	4.4891	1.9000e-004	0.0206	0.0000			7.0000e-005	7.0000e-005		7.0000e-005	7.0000e-005	0.0441	0.0441	1.2000e-004		0.0471	
Unmitigated	4.4891	1.9000e-004	0.0206	0.0000			7.0000e-005	7.0000e-005		7.0000e-005	7.0000e-005	0.0441	0.0441	1.2000e-004		0.0471	

## 15755 Arrow Route Warehouse Project - San Bernardino-South Coast County, Winter

**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	0.5161						0.0000	0.0000		0.0000	0.0000		0.0000			0.0000
Consumer Products	3.9711						0.0000	0.0000		0.0000	0.0000		0.0000			0.0000
Landscaping	1.9200e-003	1.9000e-004	0.0206	0.0000		7.0000e-005	7.0000e-005		7.0000e-005	7.0000e-005		0.0441	0.0441	1.2000e-004		0.0471
<b>Total</b>	<b>4.4891</b>	<b>1.9000e-004</b>	<b>0.0206</b>	<b>0.0000</b>		<b>7.0000e-005</b>	<b>7.0000e-005</b>		<b>7.0000e-005</b>	<b>7.0000e-005</b>		<b>0.0441</b>	<b>0.0441</b>	<b>1.2000e-004</b>		<b>0.0471</b>

**Mitigated**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.5161						0.0000	0.0000		0.0000	0.0000		0.0000			0.0000
Consumer Products	3.9711						0.0000	0.0000		0.0000	0.0000		0.0000			0.0000
Landscaping	1.9200e-003	1.9000e-004	0.0206	0.0000		7.0000e-005	7.0000e-005		7.0000e-005	7.0000e-005		0.0441	0.0441	1.2000e-004		0.0471
<b>Total</b>	<b>4.4891</b>	<b>1.9000e-004</b>	<b>0.0206</b>	<b>0.0000</b>		<b>7.0000e-005</b>	<b>7.0000e-005</b>		<b>7.0000e-005</b>	<b>7.0000e-005</b>		<b>0.0441</b>	<b>0.0441</b>	<b>1.2000e-004</b>		<b>0.0471</b>

**7.0 Water Detail**

## 7.1 Mitigation Measures Water

Apply Water Conservation Strategy

## 8.0 Waste Detail

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### 8.1 Mitigation Measures Waste

Institute Recycling and Composting Services

## 9.0 Operational Offroad

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

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### Fire Pumps and Emergency Generators

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

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

Equipment Type	Number
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## 11.0 Vegetation

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## 15755 Arrow Route Warehouse Project - San Bernardino-South Coast County, Annual

**15755 Arrow Route Warehouse Project**  
**San Bernardino-South Coast County, Annual**

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

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Unrefrigerated Warehouse-No Rail	196.65	1000sqft	4.51	196,650.00	0
Other Asphalt Surfaces	0.07	Acre	0.07	3,049.20	0
Other Non-Asphalt Surfaces	4.95	Acre	4.95	215,622.00	0

**1.2 Other Project Characteristics**

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	32
Climate Zone	10			Operational Year	2022
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	531.44	CH4 Intensity (lb/MWhr)	0.029	N2O Intensity (lb/MWhr)	0.006

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

## 15755 Arrow Route Warehouse Project - San Bernardino-South Coast County, Annual

Project Characteristics - SCE carbon intensity per 2019 SCE data

Land Use - Per Site Plan; Onsite and Offsite

Construction Phase - Per Applicant

Off-road Equipment - Per Applicant/ 8 hours per day

Demolition - Per Engineer

Trips and VMT - 2 daily water truck trips added to demolition, grading, and paving activities

Architectural Coating - 50 VOC/L per Rule 1113

Vehicle Trips - Per VMT Memo; weighted truck trip length estimated

Fleet Mix - Per VMT Memo

Energy Use - Added 0.35 to Lighting Energy Intensity to account for parking lot lighting

Water And Wastewater - Per CWP FEIR total water demand is 0.1 gallons/square feet/day

Sequestration - Per Landscape Plan

Construction Off-road Equipment Mitigation - Per Rule 403

Energy Mitigation - 2019 Title 24

Water Mitigation - Per Cal Green

Waste Mitigation - 2019 Statewide Average

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	100.00	50.00
tblArchitecturalCoating	EF_Nonresidential_Interior	100.00	50.00
tblConstructionPhase	NumDays	20.00	21.00
tblConstructionPhase	NumDays	230.00	180.00
tblConstructionPhase	NumDays	20.00	21.00

## 15755 Arrow Route Warehouse Project - San Bernardino-South Coast County, Annual

tblConstructionPhase	NumDays	20.00	15.00
tblConstructionPhase	NumDays	20.00	21.00
tblConstructionPhase	PhaseEndDate	3/24/2023	10/31/2022
tblConstructionPhase	PhaseEndDate	1/27/2023	10/31/2022
tblConstructionPhase	PhaseEndDate	1/28/2022	1/31/2022
tblConstructionPhase	PhaseEndDate	3/11/2022	2/21/2022
tblConstructionPhase	PhaseEndDate	2/24/2023	10/31/2022
tblConstructionPhase	PhaseStartDate	2/25/2023	10/1/2022
tblConstructionPhase	PhaseStartDate	3/12/2022	2/22/2022
tblConstructionPhase	PhaseStartDate	2/12/2022	2/1/2022
tblConstructionPhase	PhaseStartDate	1/28/2023	10/1/2022
tblEnergyUse	LightingElect	0.00	0.35
tblEnergyUse	LightingElect	0.00	0.35
tblFleetMix	HHD	0.06	0.22
tblFleetMix	LDA	0.55	0.46
tblFleetMix	LDT1	0.04	0.03
tblFleetMix	LDT2	0.18	0.15
tblFleetMix	LHD1	0.02	0.00
tblFleetMix	LHD2	5.1010e-003	0.06
tblFleetMix	MCY	5.9030e-003	4.9600e-003
tblFleetMix	MDV	0.12	0.00
tblFleetMix	MH	9.4400e-004	7.9000e-004
tblFleetMix	MHD	0.02	0.07
tblFleetMix	OBUS	1.3570e-003	1.1400e-003
tblFleetMix	SBUS	8.0800e-004	6.8000e-004
tblFleetMix	UBUS	1.5650e-003	1.3200e-003
tblGrading	AcresOfGrading	52.50	10.00

## 15755 Arrow Route Warehouse Project - San Bernardino-South Coast County, Annual

tblOffRoadEquipment	LoadFactor	0.36	0.36
tblOffRoadEquipment	LoadFactor	0.36	0.36
tblOffRoadEquipment	LoadFactor	0.38	0.38
tblOffRoadEquipment	LoadFactor	0.48	0.48
tblOffRoadEquipment	OffRoadEquipmentType		Rubber Tired Loaders
tblOffRoadEquipment	OffRoadEquipmentType		Rubber Tired Loaders
tblOffRoadEquipment	OffRoadEquipmentType		Rollers
tblOffRoadEquipment	OffRoadEquipmentType		Scrapers
tblOffRoadEquipment	OffRoadEquipmentType		Excavators
tblOffRoadEquipment	OffRoadEquipmentType		Aerial Lifts
tblOffRoadEquipment	OffRoadEquipmentType		Cement and Mortar Mixers
tblOffRoadEquipment	OffRoadEquipmentType		Pumps
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	UsageHours	6.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblProjectCharacteristics	CO2IntensityFactor	702.44	531.44
tblSequestration	NumberOfNewTrees	0.00	137.00
tblTripsAndVMT	VendorTripNumber	0.00	2.00
tblTripsAndVMT	VendorTripNumber	0.00	2.00
tblTripsAndVMT	VendorTripNumber	0.00	2.00
tblVehicleTrips	CC_TL	8.40	55.00

## 15755 Arrow Route Warehouse Project - San Bernardino-South Coast County, Annual

tblVehicleTrips	CC_TTP	0.00	34.40
tblVehicleTrips	CNW_TTP	41.00	0.00
tblVehicleTrips	CW_TTP	59.00	65.60
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	1.74
tblVehicleTrips	SU_TR	1.68	1.74
tblVehicleTrips	WD_TR	1.68	1.74
tblWater	IndoorWaterUseRate	45,475,312.50	7,172,171.00
tblWater	OutdoorWaterUseRate	0.00	5,700.00

## 2.0 Emissions Summary

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## 15755 Arrow Route Warehouse Project - San Bernardino-South Coast County, Annual

**2.1 Overall Construction****Unmitigated Construction**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr												MT/yr			
2022	1.0153	4.6666	5.3070	0.0113	0.2392	0.1906	0.4297	0.0621	0.1824	0.2445	0.0000	993.8248	993.8248	0.1533	0.0000	997.6560
Maximum	1.0153	4.6666	5.3070	0.0113	0.2392	0.1906	0.4297	0.0621	0.1824	0.2445	0.0000	993.8248	993.8248	0.1533	0.0000	997.6560

**Mitigated Construction**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr												MT/yr			
2022	1.0153	4.6666	5.3070	0.0113	0.2279	0.1906	0.4185	0.0605	0.1824	0.2429	0.0000	993.8240	993.8240	0.1533	0.0000	997.6552
Maximum	1.0153	4.6666	5.3070	0.0113	0.2279	0.1906	0.4185	0.0605	0.1824	0.2429	0.0000	993.8240	993.8240	0.1533	0.0000	997.6552

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	4.69	0.00	2.61	2.50	0.00	0.64	0.00	0.00	0.00	0.00	0.00	0.00

## 15755 Arrow Route Warehouse Project - San Bernardino-South Coast County, Annual

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	1-1-2022	3-31-2022	1.3487	1.3487
2	4-1-2022	6-30-2022	1.5863	1.5863
3	7-1-2022	9-30-2022	1.6037	1.6037
		Highest	1.6037	1.6037

**2.2 Overall Operational**Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	tons/yr											MT/yr					
Area	0.8192	2.0000e-005	2.5800e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	5.0000e-003	5.0000e-003	1.0000e-005	0.0000	5.3400e-003	
Energy	2.1500e-003	0.0196	0.0164	1.2000e-004		1.4900e-003	1.4900e-003		1.4900e-003	1.4900e-003	0.0000	151.6253	151.6253	7.5200e-003	1.8600e-003	152.3681	
Mobile	0.2509	4.6103	3.3096	0.0263	1.4751	0.0205	1.4956	0.4019	0.0195	0.4213	0.0000	2,480.693 4	2,480.693 4	0.0966	0.0000	2,483.107 7	
Waste						0.0000	0.0000		0.0000	0.0000	37.5229	0.0000	37.5229	2.2175	0.0000	92.9614	
Water						0.0000	0.0000		0.0000	0.0000	2.2754	22.5273	24.8027	0.2349	5.7700e-003	32.3963	
<b>Total</b>	<b>1.0722</b>	<b>4.6299</b>	<b>3.3286</b>	<b>0.0264</b>	<b>1.4751</b>	<b>0.0220</b>	<b>1.4971</b>	<b>0.4019</b>	<b>0.0210</b>	<b>0.4228</b>	<b>39.7983</b>	<b>2,654.851 0</b>	<b>2,694.649 2</b>	<b>2.5566</b>	<b>7.6300e-003</b>	<b>2,760.838 8</b>	

## 15755 Arrow Route Warehouse Project - San Bernardino-South Coast County, Annual

**2.2 Overall Operational****Mitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	tons/yr											MT/yr					
Area	0.8192	2.0000e-005	2.5800e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	5.0000e-003	5.0000e-003	1.0000e-005	0.0000	5.3400e-003	
Energy	1.5200e-003	0.0138	0.0116	8.0000e-005		1.0500e-003	1.0500e-003		1.0500e-003	1.0500e-003	0.0000	140.0670	140.0670	7.1100e-003	1.6900e-003	140.7476	
Mobile	0.2509	4.6103	3.3096	0.0263	1.4751	0.0205	1.4956	0.4019	0.0195	0.4213	0.0000	2,480.6934	2,480.6934	0.0966	0.0000	2,483.1077	
Waste						0.0000	0.0000		0.0000	0.0000	23.6394	0.0000	23.6394	1.3971	0.0000	58.5657	
Water						0.0000	0.0000		0.0000	0.0000	1.8203	18.0249	19.8452	0.1880	4.6200e-003	25.9201	
<b>Total</b>	<b>1.0716</b>	<b>4.6241</b>	<b>3.3238</b>	<b>0.0263</b>	<b>1.4751</b>	<b>0.0216</b>	<b>1.4967</b>	<b>0.4019</b>	<b>0.0205</b>	<b>0.4224</b>	<b>25.4597</b>	<b>2,638.7903</b>	<b>2,664.2501</b>	<b>1.6887</b>	<b>6.3100e-003</b>	<b>2,708.3464</b>	

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.06	0.13	0.15	0.15	0.00	2.00	0.03	0.00	2.10	0.10	36.03	0.60	1.13	33.95	17.30	1.90

## 15755 Arrow Route Warehouse Project - San Bernardino-South Coast County, Annual

**2.3 Vegetation**Vegetation

	CO2e
Category	MT
New Trees	96.9960
Total	96.9960

**3.0 Construction Detail**Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	1/1/2022	1/31/2022	5	21	
2	Grading	Grading	2/1/2022	2/21/2022	5	15	
3	Building Construction	Building Construction	2/22/2022	10/31/2022	5	180	
4	Paving	Paving	10/1/2022	10/31/2022	5	21	
5	Architectural Coating	Architectural Coating	10/1/2022	10/31/2022	5	21	

**Acres of Grading (Site Preparation Phase): 0****Acres of Grading (Grading Phase): 10****Acres of Paving: 5.02**

15755 Arrow Route Warehouse Project - San Bernardino-South Coast County, Annual

**Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 294,975; Non-Residential Outdoor: 98,325; Striped Parking Area: 13,120 (Architectural Coating – sqft)**

**OffRoad Equipment**

## 15755 Arrow Route Warehouse Project - San Bernardino-South Coast County, Annual

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	8.00	78	0.48
Demolition	Excavators	3	8.00	158	0.38
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Grading	Excavators	0	8.00	158	0.38
Building Construction	Cranes	1	8.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	4	8.00	84	0.74
Paving	Pavers	1	8.00	130	0.42
Paving	Rollers	2	8.00	80	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Grading	Rubber Tired Dozers	0	8.00	247	0.40
Building Construction	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Grading	Graders	1	8.00	187	0.41
Grading	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Paving	Paving Equipment	2	8.00	132	0.36
Demolition	Rubber Tired Loaders	1	8.00	203	0.36
Grading	Rubber Tired Loaders	1	8.00	203	0.36
Building Construction	Welders	2	8.00	46	0.45
Grading	Rollers	1	8.00	80	0.38
Grading	Scrapers	3	8.00	367	0.48
Building Construction	Excavators	1	8.00	158	0.38
Building Construction	Aerial Lifts	6	8.00	63	0.31
Building Construction	Cement and Mortar Mixers	5	8.00	9	0.56
Building Construction	Pumps	1	8.00	84	0.74

Trips and VMT

## 15755 Arrow Route Warehouse Project - San Bernardino-South Coast County, Annual

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	7	18.00	2.00	121.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	7	18.00	2.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	26	174.00	68.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	5	13.00	2.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	35.00	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 Demolition - 2022****Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	tons/yr											MT/yr					
Fugitive Dust					0.0131	0.0000	0.0131	1.9800e-003	0.0000	1.9800e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
Off-Road	0.0308	0.3020	0.2324	4.7000e-004	0.0141	0.0141		0.0131	0.0131	0.0000	41.4878	41.4878	0.0119	0.0000	41.7853		
Total	0.0308	0.3020	0.2324	4.7000e-004	0.0131	0.0141	0.0272	1.9800e-003	0.0131	0.0151	0.0000	41.4878	41.4878	0.0119	0.0000	41.7853	

## 15755 Arrow Route Warehouse Project - San Bernardino-South Coast County, Annual

**3.2 Demolition - 2022****Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	tons/yr											MT/yr					
Hauling	3.5000e-004	0.0129	2.2000e-003	5.0000e-005	1.0400e-003	3.0000e-005	1.0700e-003	2.9000e-004	3.0000e-005	3.2000e-004	0.0000	4.4289	4.4289	2.5000e-004	0.0000	4.4350	
Vendor	5.0000e-005	1.9300e-003	3.8000e-004	1.0000e-005	1.3000e-004	0.0000	1.4000e-004	4.0000e-005	0.0000	4.0000e-005	0.0000	0.5290	0.5290	3.0000e-005	0.0000	0.5299	
Worker	8.1000e-004	5.9000e-004	6.1800e-003	2.0000e-005	2.0700e-003	1.0000e-005	2.0900e-003	5.5000e-004	1.0000e-005	5.6000e-004	0.0000	1.6578	1.6578	4.0000e-005	0.0000	1.6588	
Total	1.2100e-003	0.0155	8.7600e-003	8.0000e-005	3.2400e-003	4.0000e-005	3.3000e-003	8.8000e-004	4.0000e-005	9.2000e-004	0.0000	6.6156	6.6156	3.2000e-004	0.0000	6.6237	

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					5.1000e-003	0.0000	5.1000e-003	7.7000e-004	0.0000	7.7000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0308	0.3020	0.2324	4.7000e-004		0.0141	0.0141		0.0131	0.0131	0.0000	41.4878	41.4878	0.0119	0.0000	41.7853
Total	0.0308	0.3020	0.2324	4.7000e-004	5.1000e-003	0.0141	0.0192	7.7000e-004	0.0131	0.0139	0.0000	41.4878	41.4878	0.0119	0.0000	41.7853

## 15755 Arrow Route Warehouse Project - San Bernardino-South Coast County, Annual

**3.2 Demolition - 2022****Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	tons/yr											MT/yr					
Hauling	3.5000e-004	0.0129	2.2000e-003	5.0000e-005	1.0400e-003	3.0000e-005	1.0700e-003	2.9000e-004	3.0000e-005	3.2000e-004	0.0000	4.4289	4.4289	2.5000e-004	0.0000	4.4350	
Vendor	5.0000e-005	1.9300e-003	3.8000e-004	1.0000e-005	1.3000e-004	0.0000	1.4000e-004	4.0000e-005	0.0000	4.0000e-005	0.0000	0.5290	0.5290	3.0000e-005	0.0000	0.5299	
Worker	8.1000e-004	5.9000e-004	6.1800e-003	2.0000e-005	2.0700e-003	1.0000e-005	2.0900e-003	5.5000e-004	1.0000e-005	5.6000e-004	0.0000	1.6578	1.6578	4.0000e-005	0.0000	1.6588	
Total	1.2100e-003	0.0155	8.7600e-003	8.0000e-005	3.2400e-003	4.0000e-005	3.3000e-003	8.8000e-004	4.0000e-005	9.2000e-004	0.0000	6.6156	6.6156	3.2000e-004	0.0000	6.6237	

**3.3 Grading - 2022****Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	tons/yr											MT/yr					
Fugitive Dust					5.3000e-003	0.0000	5.3000e-003	5.7000e-004	0.0000	5.7000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
Off-Road	0.0263	0.2898	0.1992	4.8000e-004		0.0113	0.0113		0.0104	0.0104	0.0000	42.4225	42.4225	0.0137	0.0000	42.7655	
Total	0.0263	0.2898	0.1992	4.8000e-004	5.3000e-003	0.0113	0.0166	5.7000e-004	0.0104	0.0110	0.0000	42.4225	42.4225	0.0137	0.0000	42.7655	

## 15755 Arrow Route Warehouse Project - San Bernardino-South Coast County, Annual

**3.3 Grading - 2022****Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	tons/yr											MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
Vendor	4.0000e-005	1.3800e-003	2.7000e-004	0.0000	9.0000e-005	0.0000	1.0000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.3778	0.3778	2.0000e-005	0.0000	0.3785	
Worker	5.8000e-004	4.2000e-004	4.4100e-003	1.0000e-005	1.4800e-003	1.0000e-005	1.4900e-003	3.9000e-004	1.0000e-005	4.0000e-004	0.0000	1.1841	1.1841	3.0000e-005	0.0000	1.1849	
Total	6.2000e-004	1.8000e-003	4.6800e-003	1.0000e-005	1.5700e-003	1.0000e-005	1.5900e-003	4.2000e-004	1.0000e-005	4.3000e-004	0.0000	1.5619	1.5619	5.0000e-005	0.0000	1.5633	

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	tons/yr											MT/yr					
Fugitive Dust					2.0700e-003	0.0000	2.0700e-003	2.2000e-004	0.0000	2.2000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
Off-Road	0.0263	0.2898	0.1992	4.8000e-004		0.0113	0.0113		0.0104	0.0104	0.0000	42.4225	42.4225	0.0137	0.0000	42.7655	
Total	0.0263	0.2898	0.1992	4.8000e-004	2.0700e-003	0.0113	0.0134	2.2000e-004	0.0104	0.0106	0.0000	42.4225	42.4225	0.0137	0.0000	42.7655	

## 15755 Arrow Route Warehouse Project - San Bernardino-South Coast County, Annual

**3.3 Grading - 2022****Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	tons/yr											MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
Vendor	4.0000e-005	1.3800e-003	2.7000e-004	0.0000	9.0000e-005	0.0000	1.0000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.3778	0.3778	2.0000e-005	0.0000	0.3785	
Worker	5.8000e-004	4.2000e-004	4.4100e-003	1.0000e-005	1.4800e-003	1.0000e-005	1.4900e-003	3.9000e-004	1.0000e-005	4.0000e-004	0.0000	1.1841	1.1841	3.0000e-005	0.0000	1.1849	
Total	6.2000e-004	1.8000e-003	4.6800e-003	1.0000e-005	1.5700e-003	1.0000e-005	1.5900e-003	4.2000e-004	1.0000e-005	4.3000e-004	0.0000	1.5619	1.5619	5.0000e-005	0.0000	1.5633	

**3.4 Building Construction - 2022****Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	tons/yr											MT/yr					
Off-Road	0.3731	3.3267	4.0730	6.8800e-003		0.1570	0.1570		0.1513	0.1513	0.0000	585.0049	585.0049	0.1078	0.0000	587.6993	
Total	0.3731	3.3267	4.0730	6.8800e-003		0.1570	0.1570		0.1513	0.1513	0.0000	585.0049	585.0049	0.1078	0.0000	587.6993	

## 15755 Arrow Route Warehouse Project - San Bernardino-South Coast County, Annual

**3.4 Building Construction - 2022****Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	tons/yr											MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
Vendor	0.0151	0.5639	0.1122	1.6100e-003	0.0386	8.6000e-004	0.0394	0.0111	8.2000e-004	0.0120	0.0000	154.1594	154.1594	0.0101	0.0000	154.4122	
Worker	0.0674	0.0490	0.5117	1.5200e-003	0.1717	1.0900e-003	0.1728	0.0456	1.0000e-003	0.0466	0.0000	137.3561	137.3561	3.5800e-003	0.0000	137.4455	
<b>Total</b>	<b>0.0825</b>	<b>0.6129</b>	<b>0.6239</b>	<b>3.1300e-003</b>	<b>0.2103</b>	<b>1.9500e-003</b>	<b>0.2122</b>	<b>0.0567</b>	<b>1.8200e-003</b>	<b>0.0586</b>	<b>0.0000</b>	<b>291.5154</b>	<b>291.5154</b>	<b>0.0137</b>	<b>0.0000</b>	<b>291.8577</b>	

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	tons/yr											MT/yr					
Off-Road	0.3731	3.3267	4.0730	6.8800e-003		0.1570	0.1570		0.1513	0.1513	0.0000	585.0042	585.0042	0.1078	0.0000	587.6986	
<b>Total</b>	<b>0.3731</b>	<b>3.3267</b>	<b>4.0730</b>	<b>6.8800e-003</b>		<b>0.1570</b>	<b>0.1570</b>		<b>0.1513</b>	<b>0.1513</b>	<b>0.0000</b>	<b>585.0042</b>	<b>585.0042</b>	<b>0.1078</b>	<b>0.0000</b>	<b>587.6986</b>	

## 15755 Arrow Route Warehouse Project - San Bernardino-South Coast County, Annual

**3.4 Building Construction - 2022****Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	tons/yr											MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
Vendor	0.0151	0.5639	0.1122	1.6100e-003	0.0386	8.6000e-004	0.0394	0.0111	8.2000e-004	0.0120	0.0000	154.1594	154.1594	0.0101	0.0000	154.4122	
Worker	0.0674	0.0490	0.5117	1.5200e-003	0.1717	1.0900e-003	0.1728	0.0456	1.0000e-003	0.0466	0.0000	137.3561	137.3561	3.5800e-003	0.0000	137.4455	
Total	0.0825	0.6129	0.6239	3.1300e-003	0.2103	1.9500e-003	0.2122	0.0567	1.8200e-003	0.0586	0.0000	291.5154	291.5154	0.0137	0.0000	291.8577	

**3.5 Paving - 2022****Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	9.4100e-003	0.0948	0.1228	1.9000e-004		4.9200e-003	4.9200e-003		4.5200e-003	4.5200e-003	0.0000	16.6924	16.6924	5.4000e-003	0.0000	16.8274
Paving	9.0000e-005					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	9.5000e-003	0.0948	0.1228	1.9000e-004		4.9200e-003	4.9200e-003		4.5200e-003	4.5200e-003	0.0000	16.6924	16.6924	5.4000e-003	0.0000	16.8274

## 15755 Arrow Route Warehouse Project - San Bernardino-South Coast County, Annual

**3.5 Paving - 2022****Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	tons/yr											MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
Vendor	5.0000e-005	1.9300e-003	3.8000e-004	1.0000e-005	1.3000e-004	0.0000	1.4000e-004	4.0000e-005	0.0000	4.0000e-005	0.0000	0.5290	0.5290	3.0000e-005	0.0000	0.5299	
Worker	5.9000e-004	4.3000e-004	4.4600e-003	1.0000e-005	1.5000e-003	1.0000e-005	1.5100e-003	4.0000e-004	1.0000e-005	4.1000e-004	0.0000	1.1973	1.1973	3.0000e-005	0.0000	1.1980	
Total	6.4000e-004	2.3600e-003	4.8400e-003	2.0000e-005	1.6300e-003	1.0000e-005	1.6500e-003	4.4000e-004	1.0000e-005	4.5000e-004	0.0000	1.7262	1.7262	6.0000e-005	0.0000	1.7279	

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	tons/yr											MT/yr					
Off-Road	9.4100e-003	0.0948	0.1228	1.9000e-004		4.9200e-003	4.9200e-003		4.5200e-003	4.5200e-003	0.0000	16.6924	16.6924	5.4000e-003	0.0000	16.8274	
Paving	9.0000e-005					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
Total	9.5000e-003	0.0948	0.1228	1.9000e-004		4.9200e-003	4.9200e-003		4.5200e-003	4.5200e-003	0.0000	16.6924	16.6924	5.4000e-003	0.0000	16.8274	

## 15755 Arrow Route Warehouse Project - San Bernardino-South Coast County, Annual

**3.5 Paving - 2022****Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	tons/yr											MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
Vendor	5.0000e-005	1.9300e-003	3.8000e-004	1.0000e-005	1.3000e-004	0.0000	1.4000e-004	4.0000e-005	0.0000	4.0000e-005	0.0000	0.5290	0.5290	3.0000e-005	0.0000	0.5299	
Worker	5.9000e-004	4.3000e-004	4.4600e-003	1.0000e-005	1.5000e-003	1.0000e-005	1.5100e-003	4.0000e-004	1.0000e-005	4.1000e-004	0.0000	1.1973	1.1973	3.0000e-005	0.0000	1.1980	
Total	6.4000e-004	2.3600e-003	4.8400e-003	2.0000e-005	1.6300e-003	1.0000e-005	1.6500e-003	4.4000e-004	1.0000e-005	4.5000e-004	0.0000	1.7262	1.7262	6.0000e-005	0.0000	1.7279	

**3.6 Architectural Coating - 2022****Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	tons/yr											MT/yr					
Archit. Coating	0.4861						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
Off-Road	2.8600e-003	0.0197	0.0254	4.0000e-005		1.1400e-003	1.1400e-003		1.1400e-003	1.1400e-003	0.0000	3.5746	3.5746	2.3000e-004	0.0000	3.5804	
Total	0.4890	0.0197	0.0254	4.0000e-005		1.1400e-003	1.1400e-003		1.1400e-003	1.1400e-003	0.0000	3.5746	3.5746	2.3000e-004	0.0000	3.5804	

## 15755 Arrow Route Warehouse Project - San Bernardino-South Coast County, Annual

**3.6 Architectural Coating - 2022****Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	tons/yr											MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
Worker	1.5800e-003	1.1500e-003	0.0120	4.0000e-005	4.0300e-003	3.0000e-005	4.0600e-003	1.0700e-003	2.0000e-005	1.0900e-003	0.0000	3.2234	3.2234	8.0000e-005	0.0000	3.2255	
Total	1.5800e-003	1.1500e-003	0.0120	4.0000e-005	4.0300e-003	3.0000e-005	4.0600e-003	1.0700e-003	2.0000e-005	1.0900e-003	0.0000	3.2234	3.2234	8.0000e-005	0.0000	3.2255	

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	tons/yr											MT/yr					
Archit. Coating	0.4861						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
Off-Road	2.8600e-003	0.0197	0.0254	4.0000e-005		1.1400e-003	1.1400e-003		1.1400e-003	1.1400e-003	0.0000	3.5746	3.5746	2.3000e-004	0.0000	3.5804	
Total	0.4890	0.0197	0.0254	4.0000e-005		1.1400e-003	1.1400e-003		1.1400e-003	1.1400e-003	0.0000	3.5746	3.5746	2.3000e-004	0.0000	3.5804	

## 15755 Arrow Route Warehouse Project - San Bernardino-South Coast County, Annual

**3.6 Architectural Coating - 2022****Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	tons/yr											MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
Worker	1.5800e-003	1.1500e-003	0.0120	4.0000e-005	4.0300e-003	3.0000e-005	4.0600e-003	1.0700e-003	2.0000e-005	1.0900e-003	0.0000	3.2234	3.2234	8.0000e-005	0.0000	3.2255	
Total	1.5800e-003	1.1500e-003	0.0120	4.0000e-005	4.0300e-003	3.0000e-005	4.0600e-003	1.0700e-003	2.0000e-005	1.0900e-003	0.0000	3.2234	3.2234	8.0000e-005	0.0000	3.2255	

**4.0 Operational Detail - Mobile****4.1 Mitigation Measures Mobile**

## 15755 Arrow Route Warehouse Project - San Bernardino-South Coast County, Annual

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	tons/yr											MT/yr					
Mitigated	0.2509	4.6103	3.3096	0.0263	1.4751	0.0205	1.4956	0.4019	0.0195	0.4213	0.0000	2,480.693 4	2,480.693 4	0.0966	0.0000	2,483.107 7	
Unmitigated	0.2509	4.6103	3.3096	0.0263	1.4751	0.0205	1.4956	0.4019	0.0195	0.4213	0.0000	2,480.693 4	2,480.693 4	0.0966	0.0000	2,483.107 7	

**4.2 Trip Summary Information**

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	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	342.17	342.17	342.17	3,712,793	3,712,793
Total	342.17	342.17	342.17	3,712,793	3,712,793

**4.3 Trip Type Information**

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
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	55.00	6.90	65.60	34.40	0.00	100	0	0

**4.4 Fleet Mix**

## 15755 Arrow Route Warehouse Project - San Bernardino-South Coast County, Annual

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Other Asphalt Surfaces	0.553113	0.036408	0.180286	0.116335	0.016165	0.005101	0.018218	0.063797	0.001357	0.001565	0.005903	0.000808	0.000944
Other Non-Asphalt Surfaces	0.553113	0.036408	0.180286	0.116335	0.016165	0.005101	0.018218	0.063797	0.001357	0.001565	0.005903	0.000808	0.000944
Unrefrigerated Warehouse-No Rail	0.464940	0.030600	0.151550	0.000000	0.000000	0.058310	0.069970	0.215740	0.001140	0.001320	0.004960	0.000680	0.000790

## 5.0 Energy Detail

Historical Energy Use: N

### 5.1 Mitigation Measures Energy

Exceed Title 24

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	125.0606	125.0606	6.8200e-003	1.4100e-003	125.6520
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	130.3225	130.3225	7.1100e-003	1.4700e-003	130.9387
NaturalGas Mitigated	1.5200e-003	0.0138	0.0116	8.0000e-005		1.0500e-003	1.0500e-003		1.0500e-003	1.0500e-003	0.0000	15.0064	15.0064	2.9000e-004	2.8000e-004	15.0956
NaturalGas Unmitigated	2.1500e-003	0.0196	0.0164	1.2000e-004		1.4900e-003	1.4900e-003		1.4900e-003	1.4900e-003	0.0000	21.3028	21.3028	4.1000e-004	3.9000e-004	21.4294

## 15755 Arrow Route Warehouse Project - San Bernardino-South Coast County, Annual

**5.2 Energy by Land Use - NaturalGas****Unmitigated**

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	399199	2.1500e-003	0.0196	0.0164	1.2000e-004		1.4900e-003	1.4900e-003		1.4900e-003	1.4900e-003	0.0000	21.3028	21.3028	4.1000e-004	3.9000e-004	21.4294
<b>Total</b>		<b>2.1500e-003</b>	<b>0.0196</b>	<b>0.0164</b>	<b>1.2000e-004</b>		<b>1.4900e-003</b>	<b>1.4900e-003</b>		<b>1.4900e-003</b>	<b>1.4900e-003</b>	<b>0.0000</b>	<b>21.3028</b>	<b>21.3028</b>	<b>4.1000e-004</b>	<b>3.9000e-004</b>	<b>21.4294</b>

**Mitigated**

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	281210	1.5200e-003	0.0138	0.0116	8.0000e-005		1.0500e-003	1.0500e-003		1.0500e-003	1.0500e-003	0.0000	15.0064	15.0064	2.9000e-004	2.8000e-004	15.0956
<b>Total</b>		<b>1.5200e-003</b>	<b>0.0138</b>	<b>0.0116</b>	<b>8.0000e-005</b>		<b>1.0500e-003</b>	<b>1.0500e-003</b>		<b>1.0500e-003</b>	<b>1.0500e-003</b>	<b>0.0000</b>	<b>15.0064</b>	<b>15.0064</b>	<b>2.9000e-004</b>	<b>2.8000e-004</b>	<b>15.0956</b>

## 15755 Arrow Route Warehouse Project - San Bernardino-South Coast County, Annual

**5.3 Energy by Land Use - Electricity****Unmitigated**

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Other Asphalt Surfaces	1067.22	0.2573	1.0000e-005	0.0000	0.2585
Other Non-Asphalt Surfaces	75467.7	18.1920	9.9000e-004	2.1000e-004	18.2781
Unrefrigerated Warehouse-No Rail	464094	111.8732	6.1000e-003	1.2600e-003	112.4022
<b>Total</b>		<b>130.3225</b>	<b>7.1000e-003</b>	<b>1.4700e-003</b>	<b>130.9387</b>

**Mitigated**

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Other Asphalt Surfaces	1067.22	0.2573	1.0000e-005	0.0000	0.2585
Other Non-Asphalt Surfaces	75467.7	18.1920	9.9000e-004	2.1000e-004	18.2781
Unrefrigerated Warehouse-No Rail	442266	106.6113	5.8200e-003	1.2000e-003	107.1155
<b>Total</b>		<b>125.0606</b>	<b>6.8200e-003</b>	<b>1.4100e-003</b>	<b>125.6520</b>

## 15755 Arrow Route Warehouse Project - San Bernardino-South Coast County, Annual

**6.0 Area Detail****6.1 Mitigation Measures Area**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	tons/yr											MT/yr					
Mitigated	0.8192	2.0000e-005	2.5800e-003	0.0000			1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	5.0000e-003	5.0000e-003	1.0000e-005	0.0000	5.3400e-003
Unmitigated	0.8192	2.0000e-005	2.5800e-003	0.0000			1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	5.0000e-003	5.0000e-003	1.0000e-005	0.0000	5.3400e-003

## 15755 Arrow Route Warehouse Project - San Bernardino-South Coast County, Annual

**6.2 Area by SubCategory****Unmitigated**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
SubCategory	tons/yr											MT/yr					
Architectural Coating	0.0942						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.7247						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	2.4000e-004	2.0000e-005	2.5800e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	5.0000e-003	5.0000e-003	1.0000e-005	0.0000	5.3400e-003	
<b>Total</b>	<b>0.8192</b>	<b>2.0000e-005</b>	<b>2.5800e-003</b>	<b>0.0000</b>		<b>1.0000e-005</b>	<b>1.0000e-005</b>		<b>1.0000e-005</b>	<b>1.0000e-005</b>	<b>0.0000</b>	<b>5.0000e-003</b>	<b>5.0000e-003</b>	<b>1.0000e-005</b>	<b>0.0000</b>	<b>5.3400e-003</b>	

**Mitigated**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
SubCategory	tons/yr											MT/yr					
Architectural Coating	0.0942						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.7247						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	2.4000e-004	2.0000e-005	2.5800e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	5.0000e-003	5.0000e-003	1.0000e-005	0.0000	5.3400e-003	
<b>Total</b>	<b>0.8192</b>	<b>2.0000e-005</b>	<b>2.5800e-003</b>	<b>0.0000</b>		<b>1.0000e-005</b>	<b>1.0000e-005</b>		<b>1.0000e-005</b>	<b>1.0000e-005</b>	<b>0.0000</b>	<b>5.0000e-003</b>	<b>5.0000e-003</b>	<b>1.0000e-005</b>	<b>0.0000</b>	<b>5.3400e-003</b>	

**7.0 Water Detail**

## 15755 Arrow Route Warehouse Project - San Bernardino-South Coast County, Annual

## 7.1 Mitigation Measures Water

Apply Water Conservation Strategy

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	19.8452	0.1880	4.6200e-003	25.9201
Unmitigated	24.8027	0.2349	5.7700e-003	32.3963

## 15755 Arrow Route Warehouse Project - San Bernardino-South Coast County, Annual

**7.2 Water by Land Use****Unmitigated**

	Indoor/Out door Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Other Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Other Non- Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	7.17217 / 0.0057	24.8027	0.2349	5.7700e- 003	32.3963
<b>Total</b>		<b>24.8027</b>	<b>0.2349</b>	<b>5.7700e- 003</b>	<b>32.3963</b>

**Mitigated**

	Indoor/Out door Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Other Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Other Non- Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	5.73774 / 0.0057	19.8452	0.1880	4.6200e- 003	25.9201
<b>Total</b>		<b>19.8452</b>	<b>0.1880</b>	<b>4.6200e- 003</b>	<b>25.9201</b>

## 15755 Arrow Route Warehouse Project - San Bernardino-South Coast County, Annual

## 8.0 Waste Detail

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### 8.1 Mitigation Measures Waste

Institute Recycling and Composting Services

#### Category/Year

	Total CO2	CH4	N2O	CO2e
MT/yr				
Mitigated	23.6394	1.3971	0.0000	58.5657
Unmitigated	37.5229	2.2175	0.0000	92.9614

## 15755 Arrow Route Warehouse Project - San Bernardino-South Coast County, Annual

**8.2 Waste by Land Use****Unmitigated**

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	184.85	37.5229	2.2175	0.0000	92.9614
<b>Total</b>		<b>37.5229</b>	<b>2.2175</b>	<b>0.0000</b>	<b>92.9614</b>

**Mitigated**

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	116.456	23.6394	1.3971	0.0000	58.5657
<b>Total</b>		<b>23.6394</b>	<b>1.3971</b>	<b>0.0000</b>	<b>58.5657</b>

## 15755 Arrow Route Warehouse Project - San Bernardino-South Coast County, Annual

## 9.0 Operational Offroad

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

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### Fire Pumps and Emergency Generators

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

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

Equipment Type	Number
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## 11.0 Vegetation

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## 15755 Arrow Route Warehouse Project - San Bernardino-South Coast County, Annual

	Total CO2	CH4	N2O	CO2e
Category	MT			
Unmitigated	96.9960	0.0000	0.0000	96.9960

**11.2 Net New Trees****Species Class**

	Number of Trees	Total CO2	CH4	N2O	CO2e
		MT			
Miscellaneous	137	96.9960	0.0000	0.0000	96.9960
<b>Total</b>		<b>96.9960</b>	<b>0.0000</b>	<b>0.0000</b>	<b>96.9960</b>

## 15755 Arrow Route Warehouse Project (Operation LST) - San Bernardino-South Coast County, Summer

## **15755 Arrow Route Warehouse Project (Operation LST)**

**San Bernardino-South Coast County, Summer**

### **1.0 Project Characteristics**

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#### **1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Unrefrigerated Warehouse-No Rail	196.65	1000sqft	4.51	196,650.00	0
Other Asphalt Surfaces	0.07	Acre	0.07	3,049.20	0
Other Non-Asphalt Surfaces	4.95	Acre	4.95	215,622.00	0

#### **1.2 Other Project Characteristics**

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	32
Climate Zone	10			Operational Year	2022
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	531.44	CH4 Intensity (lb/MWhr)	0.029	N2O Intensity (lb/MWhr)	0.006

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

Project Characteristics - SCE carbon intensity per 2019 SCE data

Land Use - Per Site Plan; Onsite and Offsite

Construction Phase - Construction not Modeled

Off-road Equipment -

Off-road Equipment - Construction Not Modeled

Trips and VMT -

Demolition -

Architectural Coating -

Vehicle Trips - Per VMT Memo; onsite trip lenght 0.31 miles

Energy Use -

Water And Wastewater -

Sequestration -

Construction Off-road Equipment Mitigation -

Energy Mitigation -

Water Mitigation -

Waste Mitigation -

Fleet Mix - Per VMT Memo

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	20.00	0.00
tblEnergyUse	LightingElect	0.00	0.35
tblEnergyUse	LightingElect	0.00	0.35
tblFleetMix	HHD	0.06	0.63
tblFleetMix	LDA	0.55	0.00
tblFleetMix	LDT1	0.04	0.00
tblFleetMix	LDT2	0.18	0.00
tblFleetMix	LHD1	0.02	0.00
tblFleetMix	LHD2	5.1010e-003	0.17
tblFleetMix	MCY	5.9030e-003	0.00
tblFleetMix	MDV	0.12	0.00
tblFleetMix	MH	9.4400e-004	0.00
tblFleetMix	MHD	0.02	0.20
tblFleetMix	OBUS	1.3570e-003	0.00
tblFleetMix	SBUS	8.0800e-004	0.00
tblFleetMix	UBUS	1.5650e-003	0.00
tblGrading	AcresOfGrading	0.00	10.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00

tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblProjectCharacteristics	CO2IntensityFactor	702.44	531.44
tblSequestration	NumberOfNewTrees	0.00	137.00
tblTripsAndVMT	VendorTripNumber	0.00	2.00
tblTripsAndVMT	WorkerTripNumber	0.00	18.00
tblVehicleTrips	CC_TL	8.40	0.31
tblVehicleTrips	CC_TTP	0.00	100.00
tblVehicleTrips	CNW_TTP	41.00	0.00
tblVehicleTrips	CW_TL	16.60	0.00
tblVehicleTrips	CW_TTP	59.00	0.00
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	0.60
tblVehicleTrips	SU_TR	1.68	0.60
tblVehicleTrips	WD_TR	1.68	0.60
tblWater	IndoorWaterUseRate	45,475,312.50	7,172,171.00
tblWater	OutdoorWaterUseRate	0.00	5,700.00

## 2.0 Emissions Summary

## 2.1 Overall Construction (Maximum Daily Emission)

## **Unmitigated Construction**

## 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						
2022	0.0000	0.0000	0.0000	0.0000	0.0000	1.5300e-003	0.0000	0.0000	1.4200e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
Maximum	0.0000	0.0000	0.0000	0.0000	0.0000	1.5300e-003	0.0000	0.0000	1.4200e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	

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

## 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	4.4891	1.9000e-004	0.0206	0.0000	7.0000e-005	7.0000e-005	7.0000e-005	7.0000e-005	7.0000e-005	0.0441	0.0441	1.2000e-004	0.0471				
Energy	0.0118	0.1072	0.0901	6.4000e-004	8.1500e-003	8.1500e-003	8.1500e-003	8.1500e-003	8.1500e-003	128.6703	128.6703	2.4700e-003	2.3600e-003	129.4349			
Mobile	0.1763	8.5970	1.0377	0.0124	0.0328	2.3400e-003	0.0351	9.2300e-003	2.2300e-003	0.0115	1,313.4016	1,313.4016	0.2071	1,318.5801			
Total	4.6773	8.7045	1.1484	0.0131	0.0328	0.0106	0.0433	9.2300e-003	0.0105	0.0197	1,442.1160	1,442.1160	0.2097	2.3600e-003	1,448.0620		

**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	4.4891	1.9000e-004	0.0206	0.0000		7.0000e-005	7.0000e-005		7.0000e-005	7.0000e-005		0.0441	0.0441	1.2000e-004		0.0471	
Energy	8.3100e-003	0.0755	0.0635	4.5000e-004		5.7400e-003	5.7400e-003		5.7400e-003	5.7400e-003		90.6397	90.6397	1.7400e-003	1.6600e-003	91.1783	
Mobile	0.1763	8.5970	1.0377	0.0124	0.0328	2.3400e-003	0.0351	9.2300e-003	2.2300e-003	0.0115		1,313.4016	1,313.4016	0.2071		1,318.5801	
Total	4.6738	8.6728	1.1217	0.0129	0.0328	8.1500e-003	0.0409	9.2300e-003	8.0400e-003	0.0173		1,404.0854	1,404.0854	0.2090	1.6600e-003	1,409.8054	

  

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.07	0.36	2.32	1.45	0.00	22.82	5.56	0.00	23.06	12.25	0.00	2.64	2.64	0.35	29.66	2.64

**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	2/1/2022	1/31/2022	5	0	

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

**Acres of Grading (Grading Phase): 10**

**Acres of Paving: 5.02**

**Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0**

## OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Grading	Excavators	0	8.00	158	0.38
Grading	Graders	0	8.00	187	0.41
Grading	Rollers	0	8.00	80	0.38
Grading	Rubber Tired Dozers	0	8.00	247	0.40
Grading	Rubber Tired Loaders	0	8.00	203	0.38
Grading	Scrapers	0	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	0	8.00	97	0.37

## Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Grading	0	18.00	2.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

### **3.1 Mitigation Measures Construction**

## Water Exposed Area

3.2 Grading - 2022

## **Unmitigated Construction On-Site**

## **Unmitigated Construction Off-Site**

## **Mitigated Construction On-Site**

## Mitigated Construction Off-Site

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

## 4.0 Operational Detail - Mobile

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### 4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.1763	8.5970	1.0377	0.0124	0.0328	2.3400e-003	0.0351	9.2300e-003	2.2300e-003	0.0115	1,313.4016	1,313.4016	0.2071	1,318.5801		
Unmitigated	0.1763	8.5970	1.0377	0.0124	0.0328	2.3400e-003	0.0351	9.2300e-003	2.2300e-003	0.0115	1,313.4016	1,313.4016	0.2071	1,318.5801		

### 4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated		Mitigated	
	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	117.99	117.99	117.99	13,314		13,314	
Total	117.99	117.99	117.99	13,314		13,314	

### 4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
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 Rail	0.00	0.31	6.90	0.00	100.00	0.00	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	0.553113	0.036408	0.180286	0.116335	0.016165	0.005101	0.018218	0.063797	0.001357	0.001565	0.005903	0.000808	0.000944
Other Non-Asphalt Surfaces	0.553113	0.036408	0.180286	0.116335	0.016165	0.005101	0.018218	0.063797	0.001357	0.001565	0.005903	0.000808	0.000944
Unrefrigerated Warehouse-No Rail	0.000000	0.000000	0.000000	0.000000	0.000000	0.169490	0.203390	0.627120	0.000000	0.000000	0.000000	0.000000	0.000000

#### 5.0 Energy Detail

Historical Energy Use: N

#### 5.1 Mitigation Measures Energy

Exceed Title 24

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	8.3100e-003	0.0755	0.0635	4.5000e-004		5.7400e-003	5.7400e-003		5.7400e-003	5.7400e-003		90.6397	90.6397	1.7400e-003	1.6600e-003	91.1783
NaturalGas Unmitigated	0.0118	0.1072	0.0901	6.4000e-004		8.1500e-003	8.1500e-003		8.1500e-003	8.1500e-003		128.6703	128.6703	2.4700e-003	2.3600e-003	129.4349

## 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	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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
Unrefrigerated Warehouse-No	1093.7	0.0118	0.1072	0.0901	6.4000e-004	8.1500e-003	8.1500e-003	8.1500e-003	8.1500e-003	8.1500e-003	8.1500e-003	128.6703	128.6703	2.4700e-003	2.3600e-003	129.4349		
Total		0.0118	0.1072	0.0901	6.4000e-004	8.1500e-003	8.1500e-003		8.1500e-003	8.1500e-003		128.6703	128.6703	2.4700e-003	2.3600e-003	129.4349		

### **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	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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
Unrefrigerated Warehouse-No	0.770437	8.3100e-003	0.0755	0.0635	4.5000e-004	5.7400e-003	5.7400e-003	5.7400e-003	5.7400e-003	5.7400e-003	90.6397	90.6397	1.7400e-003	1.6600e-003	91.1783			
Total		8.3100e-003	0.0755	0.0635	4.5000e-004	5.7400e-003	5.7400e-003		5.7400e-003	5.7400e-003	90.6397	90.6397	1.7400e-003	1.6600e-003	91.1783			

## **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
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Category	lb/day										lb/day					
	Mitigated	4.4891	1.9000e-004	0.0206	0.0000		7.0000e-005	7.0000e-005		7.0000e-005	7.0000e-005		0.0441	0.0441	1.2000e-004	
Unmitigated	4.4891	1.9000e-004	0.0206	0.0000		7.0000e-005	7.0000e-005		7.0000e-005	7.0000e-005		0.0441	0.0441	1.2000e-004		0.0471

## 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	0.5161						0.0000	0.0000		0.0000	0.0000		0.0000			0.0000
Consumer Products	3.9711						0.0000	0.0000		0.0000	0.0000		0.0000			0.0000
Landscaping	1.9200e-003	1.9000e-004	0.0206	0.0000		7.0000e-005	7.0000e-005		7.0000e-005	7.0000e-005		0.0441	0.0441	1.2000e-004		0.0471
<b>Total</b>	<b>4.4891</b>	<b>1.9000e-004</b>	<b>0.0206</b>	<b>0.0000</b>		<b>7.0000e-005</b>	<b>7.0000e-005</b>		<b>7.0000e-005</b>	<b>7.0000e-005</b>		<b>0.0441</b>	<b>0.0441</b>	<b>1.2000e-004</b>		<b>0.0471</b>

### Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.5161						0.0000	0.0000		0.0000	0.0000		0.0000			0.0000
Consumer Products	3.9711						0.0000	0.0000		0.0000	0.0000		0.0000			0.0000
Landscaping	1.9200e-003	1.9000e-004	0.0206	0.0000		7.0000e-005	7.0000e-005		7.0000e-005	7.0000e-005		0.0441	0.0441	1.2000e-004		0.0471
<b>Total</b>	<b>4.4891</b>	<b>1.9000e-004</b>	<b>0.0206</b>	<b>0.0000</b>		<b>7.0000e-005</b>	<b>7.0000e-005</b>		<b>7.0000e-005</b>	<b>7.0000e-005</b>		<b>0.0441</b>	<b>0.0441</b>	<b>1.2000e-004</b>		<b>0.0471</b>

## 7.0 Water Detail

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### 7.1 Mitigation Measures Water

Apply Water Conservation Strategy

## 8.0 Waste Detail

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### 8.1 Mitigation Measures Waste

Institute Recycling and Composting Services

## 9.0 Operational Offroad

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

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### Fire Pumps and Emergency Generators

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

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

Equipment Type	Number
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## 11.0 Vegetation

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## 15755 Arrow Route Warehouse Project (Operation LST) - San Bernardino-South Coast County, Winter

**15755 Arrow Route Warehouse Project (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	196.65	1000sqft	4.51	196,650.00	0
Other Asphalt Surfaces	0.07	Acre	0.07	3,049.20	0
Other Non-Asphalt Surfaces	4.95	Acre	4.95	215,622.00	0

### 1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	32
Climate Zone	10			Operational Year	2022
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	531.44	CH4 Intensity (lb/MWhr)	0.029	N2O Intensity (lb/MWhr)	0.006

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

Project Characteristics - SCE carbon intensity per 2019 SCE data

Land Use - Per Site Plan; Onsite and Offsite

Construction Phase - Construction not Modeled

Off-road Equipment -

Off-road Equipment - Construction Not Modeled

Trips and VMT -

Demolition -

Architectural Coating -

Vehicle Trips - Per VMT Memo; onsite trip lenght 0.31 miles

Energy Use -

Water And Wastewater -

Sequestration -

Construction Off-road Equipment Mitigation -

Energy Mitigation -

Water Mitigation -

Waste Mitigation -

Fleet Mix - Per VMT Memo

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	20.00	0.00
tblEnergyUse	LightingElect	0.00	0.35
tblEnergyUse	LightingElect	0.00	0.35
tblFleetMix	HHD	0.06	0.63
tblFleetMix	LDA	0.55	0.00
tblFleetMix	LDT1	0.04	0.00
tblFleetMix	LDT2	0.18	0.00
tblFleetMix	LHD1	0.02	0.00
tblFleetMix	LHD2	5.1010e-003	0.17
tblFleetMix	MCY	5.9030e-003	0.00
tblFleetMix	MDV	0.12	0.00
tblFleetMix	MH	9.4400e-004	0.00
tblFleetMix	MHD	0.02	0.20
tblFleetMix	OBUS	1.3570e-003	0.00
tblFleetMix	SBUS	8.0800e-004	0.00
tblFleetMix	UBUS	1.5650e-003	0.00
tblGrading	AcresOfGrading	0.00	10.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00

tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblProjectCharacteristics	CO2IntensityFactor	702.44	531.44
tblSequestration	NumberOfNewTrees	0.00	137.00
tblTripsAndVMT	VendorTripNumber	0.00	2.00
tblTripsAndVMT	WorkerTripNumber	0.00	18.00
tblVehicleTrips	CC_TL	8.40	0.31
tblVehicleTrips	CC_TTP	0.00	100.00
tblVehicleTrips	CNW_TTP	41.00	0.00
tblVehicleTrips	CW_TL	16.60	0.00
tblVehicleTrips	CW_TTP	59.00	0.00
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	0.60
tblVehicleTrips	SU_TR	1.68	0.60
tblVehicleTrips	WD_TR	1.68	0.60
tblWater	IndoorWaterUseRate	45,475,312.50	7,172,171.00
tblWater	OutdoorWaterUseRate	0.00	5,700.00

## 2.0 Emissions Summary

## 2.1 Overall Construction (Maximum Daily Emission)

## **Unmitigated Construction**

## 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					
2022	0.0000	0.0000	0.0000	0.0000	0.0000	1.5400e-003	0.0000	0.0000	1.4200e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	0.0000	0.0000	0.0000	0.0000	0.0000	1.5400e-003	0.0000	0.0000	1.4200e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

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

## 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	4.4891	1.9000e-004	0.0206	0.0000		7.0000e-005	7.0000e-005		7.0000e-005	7.0000e-005	0.0441	0.0441	1.2000e-004		0.0471	
Energy	0.0118	0.1072	0.0901	6.4000e-004		8.1500e-003	8.1500e-003		8.1500e-003	8.1500e-003	128.6703	128.6703	2.4700e-003	2.3600e-003	129.4349	
Mobile	0.1964	8.2737	1.4281	0.0109	0.0328	2.9300e-003	0.0357	9.2300e-003	2.8000e-003	0.0120	1,152.2956	1,152.2956	0.2350		1,158.1716	
Total	4.6973	8.3812	1.5388	0.0115	0.0328	0.0112	0.0439	9.2300e-003	0.0110	0.0203	1,281.0100	1,281.0100	0.2376	2.3600e-003	1,287.6535	

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	4.4891	1.9000e-004	0.0206	0.0000		7.0000e-005	7.0000e-005		7.0000e-005	7.0000e-005	0.0441	0.0441	1.2000e-004			0.0471	
Energy	8.3100e-003	0.0755	0.0635	4.5000e-004		5.7400e-003	5.7400e-003		5.7400e-003	5.7400e-003	90.6397	90.6397	1.7400e-003	1.6600e-003		91.1783	
Mobile	0.1964	8.2737	1.4281	0.0109	0.0328	2.9300e-003	0.0357	9.2300e-003	2.8000e-003	0.0120	1,152.2956	1,152.2956	0.2350			1,158.1716	
Total	4.6939	8.3495	1.5122	0.0114	0.0328	8.7400e-003	0.0415	9.2300e-003	8.6100e-003	0.0178	1,242.9794	1,242.9794	0.2369	1.6600e-003	1,249.3969		

  

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.07	0.38	1.73	1.65	0.00	21.61	5.49	0.00	21.87	11.90	0.00	2.97	2.97	0.31	29.66	2.97

### 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	2/1/2022	1/31/2022	5	0	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 10

Acres of Paving: 5.02

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0

## OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Grading	Excavators	0	8.00	158	0.38
Grading	Graders	0	8.00	187	0.41
Grading	Rollers	0	8.00	80	0.38
Grading	Rubber Tired Dozers	0	8.00	247	0.40
Grading	Rubber Tired Loaders	0	8.00	203	0.38
Grading	Scrapers	0	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	0	8.00	97	0.37

## Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Grading	0	18.00	2.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

### **3.1 Mitigation Measures Construction**

## Water Exposed Area

3.2 Grading - 2022

## **Unmitigated Construction On-Site**

## **Unmitigated Construction Off-Site**

## **Mitigated Construction On-Site**

## Mitigated Construction Off-Site

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

## 4.0 Operational Detail - Mobile

### 4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.1964	8.2737	1.4281	0.0109	0.0328	2.9300e-003	0.0357	9.2300e-003	2.8000e-003	0.0120	1,152.295	1,152.2956	0.2350			1,158.1716
Unmitigated	0.1964	8.2737	1.4281	0.0109	0.0328	2.9300e-003	0.0357	9.2300e-003	2.8000e-003	0.0120	1,152.295	1,152.2956	0.2350			1,158.1716

### 4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated		Mitigated	
	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	117.99	117.99	117.99	13,314		13,314	
Total	117.99	117.99	117.99	13,314		13,314	

## 4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
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 Rail	0.00	0.31	6.90	0.00	100.00	0.00	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	0.553113	0.036408	0.180286	0.116335	0.016165	0.005101	0.018218	0.063797	0.001357	0.001565	0.005903	0.000808	0.000944
Other Non-Asphalt Surfaces	0.553113	0.036408	0.180286	0.116335	0.016165	0.005101	0.018218	0.063797	0.001357	0.001565	0.005903	0.000808	0.000944
Unrefrigerated Warehouse-No Rail	0.000000	0.000000	0.000000	0.000000	0.000000	0.169490	0.203390	0.627120	0.000000	0.000000	0.000000	0.000000	0.000000

## 5.0 Energy Detail

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Historical Energy Use: N

## 5.1 Mitigation Measures Energy

Exceed Title 24

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	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	8.3100e-003	0.0755	0.0635	4.5000e-004		5.7400e-003	5.7400e-003		5.7400e-003	5.7400e-003		90.6397	90.6397	1.7400e-003	1.6600e-003	91.1783
NaturalGas Unmitigated	0.0118	0.1072	0.0901	6.4000e-004		8.1500e-003	8.1500e-003		8.1500e-003	8.1500e-003		128.6703	128.6703	2.4700e-003	2.3600e-003	129.4349

## 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		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		0.0000	0.0000	0.0000	0.0000	0.0000	
Unrefrigerated Warehouse-No Bulk	1093.7	0.0118	0.1072	0.0901	6.4000e-004		8.1500e-003	8.1500e-003		8.1500e-003	8.1500e-003		128.6703	128.6703	2.4700e-003	2.3600e-003	129.4349	
<b>Total</b>		<b>0.0118</b>	<b>0.1072</b>	<b>0.0901</b>	<b>6.4000e-004</b>		<b>8.1500e-003</b>	<b>8.1500e-003</b>		<b>8.1500e-003</b>	<b>8.1500e-003</b>		<b>128.6703</b>	<b>128.6703</b>	<b>2.4700e-003</b>	<b>2.3600e-003</b>	<b>129.4349</b>	

### Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Land Use	kBTU/yr	lb/day											lb/day					
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	
Unrefrigerated Warehouse-No Bulk	0.770437	8.3100e-003	0.0755	0.0635	4.5000e-004		5.7400e-003	5.7400e-003		5.7400e-003	5.7400e-003		90.6397	90.6397	1.7400e-003	1.6600e-003	91.1783	
<b>Total</b>		<b>8.3100e-003</b>	<b>0.0755</b>	<b>0.0635</b>	<b>4.5000e-004</b>		<b>5.7400e-003</b>	<b>5.7400e-003</b>		<b>5.7400e-003</b>	<b>5.7400e-003</b>		<b>90.6397</b>	<b>90.6397</b>	<b>1.7400e-003</b>	<b>1.6600e-003</b>	<b>91.1783</b>	

## 6.0 Area Detail

### 6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day											lb/day					
Mitigated	4.4891	1.9000e-004	0.0206	0.0000		7.0000e-005	7.0000e-005		7.0000e-005	7.0000e-005	0.0441	0.0441	1.2000e-004			0.0471	
Unmitigated	4.4891	1.9000e-004	0.0206	0.0000		7.0000e-005	7.0000e-005		7.0000e-005	7.0000e-005	0.0441	0.0441	1.2000e-004			0.0471	

### 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	0.5161					0.0000	0.0000		0.0000	0.0000		0.0000	0.0000				0.0000
Consumer Products	3.9711					0.0000	0.0000		0.0000	0.0000		0.0000	0.0000				0.0000
Landscaping	1.9200e-003	1.9000e-004	0.0206	0.0000		7.0000e-005	7.0000e-005		7.0000e-005	7.0000e-005	0.0441	0.0441	1.2000e-004			0.0471	
<b>Total</b>	<b>4.4891</b>	<b>1.9000e-004</b>	<b>0.0206</b>	<b>0.0000</b>		<b>7.0000e-005</b>	<b>7.0000e-005</b>		<b>7.0000e-005</b>	<b>7.0000e-005</b>		<b>0.0441</b>	<b>0.0441</b>	<b>1.2000e-004</b>		<b>0.0471</b>	

**Mitigated**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.5161						0.0000	0.0000		0.0000	0.0000		0.0000			0.0000
Consumer Products	3.9711						0.0000	0.0000		0.0000	0.0000		0.0000			0.0000
Landscaping	1.9200e-003	1.9000e-004	0.0206	0.0000		7.0000e-005	7.0000e-005		7.0000e-005	7.0000e-005		0.0441	0.0441	1.2000e-004		0.0471
<b>Total</b>	<b>4.4891</b>	<b>1.9000e-004</b>	<b>0.0206</b>	<b>0.0000</b>		<b>7.0000e-005</b>	<b>7.0000e-005</b>		<b>7.0000e-005</b>	<b>7.0000e-005</b>		<b>0.0441</b>	<b>0.0441</b>	<b>1.2000e-004</b>		<b>0.0471</b>

**7.0 Water Detail****7.1 Mitigation Measures Water**

Apply Water Conservation Strategy

**8.0 Waste Detail****8.1 Mitigation Measures Waste**

Institute Recycling and Composting Services

**9.0 Operational Offroad**

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

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### Fire Pumps and Emergency Generators

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

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

Equipment Type	Number
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## 11.0 Vegetation

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**Particulate Matter Idling Emissions Calculations for Operation LST**

Pollutant	Emission Factor*	Idling Time	Daily Truck Trips**	Idling Emissions (g/day)	Idling Emissions (lb/day)
LHDT2	(g/hr-veh)	(min)			
PM-10	0.800552094	15	20	4.00276	0.008824622
PM-2.5	0.765920565	15	20	3.829603	0.008442873
MHDT					
PM-10	0.125262096	15	24	0.751573	0.001656943
PM-2.5	0.119843314	15	24	0.71906	0.001585264
HHDT					
PM-10	0.017118982	15	74	0.316701	0.00069821
PM-2.5	0.016378422	15	74	0.303001	0.000668006
PM-10 Sub-Total					0.011179775
PM-2.5 Sub-Total					0.010696143
CalEEMod Total					
PM-10 Total					0.0357
PM-2.5 Total					0.012
Operation LST Total					
PM-10 Total					0.05
PM-2.5 Total					0.02

\* Annual idling emission factors from EMFAC2017 for 2022 in San Bernardino County

\*\* Project-specific Traffic Analysis, April 2021