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# technical memorandum

date           October 15, 2021

to             City of Los Angeles, Department of City Planning

cc

from          Kimberly Comacho, ESA  
              Alan Sako, ESA

subject       6831 Hawthorn Avenue Project – Response to LAUSD Comments

## Introduction and Purpose

This letter report has been prepared to support the City of Los Angeles (City) environmental review process and provide information in response to a recent comment letter from the Los Angeles Unified School District (LAUSD) regarding potential impacts to local air quality associated with approval of the 6831 Hawthorn Avenue Project (Project). The Project is located on the north side of Hawthorn Avenue to the west of N. Highland Avenue, and LAUSD's Hollywood High School is across Hawthorn Avenue to the south of the Project site. The Project involves replacement of an existing surface parking lot with a 137-unit mixed-use residential housing development with ground-floor commercial uses, with parking provided on the ground level and within two levels of subterranean parking.

The following are responses to the comments made in the LAUSD letter by topic.

### ***Air Quality***

In response to LAUSD's comments, Environmental Science Associates (ESA) has prepared an analysis of the Project's potential to generate localized air quality impacts from construction activities. This technical memorandum presents the methodology used to estimate the Project's localized construction emissions, the applicable South Coast Air Quality Management District (SCAQMD) significance thresholds for localized pollutants, and the determination of the Project's localized air quality impacts on nearby sensitive receptors, including Hollywood High School. The analysis determined that the Project would result in less-than-significant localized air quality impacts on nearby sensitive receptors. The details of the analysis are provided below, with supporting air quality modeling files and calculations in Exhibit A of this memorandum.

## Methodology

The construction activities associated with the Project would generate air pollutant emissions from the use of off-road heavy-duty construction equipment at the Project site. To determine whether the Project's construction activities would create significant adverse localized air quality impacts on nearby sensitive receptors, ESA conducted an analysis in accordance with the SCAQMD's *Final Localized Significance Threshold Methodology*. SCAQMD staff developed this methodology to assist lead agencies in analyzing localized air quality impacts from proposed project. The City has determined to utilize the SCAQMD's *Final Localized Significance Threshold Methodology* to evaluate potential localized air quality impacts from construction of this proposed Project as well as other development projects in the City.

The SCAQMD's guidance provide Localized Significance Thresholds (LSTs), which the SCAQMD developed based on the pounds of emissions per day that can be generated by a project without causing or contributing to adverse localized air quality impacts. The SCAQMD has adopted LSTs for the following criteria pollutants: carbon monoxide (CO), nitrogen oxides (NO<sub>x</sub>), particulate matter less than 10 microns in aerodynamic diameter (PM<sub>10</sub>), and particulate matter less than 2.5 microns in aerodynamic diameter (PM<sub>2.5</sub>). The analysis of localized air quality impacts focuses the on-site activities of a development project and does not include non-localized emissions that are generated off-site such as from haul or delivery truck trips or construction worker vehicles.

The Project's short-term, construction-generated emissions of criteria air pollutants were modeled using the California Emissions Estimator Model (CalEEMod), Version 2020.4.0, as recommended by SCAQMD. Modeling was based on Project-specific data, as available. Where Project-specific information was not available, assumptions based on other similar projects and default CalEEMod model settings were used to conservatively estimate the Project's criteria air pollutant emissions. In conducting the localized air quality analysis, the CalEEMod run generated for the Project's worst-case construction scenario only focused on construction emissions generated on-site by the Project's off-road heavy-duty construction equipment (e.g., backhoes, compactors, cranes, excavators, loaders, etc.) and vehicles (e.g., haul trucks). Off-site mobile source emissions are not considered in the LSTs in accordance with the SCAQMD's *Final Localized Significance Threshold Methodology*. However, for the purposes of this analysis, emissions from incidental truck idling while on the Project for loading and unloading activities are included and modeled using idling emission factors for diesel heavy-duty trucks from the California Air Resources Board (CARB) on-road vehicle emissions factors (EMFAC2021) model. Overall, the estimated maximum daily emissions from the Project were compared to SCAQMD's LSTs.

## Thresholds of Significance

The SCAQMD has developed LSTs that represent the maximum emissions from a project that are not expected to cause or contribute to an exceedance of the most stringent applicable federal or state ambient air quality standards, and thus would not cause or contribute to localized air quality impacts. LSTs are developed based on the ambient concentrations of that pollutant for each of the 38 source receptor areas (SRAs) in the South Coast Air Basin (Air Basin), which is a 6,600-square-mile coastal plain bounded by the Pacific Ocean to the southwest and the San Gabriel, San Bernardino, and San Jacinto Mountains to the north and east. The Air Basin includes the non-desert portions of Los Angeles, Riverside, and San Bernardino counties, and all of Orange County. The localized thresholds, which are found in the mass rate look-up tables in the "Final Localized Significance Threshold Methodology" document prepared by SCAQMD, were developed for five project site sizes: one-acre, two-acre, three-acre, four-acre, and five-acres. The LSTs established for each of the aforementioned site acreages

represent the amount of pollutant emissions that would not exceed the most stringent applicable federal or State ambient air quality standards. LSTs are also based on the distance a sensitive receptor is located from the project site. The LSTs generally increase with increasing distance between the sensitive receptor and the project based on increasing atmospheric dispersion. For the purposes of this analysis, the LSTs applicable to the smallest one-acre site area with sensitive receptors located within 82 feet (25 meters) or less are used. According to the SCAQMD guidance, under conditions where it is determined that the Project's peak daily construction emissions at the Project site would not exceed the applicable LSTs, then it can be concluded that the Project's construction emissions would not result in any adverse localized air quality impacts on the surrounding off-site sensitive receptors and no further investigation (e.g., a refined dispersion modeling analysis) would be required.

The LSTs for the Project are shown in **Table 1**. For the purposes of this analysis, the LSTs specifically for sensitive receptors located within 82 feet (25 meters) or less are used for the Project.<sup>1</sup>

**TABLE 1**  
**SCAQMD CONSTRUCTION LOCALIZED SIGNIFICANCE THRESHOLDS**

Pollutant	Allowable emissions (pounds/day) as a function of receptor distance (feet) from site boundary (SRA 1 – Central Los Angeles)				
	82 (ft) or less	164 (ft)	328 (ft)	656 (ft)	1,640 (ft)
<b>Construction Thresholds</b>					
Nitrogen Oxides (NO <sub>x</sub> ) <sup>a</sup>	74	74	82	106	168
Carbon Monoxide (CO)	680	882	1,259	2,406	7,911
Respirable Particulate Matter (PM <sub>10</sub> )	5	15	33	70	179
Fine Particulate Matter (PM <sub>2.5</sub> )	3	5	10	24	102

<sup>a</sup> The localized thresholds listed for NO<sub>x</sub> in this table take into consideration the gradual conversion of nitric oxide (NO) to nitrogen dioxide (NO<sub>2</sub>). The analysis of localized air quality impacts associated with NO<sub>x</sub> emissions focuses on NO<sub>2</sub> levels as they are associated with adverse health effects.

SOURCE: SCAQMD, 2006 (Revised 2009).

## Project Localized Construction Emissions

For the purposes of this analysis, construction of the Project is assumed to begin in 2022 and be completed in 2024, with a construction duration of approximately 25 months. If construction were to commence at a later date, or occur over a longer duration, construction emissions would be lower than those presented below due to the use of a more energy-efficient and cleaner burning construction vehicle fleet mix, pursuant to State regulations that require vehicle fleet operators to phase-in less polluting heavy-duty equipment. The construction phases and the associated off-road heavy-duty construction equipment used in the CalEEMod run for the Project are shown in **Table 2**. Construction activity would occur in accordance with Los Angeles Municipal Code (LAMC) requirements, which prohibit construction from 9:00 PM to 7:00 AM on weekdays, 6:00 PM to 8:00 AM on Saturday, and any time on Sunday.

<sup>1</sup> The SCAQMD's LST methodology states that projects with boundaries located closer than 82 feet to the nearest receptor should use the LSTs for receptors located at 82 feet.

**TABLE 2**  
**PROJECT OFF-ROAD HEAVY-DUTY CONSTRUCTION EQUIPMENT**

Phase	Off-Road Heavy-Duty Construction Equipment
Demolition	1 Concrete/Industrial Saw 1 Backhoe (Tractor/Loader/Backhoe) 1 Loader (Tractor/Loader/Backhoe) 1 Generator Set
Grading	1 Generator Set 1 Bore/Drill Rig 1 Excavator 1 Grader 1 Rubber Tired Loader 1 Crane
Foundation	1 Generator Set 1 Crane 1 Pump 1 Other Construction Equipment <sup>a</sup> 1 Forklift
Building Construction	1 Crane 2 Forklifts 1 Tractor/Loader/Backhoe 2 Air Compressors 2 Aerial Lifts 1 Pump 1 Plate Compactor 3 Welders
Paving/Landscape	1 Cement and Mortar Mixer 1 Paving Equipment 1 Skid Steer Loader
<sup>a</sup> Other Construction Equipment was used as a surrogate to estimate emissions from on-site concrete trucks.	

The Project would include minimal demolition activities for removal of the surface parking lot hardscape. This would include a limited number of truck trips, estimated at approximately 9 haul trucks per day over an assumed 5-day period, or 18 haul truck trips per day (10 cubic yard capacity). An estimated 26,000 cubic yards of soil would be excavated from the site. This equates to 74 haul trucks per day over a 25-day export period, or 148 haul truck trips per day (14 cubic yard capacity). As discussed previously, off-site mobile source emissions are not considered in the LSTs in accordance with the SCAQMD's *Final Localized Significance Threshold Methodology*. However, for the purposes of this analysis, emissions from incidental truck idling while on the Project for loading and unloading activities are included. Construction contractors for the Project would be required to comply with State regulations, which limit heavy-duty diesel motor vehicle idling to five minutes at a location (California Code of Regulations, Title 13, Section 2485).

Off-road heavy-duty equipment such as generators, backhoes, cranes, excavators, loaders, and haul trucks would be used throughout the construction period. It is anticipated that the demolition, shoring and site preparation, and grading phases would be sequential and each phase would be completed before the next would begin.

The maximum daily on-site construction emissions for the Project were estimated using CalEEMod, which is designed to model construction emissions for land use development projects based on building size, land use and type, and disturbed acreage, and allows for input of project-specific information. Project-generated emissions of criteria air pollutants (i.e., CO, NO<sub>x</sub>, PM<sub>10</sub>, and PM<sub>2.5</sub>) were modeled based on Project-specific information as

well as model defaults. As discussed previously, the daily on-site construction emissions generated by the Project were evaluated against the applicable SCAQMD LSTs (see Table 1) to determine whether the emissions would cause or contribute to adverse localized air quality impacts. **Table 3** identifies the daily maximum unmitigated localized on-site emissions from Project construction.

As described in the Project’s proposed California Environmental Quality Act (CEQA) Sustainable Communities Project Exemption (SCPE), the Project will comply with a variety of SCAQMD and CARB regulatory requirements pertaining to air quality. Specifically, construction projects in the Air Basin are required to comply with SCAQMD Rule 403 (Fugitive Dust) for controlling fugitive dust emissions. Incorporating mandatory Rule 403 compliance into the proposed Project would reduce localized PM10 and PM2.5 emissions from construction activities. Specific Rule 403 control requirements incorporated into CalEEMod include the application of water three times daily in sufficient quantities and having a maximum vehicle speed limit of 15 mph on unpaved roads to prevent the generation of visible dust plumes. Rule 403 also includes other fugitive dust control requirements that were not quantified within CalEEMod, but as described in the SCPE, would be implemented by the Project. Further, while the Project would comply with State regulations that limits heavy-duty diesel motor vehicle idling to five minutes at a location, the calculations for this analysis utilized a 15-minute idling assumption per truck trip to provide a conservative assessment. Therefore, PM10 and PM2.5 emissions may be lower than shown in Table 3.

**TABLE 3**  
**PROPOSED PROJECT UNMITIGATED LOCALIZED DAILY CONSTRUCTION EMISSIONS**

Construction Phase	Estimated Maximum Daily On-Site Emissions (lbs/day)			
	NO <sub>x</sub>	CO	PM10 <sup>a</sup>	PM2.5 <sup>a</sup>
3.2 Demolition - 2022	8.2	10.7	0.4	0.4
3.3 Grading - 2022	14.3	13.2	2.7	1.8
3.4 Foundation - 2022	9.6	13.2	0.6	0.6
3.5 Building Construction - 2022	13.9	19.8	0.8	0.8
3.5 Building Construction - 2023	13.1	19.6	0.7	0.7
3.5 Building Construction - 2024	12.4	19.6	0.6	0.6
3.6 Paving/Landscape - 2024	2.6	4.2	0.1	0.1
Idling Heavy-Heavy-Duty Trucks (HHDT) Vehicles – Demolition	1.6	1.7	<0.1	<0.1
Idling HHDT Vehicles – Grading	13.0	14.1	<0.1	<0.1
Demolition - 2022 and Idling HHDT Vehicles	9.8	12.4	<0.1	<0.1
Grading - 2022 and Idling HHDT Vehicles	27.3	27.3	2.7	1.8
<b>Maximum Daily Localized Construction Emissions</b>	<b>27.3</b>	<b>27.3</b>	<b>2.7</b>	<b>1.8</b>
<i>Localized Significance Threshold</i>	<i>74</i>	<i>680</i>	<i>5</i>	<i>3</i>
Significant Impact?	No	No	No	No

<sup>a</sup> Emissions account for implementation of dust control measures as required by SCAQMD Rule 403—Fugitive Dust.

As shown in Table 3, the daily maximum unmitigated localized emissions generated during Project construction would not exceed the applicable SCAQMD LSTs. As emissions of all applicable pollutants would be below SCAQMD’s thresholds, the Project’s localized construction air quality impacts would be less than significant and mitigation measures would not be required.

## Summary

The localized construction emissions associated with the Project were estimated using the CalEEMod and EMFAC2021 models and evaluated against the applicable SCAQMD LSTs to determine whether localized air quality impacts would occur. The LSTs developed by SCAQMD are based on the pounds of emissions per day that can be generated by a project without causing or contributing to adverse localized air quality impacts, and applies to the following criteria pollutants: CO, NO<sub>x</sub>, PM<sub>10</sub>, and PM<sub>2.5</sub>. As shown in Table 3, the Project's daily maximum unmitigated localized construction emissions would not exceed the applicable SCAQMD LSTs. As such, Project construction would result in less-than-significant localized air quality impacts and mitigation measures would not be required.

## Noise

The commenter raises concern that noise created during construction activities has the potential to impact the nearby Hollywood High School and that CEQA requires that such impacts be quantified and eliminated or reduced to a level of insignificance. In response to this comment, Acoustical Engineering Services prepared a Construction Noise Impact Analysis Memorandum, contained as Exhibit B of this memorandum. As described in more detail therein and as discussed in the SCPE, the Project would implement relevant noise control measures from SCAG's 2020-2045 RTP/SCS and associated Program EIR. These noise control measures include compliance with applicable noise regulations, equipping construction equipment with exhaust mufflers or other suitable noise reduction devices, and the installation of temporary noise barriers between the noise sources and noise-sensitive uses during construction. Project construction activities would generate noise levels that would exceed LAUSD noise limits by up to 13.9 dBA at the athletic field. However, consistent with SCAG's identified noise control measures, the Project would implement temporary noise barriers, as described in more detail in Exhibit B. With implementation of these measures, construction noise levels at the athletic field would be reduced to a maximum of 66 dBA, which is below the LAUSD exterior noise limit.

## Traffic/Transportation

An evaluation of project construction and operation related to transportation facilities is provided in Attachment I, Transportation Assessment, of the SCPE. It was prepared by a registered traffic engineer and complies with all requirements set forth by the Los Angeles Department of Transportation (LADOT), as documented in the Transportation Assessment Guidelines (LADOT, July 2020).<sup>2</sup>

The commenter raises concerns about potential impacts to transportation adjacent to Hollywood High School during Project operation. Chapter 4 of the Transportation Assessment, beginning on page 60, documents the analysis of potential impacts to transportation facilities located near the Project site. The Transportation Assessment concludes that the addition of these new vehicle trips to the roadway network would not result in a substantial change to existing conditions in relation to traffic operating conditions, or pedestrian, bicycle, and transit access and safety. The commenter incorrectly states that the Project would generate more than 1,000 daily vehicle trips. As stated in Table 4 on page 52 of the Transportation Assessment, the Project is estimated to generate up 556 daily vehicle trips once the Project has been constructed and is fully occupied. Table 6 on page 68 provides additional trip generation information, which indicates that approximately 55 vehicle trips would be

<sup>2</sup> [https://ladot.lacity.org/sites/default/files/documents/2020-transportation-assessment-guidelines\\_final\\_2020.07.27.pdf](https://ladot.lacity.org/sites/default/files/documents/2020-transportation-assessment-guidelines_final_2020.07.27.pdf)

generated during the Morning Peak Hour and 52 vehicle trips would be generated during the Afternoon Peak Hour.

The commenter's specific concerns about potential impacts to school operations during Project construction activities are discussed below. A construction impact analysis was conducted for the Project, the results of which can be found in Section 4E of the Transportation Assessment, beginning on page 81. As detailed beginning on page 86, a Construction Management Plan would be prepared by the Project contractor and submitted to the City for review and approval prior to commencing construction.

- *School buses must have unrestricted access to schools.*

As stated on page 86, the Construction Management Plan would prohibit construction worker or equipment parking on adjacent streets and would contain construction activities within the Project site boundaries. Project construction activities would not impede access to any driveways of adjacent or nearby properties, and temporary traffic control during all construction activities adjacent to public rights-of-way (i.e., Hawthorn Avenue) would maintain through traffic for all roadway users, including school buses.

- *During the construction phase, truck traffic and construction vehicles may not cause traffic delays for our transported students.*

As stated on page 86, the Construction Management Plan would require temporary traffic control during all construction activities adjacent to public rights-of-way (i.e., Hawthorn Avenue), which would maintain traffic flow for all roadway users, including school buses or private vehicles used to transport students to/from school. Furthermore, the Construction Management Plan would require the contractor(s) to schedule construction-related deliveries, haul trips, etc., to occur outside the commuter peak hours, so as to not impede school drop-off and pick-up activities.

- *Construction trucks and other vehicles are required to stop when encountering school buses using red-flashing-lights must-stop-indicators per the California Vehicle Code.*

This legal requirement for all vehicle operators is noted and does not need to be specifically identified in the Construction Management Plan.

- *Contractors must install and maintain appropriate traffic controls (signs and signals) to ensure vehicular safety.*

As stated on page 86, the Construction Management Plan would require temporary pedestrian, bicycle, and vehicular traffic controls during all construction activities adjacent to Hawthorn Avenue, to ensure traffic safety on public rights-of-way.

- *Contractors must maintain ongoing communication with LAUSD school administrators providing sufficient notice to forewarn children and parents when existing vehicle routes to school may be impacted.*

Although not listed in the list of required elements, at the request of LAUSD the City shall require the contractor(s) to conduct outreach directly with LAUSD with respect to planned construction schedule and activities.

- *Parents dropping off their children must have access to the passenger loading areas.*

As stated on page 86, the Construction Management Plan would prohibit construction worker or equipment parking on adjacent streets and would contain construction activities within the Project site boundaries. Project construction activities would not impede access to any driveways of adjacent or

nearby properties. Furthermore, the Construction Management Plan would require the contractor(s) to schedule construction-related deliveries, haul trips, etc., to occur outside the commuter peak hours, so as to not impede school drop-off and pick-up activities.

### ***Pedestrian Safety***

The commenter's specific concerns about potential impacts to pedestrian safety during project construction activities are discussed below.

- *Contractors must maintain ongoing communication with LAUSD school administrators, providing sufficient notice to forewarn children and parents when existing pedestrian routes to school may be impacted.*

Although not listed in the list of required elements, at the request of LAUSD the City shall require the contractor(s) to conduct outreach directly with LAUSD with respect to planned construction schedule and activities.

- *Contractors must maintain safe and convenient pedestrian routes to all nearby schools. The District will provide School Pedestrian Route maps upon your request.*

As stated on page 86, the Construction Management Plan would require the contractor(s) to implement safety precautions for pedestrians and bicyclists through such measures as alternative routing and protection barriers along all LAUSD-identified pedestrian routes to nearby schools. Furthermore, the Construction Management Plan would require the contractor(s) to schedule construction-related deliveries, haul trips, etc., to occur outside the commuter peak hours, which would limit the amount of heavy vehicle traffic generated by the project during times when students are walking to/from school.

- *Contractors must install and maintain appropriate traffic controls (signs and signals) to ensure pedestrian and vehicular safety.*

As stated on page 86, the Construction Management Plan would require temporary pedestrian, bicycle, and vehicular traffic controls during all construction activities adjacent to Hawthorn Avenue, to ensure safety for all roadway users, including pedestrians, on public rights-of-way. Furthermore, the Construction Management Plan would require the contractor(s) to implement safety precautions for pedestrians and bicyclists through such measures as alternative routing and protection barriers along all LAUSD-identified pedestrian routes to nearby schools.

- *Haul routes are not to pass by any school, except when school is not in session.*

As stated on page 82, haul trucks would mainly be used during the excavation and grading phase of project construction, and would travel on approved truck routes designated within the City to the Sunshine Canyon Landfill. Given the Project site's proximity to U.S. 101, haul truck traffic would take the most direct route to the appropriate freeway ramps.

As stated on page 86, the Construction Management Plan would require the contractor(s) to describe proposed haul routes, and would prohibit the staging of haul trucks on any streets adjacent to the Project site, unless specifically approved as a condition of an approved haul route. With implementation of the Construction Management Plan, it is anticipated that almost all haul truck activity to and from the Project site would occur outside of the morning and afternoon peak hours, which generally corresponds with times when school pick-up and drop-off activities occur.

- *No staging or parking of construction-related vehicles, including worker-transport vehicles, will occur on or adjacent to a school property.*



As stated on page 82, the Construction Management Plan would prohibit construction worker or equipment parking on adjacent streets. Furthermore, the Construction Management Plan would prohibit the staging of haul trucks on any streets adjacent to the Project site, unless specifically approved as a condition of an approved haul route.

- *Funding for crossing guards at the contractor's expense is required when safety of children may be compromised by construction-related activities at impacted school crossings.*

There are school crossings adjacent to or near the Project site. As a part of the Project's Construction Management Plan, pedestrian safety measures would be implemented during Project construction. Furthermore, the Construction Management Plan requires both advance notification of Project construction activities to adjacent property owners (including LAUSD) as well as implementation of specific pedestrian safety precautions along all pedestrian routes to and from LAUSD facilities. These measures are anticipated to include the provision for crossing guards when it is anticipated that construction-related activities could impact school crossings.

- *Barriers and/or fencing must be installed to secure construction equipment and to minimize trespassing, vandalism, short-cut attractions, and attractive nuisances.*

While not included in the Construction Management Plan, barriers and/or fencing is typically installed to secure construction equipment and to minimize trespassing, vandalism, short-cuts, and nuisances from construction sites in the City of Los Angeles as required by the California Building Code (CBC) Chapter 33 and Los Angeles Municipal Code (LAMC) Section 98.0701 *et seq.* The Project Applicant would be responsible for implementing such security measures as a part of compliance with these regulations and they would be in place for the duration of construction.

- *Contractors are required to provide security patrols (at their expense) to minimize trespassing, vandalism, and short-cut attractions.*

As noted above, the Project site would be secured during Project construction to minimize trespassing, vandalism, and short-cuts as required by CBC Chapter 33 and LAMC Section 98.0701 *et seq.* In addition to this, security lighting, cameras, and security patrols are typical security measures implemented during construction of project in urban areas and would be included as a part of the Project.

# Exhibit A

## **Localized Emissions Calculations**



**#-1 Sub-Action/Appendix  
Title  
(delete if unnecessary)**

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Air Quality Construction Analysis

Localized Emissions	Onsite Emissions			Total PM2.5
	NOX	CO	Total PM10	
Source	lb/day			
3.2 Demolition - 2022	8.24	10.70	0.43	0.42
3.3 Grading - 2022	14.32	13.18	2.73	1.75
3.4 Foundation - 2022	9.63	13.24	0.64	0.61
3.5 Building Construction - 2022	13.93	19.76	0.82	0.80
3.5 Building Construction - 2023	13.07	19.64	0.71	0.69
3.5 Building Construction - 2024	12.41	19.56	0.63	0.61
3.6 Paving/Landscape - 2024	2.60	4.19	0.11	0.10
Idling HHDT Vehicles - Demolition	1.6	1.7	0.00	0.00
Idling HHDT Vehicles - Grading	13.02	14.10	0.01	0.01
Localized Emissions	NOX	CO	Total PM10	Total PM2.5
3.2 Demolition - 2022	8.2	10.7	0.4	0.4
3.3 Grading - 2022	14.3	13.2	2.7	1.8
3.4 Foundation - 2022	9.6	13.2	0.6	0.6
3.5 Building Construction - 2022	13.9	19.8	0.8	0.8
3.5 Building Construction - 2023	13.1	19.6	0.7	0.7
3.5 Building Construction - 2024	12.4	19.6	0.6	0.6
3.6 Paving/Landscape - 2024	2.6	4.2	0.1	0.1
Idling HHDT Vehicles - Demolition	1.6	1.7	0.0	0.0
Idling HHDT Vehicles - Grading	13.0	14.1	0.0	0.0
Overlapping Phases				
	NOX	CO	Total PM10	Total PM2.5
Demolition - 2022 and Idling HHDT Vehicles	9.8	12.4	0.4	0.4
Grading - 2022 and Idling HHDT Vehicles	27.3	27.3	2.7	1.8
Project Daily Maximum Emissions	27.3	27.3	2.7	1.8
SCAQMD Localized Significance Threshold	74.0	680.0	5.0	3.0
Exceeds Threshold?	No	No	No	No

Source:6831 Hawthorn Avenue Project\_6.2.2021

137 Unit  
24798 sqft  
0.57 Acre  
8 Story

Mixed Use

Name	Land Use	Land Use Subtype	Unit Amou	Size Metrii	Lot Acrage	Square feet	
Ground-floor Café	Recreational	High Turnover (Sit Down Restaurant)	1.207	1000sqft	0.05	1207	
Residential	Residential	Apartment Mid Rise	137	DU	0.4	85237.13	
Leasing Office	Commercial	General Office Building	0.868	1000sqft	0.03	868	
Parking	Parking		150	Space	0.05	39771.75	60000
Amenities	Recreational	Health Club	7.655	1000sqft	0.03	7655	
							Change Lighting to
							0.2 (See Appendix (4750sqft Private
Balconies	Recreational	City Park	0.109045	Acre	0.01	4750 C)	Balconies)
Total					0.57	139488.9	
Total					0.57	99717	
				Floor Area		24798	

FAR	4.5
Parcel Size	24798
Gross Floor Area/floor	111591
Parking Groundfloor	11874
1st floor area	2074.875
2-8th floor area	13948.88
Total Floor Area	99717

405000

2718 Hyperion  
Idling Emissions

	Idling Emissions Factor (grams/minute)						Idling Emissions Factor (grams/minute)		
	ROG	NOX	CO	SO2	PM10	PM2.5	CO2	CH4	N2O
2022Hauling Hauling	0.19510308	2.660109266	2.87999039	0.00457577	0.00161914	0.00154659	516.72475	0.1045921	0.08296186
2023Hauling Hauling	0.21429767	2.440286846	3.11098212	0.00485604	0.00154368	0.0014769	512.813487	0.00995357	0.08079397
2024Hauling Hauling	0.21307675	2.410434998	3.10092736	0.00475115	0.00144703	0.00138444	501.737362	0.00989686	0.07904893
GWP	N/A	N/A	N/A	N/A	N/A	N/A	1	25	290

Construction Phase	Daily One-Way Trips	Haul Days per Phase  (days)	Work Hours per Day  (hours/day)	Idling minutes per Day (miles)	Regional Emissions (pounds/day)						Regional Emissions (MT/year)			
					ROG	NOX	CO	SO2	PM10	PM2.5	CO2	CH4	N2O	CO2e
Demolition	2022													
Total Haul Trips	96													
Hauling	18	7	8	15	0.12	1.58	1.71	0.00	0.00	0.00	0.74	0.00	0.03	0.78
Grading	2022													
Total Haul Trips	1857													
Hauling	148	25	8	15	0.95	13.02	14.10	0.02	0.01	0.01	14.39	0.07	0.67	15.14

6823 Hawthorn - Los Angeles-South Coast County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

6823 Hawthorn  
Los Angeles-South Coast County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	0.87	1000sqft	0.03	868.00	0
Enclosed Parking with Elevator	150.00	Space	0.05	39,772.00	0
City Park	0.11	Acre	0.01	4,750.00	0
Health Club	7.66	1000sqft	0.03	7,655.00	0
High Turnover (Sit Down Restaurant)	1.21	1000sqft	0.05	1,207.00	0
Apartments Mid Rise	137.00	Dwelling Unit	0.40	85,237.00	392

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	33
Climate Zone	11			Operational Year	2023
Utility Company	Los Angeles Department of Water & Power				
CO2 Intensity (lb/MWahr)	691.98	CH4 Intensity (lb/MWahr)	0.033	N2O Intensity (lb/MWahr)	0.004

1.3 User Entered Comments & Non-Default Data

- Project Characteristics -
- Land Use - Acreage
- Construction Phase - See Asumptions Spreadsheet
- Off-road Equipment - See Construction Assumptions
- Off-road Equipment - See Construction Assumptions
- Off-road Equipment - See Construction Assumptions
- Off-road Equipment - See Construction Assumptions
- Off-road Equipment - See Construction Assumptions
- Trips and VMT -
- Grading - Match the Total Acres of site
- Energy Use -
- Construction Off-road Equipment Mitigation -

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	100.00	639.00
tblConstructionPhase	NumDays	10.00	64.00
tblConstructionPhase	NumDays	2.00	13.00
tblConstructionPhase	NumDays	5.00	32.00
tblGrading	AcresOfGrading	12.19	0.57
tblLandUse	LandUseSquareFeet	870.00	968.00
tblLandUse	LandUseSquareFeet	60,000.00	39,772.00
tblLandUse	LandUseSquareFeet	4,791.60	4,750.00
tblLandUse	LandUseSquareFeet	7,660.00	7,655.00
tblLandUse	LandUseSquareFeet	1,210.00	1,207.00
tblLandUse	LandUseSquareFeet	137,000.00	85,237.00
tblLandUse	LotAcreage	0.02	0.03
tblLandUse	LotAcreage	1.35	0.05
tblLandUse	LotAcreage	0.11	0.01
tblLandUse	LotAcreage	0.18	0.03
tblLandUse	LotAcreage	0.03	0.05
tblLandUse	LotAcreage	3.61	0.40
tblOffRoadEquipment	OffRoadEquipmentType	Rubber Tired Dozers	Rubber Tired Loaders
tblOffRoadEquipment	OffRoadEquipmentType	Cement and Mortar Mixers	Pumps



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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

tb\OffRoadEquipment	OffRoadEquipmentType	Other Construction Equipment	Pumps
tb\OffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	1.00
tb\OffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tb\OffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tb\OffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tb\OffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	2.00
tb\OffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	2.00
tb\OffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tb\OffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tb\OffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tb\OffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tb\OffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tb\OffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tb\OffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tb\OffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tb\OffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	3.00
tb\OffRoadEquipment	PhaseName		Building Construction
tb\OffRoadEquipment	PhaseName		Building Construction
tb\OffRoadEquipment	PhaseName		Grading
tb\OffRoadEquipment	PhaseName		Foundation
tb\OffRoadEquipment	PhaseName		Grading
tb\OffRoadEquipment	PhaseName		Foundation
tb\OffRoadEquipment	PhaseName		Grading
tb\OffRoadEquipment	PhaseName		Foundation
tb\OffRoadEquipment	PhaseName		Grading
tb\OffRoadEquipment	PhaseName		Foundation
tb\OffRoadEquipment	PhaseName		Foundation
tb\OffRoadEquipment	PhaseName		Building Construction
tb\OffRoadEquipment	PhaseName		Building Construction
tb\OffRoadEquipment	PhaseName		Building Construction
tb\OffRoadEquipment	UsageHours	6.00	8.00

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	1/1/2022	3/31/2022	5	64	
2	Grading	Grading	3/31/2022	4/18/2022	5	13	
3	Foundation	Trenching	4/18/2022	5/4/2022	5	13	
4	Building Construction	Building Construction	5/4/2022	10/14/2024	5	639	
5	Paving/Landscape	Paving	10/14/2024	11/26/2024	5	32	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0.57

Acres of Paving: 0.05

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

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Generator Sets	1	8.00	84	0.74
Demolition	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Demolition	Tractors/Loaders/Backhoes	1	6.00	97	0.37

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## EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Grading	Bore/Drill Rigs	1	8.00	221	0.50
Grading	Cranes	1	4.00	231	0.29
Grading	Excavators	1	8.00	158	0.38
Grading	Generator Sets	1	8.00	84	0.74
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Loaders	1	8.00	203	0.36
Foundation	Pumps	1	8.00	84	0.74
Foundation	Cranes	1	4.00	231	0.29
Foundation	Forklifts	1	6.00	89	0.20
Foundation	Generator Sets	1	8.00	84	0.74
Foundation	Other Construction Equipment	1	8.00	172	0.42
Building Construction	Aerial Lifts	2	8.00	63	0.31
Building Construction	Air Compressors	2	6.00	78	0.48
Building Construction	Cranes	1	4.00	231	0.29
Building Construction	Forklifts	2	6.00	89	0.20
Building Construction	Pumps	1	8.00	84	0.74
Building Construction	Plate Compactors	1	8.00	8	0.43
Building Construction	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Building Construction	Welders	3	8.00	46	0.46
Paving/Landscape	Cement and Mortar Mixers	1	6.00	9	0.56
Paving/Landscape	Paving Equipment	1	8.00	132	0.36
Paving/Landscape	Skid Steer Loaders	1	8.00	65	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
Demolition	4	10.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	6	15.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Foundation	5	13.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	13	121.00	24.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving/Landscape	3	8.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

## 3.1 Mitigation Measures Construction

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

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**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied****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					
Off-Road	0.0299	0.2638	0.3423	5.6000e-004		0.0138	0.0138		0.0135	0.0135	0.0000	48.4091	48.4091	6.0400e-003	0.0000	48.5601
<b>Total</b>	<b>0.0299</b>	<b>0.2638</b>	<b>0.3423</b>	<b>5.6000e-004</b>		<b>0.0138</b>	<b>0.0138</b>		<b>0.0135</b>	<b>0.0135</b>	<b>0.0000</b>	<b>48.4091</b>	<b>48.4091</b>	<b>6.0400e-003</b>	<b>0.0000</b>	<b>48.5601</b>

**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	1.1000e-003	9.1000e-004	0.0119	3.0000e-005	3.5100e-003	2.0000e-005	3.5300e-003	9.3000e-004	2.0000e-005	9.5000e-004	0.0000	2.8840	2.8840	8.0000e-005	8.0000e-005	2.9095
<b>Total</b>	<b>1.1000e-003</b>	<b>9.1000e-004</b>	<b>0.0119</b>	<b>3.0000e-005</b>	<b>3.5100e-003</b>	<b>2.0000e-005</b>	<b>3.5300e-003</b>	<b>9.3000e-004</b>	<b>2.0000e-005</b>	<b>9.5000e-004</b>	<b>0.0000</b>	<b>2.8840</b>	<b>2.8840</b>	<b>8.0000e-005</b>	<b>8.0000e-005</b>	<b>2.9095</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	0.0299	0.2638	0.3423	5.6000e-004		0.0138	0.0138		0.0135	0.0135	0.0000	48.4090	48.4090	6.0400e-003	0.0000	48.5600
<b>Total</b>	<b>0.0299</b>	<b>0.2638</b>	<b>0.3423</b>	<b>5.6000e-004</b>		<b>0.0138</b>	<b>0.0138</b>		<b>0.0135</b>	<b>0.0135</b>	<b>0.0000</b>	<b>48.4090</b>	<b>48.4090</b>	<b>6.0400e-003</b>	<b>0.0000</b>	<b>48.5600</b>

**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	1.1000e-003	9.1000e-004	0.0119	3.0000e-005	3.5100e-003	2.0000e-005	3.5300e-003	9.3000e-004	2.0000e-005	9.5000e-004	0.0000	2.8840	2.8840	8.0000e-005	8.0000e-005	2.9095
<b>Total</b>	<b>1.1000e-003</b>	<b>9.1000e-004</b>	<b>0.0119</b>	<b>3.0000e-005</b>	<b>3.5100e-003</b>	<b>2.0000e-005</b>	<b>3.5300e-003</b>	<b>9.3000e-004</b>	<b>2.0000e-005</b>	<b>9.5000e-004</b>	<b>0.0000</b>	<b>2.8840</b>	<b>2.8840</b>	<b>8.0000e-005</b>	<b>8.0000e-005</b>	<b>2.9095</b>

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**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied****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					0.0348	0.0000	0.0348	0.0189	0.0000	0.0189	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0107	0.1129	0.0857	2.4000e-004		4.3000e-003	4.3000e-003	4.0300e-003	4.0300e-003	4.0300e-003	0.0000	21.0276	21.0276	5.7900e-003	0.0000	21.1723
<b>Total</b>	<b>0.0107</b>	<b>0.1129</b>	<b>0.0857</b>	<b>2.4000e-004</b>	<b>0.0348</b>	<b>4.3000e-003</b>	<b>0.0389</b>	<b>0.0189</b>	<b>4.0300e-003</b>	<b>0.0229</b>	<b>0.0000</b>	<b>21.0276</b>	<b>21.0276</b>	<b>5.7900e-003</b>	<b>0.0000</b>	<b>21.1723</b>

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.3000e-004	2.8000e-004	3.6100e-003	1.0000e-005	1.0700e-003	1.0000e-005	1.0800e-003	2.8000e-004	1.0000e-005	2.9000e-004	0.0000	0.8787	0.8787	3.0000e-005	2.0000e-005	0.8865
<b>Total</b>	<b>3.3000e-004</b>	<b>2.8000e-004</b>	<b>3.6100e-003</b>	<b>1.0000e-005</b>	<b>1.0700e-003</b>	<b>1.0000e-005</b>	<b>1.0800e-003</b>	<b>2.8000e-004</b>	<b>1.0000e-005</b>	<b>2.9000e-004</b>	<b>0.0000</b>	<b>0.8787</b>	<b>0.8787</b>	<b>3.0000e-005</b>	<b>2.0000e-005</b>	<b>0.8865</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0135	0.0000	0.0135	7.3600e-003	0.0000	7.3600e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0107	0.0931	0.0857	2.4000e-004		4.3000e-003	4.3000e-003	4.0300e-003	4.0300e-003	4.0300e-003	0.0000	21.0276	21.0276	5.7900e-003	0.0000	21.1723
<b>Total</b>	<b>0.0107</b>	<b>0.0931</b>	<b>0.0857</b>	<b>2.4000e-004</b>	<b>0.0135</b>	<b>4.3000e-003</b>	<b>0.0178</b>	<b>7.3600e-003</b>	<b>4.0300e-003</b>	<b>0.0114</b>	<b>0.0000</b>	<b>21.0276</b>	<b>21.0276</b>	<b>5.7900e-003</b>	<b>0.0000</b>	<b>21.1723</b>

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.3000e-004	2.8000e-004	3.6100e-003	1.0000e-005	1.0700e-003	1.0000e-005	1.0800e-003	2.8000e-004	1.0000e-005	2.9000e-004	0.0000	0.8787	0.8787	3.0000e-005	2.0000e-005	0.8865
<b>Total</b>	<b>3.3000e-004</b>	<b>2.8000e-004</b>	<b>3.6100e-003</b>	<b>1.0000e-005</b>	<b>1.0700e-003</b>	<b>1.0000e-005</b>	<b>1.0800e-003</b>	<b>2.8000e-004</b>	<b>1.0000e-005</b>	<b>2.9000e-004</b>	<b>0.0000</b>	<b>0.8787</b>	<b>0.8787</b>	<b>3.0000e-005</b>	<b>2.0000e-005</b>	<b>0.8865</b>

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**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied****3.4 Foundation - 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	8.6400e-003	0.0819	0.0861	1.5000e-004		4.1700e-003	4.1700e-003	3.9900e-003	3.9900e-003	0.0000	13.1782	13.1782	2.2500e-003	0.0000		13.2344
<b>Total</b>	<b>8.6400e-003</b>	<b>0.0819</b>	<b>0.0861</b>	<b>1.5000e-004</b>		<b>4.1700e-003</b>	<b>4.1700e-003</b>	<b>3.9900e-003</b>	<b>3.9900e-003</b>	<b>0.0000</b>	<b>13.1782</b>	<b>13.1782</b>	<b>2.2500e-003</b>	<b>0.0000</b>		<b>13.2344</b>

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.9000e-004	2.4000e-004	3.1300e-003	1.0000e-005	9.3000e-004	1.0000e-005	9.3000e-004	2.5000e-004	1.0000e-005	2.5000e-004	0.0000	0.7616	0.7616	2.0000e-005	2.0000e-005	0.7683
<b>Total</b>	<b>2.9000e-004</b>	<b>2.4000e-004</b>	<b>3.1300e-003</b>	<b>1.0000e-005</b>	<b>9.3000e-004</b>	<b>1.0000e-005</b>	<b>9.3000e-004</b>	<b>2.5000e-004</b>	<b>1.0000e-005</b>	<b>2.5000e-004</b>	<b>0.0000</b>	<b>0.7616</b>	<b>0.7616</b>	<b>2.0000e-005</b>	<b>2.0000e-005</b>	<b>0.7683</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	8.6400e-003	0.0626	0.0861	1.5000e-004		4.1700e-003	4.1700e-003	3.9900e-003	3.9900e-003	0.0000	13.1782	13.1782	2.2500e-003	0.0000		13.2344
<b>Total</b>	<b>8.6400e-003</b>	<b>0.0626</b>	<b>0.0861</b>	<b>1.5000e-004</b>		<b>4.1700e-003</b>	<b>4.1700e-003</b>	<b>3.9900e-003</b>	<b>3.9900e-003</b>	<b>0.0000</b>	<b>13.1782</b>	<b>13.1782</b>	<b>2.2500e-003</b>	<b>0.0000</b>		<b>13.2344</b>

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.9000e-004	2.4000e-004	3.1300e-003	1.0000e-005	9.3000e-004	1.0000e-005	9.3000e-004	2.5000e-004	1.0000e-005	2.5000e-004	0.0000	0.7616	0.7616	2.0000e-005	2.0000e-005	0.7683
<b>Total</b>	<b>2.9000e-004</b>	<b>2.4000e-004</b>	<b>3.1300e-003</b>	<b>1.0000e-005</b>	<b>9.3000e-004</b>	<b>1.0000e-005</b>	<b>9.3000e-004</b>	<b>2.5000e-004</b>	<b>1.0000e-005</b>	<b>2.5000e-004</b>	<b>0.0000</b>	<b>0.7616</b>	<b>0.7616</b>	<b>2.0000e-005</b>	<b>2.0000e-005</b>	<b>0.7683</b>

**3.5 Building Construction - 2022**

6823 Hawthorn - Los Angeles-South Coast County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied****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	0.1925	1.4615	1.7092	2.8000e-003		0.0712	0.0712		0.0691	0.0691	0.0000	233.1218	233.1218	0.0401	0.0000	234.1248
<b>Total</b>	<b>0.1925</b>	<b>1.4615</b>	<b>1.7092</b>	<b>2.8000e-003</b>		<b>0.0712</b>	<b>0.0712</b>		<b>0.0691</b>	<b>0.0691</b>	<b>0.0000</b>	<b>233.1218</b>	<b>233.1218</b>	<b>0.0401</b>	<b>0.0000</b>	<b>234.1248</b>

**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	4.0500e-003	0.1068	0.0354	4.1000e-004	0.0131	9.7000e-004	0.0141	3.7800e-003	9.3000e-004	4.7000e-003	0.0000	39.6429	39.6429	1.3200e-003	5.7200e-003	41.3800
Worker	0.0359	0.0299	0.3880	1.0300e-003	0.1147	7.5000e-004	0.1154	0.0305	6.9000e-004	0.0312	0.0000	94.3284	94.3284	2.7100e-003	2.5800e-003	95.1643
<b>Total</b>	<b>0.0399</b>	<b>0.1366</b>	<b>0.4234</b>	<b>1.4400e-003</b>	<b>0.1278</b>	<b>1.7200e-003</b>	<b>0.1295</b>	<b>0.0342</b>	<b>1.6200e-003</b>	<b>0.0359</b>	<b>0.0000</b>	<b>133.9713</b>	<b>133.9713</b>	<b>4.0300e-003</b>	<b>8.3000e-003</b>	<b>136.5444</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	0.1925	1.2047	1.7092	2.8000e-003		0.0712	0.0712		0.0691	0.0691	0.0000	233.1215	233.1215	0.0401	0.0000	234.1245
<b>Total</b>	<b>0.1925</b>	<b>1.2047</b>	<b>1.7092</b>	<b>2.8000e-003</b>		<b>0.0712</b>	<b>0.0712</b>		<b>0.0691</b>	<b>0.0691</b>	<b>0.0000</b>	<b>233.1215</b>	<b>233.1215</b>	<b>0.0401</b>	<b>0.0000</b>	<b>234.1245</b>

**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	4.0500e-003	0.1068	0.0354	4.1000e-004	0.0131	9.7000e-004	0.0141	3.7800e-003	9.3000e-004	4.7000e-003	0.0000	39.6429	39.6429	1.3200e-003	5.7200e-003	41.3800
Worker	0.0359	0.0299	0.3880	1.0300e-003	0.1147	7.5000e-004	0.1154	0.0305	6.9000e-004	0.0312	0.0000	94.3284	94.3284	2.7100e-003	2.5800e-003	95.1643
<b>Total</b>	<b>0.0399</b>	<b>0.1366</b>	<b>0.4234</b>	<b>1.4400e-003</b>	<b>0.1278</b>	<b>1.7200e-003</b>	<b>0.1295</b>	<b>0.0342</b>	<b>1.6200e-003</b>	<b>0.0359</b>	<b>0.0000</b>	<b>133.9713</b>	<b>133.9713</b>	<b>4.0300e-003</b>	<b>8.3000e-003</b>	<b>136.5444</b>

**3.5 Building Construction - 2023****Unmitigated Construction On-Site**

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**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

	ROG	NOx	CO	SO2	Fugitive 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	0.2684	2.0568	2.5534	4.2000e-003		0.0929	0.0929		0.0902	0.0902	0.0000	350.3956	350.3956	0.0588	0.0000	351.8655
<b>Total</b>	<b>0.2684</b>	<b>2.0568</b>	<b>2.5534</b>	<b>4.2000e-003</b>		<b>0.0929</b>	<b>0.0929</b>		<b>0.0902</b>	<b>0.0902</b>	<b>0.0000</b>	<b>350.3956</b>	<b>350.3956</b>	<b>0.0588</b>	<b>0.0000</b>	<b>351.8655</b>

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	3.5200e-003	0.1257	0.0471	5.8000e-004	0.0197	6.0000e-004	0.0203	5.6800e-003	5.8000e-004	6.2500e-003	0.0000	56.7285	56.7285	1.9000e-003	8.1600e-003	59.2088
Worker	0.0499	0.0396	0.5359	1.5000e-003	0.1724	1.0600e-003	0.1734	0.0458	9.7000e-004	0.0468	0.0000	137.2040	137.2040	3.6500e-003	3.5700e-003	138.3595
<b>Total</b>	<b>0.0534</b>	<b>0.1654</b>	<b>0.5830</b>	<b>2.0800e-003</b>	<b>0.1920</b>	<b>1.6600e-003</b>	<b>0.1937</b>	<b>0.0515</b>	<b>1.5500e-003</b>	<b>0.0530</b>	<b>0.0000</b>	<b>193.9325</b>	<b>193.9325</b>	<b>5.5500e-003</b>	<b>0.0117</b>	<b>197.5683</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	0.2684	1.6989	2.5534	4.2000e-003		0.0929	0.0929		0.0902	0.0902	0.0000	350.3951	350.3951	0.0588	0.0000	351.8651
<b>Total</b>	<b>0.2684</b>	<b>1.6989</b>	<b>2.5534</b>	<b>4.2000e-003</b>		<b>0.0929</b>	<b>0.0929</b>		<b>0.0902</b>	<b>0.0902</b>	<b>0.0000</b>	<b>350.3951</b>	<b>350.3951</b>	<b>0.0588</b>	<b>0.0000</b>	<b>351.8651</b>

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	3.5200e-003	0.1257	0.0471	5.8000e-004	0.0197	6.0000e-004	0.0203	5.6800e-003	5.8000e-004	6.2500e-003	0.0000	56.7285	56.7285	1.9000e-003	8.1600e-003	59.2088
Worker	0.0499	0.0396	0.5359	1.5000e-003	0.1724	1.0600e-003	0.1734	0.0458	9.7000e-004	0.0468	0.0000	137.2040	137.2040	3.6500e-003	3.5700e-003	138.3595
<b>Total</b>	<b>0.0534</b>	<b>0.1654</b>	<b>0.5830</b>	<b>2.0800e-003</b>	<b>0.1920</b>	<b>1.6600e-003</b>	<b>0.1937</b>	<b>0.0515</b>	<b>1.5500e-003</b>	<b>0.0530</b>	<b>0.0000</b>	<b>193.9325</b>	<b>193.9325</b>	<b>5.5500e-003</b>	<b>0.0117</b>	<b>197.5683</b>

**3.5 Building Construction - 2024****Unmitigated Construction On-Site**

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**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

	ROG	NOx	CO	SO2	Fugitive 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	0.1993	1.5438	2.0146	3.3300e-003		0.0644	0.0644		0.0625	0.0625	0.0000	277.6383	277.6383	0.0459	0.0000	278.7857
<b>Total</b>	<b>0.1993</b>	<b>1.5438</b>	<b>2.0146</b>	<b>3.3300e-003</b>		<b>0.0644</b>	<b>0.0644</b>		<b>0.0625</b>	<b>0.0625</b>	<b>0.0000</b>	<b>277.6383</b>	<b>277.6383</b>	<b>0.0459</b>	<b>0.0000</b>	<b>278.7857</b>

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	2.7000e-003	0.0998	0.0365	4.5000e-004	0.0156	4.8000e-004	0.0161	4.5000e-003	4.6000e-004	4.9600e-003	0.0000	44.2721	44.2721	1.5100e-003	6.3800e-003	46.2103
Worker	0.0369	0.0280	0.3949	1.1500e-003	0.1366	8.0000e-004	0.1374	0.0363	7.4000e-004	0.0370	0.0000	105.6341	105.6341	2.6200e-003	2.6300e-003	106.4833
<b>Total</b>	<b>0.0396</b>	<b>0.1278</b>	<b>0.4314</b>	<b>1.6000e-003</b>	<b>0.1522</b>	<b>1.2800e-003</b>	<b>0.1534</b>	<b>0.0408</b>	<b>1.2000e-003</b>	<b>0.0420</b>	<b>0.0000</b>	<b>149.9062</b>	<b>149.9062</b>	<b>4.1300e-003</b>	<b>9.0100e-003</b>	<b>152.6936</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	0.1993	1.2782	2.0146	3.3300e-003		0.0644	0.0644		0.0625	0.0625	0.0000	277.6380	277.6380	0.0459	0.0000	278.7854
<b>Total</b>	<b>0.1993</b>	<b>1.2782</b>	<b>2.0146</b>	<b>3.3300e-003</b>		<b>0.0644</b>	<b>0.0644</b>		<b>0.0625</b>	<b>0.0625</b>	<b>0.0000</b>	<b>277.6380</b>	<b>277.6380</b>	<b>0.0459</b>	<b>0.0000</b>	<b>278.7854</b>

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	2.7000e-003	0.0998	0.0365	4.5000e-004	0.0156	4.8000e-004	0.0161	4.5000e-003	4.6000e-004	4.9600e-003	0.0000	44.2721	44.2721	1.5100e-003	6.3800e-003	46.2103
Worker	0.0369	0.0280	0.3949	1.1500e-003	0.1366	8.0000e-004	0.1374	0.0363	7.4000e-004	0.0370	0.0000	105.6341	105.6341	2.6200e-003	2.6300e-003	106.4833
<b>Total</b>	<b>0.0396</b>	<b>0.1278</b>	<b>0.4314</b>	<b>1.6000e-003</b>	<b>0.1522</b>	<b>1.2800e-003</b>	<b>0.1534</b>	<b>0.0408</b>	<b>1.2000e-003</b>	<b>0.0420</b>	<b>0.0000</b>	<b>149.9062</b>	<b>149.9062</b>	<b>4.1300e-003</b>	<b>9.0100e-003</b>	<b>152.6936</b>



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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.6 Paving/Landscape - 2024

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	4.3400e-003	0.0416	0.0670	1.1000e-004		1.7500e-003	1.7500e-003		1.6300e-003	1.6300e-003	0.0000	9.1868	9.1868	2.8500e-003	0.0000	9.2581
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	4.3400e-003	0.0416	0.0670	1.1000e-004		1.7500e-003	1.7500e-003		1.6300e-003	1.6300e-003	0.0000	9.1868	9.1868	2.8500e-003	0.0000	9.2581

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.8000e-004	2.9000e-004	4.0600e-003	1.0000e-005	1.4000e-003	1.0000e-005	1.4100e-003	3.7000e-004	1.0000e-005	3.8000e-004	0.0000	1.0849	1.0849	3.0000e-005	3.0000e-005	1.0936
Total	3.8000e-004	2.9000e-004	4.0600e-003	1.0000e-005	1.4000e-003	1.0000e-005	1.4100e-003	3.7000e-004	1.0000e-005	3.8000e-004	0.0000	1.0849	1.0849	3.0000e-005	3.0000e-005	1.0936

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	4.3400e-003	0.0416	0.0670	1.1000e-004		1.7500e-003	1.7500e-003		1.6300e-003	1.6300e-003	0.0000	9.1868	9.1868	2.8500e-003	0.0000	9.2581
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	4.3400e-003	0.0416	0.0670	1.1000e-004		1.7500e-003	1.7500e-003		1.6300e-003	1.6300e-003	0.0000	9.1868	9.1868	2.8500e-003	0.0000	9.2581

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.8000e-004	2.9000e-004	4.0600e-003	1.0000e-005	1.4000e-003	1.0000e-005	1.4100e-003	3.7000e-004	1.0000e-005	3.8000e-004	0.0000	1.0849	1.0849	3.0000e-005	3.0000e-005	1.0936

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Total	3.8000e-004	2.9000e-004	4.0600e-003	1.0000e-005	1.4000e-003	1.0000e-005	1.4100e-003	3.7000e-004	1.0000e-005	3.8000e-004	0.0000	1.0849	1.0849	3.0000e-005	3.0000e-005	1.0936
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6823 Hawthorn - Los Angeles-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

6823 Hawthorn  
Los Angeles-South Coast County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	0.87	1000sqft	0.03	868.00	0
Enclosed Parking with Elevator	150.00	Space	0.05	39,772.00	0
City Park	0.11	Acre	0.01	4,750.00	0
Health Club	7.66	1000sqft	0.03	7,655.00	0
High Turnover (Sit Down Restaurant)	1.21	1000sqft	0.05	1,207.00	0
Apartments Mid Rise	137.00	Dwelling Unit	0.40	85,237.00	392

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	33
Climate Zone	11			Operational Year	2023
Utility Company	Los Angeles Department of Water & Power				
CO2 Intensity (lb/MW/hr)	691.98	CH4 Intensity (lb/MW/hr)	0.033	N2O Intensity (lb/MW/hr)	0.004

1.3 User Entered Comments & Non-Default Data

- Project Characteristics -
- Land Use - Acreage
- Construction Phase - See Asumptions Spreadsheet
- Off-road Equipment - See Construction Assumptions
- Off-road Equipment - See Construction Assumptions
- Off-road Equipment - See Construction Assumptions
- Off-road Equipment - See Construction Assumptions
- Off-road Equipment - See Construction Assumptions
- Trips and VMT -
- Grading - Match the Total Acres of site
- Energy Use -
- Construction Off-road Equipment Mitigation -

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	100.00	639.00
tblConstructionPhase	NumDays	10.00	64.00
tblConstructionPhase	NumDays	2.00	13.00
tblConstructionPhase	NumDays	5.00	32.00
tblGrading	AcresOfGrading	12.19	0.57
tblLandUse	LandUseSquareFeet	870.00	968.00
tblLandUse	LandUseSquareFeet	60,000.00	39,772.00
tblLandUse	LandUseSquareFeet	4,791.60	4,750.00
tblLandUse	LandUseSquareFeet	7,660.00	7,655.00
tblLandUse	LandUseSquareFeet	1,210.00	1,207.00
tblLandUse	LandUseSquareFeet	137,000.00	85,237.00
tblLandUse	LotAcreage	0.02	0.03
tblLandUse	LotAcreage	1.35	0.05
tblLandUse	LotAcreage	0.11	0.01
tblLandUse	LotAcreage	0.18	0.03
tblLandUse	LotAcreage	0.03	0.05
tblLandUse	LotAcreage	3.61	0.40
tblOffRoadEquipment	OffRoadEquipmentType	Rubber Tired Dozers	Rubber Tired Loaders
tblOffRoadEquipment	OffRoadEquipmentType	Cement and Mortar Mixers	Pumps

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

tbOffRoadEquipment	OffRoadEquipmentType	Other Construction Equipment	Pumps
tbOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	1.00
tbOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tbOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tbOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tbOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	2.00
tbOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	2.00
tbOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tbOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tbOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tbOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tbOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tbOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tbOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tbOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tbOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	3.00
tbOffRoadEquipment	PhaseName		Building Construction
tbOffRoadEquipment	PhaseName		Building Construction
tbOffRoadEquipment	PhaseName		Grading
tbOffRoadEquipment	PhaseName		Foundation
tbOffRoadEquipment	PhaseName		Grading
tbOffRoadEquipment	PhaseName		Foundation
tbOffRoadEquipment	PhaseName		Grading
tbOffRoadEquipment	PhaseName		Foundation
tbOffRoadEquipment	PhaseName		Grading
tbOffRoadEquipment	PhaseName		Foundation
tbOffRoadEquipment	PhaseName		Foundation
tbOffRoadEquipment	PhaseName		Building Construction
tbOffRoadEquipment	PhaseName		Building Construction
tbOffRoadEquipment	PhaseName		Building Construction
tbOffRoadEquipment	UsageHours	6.00	8.00

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	1/1/2022	3/31/2022	5	64	
2	Grading	Grading	3/31/2022	4/18/2022	5	13	
3	Foundation	Trenching	4/18/2022	5/4/2022	5	13	
4	Building Construction	Building Construction	5/4/2022	10/14/2024	5	639	
5	Paving/Landscape	Paving	10/14/2024	11/26/2024	5	32	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0.57

Acres of Paving: 0.05

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

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Generator Sets	1	8.00	84	0.74
Demolition	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Demolition	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Grading	Bore/Drill Rigs	1	8.00	221	0.50

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**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

Grading	Cranes	1	4.00	231	0.28
Grading	Excavators	1	8.00	158	0.38
Grading	Generator Sets	1	8.00	84	0.74
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Loaders	1	8.00	203	0.38
Foundation	Pumps	1	8.00	84	0.74
Foundation	Cranes	1	4.00	231	0.28
Foundation	Forklifts	1	6.00	89	0.20
Foundation	Generator Sets	1	8.00	84	0.74
Foundation	Other Construction Equipment	1	8.00	172	0.42
Building Construction	Aerial Lifts	2	8.00	63	0.31
Building Construction	Air Compressors	2	6.00	78	0.48
Building Construction	Cranes	1	4.00	231	0.28
Building Construction	Forklifts	2	6.00	89	0.20
Building Construction	Pumps	1	8.00	84	0.74
Building Construction	Plate Compactors	1	8.00	8	0.43
Building Construction	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Building Construction	Welders	3	8.00	46	0.48
Paving/Landscape	Cement and Mortar Mixers	1	6.00	9	0.56
Paving/Landscape	Paving Equipment	1	8.00	132	0.36
Paving/Landscape	Skid Steer Loaders	1	8.00	65	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
Demolition	4	10.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	6	15.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Foundation	5	13.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	13	121.00	24.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving/Landscape	3	8.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

6823 Hawthorn - Los Angeles-South Coast County, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied****3.1 Mitigation Measures Construction**

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

**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					
Off-Road	0.9348	8.2429	10.6975	0.0175		0.4323	0.4323		0.4214	0.4214		1,667.5576	1,667.5576	0.2081		1,672.7594
Total	0.9348	8.2429	10.6975	0.0175		0.4323	0.4323		0.4214	0.4214		1,667.5576	1,667.5576	0.2081		1,672.7594

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	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	0.0346	0.0253	0.3936	1.0200e-003	0.1118	7.2000e-004	0.1125	0.0296	6.6000e-004	0.0303		103.3442	103.3442	2.8200e-003	2.5000e-003	104.1603
Total	0.0346	0.0253	0.3936	1.0200e-003	0.1118	7.2000e-004	0.1125	0.0296	6.6000e-004	0.0303		103.3442	103.3442	2.8200e-003	2.5000e-003	104.1603

**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	0.9348	8.2429	10.6975	0.0175		0.4323	0.4323		0.4214	0.4214	0.0000	1,667.5576	1,667.5576	0.2081		1,672.7594
Total	0.9348	8.2429	10.6975	0.0175		0.4323	0.4323		0.4214	0.4214	0.0000	1,667.5576	1,667.5576	0.2081		1,672.7594

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	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	0.0346	0.0253	0.3936	1.0200e-003	0.1118	7.2000e-004	0.1125	0.0296	6.6000e-004	0.0303		103.3442	103.3442	2.8200e-003	2.5000e-003	104.1603

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Total	0.0346	0.0253	0.3936	1.0200e-003	0.1118	7.2000e-004	0.1125	0.0296	6.6000e-004	0.0303		103.3442	103.3442	2.8200e-003	2.5000e-003	104.1603
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6823 Hawthorn - Los Angeles-South Coast County, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied****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					5.3158	0.0000	5.3158	2.9015	0.0000	2.9015			0.0000			0.0000
Off-Road	1.6508	17.3615	13.1790	0.0370		0.6616	0.6616		0.6204	0.6204		3,565.9974	3,565.9974	0.9814		3,590.5328
<b>Total</b>	<b>1.6508</b>	<b>17.3615</b>	<b>13.1790</b>	<b>0.0370</b>	<b>5.3158</b>	<b>0.6616</b>	<b>5.9774</b>	<b>2.9015</b>	<b>0.6204</b>	<b>3.5219</b>		<b>3,565.9974</b>	<b>3,565.9974</b>	<b>0.9814</b>		<b>3,590.5328</b>

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	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	0.0519	0.0379	0.5904	1.5300e-003	0.1677	1.0700e-003	0.1687	0.0445	9.9000e-004	0.0455		155.0163	155.0163	4.2200e-003	3.7500e-003	156.2404
<b>Total</b>	<b>0.0519</b>	<b>0.0379</b>	<b>0.5904</b>	<b>1.5300e-003</b>	<b>0.1677</b>	<b>1.0700e-003</b>	<b>0.1687</b>	<b>0.0445</b>	<b>9.9000e-004</b>	<b>0.0455</b>		<b>155.0163</b>	<b>155.0163</b>	<b>4.2200e-003</b>	<b>3.7500e-003</b>	<b>156.2404</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					2.0732	0.0000	2.0732	1.1316	0.0000	1.1316			0.0000			0.0000
Off-Road	1.6508	14.3214	13.1790	0.0370		0.6616	0.6616		0.6204	0.6204	0.0000	3,565.9974	3,565.9974	0.9814		3,590.5328
<b>Total</b>	<b>1.6508</b>	<b>14.3214</b>	<b>13.1790</b>	<b>0.0370</b>	<b>2.0732</b>	<b>0.6616</b>	<b>2.7348</b>	<b>1.1316</b>	<b>0.6204</b>	<b>1.7520</b>	<b>0.0000</b>	<b>3,565.9974</b>	<b>3,565.9974</b>	<b>0.9814</b>		<b>3,590.5328</b>

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	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	0.0519	0.0379	0.5904	1.5300e-003	0.1677	1.0700e-003	0.1687	0.0445	9.9000e-004	0.0455		155.0163	155.0163	4.2200e-003	3.7500e-003	156.2404
<b>Total</b>	<b>0.0519</b>	<b>0.0379</b>	<b>0.5904</b>	<b>1.5300e-003</b>	<b>0.1677</b>	<b>1.0700e-003</b>	<b>0.1687</b>	<b>0.0445</b>	<b>9.9000e-004</b>	<b>0.0455</b>		<b>155.0163</b>	<b>155.0163</b>	<b>4.2200e-003</b>	<b>3.7500e-003</b>	<b>156.2404</b>



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**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied****3.4 Foundation - 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	1.3296	12.5955	13.2396	0.0234		0.6409	0.6409		0.6139	0.6139		2,234.8387	2,234.8387	0.3812		2,244.3682
<b>Total</b>	<b>1.3296</b>	<b>12.5955</b>	<b>13.2396</b>	<b>0.0234</b>		<b>0.6409</b>	<b>0.6409</b>		<b>0.6139</b>	<b>0.6139</b>		<b>2,234.8387</b>	<b>2,234.8387</b>	<b>0.3812</b>		<b>2,244.3682</b>

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	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	0.0450	0.0328	0.5117	1.3300e-003	0.1453	9.3000e-004	0.1462	0.0385	8.6000e-004	0.0394		134.3475	134.3475	3.6600e-003	3.2500e-003	135.4083
<b>Total</b>	<b>0.0450</b>	<b>0.0328</b>	<b>0.5117</b>	<b>1.3300e-003</b>	<b>0.1453</b>	<b>9.3000e-004</b>	<b>0.1462</b>	<b>0.0385</b>	<b>8.6000e-004</b>	<b>0.0394</b>		<b>134.3475</b>	<b>134.3475</b>	<b>3.6600e-003</b>	<b>3.2500e-003</b>	<b>135.4083</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	1.3296	9.6267	13.2396	0.0234		0.6409	0.6409		0.6139	0.6139	0.0000	2,234.8387	2,234.8387	0.3812		2,244.3682
<b>Total</b>	<b>1.3296</b>	<b>9.6267</b>	<b>13.2396</b>	<b>0.0234</b>		<b>0.6409</b>	<b>0.6409</b>		<b>0.6139</b>	<b>0.6139</b>	<b>0.0000</b>	<b>2,234.8387</b>	<b>2,234.8387</b>	<b>0.3812</b>		<b>2,244.3682</b>

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	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	0.0450	0.0328	0.5117	1.3300e-003	0.1453	9.3000e-004	0.1462	0.0385	8.6000e-004	0.0394		134.3475	134.3475	3.6600e-003	3.2500e-003	135.4083
<b>Total</b>	<b>0.0450</b>	<b>0.0328</b>	<b>0.5117</b>	<b>1.3300e-003</b>	<b>0.1453</b>	<b>9.3000e-004</b>	<b>0.1462</b>	<b>0.0385</b>	<b>8.6000e-004</b>	<b>0.0394</b>		<b>134.3475</b>	<b>134.3475</b>	<b>3.6600e-003</b>	<b>3.2500e-003</b>	<b>135.4083</b>

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**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied****3.5 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	2.2250	16.8965	19.7597	0.0323		0.8232	0.8232		0.7989	0.7989		2,970.7833	2,970.7833	0.5113		2,983.5657
<b>Total</b>	<b>2.2250</b>	<b>16.8965</b>	<b>19.7597</b>	<b>0.0323</b>		<b>0.8232</b>	<b>0.8232</b>		<b>0.7989</b>	<b>0.7989</b>		<b>2,970.7833</b>	<b>2,970.7833</b>	<b>0.5113</b>		<b>2,983.5657</b>

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0472	1.1756	0.4031	4.7000e-003	0.1537	0.0112	0.1649	0.0443	0.0107	0.0550		505.1078	505.1078	0.0169	0.0728	527.2203
Worker	0.4186	0.3056	4.7623	0.0124	1.3525	8.6500e-003	1.3612	0.3587	7.9700e-003	0.3667		1,250.4647	1,250.4647	0.0341	0.0303	1,260.3392
<b>Total</b>	<b>0.4659</b>	<b>1.4812</b>	<b>5.1654</b>	<b>0.0171</b>	<b>1.5062</b>	<b>0.0199</b>	<b>1.5261</b>	<b>0.4030</b>	<b>0.0187</b>	<b>0.4216</b>		<b>1,755.5726</b>	<b>1,755.5726</b>	<b>0.0510</b>	<b>0.1031</b>	<b>1,787.5595</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	2.2250	13.9276	19.7597	0.0323		0.8232	0.8232		0.7989	0.7989	0.0000	2,970.7833	2,970.7833	0.5113		2,983.5657
<b>Total</b>	<b>2.2250</b>	<b>13.9276</b>	<b>19.7597</b>	<b>0.0323</b>		<b>0.8232</b>	<b>0.8232</b>		<b>0.7989</b>	<b>0.7989</b>	<b>0.0000</b>	<b>2,970.7833</b>	<b>2,970.7833</b>	<b>0.5113</b>		<b>2,983.5657</b>

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0472	1.1756	0.4031	4.7000e-003	0.1537	0.0112	0.1649	0.0443	0.0107	0.0550		505.1078	505.1078	0.0169	0.0728	527.2203
Worker	0.4186	0.3056	4.7623	0.0124	1.3525	8.6500e-003	1.3612	0.3587	7.9700e-003	0.3667		1,250.4647	1,250.4647	0.0341	0.0303	1,260.3392
<b>Total</b>	<b>0.4659</b>	<b>1.4812</b>	<b>5.1654</b>	<b>0.0171</b>	<b>1.5062</b>	<b>0.0199</b>	<b>1.5261</b>	<b>0.4030</b>	<b>0.0187</b>	<b>0.4216</b>		<b>1,755.5726</b>	<b>1,755.5726</b>	<b>0.0510</b>	<b>0.1031</b>	<b>1,787.5595</b>

6823 Hawthorn - Los Angeles-South Coast County, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied****3.5 Building Construction - 2023****Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.0647	15.8212	19.6415	0.0323		0.7145	0.7145		0.6935	0.6935		2,971.1153	2,971.1153	0.4986		2,983.5796
Total	2.0647	15.8212	19.6415	0.0323		0.7145	0.7145		0.6935	0.6935		2,971.1153	2,971.1153	0.4986		2,983.5796

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0276	0.9212	0.3569	4.4700e-003	0.1537	4.6300e-003	0.1584	0.0443	4.4300e-003	0.0487		480.6779	480.6779	0.0161	0.0691	501.6747
Worker	0.3872	0.2700	4.3729	0.0120	1.3525	8.1400e-003	1.3606	0.3587	7.4900e-003	0.3662		1,210.0912	1,210.0912	0.0305	0.0279	1,219.1760
Total	0.4149	1.1912	4.7298	0.0164	1.5062	0.0128	1.5190	0.4030	0.0119	0.4149		1,690.7691	1,690.7691	0.0466	0.0970	1,720.8506

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.0647	13.0684	19.6415	0.0323		0.7145	0.7145		0.6935	0.6935	0.0000	2,971.1153	2,971.1153	0.4986		2,983.5796
Total	2.0647	13.0684	19.6415	0.0323		0.7145	0.7145		0.6935	0.6935	0.0000	2,971.1153	2,971.1153	0.4986		2,983.5796

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0276	0.9212	0.3569	4.4700e-003	0.1537	4.6300e-003	0.1584	0.0443	4.4300e-003	0.0487		480.6779	480.6779	0.0161	0.0691	501.6747
Worker	0.3872	0.2700	4.3729	0.0120	1.3525	8.1400e-003	1.3606	0.3587	7.4900e-003	0.3662		1,210.0912	1,210.0912	0.0305	0.0279	1,219.1760
Total	0.4149	1.1912	4.7298	0.0164	1.5062	0.0128	1.5190	0.4030	0.0119	0.4149		1,690.7691	1,690.7691	0.0466	0.0970	1,720.8506

6823 Hawthorn - Los Angeles-South Coast County, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied****3.5 Building Construction - 2024****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	1.9354	14.9879	19.5591	0.0323		0.6254	0.6254		0.6067	0.6067		2,971.2996	2,971.2996	0.4912		2,983.5789
<b>Total</b>	<b>1.9354</b>	<b>14.9879</b>	<b>19.5591</b>	<b>0.0323</b>		<b>0.6254</b>	<b>0.6254</b>		<b>0.6067</b>	<b>0.6067</b>		<b>2,971.2996</b>	<b>2,971.2996</b>	<b>0.4912</b>		<b>2,983.5789</b>

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0268	0.9231	0.3493	4.4000e-003	0.1537	4.6600e-003	0.1584	0.0443	4.4600e-003	0.0487		473.4591	473.4591	0.0162	0.0681	494.1696
Worker	0.3608	0.2409	4.0635	0.0116	1.3525	7.7900e-003	1.3603	0.3587	7.1700e-003	0.3659		1,175.7934	1,175.7934	0.0276	0.0260	1,184.2227
<b>Total</b>	<b>0.3876</b>	<b>1.1640</b>	<b>4.4128</b>	<b>0.0160</b>	<b>1.5062</b>	<b>0.0125</b>	<b>1.5187</b>	<b>0.4030</b>	<b>0.0116</b>	<b>0.4146</b>		<b>1,649.2525</b>	<b>1,649.2525</b>	<b>0.0438</b>	<b>0.0941</b>	<b>1,678.3923</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	1.9354	12.4094	19.5591	0.0323		0.6254	0.6254		0.6067	0.6067	0.0000	2,971.2996	2,971.2996	0.4912		2,983.5789
<b>Total</b>	<b>1.9354</b>	<b>12.4094</b>	<b>19.5591</b>	<b>0.0323</b>		<b>0.6254</b>	<b>0.6254</b>		<b>0.6067</b>	<b>0.6067</b>	<b>0.0000</b>	<b>2,971.2996</b>	<b>2,971.2996</b>	<b>0.4912</b>		<b>2,983.5789</b>

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0268	0.9231	0.3493	4.4000e-003	0.1537	4.6600e-003	0.1584	0.0443	4.4600e-003	0.0487		473.4591	473.4591	0.0162	0.0681	494.1696
Worker	0.3608	0.2409	4.0635	0.0116	1.3525	7.7900e-003	1.3603	0.3587	7.1700e-003	0.3659		1,175.7934	1,175.7934	0.0276	0.0260	1,184.2227
<b>Total</b>	<b>0.3876</b>	<b>1.1640</b>	<b>4.4128</b>	<b>0.0160</b>	<b>1.5062</b>	<b>0.0125</b>	<b>1.5187</b>	<b>0.4030</b>	<b>0.0116</b>	<b>0.4146</b>		<b>1,649.2525</b>	<b>1,649.2525</b>	<b>0.0438</b>	<b>0.0941</b>	<b>1,678.3923</b>

6823 Hawthorn - Los Angeles-South Coast County, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied****3.6 Paving/Landscape - 2024****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	0.2711	2.5987	4.1856	6.6800e-003		0.1096	0.1096		0.1017	0.1017		632.9202	632.9202	0.1964		637.8297
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
<b>Total</b>	<b>0.2711</b>	<b>2.5987</b>	<b>4.1856</b>	<b>6.6800e-003</b>		<b>0.1096</b>	<b>0.1096</b>		<b>0.1017</b>	<b>0.1017</b>		<b>632.9202</b>	<b>632.9202</b>	<b>0.1964</b>		<b>637.8297</b>

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	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	0.0239	0.0159	0.2687	7.7000e-004	0.0894	5.1000e-004	0.0899	0.0237	4.7000e-004	0.0242		77.7384	77.7384	1.8300e-003	1.7200e-003	78.2957
<b>Total</b>	<b>0.0239</b>	<b>0.0159</b>	<b>0.2687</b>	<b>7.7000e-004</b>	<b>0.0894</b>	<b>5.1000e-004</b>	<b>0.0899</b>	<b>0.0237</b>	<b>4.7000e-004</b>	<b>0.0242</b>		<b>77.7384</b>	<b>77.7384</b>	<b>1.8300e-003</b>	<b>1.7200e-003</b>	<b>78.2957</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	0.2711	2.5987	4.1856	6.6800e-003		0.1096	0.1096		0.1017	0.1017	0.0000	632.9202	632.9202	0.1964		637.8297
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
<b>Total</b>	<b>0.2711</b>	<b>2.5987</b>	<b>4.1856</b>	<b>6.6800e-003</b>		<b>0.1096</b>	<b>0.1096</b>		<b>0.1017</b>	<b>0.1017</b>	<b>0.0000</b>	<b>632.9202</b>	<b>632.9202</b>	<b>0.1964</b>		<b>637.8297</b>

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	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	0.0239	0.0159	0.2687	7.7000e-004	0.0894	5.1000e-004	0.0899	0.0237	4.7000e-004	0.0242		77.7384	77.7384	1.8300e-003	1.7200e-003	78.2957
<b>Total</b>	<b>0.0239</b>	<b>0.0159</b>	<b>0.2687</b>	<b>7.7000e-004</b>	<b>0.0894</b>	<b>5.1000e-004</b>	<b>0.0899</b>	<b>0.0237</b>	<b>4.7000e-004</b>	<b>0.0242</b>		<b>77.7384</b>	<b>77.7384</b>	<b>1.8300e-003</b>	<b>1.7200e-003</b>	<b>78.2957</b>

6823 Hawthorn - Los Angeles-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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	38.3096	2.9730	80.9931	0.1783		10.5278	10.5278		10.5278	10.5278	1,283.2678	2,486.3867	3,769.6545	3.8466	0.0871	3,891.7754
Unmitigated	38.3096	2.9730	80.9931	0.1783		10.5278	10.5278		10.5278	10.5278	1,283.2678	2,486.3867	3,769.6545	3.8466	0.0871	3,891.7754

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	0.1739					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	1.8947					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	35.8989	2.8425	69.6716	0.1777		10.4652	10.4652		10.4652	10.4652	1,283.2678	2,466.0000	3,749.2678	3.8270	0.0871	3,870.8972
Landscaping	0.3421	0.1305	11.3215	6.0000e-004		0.0626	0.0626		0.0626	0.0626		20.3867	20.3867	0.0197		20.8782
Total	38.3096	2.9730	80.9931	0.1783		10.5278	10.5278		10.5278	10.5278	1,283.2678	2,486.3867	3,769.6545	3.8466	0.0871	3,891.7754

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	0.1739					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	1.8947					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	35.8989	2.8425	69.6716	0.1777		10.4652	10.4652		10.4652	10.4652	1,283.2678	2,466.0000	3,749.2678	3.8270	0.0871	3,870.8972
Landscaping	0.3421	0.1305	11.3215	6.0000e-004		0.0626	0.0626		0.0626	0.0626		20.3867	20.3867	0.0197		20.8782
Total	38.3096	2.9730	80.9931	0.1783		10.5278	10.5278		10.5278	10.5278	1,283.2678	2,486.3867	3,769.6545	3.8466	0.0871	3,891.7754

6823 Hawthorn - Los Angeles-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

6823 Hawthorn  
Los Angeles-South Coast County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	0.87	1000sqft	0.03	868.00	0
Enclosed Parking with Elevator	150.00	Space	0.05	39,772.00	0
City Park	0.11	Acre	0.01	4,750.00	0
Health Club	7.66	1000sqft	0.03	7,655.00	0
High Turnover (Sit Down Restaurant)	1.21	1000sqft	0.05	1,207.00	0
Apartments Mid Rise	137.00	Dwelling Unit	0.40	85,237.00	392

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	33
Climate Zone	11			Operational Year	2023

Utility Company	Los Angeles Department of Water & Power
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CO2 Intensity (lb/MW/hr)	691.98	CH4 Intensity (lb/MW/hr)	0.033	N2O Intensity (lb/MW/hr)	0.004
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1.3 User Entered Comments & Non-Default Data

- Project Characteristics -
- Land Use - Acreage
- Construction Phase - See Asumptions Spreadsheet
- Off-road Equipment - See Construction Assumptions
- Off-road Equipment - See Construction Assumptions
- Off-road Equipment - See Construction Assumptions
- Off-road Equipment - See Construction Assumptions
- Off-road Equipment - See Construction Assumptions
- Trips and VMT -
- Grading - Match the Total Acres of site
- Energy Use -
- Construction Off-road Equipment Mitigation -

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	100.00	639.00
tblConstructionPhase	NumDays	10.00	64.00
tblConstructionPhase	NumDays	2.00	13.00
tblConstructionPhase	NumDays	5.00	32.00
tblGrading	AcresOfGrading	12.19	0.57
tblLandUse	LandUseSquareFeet	870.00	968.00
tblLandUse	LandUseSquareFeet	60,000.00	39,772.00
tblLandUse	LandUseSquareFeet	4,791.60	4,750.00
tblLandUse	LandUseSquareFeet	7,660.00	7,655.00
tblLandUse	LandUseSquareFeet	1,210.00	1,207.00
tblLandUse	LandUseSquareFeet	137,000.00	85,237.00
tblLandUse	LotAcreage	0.02	0.03
tblLandUse	LotAcreage	1.35	0.05
tblLandUse	LotAcreage	0.11	0.01
tblLandUse	LotAcreage	0.18	0.03
tblLandUse	LotAcreage	0.03	0.05
tblLandUse	LotAcreage	3.61	0.40
tblOffRoadEquipment	OffRoadEquipmentType	Rubber Tired Dozers	Rubber Tired Loaders
tblOffRoadEquipment	OffRoadEquipmentType	Cement and Mortar Mixers	Pumps

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

tbOffRoadEquipment	OffRoadEquipmentType	Other Construction Equipment	Pumps
tbOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	1.00
tbOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tbOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tbOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tbOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	2.00
tbOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	2.00
tbOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tbOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tbOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tbOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tbOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tbOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tbOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tbOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tbOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	3.00
tbOffRoadEquipment	PhaseName		Building Construction
tbOffRoadEquipment	PhaseName		Building Construction
tbOffRoadEquipment	PhaseName		Grading
tbOffRoadEquipment	PhaseName		Foundation
tbOffRoadEquipment	PhaseName		Grading
tbOffRoadEquipment	PhaseName		Foundation
tbOffRoadEquipment	PhaseName		Grading
tbOffRoadEquipment	PhaseName		Foundation
tbOffRoadEquipment	PhaseName		Grading
tbOffRoadEquipment	PhaseName		Foundation
tbOffRoadEquipment	PhaseName		Foundation
tbOffRoadEquipment	PhaseName		Building Construction
tbOffRoadEquipment	PhaseName		Building Construction
tbOffRoadEquipment	PhaseName		Building Construction
tbOffRoadEquipment	UsageHours	6.00	8.00

2.0 Emissions Summary

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	3/31/2022	5	64	
2	Grading	Grading	3/31/2022	4/18/2022	5	13	
3	Foundation	Trenching	4/18/2022	5/4/2022	5	13	
4	Building Construction	Building Construction	5/4/2022	10/14/2024	5	638	
5	Paving/Landscape	Paving	10/14/2024	11/26/2024	5	32	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0.57

Acres of Paving: 0.05

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

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Generator Sets	1	8.00	84	0.72
Demolition	Tractors/Loaders/Backhoes	1	6.00	97	0.37



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**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

Demolition	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Grading	Bore/Drill Rigs	1	8.00	221	0.50
Grading	Cranes	1	4.00	231	0.29
Grading	Excavators	1	8.00	158	0.38
Grading	Generator Sets	1	8.00	84	0.74
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Loaders	1	8.00	203	0.36
Foundation	Pumps	1	8.00	84	0.74
Foundation	Cranes	1	4.00	231	0.29
Foundation	Forklifts	1	6.00	89	0.20
Foundation	Generator Sets	1	8.00	84	0.74
Foundation	Other Construction Equipment	1	8.00	172	0.42
Building Construction	Aerial Lifts	2	8.00	63	0.31
Building Construction	Air Compressors	2	6.00	78	0.48
Building Construction	Cranes	1	4.00	231	0.29
Building Construction	Forklifts	2	6.00	89	0.20
Building Construction	Pumps	1	8.00	84	0.74
Building Construction	Plate Compactors	1	8.00	8	0.43
Building Construction	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Building Construction	Welders	3	8.00	46	0.45
Paving/Landscape	Cement and Mortar Mixers	1	6.00	9	0.56
Paving/Landscape	Paving Equipment	1	8.00	132	0.36
Paving/Landscape	Skid Steer Loaders	1	8.00	65	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
Demolition	4	10.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	6	15.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Foundation	5	13.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	13	121.00	24.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving/Landscape	5	8.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

**3.1 Mitigation Measures Construction**

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

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**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied****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					
Off-Road	0.9348	8.2429	10.6975	0.0175		0.4323	0.4323		0.4214	0.4214		1,667.5576	1,667.5576	0.2081		1,672.7594
Total	0.9348	8.2429	10.6975	0.0175		0.4323	0.4323		0.4214	0.4214		1,667.5576	1,667.5576	0.2081		1,672.7594

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	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	0.0370	0.0279	0.3614	9.7000e-004	0.1118	7.2000e-004	0.1125	0.0296	6.6000e-004	0.0303		97.8803	97.8803	2.8500e-003	2.6700e-003	98.7483
Total	0.0370	0.0279	0.3614	9.7000e-004	0.1118	7.2000e-004	0.1125	0.0296	6.6000e-004	0.0303		97.8803	97.8803	2.8500e-003	2.6700e-003	98.7483

**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	0.9348	8.2429	10.6975	0.0175		0.4323	0.4323		0.4214	0.4214	0.0000	1,667.5576	1,667.5576	0.2081		1,672.7594
Total	0.9348	8.2429	10.6975	0.0175		0.4323	0.4323		0.4214	0.4214	0.0000	1,667.5576	1,667.5576	0.2081		1,672.7594

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	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	0.0370	0.0279	0.3614	9.7000e-004	0.1118	7.2000e-004	0.1125	0.0296	6.6000e-004	0.0303		97.8803	97.8803	2.8500e-003	2.6700e-003	98.7483
Total	0.0370	0.0279	0.3614	9.7000e-004	0.1118	7.2000e-004	0.1125	0.0296	6.6000e-004	0.0303		97.8803	97.8803	2.8500e-003	2.6700e-003	98.7483

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**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied****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					5.3158	0.0000	5.3158	2.9015	0.0000	2.9015			0.0000			0.0000
Off-Road	1.6508	17.3615	13.1790	0.0370		0.6616	0.6616		0.6204	0.6204		3,565.9974	3,565.9974	0.9814		3,590.5328
<b>Total</b>	<b>1.6508</b>	<b>17.3615</b>	<b>13.1790</b>	<b>0.0370</b>	<b>5.3158</b>	<b>0.6616</b>	<b>5.9774</b>	<b>2.9015</b>	<b>0.6204</b>	<b>3.5219</b>		<b>3,565.9974</b>	<b>3,565.9974</b>	<b>0.9814</b>		<b>3,590.5328</b>

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	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	0.0556	0.0419	0.5421	1.4500e-003	0.1677	1.0700e-003	0.1687	0.0445	9.9000e-004	0.0455		146.8205	146.8205	4.2700e-003	4.0100e-003	148.1225
<b>Total</b>	<b>0.0556</b>	<b>0.0419</b>	<b>0.5421</b>	<b>1.4500e-003</b>	<b>0.1677</b>	<b>1.0700e-003</b>	<b>0.1687</b>	<b>0.0445</b>	<b>9.9000e-004</b>	<b>0.0455</b>		<b>146.8205</b>	<b>146.8205</b>	<b>4.2700e-003</b>	<b>4.0100e-003</b>	<b>148.1225</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					2.0732	0.0000	2.0732	1.1316	0.0000	1.1316			0.0000			0.0000
Off-Road	1.6508	14.3214	13.1790	0.0370		0.6616	0.6616		0.6204	0.6204	0.0000	3,565.9974	3,565.9974	0.9814		3,590.5328
<b>Total</b>	<b>1.6508</b>	<b>14.3214</b>	<b>13.1790</b>	<b>0.0370</b>	<b>2.0732</b>	<b>0.6616</b>	<b>2.7348</b>	<b>1.1316</b>	<b>0.6204</b>	<b>1.7520</b>	<b>0.0000</b>	<b>3,565.9974</b>	<b>3,565.9974</b>	<b>0.9814</b>		<b>3,590.5328</b>

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	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	0.0556	0.0419	0.5421	1.4500e-003	0.1677	1.0700e-003	0.1687	0.0445	9.9000e-004	0.0455		146.8205	146.8205	4.2700e-003	4.0100e-003	148.1225
<b>Total</b>	<b>0.0556</b>	<b>0.0419</b>	<b>0.5421</b>	<b>1.4500e-003</b>	<b>0.1677</b>	<b>1.0700e-003</b>	<b>0.1687</b>	<b>0.0445</b>	<b>9.9000e-004</b>	<b>0.0455</b>		<b>146.8205</b>	<b>146.8205</b>	<b>4.2700e-003</b>	<b>4.0100e-003</b>	<b>148.1225</b>

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**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

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**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied****3.4 Foundation - 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	1.3296	12.5955	13.2396	0.0234		0.6409	0.6409		0.6139	0.6139		2,234.8387	2,234.8387	0.3812		2,244.3682
Total	1.3296	12.5955	13.2396	0.0234		0.6409	0.6409		0.6139	0.6139		2,234.8387	2,234.8387	0.3812		2,244.3682

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	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	0.0482	0.0363	0.4698	1.2600e-003	0.1453	9.3000e-004	0.1462	0.0385	8.6000e-004	0.0394		127.2444	127.2444	3.7000e-003	3.4800e-003	128.3729
Total	0.0482	0.0363	0.4698	1.2600e-003	0.1453	9.3000e-004	0.1462	0.0385	8.6000e-004	0.0394		127.2444	127.2444	3.7000e-003	3.4800e-003	128.3729

**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	1.3296	9.6267	13.2396	0.0234		0.6409	0.6409		0.6139	0.6139	0.0000	2,234.8387	2,234.8387	0.3812		2,244.3682
Total	1.3296	9.6267	13.2396	0.0234		0.6409	0.6409		0.6139	0.6139	0.0000	2,234.8387	2,234.8387	0.3812		2,244.3682

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	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	0.0482	0.0363	0.4698	1.2600e-003	0.1453	9.3000e-004	0.1462	0.0385	8.6000e-004	0.0394		127.2444	127.2444	3.7000e-003	3.4800e-003	128.3729
Total	0.0482	0.0363	0.4698	1.2600e-003	0.1453	9.3000e-004	0.1462	0.0385	8.6000e-004	0.0394		127.2444	127.2444	3.7000e-003	3.4800e-003	128.3729

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**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied****3.5 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	2.2250	16.8965	19.7597	0.0323		0.8232	0.8232		0.7989	0.7989		2,970.7833	2,970.7833	0.5113		2,983.5657
Total	2.2250	16.8965	19.7597	0.0323		0.8232	0.8232		0.7989	0.7989		2,970.7833	2,970.7833	0.5113		2,983.5657

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0467	1.2241	0.4170	4.7000e-003	0.1537	0.0112	0.1650	0.0443	0.0108	0.0550		505.2976	505.2976	0.0168	0.0729	527.4367
Worker	0.4482	0.3377	4.3725	0.0117	1.3525	8.6500e-003	1.3612	0.3587	7.9700e-003	0.3667		1,184.3518	1,184.3518	0.0345	0.0324	1,194.8550
Total	0.4948	1.5618	4.7896	0.0164	1.5062	0.0199	1.5261	0.4030	0.0187	0.4217		1,689.6494	1,689.6494	0.0513	0.1052	1,722.2917

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.2250	13.9276	19.7597	0.0323		0.8232	0.8232		0.7989	0.7989	0.0000	2,970.7833	2,970.7833	0.5113		2,983.5657
Total	2.2250	13.9276	19.7597	0.0323		0.8232	0.8232		0.7989	0.7989	0.0000	2,970.7833	2,970.7833	0.5113		2,983.5657

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0467	1.2241	0.4170	4.7000e-003	0.1537	0.0112	0.1650	0.0443	0.0108	0.0550		505.2976	505.2976	0.0168	0.0729	527.4367
Worker	0.4482	0.3377	4.3725	0.0117	1.3525	8.6500e-003	1.3612	0.3587	7.9700e-003	0.3667		1,184.3518	1,184.3518	0.0345	0.0324	1,194.8550
Total	0.4948	1.5618	4.7896	0.0164	1.5062	0.0199	1.5261	0.4030	0.0187	0.4217		1,689.6494	1,689.6494	0.0513	0.1052	1,722.2917

6823 Hawthorn - Los Angeles-South Coast County, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied****3.5 Building Construction - 2023****Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.0647	15.8212	19.6415	0.0323		0.7145	0.7145		0.6935	0.6935		2,971.1153	2,971.1153	0.4986		2,983.5796
<b>Total</b>	<b>2.0647</b>	<b>15.8212</b>	<b>19.6415</b>	<b>0.0323</b>		<b>0.7145</b>	<b>0.7145</b>		<b>0.6935</b>	<b>0.6935</b>		<b>2,971.1153</b>	<b>2,971.1153</b>	<b>0.4986</b>		<b>2,983.5796</b>

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0267	0.9645	0.3681	4.4700e-003	0.1537	4.6600e-003	0.1584	0.0443	4.4600e-003	0.0487		481.4887	481.4887	0.0160	0.0693	502.5387
Worker	0.4160	0.2982	4.0194	0.0113	1.3525	8.1400e-003	1.3606	0.3587	7.4900e-003	0.3662		1,146.2979	1,146.2979	0.0309	0.0298	1,155.9602
<b>Total</b>	<b>0.4427</b>	<b>1.2627</b>	<b>4.3875</b>	<b>0.0158</b>	<b>1.5062</b>	<b>0.0128</b>	<b>1.5190</b>	<b>0.4030</b>	<b>0.0120</b>	<b>0.4149</b>		<b>1,627.7866</b>	<b>1,627.7866</b>	<b>0.0470</b>	<b>0.0991</b>	<b>1,658.4989</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	2.0647	13.0684	19.6415	0.0323		0.7145	0.7145		0.6935	0.6935	0.0000	2,971.1153	2,971.1153	0.4986		2,983.5796
<b>Total</b>	<b>2.0647</b>	<b>13.0684</b>	<b>19.6415</b>	<b>0.0323</b>		<b>0.7145</b>	<b>0.7145</b>		<b>0.6935</b>	<b>0.6935</b>	<b>0.0000</b>	<b>2,971.1153</b>	<b>2,971.1153</b>	<b>0.4986</b>		<b>2,983.5796</b>

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0267	0.9645	0.3681	4.4700e-003	0.1537	4.6600e-003	0.1584	0.0443	4.4600e-003	0.0487		481.4887	481.4887	0.0160	0.0693	502.5387
Worker	0.4160	0.2982	4.0194	0.0113	1.3525	8.1400e-003	1.3606	0.3587	7.4900e-003	0.3662		1,146.2979	1,146.2979	0.0309	0.0298	1,155.9602
<b>Total</b>	<b>0.4427</b>	<b>1.2627</b>	<b>4.3875</b>	<b>0.0158</b>	<b>1.5062</b>	<b>0.0128</b>	<b>1.5190</b>	<b>0.4030</b>	<b>0.0120</b>	<b>0.4149</b>		<b>1,627.7866</b>	<b>1,627.7866</b>	<b>0.0470</b>	<b>0.0991</b>	<b>1,658.4989</b>

6823 Hawthorn - Los Angeles-South Coast County, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied****3.5 Building Construction - 2024****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	1.9354	14.9879	19.5591	0.0323		0.6254	0.6254		0.6067	0.6067		2,971.2996	2,971.2996	0.4912		2,983.5789
<b>Total</b>	<b>1.9354</b>	<b>14.9879</b>	<b>19.5591</b>	<b>0.0323</b>		<b>0.6254</b>	<b>0.6254</b>		<b>0.6067</b>	<b>0.6067</b>		<b>2,971.2996</b>	<b>2,971.2996</b>	<b>0.4912</b>		<b>2,983.5789</b>

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0258	0.9665	0.3604	4.4000e-003	0.1537	4.6900e-003	0.1584	0.0443	4.4900e-003	0.0488		474.2744	474.2744	0.0161	0.0683	495.0366
Worker	0.3889	0.2661	3.7383	0.0110	1.3525	7.7900e-003	1.3603	0.3587	7.1700e-003	0.3659		1,113.9134	1,113.9134	0.0280	0.0277	1,122.8774
<b>Total</b>	<b>0.4147</b>	<b>1.2325</b>	<b>4.0987</b>	<b>0.0154</b>	<b>1.5062</b>	<b>0.0125</b>	<b>1.5187</b>	<b>0.4030</b>	<b>0.0117</b>	<b>0.4146</b>		<b>1,588.1878</b>	<b>1,588.1878</b>	<b>0.0441</b>	<b>0.0961</b>	<b>1,617.9140</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	1.9354	12.4094	19.5591	0.0323		0.6254	0.6254		0.6067	0.6067	0.0000	2,971.2996	2,971.2996	0.4912		2,983.5789
<b>Total</b>	<b>1.9354</b>	<b>12.4094</b>	<b>19.5591</b>	<b>0.0323</b>		<b>0.6254</b>	<b>0.6254</b>		<b>0.6067</b>	<b>0.6067</b>	<b>0.0000</b>	<b>2,971.2996</b>	<b>2,971.2996</b>	<b>0.4912</b>		<b>2,983.5789</b>

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0258	0.9665	0.3604	4.4000e-003	0.1537	4.6900e-003	0.1584	0.0443	4.4900e-003	0.0488		474.2744	474.2744	0.0161	0.0683	495.0366
Worker	0.3889	0.2661	3.7383	0.0110	1.3525	7.7900e-003	1.3603	0.3587	7.1700e-003	0.3659		1,113.9134	1,113.9134	0.0280	0.0277	1,122.8774
<b>Total</b>	<b>0.4147</b>	<b>1.2325</b>	<b>4.0987</b>	<b>0.0154</b>	<b>1.5062</b>	<b>0.0125</b>	<b>1.5187</b>	<b>0.4030</b>	<b>0.0117</b>	<b>0.4146</b>		<b>1,588.1878</b>	<b>1,588.1878</b>	<b>0.0441</b>	<b>0.0961</b>	<b>1,617.9140</b>



6823 Hawthorn - Los Angeles-South Coast County, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied****3.6 Paving/Landscape - 2024****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	0.2711	2.5987	4.1856	6.6800e-003		0.1096	0.1096		0.1017	0.1017		632.9202	632.9202	0.1964		637.8297
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
<b>Total</b>	<b>0.2711</b>	<b>2.5987</b>	<b>4.1856</b>	<b>6.6800e-003</b>		<b>0.1096</b>	<b>0.1096</b>		<b>0.1017</b>	<b>0.1017</b>		<b>632.9202</b>	<b>632.9202</b>	<b>0.1964</b>		<b>637.8297</b>

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	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	0.0257	0.0176	0.2472	7.3000e-004	0.0894	5.1000e-004	0.0899	0.0237	4.7000e-004	0.0242		73.6472	73.6472	1.8500e-003	1.8300e-003	74.2398
<b>Total</b>	<b>0.0257</b>	<b>0.0176</b>	<b>0.2472</b>	<b>7.3000e-004</b>	<b>0.0894</b>	<b>5.1000e-004</b>	<b>0.0899</b>	<b>0.0237</b>	<b>4.7000e-004</b>	<b>0.0242</b>		<b>73.6472</b>	<b>73.6472</b>	<b>1.8500e-003</b>	<b>1.8300e-003</b>	<b>74.2398</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	0.2711	2.5987	4.1856	6.6800e-003		0.1096	0.1096		0.1017	0.1017	0.0000	632.9202	632.9202	0.1964		637.8297
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
<b>Total</b>	<b>0.2711</b>	<b>2.5987</b>	<b>4.1856</b>	<b>6.6800e-003</b>		<b>0.1096</b>	<b>0.1096</b>		<b>0.1017</b>	<b>0.1017</b>	<b>0.0000</b>	<b>632.9202</b>	<b>632.9202</b>	<b>0.1964</b>		<b>637.8297</b>

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	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	0.0257	0.0176	0.2472	7.3000e-004	0.0894	5.1000e-004	0.0899	0.0237	4.7000e-004	0.0242		73.6472	73.6472	1.8500e-003	1.8300e-003	74.2398
<b>Total</b>	<b>0.0257</b>	<b>0.0176</b>	<b>0.2472</b>	<b>7.3000e-004</b>	<b>0.0894</b>	<b>5.1000e-004</b>	<b>0.0899</b>	<b>0.0237</b>	<b>4.7000e-004</b>	<b>0.0242</b>		<b>73.6472</b>	<b>73.6472</b>	<b>1.8500e-003</b>	<b>1.8300e-003</b>	<b>74.2398</b>

Source: EMFAC2021 (v1.0.1) Emissions Inventory

Region Type: Sub-Area

Region: Los Angeles (SC)

Calendar Year: 2022, 2023, 2024

Season: Annual

Vehicle Classification: EMFAC2007 Categories

Units: miles/day for CVMT and EVMT, tons/day for Emissions, 1000 gallons/day for Fuel Consumption, mph for

Region	Calendar Y	Vehicle Ca	Model Yea	Speed	Fuel	Total VMT	CVMT	EVMT	NOx_RUNI
Los Angele	2022	HHDT	Aggregate	5	Gasoline	0.518316	0.518316	0	5.84E-06
Los Angele	2022	HHDT	Aggregate	5	Diesel	618.6509	618.6509	0	0.008427
Los Angele	2022	HHDT	Aggregate	5	Natural Ga	51.95526	51.95526	0	0.000368
Los Angele	2022	LDA	Aggregate	5	Gasoline	208614.9	208614.9	0	0.021566
Los Angele	2022	LDA	Aggregate	5	Diesel	466.1822	466.1822	0	0.00016
Los Angele	2022	LDA	Aggregate	5	Electricity	146107.9	0	146107.9	0
Los Angele	2022	LDA	Aggregate	5	Plug-in Hyl	26643.68	2903.034	23740.64	7.82E-05
Los Angele	2022	LDT1	Aggregate	5	Gasoline	17958.58	17958.58	0	0.007934
Los Angele	2022	LDT1	Aggregate	5	Diesel	4.590712	4.590712	0	5.5E-06
Los Angele	2022	LDT1	Aggregate	5	Electricity	540.0436	0	540.0436	0
Los Angele	2022	LDT1	Aggregate	5	Plug-in Hyl	70.24072	6.657341	63.58338	1.79E-07
Los Angele	2022	LDT2	Aggregate	5	Gasoline	94917.85	94917.85	0	0.018578
Los Angele	2022	LDT2	Aggregate	5	Diesel	294.8342	294.8342	0	5.47E-05
Los Angele	2022	LDT2	Aggregate	5	Electricity	4153.579	0	4153.579	0
Los Angele	2022	LDT2	Aggregate	5	Plug-in Hyl	3213.571	322.7565	2890.815	8.7E-06
Los Angele	2022	LHDT1	Aggregate	5	Gasoline	1455.627	1455.627	0	0.000492
Los Angele	2022	LHDT1	Aggregate	5	Diesel	413.1761	413.1761	0	0.00095
Los Angele	2022	LHDT2	Aggregate	5	Gasoline	213.4165	213.4165	0	7.89E-05
Los Angele	2022	LHDT2	Aggregate	5	Diesel	180.8597	180.8597	0	0.000399
Los Angele	2022	MCY	Aggregate	5	Gasoline	1402.378	1402.378	0	0.001266
Los Angele	2022	MDV	Aggregate	5	Gasoline	53309.23	53309.23	0	0.01712
Los Angele	2022	MDV	Aggregate	5	Diesel	630.1858	630.1858	0	0.000135
Los Angele	2022	MDV	Aggregate	5	Electricity	4190.348	0	4190.348	0
Los Angele	2022	MDV	Aggregate	5	Plug-in Hyl	1673.623	177.1381	1496.485	4.77E-06
Los Angele	2022	MH	Aggregate	5	Gasoline	98.7461	98.7461	0	8.3E-05
Los Angele	2022	MH	Aggregate	5	Diesel	26.93282	26.93282	0	0.000401
Los Angele	2022	MHDT	Aggregate	5	Gasoline	537.7385	537.7385	0	0.000604
Los Angele	2022	MHDT	Aggregate	5	Diesel	1673.017	1673.017	0	0.008985
Los Angele	2022	MHDT	Aggregate	5	Natural Ga	23.15682	23.15682	0	2.38E-05
Los Angele	2022	OBUS	Aggregate	5	Gasoline	308.9848	308.9848	0	0.000316
Los Angele	2022	OBUS	Aggregate	5	Diesel	269.3717	269.3717	0	0.002616
Los Angele	2022	OBUS	Aggregate	5	Natural Ga	42.6987	42.6987	0	5.56E-05
Los Angele	2022	SBUS	Aggregate	5	Gasoline	1698.168	1698.168	0	0.001667
Los Angele	2022	SBUS	Aggregate	5	Diesel	1020.852	1020.852	0	0.024918
Los Angele	2022	SBUS	Aggregate	5	Natural Ga	1044.544	1044.544	0	0.008807
Los Angele	2022	UBUS	Aggregate	5	Gasoline	303.1998	303.1998	0	0.000161
Los Angele	2022	UBUS	Aggregate	5	Diesel	18.0029	18.0029	0	5.7E-05
Los Angele	2022	UBUS	Aggregate	5	Electricity	31.3195	0	31.3195	0

Los Angele	2022 UBUS	Aggregate	5 Natural Ga	5406.992	5406.992	0	0.021058
Los Angele	2023 HHDT	Aggregate	5 Gasoline	0.456161	0.456161	0	4.78E-06
Los Angele	2023 HHDT	Aggregate	5 Diesel	607.7316	607.7316	0	0.007676
Los Angele	2023 HHDT	Aggregate	5 Electricity	0.239221	0	0.239221	0
Los Angele	2023 HHDT	Aggregate	5 Natural Ga	49.59708	49.59708	0	0.000319
Los Angele	2023 LDA	Aggregate	5 Gasoline	199595.2	199595.2	0	0.018502
Los Angele	2023 LDA	Aggregate	5 Diesel	419.1929	419.1929	0	0.000137
Los Angele	2023 LDA	Aggregate	5 Electricity	176952.2	0	176952.2	0
Los Angele	2023 LDA	Aggregate	5 Plug-in Hyl	29750.25	3010.339	26739.91	8.12E-05
Los Angele	2023 LDT1	Aggregate	5 Gasoline	17239.4	17239.4	0	0.006909
Los Angele	2023 LDT1	Aggregate	5 Diesel	3.972745	3.972745	0	4.74E-06
Los Angele	2023 LDT1	Aggregate	5 Electricity	686.854	0	686.854	0
Los Angele	2023 LDT1	Aggregate	5 Plug-in Hyl	126.357	10.89668	115.4604	2.94E-07
Los Angele	2023 LDT2	Aggregate	5 Gasoline	94758.1	94758.1	0	0.016189
Los Angele	2023 LDT2	Aggregate	5 Diesel	305.6986	305.6986	0	5.53E-05
Los Angele	2023 LDT2	Aggregate	5 Electricity	6903.593	0	6903.593	0
Los Angele	2023 LDT2	Aggregate	5 Plug-in Hyl	4355.873	400.7735	3955.099	1.08E-05
Los Angele	2023 LHDT1	Aggregate	5 Gasoline	1456.064	1456.064	0	0.000427
Los Angele	2023 LHDT1	Aggregate	5 Diesel	440.8655	440.8655	0	0.000875
Los Angele	2023 LHDT2	Aggregate	5 Gasoline	211.2651	211.2651	0	6.88E-05
Los Angele	2023 LHDT2	Aggregate	5 Diesel	194.1229	194.1229	0	0.000374
Los Angele	2023 MCY	Aggregate	5 Gasoline	1413.012	1413.012	0	0.001264
Los Angele	2023 MDV	Aggregate	5 Gasoline	52918.01	52918.01	0	0.014745
Los Angele	2023 MDV	Aggregate	5 Diesel	625.3404	625.3404	0	0.000123
Los Angele	2023 MDV	Aggregate	5 Electricity	7431.99	0	7431.99	0
Los Angele	2023 MDV	Aggregate	5 Plug-in Hyl	2140.739	207.1455	1933.594	5.59E-06
Los Angele	2023 MH	Aggregate	5 Gasoline	96.24193	96.24193	0	7.13E-05
Los Angele	2023 MH	Aggregate	5 Diesel	27.82545	27.82545	0	0.000403
Los Angele	2023 MHDT	Aggregate	5 Gasoline	521.7651	521.7651	0	0.000505
Los Angele	2023 MHDT	Aggregate	5 Diesel	1671.477	1671.477	0	0.007448
Los Angele	2023 MHDT	Aggregate	5 Electricity	0.398242	0	0.398242	0
Los Angele	2023 MHDT	Aggregate	5 Natural Ga	24.17292	24.17292	0	2.2E-05
Los Angele	2023 OBUS	Aggregate	5 Gasoline	295.1412	295.1412	0	0.000283
Los Angele	2023 OBUS	Aggregate	5 Diesel	275.0892	275.0892	0	0.00246
Los Angele	2023 OBUS	Aggregate	5 Natural Ga	37.64555	37.64555	0	4.61E-05
Los Angele	2023 SBUS	Aggregate	5 Gasoline	1756.934	1756.934	0	0.001667
Los Angele	2023 SBUS	Aggregate	5 Diesel	988.8127	988.8127	0	0.023507
Los Angele	2023 SBUS	Aggregate	5 Electricity	0.568577	0	0.568577	0
Los Angele	2023 SBUS	Aggregate	5 Natural Ga	1076.015	1076.015	0	0.008751
Los Angele	2023 UBUS	Aggregate	5 Gasoline	303.7451	303.7451	0	0.00016
Los Angele	2023 UBUS	Aggregate	5 Diesel	16.57421	16.57421	0	4.62E-05
Los Angele	2023 UBUS	Aggregate	5 Electricity	31.27691	0	31.27691	0
Los Angele	2023 UBUS	Aggregate	5 Natural Ga	5419.429	5419.429	0	0.020919
Los Angele	2024 HHDT	Aggregate	5 Gasoline	0.325044	0.325044	0	3.25E-06
Los Angele	2024 HHDT	Aggregate	5 Diesel	465.729	465.729	0	0.005778

Los Angele	2024 HHDT	Aggregate	5 Electricity	1.1959	0	1.1959	0
Los Angele	2024 HHDT	Aggregate	5 Natural Ga	34.31662	34.31662	0	0.000196
Los Angele	2024 LDA	Aggregate	5 Gasoline	180758.9	180758.9	0	0.015131
Los Angele	2024 LDA	Aggregate	5 Diesel	355.0128	355.0128	0	0.000109
Los Angele	2024 LDA	Aggregate	5 Electricity	208151.8	0	208151.8	0
Los Angele	2024 LDA	Aggregate	5 Plug-in Hyl	32331.92	2908.917	29423.01	7.83E-05
Los Angele	2024 LDT1	Aggregate	5 Gasoline	15691.5	15691.5	0	0.005687
Los Angele	2024 LDT1	Aggregate	5 Diesel	3.272281	3.272281	0	3.89E-06
Los Angele	2024 LDT1	Aggregate	5 Electricity	887.8051	0	887.8051	0
Los Angele	2024 LDT1	Aggregate	5 Plug-in Hyl	196.2386	14.90025	181.3384	4.01E-07
Los Angele	2024 LDT2	Aggregate	5 Gasoline	89380.2	89380.2	0	0.013477
Los Angele	2024 LDT2	Aggregate	5 Diesel	296.7957	296.7957	0	5.24E-05
Los Angele	2024 LDT2	Aggregate	5 Electricity	9784.246	0	9784.246	0
Los Angele	2024 LDT2	Aggregate	5 Plug-in Hyl	5333.602	434.8461	4898.756	1.17E-05
Los Angele	2024 LHDT1	Aggregate	5 Gasoline	1248.754	1248.754	0	0.000319
Los Angele	2024 LHDT1	Aggregate	5 Diesel	402.3518	402.3518	0	0.000702
Los Angele	2024 LHDT1	Aggregate	5 Electricity	8.381091	0	8.381091	0
Los Angele	2024 LHDT2	Aggregate	5 Gasoline	179.6626	179.6626	0	5.14E-05
Los Angele	2024 LHDT2	Aggregate	5 Diesel	178.1388	178.1388	0	0.000305
Los Angele	2024 LHDT2	Aggregate	5 Electricity	1.785817	0	1.785817	0
Los Angele	2024 MCY	Aggregate	5 Gasoline	1339.076	1339.076	0	0.001189
Los Angele	2024 MDV	Aggregate	5 Gasoline	49593.97	49593.97	0	0.011973
Los Angele	2024 MDV	Aggregate	5 Diesel	585.4248	585.4248	0	0.000106
Los Angele	2024 MDV	Aggregate	5 Electricity	10668.99	0	10668.99	0
Los Angele	2024 MDV	Aggregate	5 Plug-in Hyl	2780.774	233.723	2547.051	6.29E-06
Los Angele	2024 MH	Aggregate	5 Gasoline	85.56699	85.56699	0	5.63E-05
Los Angele	2024 MH	Aggregate	5 Diesel	25.80208	25.80208	0	0.000365
Los Angele	2024 MHDT	Aggregate	5 Gasoline	458.9634	458.9634	0	0.000383
Los Angele	2024 MHDT	Aggregate	5 Diesel	1499.278	1499.278	0	0.006348
Los Angele	2024 MHDT	Aggregate	5 Electricity	6.424109	0	6.424109	0
Los Angele	2024 MHDT	Aggregate	5 Natural Ga	22.37716	22.37716	0	1.93E-05
Los Angele	2024 OBUS	Aggregate	5 Gasoline	261.4466	261.4466	0	0.000234
Los Angele	2024 OBUS	Aggregate	5 Diesel	257.3688	257.3688	0	0.002318
Los Angele	2024 OBUS	Aggregate	5 Electricity	1.060304	0	1.060304	0
Los Angele	2024 OBUS	Aggregate	5 Natural Ga	35.55423	35.55423	0	4.13E-05
Los Angele	2024 SBUS	Aggregate	5 Gasoline	1806.977	1806.977	0	0.001641
Los Angele	2024 SBUS	Aggregate	5 Diesel	953.9941	953.9941	0	0.021989
Los Angele	2024 SBUS	Aggregate	5 Electricity	10.72508	0	10.72508	0
Los Angele	2024 SBUS	Aggregate	5 Natural Ga	1106.306	1106.306	0	0.00869
Los Angele	2024 UBUS	Aggregate	5 Gasoline	300.3106	300.3106	0	0.00013
Los Angele	2024 UBUS	Aggregate	5 Diesel	16.19217	16.19217	0	4.34E-05
Los Angele	2024 UBUS	Aggregate	5 Electricity	106.0993	0	106.0993	0
Los Angele	2024 UBUS	Aggregate	5 Natural Ga	5350.467	5350.467	0	0.01931

or Speed, kWh/day for Energy Consumption

PM2.5_RUN	PM10_RUN	CO2_RUN	CH4_RUN	N2O_RUN	ROG_RUN	TOG_RUN	CO_RUN	SOx_RUN	NH3_RUN
6.3E-09	6.85E-09	0.003035	6.64E-07	1.82E-07	3.7E-06	5.4E-06	7.93E-05	3E-08	2.45E-08
1.54E-05	1.61E-05	2.368647	1.08E-05	0.000373	0.000234	0.000266	0.00118	2.24E-05	0.000133
3.77E-07	4.1E-07	0.283805	0.000771	5.79E-05	2.85E-05	0.000807	0.003992	0	4.37E-05
0.002102	0.002286	161.2405	0.004861	0.00218	0.019217	0.028033	0.395343	0.001594	0.00764
6.16E-05	6.44E-05	0.318916	8.05E-06	5.02E-05	0.000173	0.000197	0.00217	3.02E-06	1.59E-06
0	0	0	0	0	0	0	0	0	0
3.09E-05	3.36E-05	2.673551	2.75E-05	1.45E-05	8.58E-05	0.000125	0.006723	2.64E-05	0.000122
0.000309	0.000336	16.52699	0.001341	0.000519	0.006055	0.00883	0.091948	0.000163	0.000743
4.98E-06	5.2E-06	0.005294	2.97E-07	8.34E-07	6.38E-06	7.27E-06	2.5E-05	5.02E-08	1.57E-08
0	0	0	0	0	0	0	0	0	0
4.61E-08	5.01E-08	0.006131	6.32E-08	3.34E-08	1.97E-07	2.87E-07	1.54E-05	6.06E-08	3.08E-07
0.001001	0.001088	91.19008	0.002823	0.001415	0.011432	0.016678	0.219095	0.000902	0.003737
7.36E-06	7.7E-06	0.260913	4.11E-06	4.11E-05	8.84E-05	0.000101	0.000795	2.47E-06	1.01E-06
0	0	0	0	0	0	0	0	0	0
2.84E-06	3.08E-06	0.297243	3.06E-06	1.62E-06	9.54E-06	1.39E-05	0.000747	2.94E-06	1.49E-05
7.46E-06	8.11E-06	2.615198	6.29E-05	2.84E-05	0.000307	0.000447	0.005175	2.59E-05	7.19E-05
3.89E-05	4.06E-05	0.541215	8.39E-06	8.53E-05	0.000181	0.000206	0.000557	5.13E-06	7.68E-05
1.03E-06	1.12E-06	0.435711	7.59E-06	4.66E-06	3.49E-05	5.09E-05	0.00056	4.31E-06	1.06E-05
1.62E-05	1.7E-05	0.280824	3.48E-06	4.42E-05	7.5E-05	8.54E-05	0.000227	2.66E-06	3.48E-05
1.82E-05	1.95E-05	0.718668	0.00155	9.17E-05	0.009978	0.012093	0.044524	7.1E-06	1.35E-05
0.000592	0.000644	62.6006	0.002474	0.001154	0.010766	0.015679	0.170005	0.000619	0.002086
2.19E-05	2.29E-05	0.699707	7.08E-06	0.00011	0.000153	0.000174	0.002676	6.63E-06	2.15E-06
0	0	0	0	0	0	0	0	0	0
1.93E-06	2.1E-06	0.163135	1.67E-06	8.72E-07	5.23E-06	7.64E-06	0.00041	1.61E-06	8.2E-06
1.02E-06	1.11E-06	0.459599	1.16E-05	5.05E-06	5.21E-05	7.61E-05	0.000793	4.54E-06	4.83E-06
6.99E-06	7.31E-06	0.063987	1.34E-06	1.01E-05	2.88E-05	3.27E-05	6.7E-05	6.06E-07	4.22E-06
3.79E-06	4.12E-06	2.363264	6.26E-05	2.89E-05	0.000308	0.000449	0.002586	2.34E-05	2.66E-05
0.000128	0.000133	4.483051	3.18E-05	0.000706	0.000684	0.000779	0.001425	4.25E-05	0.000362
7.55E-08	8.21E-08	0.066873	9.95E-05	1.36E-05	1.42E-06	0.000102	0.000183	0	2.71E-05
1.68E-06	1.82E-06	1.378695	2.97E-05	1.52E-05	0.000144	0.00021	0.001171	1.36E-05	1.53E-05
3.52E-05	3.68E-05	0.879215	1.05E-05	0.000139	0.000226	0.000257	0.000533	8.33E-06	5.82E-05
1.12E-07	1.22E-07	0.125225	0.000187	2.55E-05	2.67E-06	0.000191	0.000312	0	4.99E-05
9.49E-06	1.03E-05	3.589837	0.000						

3.33E-06	3.48E-06	68.79689	0.038641	0.014025	0.000552	0.039436	0.578144	0	0.005781
4.97E-09	5.41E-09	0.002607	5.23E-07	1.55E-07	2.85E-06	4.15E-06	5.84E-05	2.58E-08	2.19E-08
1.07E-05	1.11E-05	2.246728	4.32E-06	0.000354	9.3E-05	0.000106	0.00081	2.13E-05	0.000142
0	0	0	0	0	0	0	0	0	0
3.51E-07	3.82E-07	0.268089	0.000693	5.47E-05	2.53E-05	0.000725	0.003848	0	4.06E-05
0.00194	0.00211	151.9038	0.004196	0.001954	0.016281	0.023752	0.352834	0.001502	0.007489
5.17E-05	5.4E-05	0.284641	7.08E-06	4.48E-05	0.000152	0.000174	0.001996	2.7E-06	1.43E-06
0	0	0	0	0	0	0	0	0	0
3.03E-05	3.29E-05	2.771965	2.84E-05	1.49E-05	8.89E-05	0.00013	0.006967	2.74E-05	0.000129
0.000278	0.000302	15.63004	0.001167	0.00046	0.005229	0.007628	0.079896	0.000155	0.000717
4.29E-06	4.48E-06	0.004578	2.56E-07	7.21E-07	5.51E-06	6.27E-06	2.16E-05	4.34E-08	1.36E-08
0	0	0	0	0	0	0	0	0	0
7.26E-08	7.89E-08	0.010034	1.03E-07	5.41E-08	3.22E-07	4.7E-07	2.52E-05	9.92E-08	5.04E-07
0.000956	0.001039	89.11205	0.002543	0.001285	0.010142	0.014798	0.200683	0.000881	0.003813
6.33E-06	6.62E-06	0.266365	4.2E-06	4.2E-05	9.04E-05	0.000103	0.000833	2.52E-06	1.04E-06
0	0	0	0	0	0	0	0	0	0
3.26E-06	3.54E-06	0.369038	3.78E-06	1.99E-06	1.18E-05	1.73E-05	0.000928	3.65E-06	1.85E-05
6.84E-06	7.44E-06	2.545483	5.48E-05	2.48E-05	0.000266	0.000389	0.00479	2.52E-05	7.2E-05
3.63E-05	3.79E-05	0.569207	7.97E-06	8.97E-05	0.000172	0.000195	0.000525	5.39E-06	8.62E-05
9.29E-07	1.01E-06	0.421478	6.44E-06	4.1E-06	2.94E-05	4.29E-05	0.000509	4.17E-06	1.05E-05
1.55E-05	1.62E-05	0.296279	3.38E-06	4.67E-05	7.27E-05	8.28E-05	0.000219	2.81E-06	3.9E-05
1.88E-05	2.01E-05	0.720367	0.00153	9.23E-05	0.009744	0.011861	0.042438	7.12E-06	1.37E-05
0.000553	0.000602	60.88687	0.00216	0.001026	0.009257	0.01349	0.148937	0.000602	0.002113
1.96E-05	2.04E-05	0.684907	6.71E-06	0.000108	0.000144	0.000164	0.002636	6.49E-06	2.14E-06
0	0	0	0	0	0	0	0	0	0
2.05E-06	2.23E-06	0.190743	1.94E-06	1.01E-06	6.12E-06	8.93E-06	0.000479	1.89E-06	9.59E-06
9.29E-07	1.01E-06	0.447591	9.44E-06	4.53E-06	4.11E-05	6E-05	0.000577	4.42E-06	4.74E-06
6.55E-06	6.85E-06	0.066154	1.34E-06	1.04E-05	2.89E-05	3.29E-05	6.84E-05	6.27E-07	4.62E-06
3.64E-06	3.96E-06	2.265741	5.17E-05	2.49E-05	0.000252	0.000368	0.002071	2.24E-05	2.59E-05
0.000103	0.000108	4.473243	2.34E-05	0.000705	0.000505	0.000575	0.001088	4.24E-05	0.000387
0	0	0	0	0	0	0	0	0	0
8.48E-08	9.22E-08	0.069126	0.000103	1.41E-05	1.47E-06	0.000105	0.000197	0	2.82E-05
1.65E-06	1.8E-06	1.303918	2.63E-05	1.36E-05	0.000127	0.000186	0.001028	1.29E-05	1.46E-05
3.35E-05	3.5E-05	0.89343	9E-06	0.000141	0.000194	0.00022	0.000458	8.46E-06	6.34E-05
1.05E-07	1.14E-07	0.109387	0.000164	2.23E-05	2.35E-06	0.000168	0.000281	0	4.4E-05
9.48E-06	1.03E-05	3.691889	0.000129	8.93E-05	0.000646	0.000943	0.004637	3.65E-05	8.72E-05
0.000188	0.000197	2.633266	5.05E-05	0.000415	0.001086	0.001237	0.001415	2.49E-05	8.15E-05
0	0	0	0	0	0	0	0	0	0
1.34E-05	1.45E-05	10.82232	0.033263	0.002206	0.000475	0.033947	0.125875	0	0.001257
1.44E-06	1.56E-06	1.401887	7.42E-06	1.34E-05	2.47E-05	3.61E-05	0.000187	1.39E-05	1.51E-05
1.25E-07	1.3E-07	0.055627	2.05E-07	8.76E-06	4.4E-06	5.01E-06	7.39E-06	5.27E-07	3.16E-06
0	0	0	0	0	0	0	0	0	0
3.36E-06	3.51E-06	68.91494	0.03862	0.014049	0.000552	0.039414	0.576596	0	0.005795
3.21E-09	3.49E-09	0.001813	3.38E-07	1.08E-07	1.81E-06	2.64E-06	3.5E-05	1.79E-08	1.58E-08
7.67E-06	8.02E-06	1.67146	3.21E-06	0.000263	6.91E-05	7.86E-05	0.000602	1.58E-05	0.00011

0	0	0	0	0	0	0	0	0	0
2.37E-07	2.58E-07	0.181949	0.000442	3.71E-05	1.52E-05	0.000461	0.002514	0	2.85E-05
0.001705	0.001854	135.4869	0.003455	0.001666	0.013158	0.0192	0.300588	0.001339	0.006941
3.82E-05	3.99E-05	0.238742	5.69E-06	3.76E-05	0.000123	0.000139	0.00172	2.26E-06	1.21E-06
0	0	0	0	0	0	0	0	0	0
2.8E-05	3.05E-05	2.680297	2.73E-05	1.43E-05	8.6E-05	0.000125	0.006747	2.65E-05	0.000126
0.000237	0.000258	14.01837	0.000963	0.000385	0.004288	0.006257	0.066593	0.000139	0.000656
3.52E-06	3.67E-06	0.003769	2.1E-07	5.94E-07	4.52E-06	5.15E-06	1.78E-05	3.57E-08	1.12E-08
0	0	0	0	0	0	0	0	0	0
9.74E-08	1.06E-07	0.013729	1.4E-07	7.31E-08	4.4E-07	6.43E-07	3.46E-05	1.36E-07	6.9E-07
0.000868	0.000944	82.39031	0.002182	0.001114	0.008577	0.012515	0.175841	0.000815	0.00367
4.71E-06	4.93E-06	0.254552	4.01E-06	4.01E-05	8.63E-05	9.82E-05	0.000818	2.41E-06	1.01E-06
0	0	0	0	0	0	0	0	0	0
3.37E-06	3.67E-06	0.40067	4.09E-06	2.14E-06	1.29E-05	1.88E-05	0.001009	3.96E-06	2.01E-05
5.43E-06	5.9E-06	2.131179	4.11E-05	1.86E-05	0.000199	0.00029	0.00382	2.11E-05	6.18E-05
2.96E-05	3.09E-05	0.513558	6.58E-06	8.09E-05	0.000142	0.000161	0.000432	4.87E-06	8.16E-05
0	0	0	0	0	0	0	0	0	0
7.29E-07	7.93E-07	0.350978	4.73E-06	3.1E-06	2.14E-05	3.12E-05	0.000403	3.47E-06	8.91E-06
1.29E-05	1.35E-05	0.2682	2.84E-06	4.23E-05	6.12E-05	6.97E-05	0.000184	2.54E-06	3.69E-05
0	0	0	0	0	0	0	0	0	0
1.81E-05	1.94E-05	0.679885	0.001429	8.75E-05	0.00901	0.01101	0.038368	6.72E-06	1.31E-05
0.000491	0.000534	55.95477	0.001782	0.000864	0.007508	0.01095	0.123364	0.000553	0.002016
1.69E-05	1.76E-05	0.632301	6.02E-06	9.96E-05	0.00013	0.000148	0.00245	5.99E-06	2E-06
0	0	0	0	0	0	0	0	0	0
2.11E-06	2.29E-06	0.215354	2.18E-06	1.13E-06	6.91E-06	1.01E-05	0.000542	2.13E-06	1.08E-05
7.85E-07	8.53E-07	0.397734	7.18E-06	3.73E-06	3.04E-05	4.43E-05	0.000397	3.93E-06	4.22E-06
5.53E-06	5.78E-06	0.06138	1.21E-06	9.67E-06	2.62E-05	2.98E-05	6.29E-05	5.82E-07	4.48E-06
3.2E-06	3.48E-06	1.970302	3.89E-05	1.95E-05	0.000188	0.000275	0.001519	1.95E-05	2.28E-05
7.87E-05	8.22E-05	3.993385	1.86E-05	0.000629	0.0004	0.000455	0.000915	3.78E-05	0.00035
0	0	0	0	0	0	0	0	0	0
8.1E-08	8.81E-08	0.063665	9.52E-05	1.3E-05	1.36E-06	9.71E-05	0.000185	0	2.61E-05
1.51E-06	1.65E-06	1.143733	2.15E-05	1.14E-05	0.000104	0.000152	0.000841	1.13E-05	1.3E-05
3.14E-05	3.28E-05	0.829106	8.45E-06	0.000131	0.000182	0.000207	0.000426	7.85E-06	5.93E-05
0	0	0	0	0	0	0	0	0	0
1.04E-07	1.13E-07	0.102581	0.000154	2.09E-05	2.21E-06	0.000158	0.00027	0	4.15E-05
9.72E-06	1.06E-05	3.777055	0.000124	8.9E-05	0.00062	0.000905	0.00446	3.73E-05	8.96E-05
0.000173	0.000181	2.535212	4.79E-05	0.000399	0.001032	0.001174	0.001361	2.4E-05	8.36E-05
0	0	0	0	0	0	0	0	0	0
1.37E-05	1.49E-05	11.03984	0.033686	0.002251	0.000481	0.034379	0.126693	0	0.001293
1.93E-06	2.09E-06	1.387484	7.41E-06	1.16E-05	2.45E-05	3.57E-05	0.000163	1.37E-05	1.49E-05
1.2E-07	1.25E-07	0.054756	1.93E-07	8.63E-06	4.15E-06	4.73E-06	7.1E-06	5.19E-07	3.14E-06
0	0	0	0	0	0	0	0	0	0
3.46E-06	3.62E-06	67.8852	0.037376	0.013839	0.000534	0.038145	0.548038	0	0.005721

PM10\_PM PM2.5\_PV Fuel Consl Energy Consumption

9.42E-08	3.3E-08	0.00032	0
9.75E-05	3.41E-05	0.21159	0
1.05E-05	3.68E-06	0.032804	0
0.001368	0.000479	17.00261	0
3.1E-06	1.08E-06	0.028489	0
0.000213	7.47E-05	0	101466.2
3.9E-05	1.36E-05	0.281923	12372.19
0.000169	5.91E-05	1.74275	0
4.94E-08	1.73E-08	0.000473	0
7.95E-07	2.78E-07	0	375.039
1.02E-07	3.58E-08	0.000647	33.13582
0.00085	0.000298	9.61588	0
2.57E-06	9E-07	0.023307	0
6.05E-06	2.12E-06	0	2884.497
4.68E-06	1.64E-06	0.031344	1506.518
0.000125	4.38E-05	0.275769	0
3.55E-05	1.24E-05	0.048346	0
2.14E-05	7.49E-06	0.045945	0
1.81E-05	6.35E-06	0.025086	0
1.86E-05	6.49E-06	0.075783	0
0.000492	0.000172	6.601155	0
5.7E-06	1.99E-06	0.062505	0
6.1E-06	2.13E-06	0	2910.031
2.44E-06	8.56E-07	0.017202	779.8776
6.69E-06	2.34E-06	0.048464	0
1.83E-06	6.39E-07	0.005716	0
3.65E-05	1.28E-05	0.249203	0
0.000113	3.97E-05	0.400469	0
1.57E-06	5.49E-07	0.007729	0
2.09E-05	7.33E-06	0.145382	0
2.81E-05	9.83E-06	0.07854	0
2.89E-06	1.01E-06	0.014474	0
0.000115	4.03E-05	0.378544	0
6.92E-05	2.42E-05	0.243381	0
7.08E-05	2.48E-05	1.224549	0
3.67E-05	1.28E-05	0.147544	0
2.18E-06	7.64E-07	0.00525	0
1.9E-06	6.64E-07	0	185.0626



0.000656	0.000229	7.951871	0
8.11E-08	2.84E-08	0.000275	0
9.35E-05	3.27E-05	0.200699	0
1.84E-08	6.45E-09	0	1.413526
1.01E-05	3.55E-06	0.030987	0
0.001309	0.000458	16.01807	0
2.79E-06	9.78E-07	0.025427	0
0.000258	9.05E-05	0	122886.3
4.35E-05	1.52E-05	0.2923	13935.23
0.000162	5.66E-05	1.648168	0
4.27E-08	1.49E-08	0.000409	0
1.01E-06	3.53E-07	0	476.993
1.84E-07	6.44E-08	0.001058	60.17097
0.000848	0.000297	9.396755	0
2.68E-06	9.36E-07	0.023794	0
1.01E-05	3.52E-06	0	4794.273
6.35E-06	2.22E-06	0.038915	2061.159
0.000125	4.38E-05	0.268418	0
3.79E-05	1.33E-05	0.050847	0
2.12E-05	7.42E-06	0.044444	0
1.95E-05	6.82E-06	0.026466	0
1.87E-05	6.54E-06	0.075962	0
0.000486	0.00017	6.420445	0
5.68E-06	1.99E-06	0.061182	0
1.08E-05	3.79E-06	0	5161.224
3.13E-06	1.09E-06	0.020114	1007.672
6.52E-06	2.28E-06	0.047198	0
1.89E-06	6.6E-07	0.00591	0
3.54E-05	1.24E-05	0.23892	0
0.000113	3.97E-05	0.399593	0
1.35E-08	4.72E-09	0	1.399946
1.64E-06	5.74E-07	0.00799	0
2E-05	7E-06	0.137497	0
2.83E-05	9.9E-06	0.07981	0
2.55E-06	8.93E-07	0.012643	0
0.000119	4.17E-05	0.389305	0
6.7E-05	2.35E-05	0.235229	0
1.93E-08	6.74E-09	0	1.998727
7.29E-05	2.55E-05	1.250895	0
3.68E-05	1.29E-05	0.147827	0
2.01E-06	7.03E-07	0.004969	0
1.9E-06	6.64E-07	0	184.811
0.000657	0.00023	7.965516	0
5.66E-08	1.98E-08	0.000191	0
7.14E-05	2.5E-05	0.149311	0

9.3E-08	3.26E-08	0	7.06641
6.95E-06	2.43E-06	0.02103	0
0.001186	0.000415	14.28693	0
2.37E-06	8.3E-07	0.021327	0
0.000304	0.000106	0	144553.2
4.73E-05	1.66E-05	0.282634	15333.49
0.000147	5.15E-05	1.478219	0
3.51E-08	1.23E-08	0.000337	0
1.3E-06	4.56E-07	0	616.5456
2.86E-07	1E-07	0.001448	94.5026
0.000799	0.00028	8.687955	0
2.61E-06	9.12E-07	0.022739	0
1.43E-05	4.99E-06	0	6794.773
7.78E-06	2.72E-06	0.04225	2552.936
0.000107	3.76E-05	0.22473	0
3.46E-05	1.21E-05	0.045876	0
3.6E-07	1.26E-07	0	15.75015
1.8E-05	6.31E-06	0.03701	0
1.79E-05	6.25E-06	0.023958	0
8.96E-08	3.13E-08	0	3.355993
1.77E-05	6.2E-06	0.071693	0
0.000455	0.000159	5.90036	0
5.34E-06	1.87E-06	0.056483	0
1.55E-05	5.44E-06	0	7409.19
4.06E-06	1.42E-06	0.022709	1327.369
5.8E-06	2.03E-06	0.041941	0
1.75E-06	6.12E-07	0.005483	0
3.11E-05	1.09E-05	0.207766	0
0.000102	3.56E-05	0.356727	0
2.18E-07	7.62E-08	0	22.58275
1.52E-06	5.31E-07	0.007359	0
1.77E-05	6.2E-06	0.120605	0
2.65E-05	9.28E-06	0.074064	0
3.59E-08	1.26E-08	0	3.727299
2.41E-06	8.44E-07	0.011857	0
0.000122	4.29E-05	0.398286	0
6.47E-05	2.26E-05	0.226469	0
3.64E-07	1.27E-07	0	37.70199
7.5E-05	2.62E-05	1.276037	0
3.64E-05	1.27E-05	0.146308	0
1.96E-06	6.87E-07	0.004891	0
6.43E-06	2.25E-06	0	626.9261
0.000649	0.000227	7.846494	0

Source: EMFAC2021 (v1.0.1) Emissions Inventory

Region Type: Sub-Area

Region: Los Angeles (SC)

Calendar Year: 2022, 2023, 2024

Season: Annual

Vehicle Classification: EMFAC2007 Categories

Units: miles/day for CVMT and EVMT, trips/day for Trips, kWh/day for Energy Consumption, tons/day for Em

Region	Calendar Y	Vehicle Ca	Model Yea	Speed	Fuel	Population	Total VMT	CVMT	EVMT
Los Angele	2022	HHDT	Aggregate	Aggregate	Gasoline	63.26504	3538.774	3538.774	0
Los Angele	2022	HHDT	Aggregate	Aggregate	Diesel	48900.66	6345154	6345154	0
Los Angele	2022	HHDT	Aggregate	Aggregate	Natural Ga	5299.023	362100.3	362100.3	0
Los Angele	2022	LDA	Aggregate	Aggregate	Gasoline	3413352	1.35E+08	1.35E+08	0
Los Angele	2022	LDA	Aggregate	Aggregate	Diesel	10030.88	301513.3	301513.3	0
Los Angele	2022	LDA	Aggregate	Aggregate	Electricity	127659.5	5753219	0	5753219
Los Angele	2022	LDA	Aggregate	Aggregate	Plug-in Hyl	77005.03	3631755	1877599	1754156
Los Angele	2022	LDT1	Aggregate	Aggregate	Gasoline	321949.9	11615096	11615096	0
Los Angele	2022	LDT1	Aggregate	Aggregate	Diesel	144.794	2969.141	2969.141	0
Los Angele	2022	LDT1	Aggregate	Aggregate	Electricity	644.3267	21265.03	0	21265.03
Los Angele	2022	LDT1	Aggregate	Aggregate	Plug-in Hyl	173.0164	9003.844	4305.777	4698.068
Los Angele	2022	LDT2	Aggregate	Aggregate	Gasoline	1501512	61390141	61390141	0
Los Angele	2022	LDT2	Aggregate	Aggregate	Diesel	4360.211	190690.3	190690.3	0
Los Angele	2022	LDT2	Aggregate	Aggregate	Electricity	4368.949	163553.4	0	163553.4
Los Angele	2022	LDT2	Aggregate	Aggregate	Plug-in Hyl	8362.064	422347	208749.6	213597.4
Los Angele	2022	LHDT1	Aggregate	Aggregate	Gasoline	123039.5	4764116	4764116	0
Los Angele	2022	LHDT1	Aggregate	Aggregate	Diesel	48774.91	2108378	2108378	0
Los Angele	2022	LHDT2	Aggregate	Aggregate	Gasoline	18984.12	698489.8	698489.8	0
Los Angele	2022	LHDT2	Aggregate	Aggregate	Diesel	21545.4	922900.7	922900.7	0
Los Angele	2022	MCY	Aggregate	Aggregate	Gasoline	139413	907017.6	907017.6	0
Los Angele	2022	MDV	Aggregate	Aggregate	Gasoline	917463.4	34478878	34478878	0
Los Angele	2022	MDV	Aggregate	Aggregate	Diesel	10302.79	407586.1	407586.1	0
Los Angele	2022	MDV	Aggregate	Aggregate	Electricity	4413.467	165001.3	0	165001.3
Los Angele	2022	MDV	Aggregate	Aggregate	Plug-in Hyl	4976.123	225140.6	114567.8	110572.7
Los Angele	2022	MH	Aggregate	Aggregate	Gasoline	16165.03	152712.6	152712.6	0
Los Angele	2022	MH	Aggregate	Aggregate	Diesel	4996.117	51480.96	51480.96	0
Los Angele	2022	MHDT	Aggregate	Aggregate	Gasoline	15480.78	831622	831622	0
Los Angele	2022	MHDT	Aggregate	Aggregate	Diesel	57828.41	2453217	2453217	0
Los Angele	2022	MHDT	Aggregate	Aggregate	Natural Ga	784.0169	37892.11	37892.11	0
Los Angele	2022	OBUS	Aggregate	Aggregate	Gasoline	3918.132	160387.6	160387.6	0
Los Angele	2022	OBUS	Aggregate	Aggregate	Diesel	2023.908	163561.2	163561.2	0
Los Angele	2022	OBUS	Aggregate	Aggregate	Natural Ga	374.853	22164.01	22164.01	0
Los Angele	2022	SBUS	Aggregate	Aggregate	Gasoline	1293.495	57034.92	57034.92	0
Los Angele	2022	SBUS	Aggregate	Aggregate	Diesel	1680.356	34286.5	34286.5	0
Los Angele	2022	SBUS	Aggregate	Aggregate	Natural Ga	1391.292	35082.21	35082.21	0
Los Angele	2022	UBUS	Aggregate	Aggregate	Gasoline	437.8384	31090.4	31090.4	0
Los Angele	2022	UBUS	Aggregate	Aggregate	Diesel	10.87531	1378.445	1378.445	0
Los Angele	2022	UBUS	Aggregate	Aggregate	Electricity	53.56409	2418.986	0	2418.986

Los Angele	2022	UBUS	Aggregate	Aggregate	Natural Ga	3871.457	416658.6	416658.6	0
Los Angele	2023	HHDT	Aggregate	Aggregate	Gasoline	52.44057	3231.285	3231.285	0
Los Angele	2023	HHDT	Aggregate	Aggregate	Diesel	50357.26	6491637	6491637	0
Los Angele	2023	HHDT	Aggregate	Aggregate	Electricity	39.63669	2558.522	0	2558.522
Los Angele	2023	HHDT	Aggregate	Aggregate	Natural Ga	5415.87	350604.9	350604.9	0
Los Angele	2023	LDA	Aggregate	Aggregate	Gasoline	3363326	1.33E+08	1.33E+08	0
Los Angele	2023	LDA	Aggregate	Aggregate	Diesel	9465.937	279606	279606	0
Los Angele	2023	LDA	Aggregate	Aggregate	Electricity	149786.4	6967761	0	6967761
Los Angele	2023	LDA	Aggregate	Aggregate	Plug-in Hyl	84855.73	3983694	2007927	1975766
Los Angele	2023	LDT1	Aggregate	Aggregate	Gasoline	316618.5	11498861	11498861	0
Los Angele	2023	LDT1	Aggregate	Aggregate	Diesel	130.6972	2649.862	2649.862	0
Los Angele	2023	LDT1	Aggregate	Aggregate	Electricity	737.9431	27045.91	0	27045.91
Los Angele	2023	LDT1	Aggregate	Aggregate	Plug-in Hyl	305.3619	15799.37	7268.199	8531.169
Los Angele	2023	LDT2	Aggregate	Aggregate	Gasoline	1534013	63204641	63204641	0
Los Angele	2023	LDT2	Aggregate	Aggregate	Diesel	4672.025	203904.2	203904.2	0
Los Angele	2023	LDT2	Aggregate	Aggregate	Electricity	7316.505	271839.4	0	271839.4
Los Angele	2023	LDT2	Aggregate	Aggregate	Plug-in Hyl	11176.09	559555.6	267320.1	292235.5
Los Angele	2023	LHDT1	Aggregate	Aggregate	Gasoline	123582.3	4875651	4875651	0
Los Angele	2023	LHDT1	Aggregate	Aggregate	Diesel	52370.85	2309885	2309885	0
Los Angele	2023	LHDT2	Aggregate	Aggregate	Gasoline	18992.21	707424.2	707424.2	0
Los Angele	2023	LHDT2	Aggregate	Aggregate	Diesel	23383.97	1017094	1017094	0
Los Angele	2023	MCY	Aggregate	Aggregate	Gasoline	143314.4	942493.5	942493.5	0
Los Angele	2023	MDV	Aggregate	Aggregate	Gasoline	930000	35296866	35296866	0
Los Angele	2023	MDV	Aggregate	Aggregate	Diesel	10587.1	417108.6	417108.6	0
Los Angele	2023	MDV	Aggregate	Aggregate	Electricity	7870.579	292645.8	0	292645.8
Los Angele	2023	MDV	Aggregate	Aggregate	Plug-in Hyl	6232.489	281038.2	138168.2	142869.9
Los Angele	2023	MH	Aggregate	Aggregate	Gasoline	15543.05	150959.2	150959.2	0
Los Angele	2023	MH	Aggregate	Aggregate	Diesel	5175.529	54121.46	54121.46	0
Los Angele	2023	MHDT	Aggregate	Aggregate	Gasoline	15094.87	818409	818409	0
Los Angele	2023	MHDT	Aggregate	Aggregate	Diesel	58440.26	2482453	2482453	0
Los Angele	2023	MHDT	Aggregate	Aggregate	Electricity	27.28255	586.3877	0	586.3877
Los Angele	2023	MHDT	Aggregate	Aggregate	Natural Ga	827.543	40273.3	40273.3	0
Los Angele	2023	OBUS	Aggregate	Aggregate	Gasoline	3808.788	153201.7	153201.7	0
Los Angele	2023	OBUS	Aggregate	Aggregate	Diesel	2064.03	166622.2	166622.2	0
Los Angele	2023	OBUS	Aggregate	Aggregate	Natural Ga	319.8885	19541.03	19541.03	0
Los Angele	2023	SBUS	Aggregate	Aggregate	Gasoline	1333.83	59008.66	59008.66	0
Los Angele	2023	SBUS	Aggregate	Aggregate	Diesel	1641.865	33210.41	33210.41	0
Los Angele	2023	SBUS	Aggregate	Aggregate	Electricity	1.644084	19.09633	0	19.09633
Los Angele	2023	SBUS	Aggregate	Aggregate	Natural Ga	1447.068	36139.2	36139.2	0
Los Angele	2023	UBUS	Aggregate	Aggregate	Gasoline	438.7258	31153.41	31153.41	0
Los Angele	2023	UBUS	Aggregate	Aggregate	Diesel	9.742965	1269.075	1269.075	0
Los Angele	2023	UBUS	Aggregate	Aggregate	Electricity	53.53079	2415.769	0	2415.769
Los Angele	2023	UBUS	Aggregate	Aggregate	Natural Ga	3880.599	417623.3	417623.3	0
Los Angele	2024	HHDT	Aggregate	Aggregate	Gasoline	43.66381	2950.78	2950.78	0
Los Angele	2024	HHDT	Aggregate	Aggregate	Diesel	52323.87	6605323	6605323	0

Los Angeles	2024 HHDT	Aggregate	Aggregate Electricity	159.3277	16508.8	0	16508.8
Los Angeles	2024 HHDT	Aggregate	Aggregate Natural Ga	5707.004	363944.8	363944.8	0
Los Angeles	2024 LDA	Aggregate	Aggregate Gasoline	3312060	1.31E+08	1.31E+08	0
Los Angeles	2024 LDA	Aggregate	Aggregate Diesel	8789.19	256968.2	256968.2	0
Los Angeles	2024 LDA	Aggregate	Aggregate Electricity	171677.7	8196290	0	8196290
Los Angeles	2024 LDA	Aggregate	Aggregate Plug-in Hyl	91933.07	4279571	2105556	2174016
Los Angeles	2024 LDT1	Aggregate	Aggregate Gasoline	311828.9	11357947	11357947	0
Los Angeles	2024 LDT1	Aggregate	Aggregate Diesel	118.5294	2368.569	2368.569	0
Los Angeles	2024 LDT1	Aggregate	Aggregate Electricity	868.5158	34958.66	0	34958.66
Los Angeles	2024 LDT1	Aggregate	Aggregate Plug-in Hyl	472.0351	24184	10785.21	13398.78
Los Angeles	2024 LDT2	Aggregate	Aggregate Gasoline	1566130	64695889	64695889	0
Los Angeles	2024 LDT2	Aggregate	Aggregate Diesel	4948.489	214829	214829	0
Los Angeles	2024 LDT2	Aggregate	Aggregate Electricity	10499.25	385269.4	0	385269.4
Los Angeles	2024 LDT2	Aggregate	Aggregate Plug-in Hyl	13716.62	676714.5	314753.7	361960.7
Los Angeles	2024 LHDT1	Aggregate	Aggregate Gasoline	123836.6	4934814	4934814	0
Los Angeles	2024 LHDT1	Aggregate	Aggregate Diesel	55652.48	2469363	2469363	0
Los Angeles	2024 LHDT1	Aggregate	Aggregate Electricity	510.8844	38629.84	0	38629.84
Los Angeles	2024 LHDT2	Aggregate	Aggregate Gasoline	18962.98	709989.1	709989.1	0
Los Angeles	2024 LHDT2	Aggregate	Aggregate Diesel	25083.13	1093296	1093296	0
Los Angeles	2024 LHDT2	Aggregate	Aggregate Electricity	132.2329	9473.404	0	9473.404
Los Angeles	2024 MCY	Aggregate	Aggregate Gasoline	146992	969260.7	969260.7	0
Los Angeles	2024 MDV	Aggregate	Aggregate Gasoline	941104.7	35897503	35897503	0
Los Angeles	2024 MDV	Aggregate	Aggregate Diesel	10836.34	423746.8	423746.8	0
Los Angeles	2024 MDV	Aggregate	Aggregate Electricity	11444.76	420107.5	0	420107.5
Los Angeles	2024 MDV	Aggregate	Aggregate Plug-in Hyl	7947.76	357372.5	169175.2	188197.3
Los Angeles	2024 MH	Aggregate	Aggregate Gasoline	15037.72	149209.7	149209.7	0
Los Angeles	2024 MH	Aggregate	Aggregate Diesel	5352.033	56471.38	56471.38	0
Los Angeles	2024 MHDT	Aggregate	Aggregate Gasoline	14716.96	800329.5	800329.5	0
Los Angeles	2024 MHDT	Aggregate	Aggregate Diesel	59315.44	2506988	2506988	0
Los Angeles	2024 MHDT	Aggregate	Aggregate Electricity	193.0645	11118.77	0	11118.77
Los Angeles	2024 MHDT	Aggregate	Aggregate Natural Ga	877.2928	42058.49	42058.49	0
Los Angeles	2024 OBUS	Aggregate	Aggregate Gasoline	3692.49	145452.6	145452.6	0
Los Angeles	2024 OBUS	Aggregate	Aggregate Diesel	2097.358	166829.4	166829.4	0
Los Angeles	2024 OBUS	Aggregate	Aggregate Electricity	7.843995	589.8873	0	589.8873
Los Angeles	2024 OBUS	Aggregate	Aggregate Natural Ga	328.2793	19780.16	19780.16	0
Los Angeles	2024 SBUS	Aggregate	Aggregate Gasoline	1372.011	60689.42	60689.42	0
Los Angeles	2024 SBUS	Aggregate	Aggregate Diesel	1597.022	32040.99	32040.99	0
Los Angeles	2024 SBUS	Aggregate	Aggregate Electricity	11.68207	360.214	0	360.214
Los Angeles	2024 SBUS	Aggregate	Aggregate Natural Ga	1503.388	37156.56	37156.56	0
Los Angeles	2024 UBUS	Aggregate	Aggregate Gasoline	437.5652	30984.44	30984.44	0
Los Angeles	2024 UBUS	Aggregate	Aggregate Diesel	9.45988	1241.732	1241.732	0
Los Angeles	2024 UBUS	Aggregate	Aggregate Electricity	97.83777	8157.187	0	8157.187
Los Angeles	2024 UBUS	Aggregate	Aggregate Natural Ga	3846.599	412993.5	412993.5	0

issions, 1000 gallons/day for Fuel Consumption

Trips	Energy Coi	NOx_RUNI	NOx_IDLE	NOx_STRE	NOx_TOTE	PM2.5_RU	PM2.5_IDI	PM2.5_STI	PM2.5_TO
1265.807	0	0.031477	0	0.000785	0.032262	8.07E-06	0	2.17E-06	1.02E-05
752459.5	0	18.31754	3.922339	1.979107	24.21899	0.176861	0.00222	0	0.179081
35928.28	0	0.401241	0.055498	0	0.456739	0.001	9.26E-05	0	0.001092
15900218	0	8.007649	0	4.72203	12.72968	0.22637	0	0.036852	0.263222
41570.24	0	0.096802	0	0	0.096802	0.011006	0	0	0.011006
641939.7	2221217	0	0	0	0	0	0	0	0
318415.8	529807.3	0.014406	0	0.039131	0.053536	0.003291	0	0.000776	0.004067
1417104	0	2.81859	0	0.727505	3.546094	0.035653	0	0.005286	0.040939
429.3151	0	0.004993	0	0	0.004993	0.000847	0	0	0.000847
2916.832	8210.057	0	0	0	0	0	0	0	0
715.423	1418.956	3.3E-05	0	8.79E-05	0.000121	4.91E-06	0	1.15E-06	6.06E-06
7055330	0	6.770476	0	2.940779	9.711255	0.108036	0	0.016297	0.124334
21120.42	0	0.013255	0	0	0.013255	0.001614	0	0	0.001614
22514.53	63145.13	0	0	0	0	0	0	0	0
34577.14	64512.77	0.001602	0	0.004249	0.005851	0.000302	0	7.03E-05	0.000372
1833105	0	1.129283	0.005163	1.321873	2.456319	0.006062	0	0.000766	0.006828
613527	0	3.68872	0.109161	0	3.797881	0.057526	0.00145	0	0.058976
282835.1	0	0.163293	0.000801	0.207999	0.372093	0.000793	0	9.63E-05	0.000889
271014.1	0	1.397526	0.047749	0	1.445275	0.024402	0.000642	0	0.025043
278825.9	0	0.573825	0	0.043487	0.617312	0.002126	0	0.001134	0.00326
4239291	0	6.384962	0	2.437755	8.822717	0.065317	0	0.010824	0.076142
48955.92	0	0.056286	0	0	0.056286	0.004437	0	0	0.004437
22733.53	63704.1	0	0	0	0	0	0	0	0
20576.27	33396.26	0.000879	0	0.002529	0.003408	0.000205	0	5.18E-05	0.000257
1617.149	0	0.08914	0	0.000686	0.089826	0.000261	0	8.54E-07	0.000261
499.6117	0	0.218004	0	0	0.218004	0.005632	0	0	0.005632
309739.4	0	0.535625	0.001519	0.150989	0.688132	0.000889	0	0.000177	0.001066
705969.6	0	4.219342	0.975247	1.131293	6.325882	0.044839	0.002346	0	0.047185
6890.154	0	0.005233	0.005848	0	0.011081	3.23E-05	1.45E-05	0	4.68E-05
78393.98	0	0.095723	0.00028	0.034698	0.130701	0.000134	0	2.39E-05	0.000158
26239.42	0	0.408709	0.04154	0.044191	0.49444	0.00651	4.73E-05	0	0.006558
3336.192	0	0.003997	0.000648	0	0.004645	1.57E-05	1.31E-06	0	1.7E-05
5173.98	0	0.034032	0.001316	0.004064	0.039413	6.95E-05	0	2.75E-06	7.23E-05
24331.55	0	0.361533	0.064298	0.004146	0.429977	0.002053	8.79E-05	0	0.002141
20145.9	0	0.035585	0.008075	0	0.04366	0.000159	1.76E-05	0	0.000177
1751.354	0	0.008581	0	0.001712	0.010292	3.62E-05	0	8.98E-07	3.71E-05
43.50122	0	0.00167	0	0	0.00167	9.39E-06	0	0	9.39E-06
214.2564	5077.565	0	0	0	0	0	0	0	0

15485.83	0	0.318254	0	0	0.318254	0.000167	0	0	0.000167
1049.231	0	0.02572	0	0.00095	0.02667	6.35E-06	0	1.6E-06	7.95E-06
778752.4	0	13.69764	3.705021	2.364733	19.7674	0.167609	0.002053	0	0.169663
631.7287	4542.85	0	0	0	0	0	0	0	0
34520.18	0	0.3613	0.051851	0	0.413151	0.000941	9.25E-05	0	0.001033
15650235	0	7.06309	0	4.424476	11.48757	0.214832	0	0.034912	0.249744
38923.82	0	0.082805	0	0	0.082805	0.009569	0	0	0.009569
750975.1	2690131	0	0	0	0	0	0	0	0
350878.5	596740.4	0.015399	0	0.04312	0.058519	0.003322	0	0.000809	0.004131
1394224	0	2.518589	0	0.673895	3.192483	0.032826	0	0.004876	0.037702
380.5267	0	0.004435	0	0	0.004435	0.000752	0	0	0.000752
3402.44	10441.95	0	0	0	0	0	0	0	0
1262.671	2576.667	5.57E-05	0	0.000155	0.000211	7.96E-06	0	1.95E-06	9.91E-06
7216720	0	6.074938	0	2.74596	8.820898	0.106089	0	0.016048	0.122137
22591.39	0	0.012607	0	0	0.012607	0.001503	0	0	0.001503
37572.14	104952.4	0	0	0	0	0	0	0	0
46213.12	88263.84	0.00205	0	0.005679	0.007729	0.000357	0	8.67E-05	0.000444
1841192	0	1.006898	0.005017	1.283704	2.295619	0.006048	0	0.000705	0.006753
658759.4	0	3.384506	0.108797	0	3.493304	0.055682	0.001547	0	0.057229
282955.6	0	0.145036	0.000775	0.201961	0.347772	0.000781	0	8.74E-05	0.000869
294140.9	0	1.302612	0.04805	0	1.350662	0.024142	0.000694	0	0.024836
286628.8	0	0.577265	0	0.042146	0.619411	0.002218	0	0.001108	0.003326
4305992	0	5.629143	0	2.241908	7.871051	0.062359	0	0.010314	0.072673
50133.21	0	0.050934	0	0	0.050934	0.004132	0	0	0.004132
40427.05	112985.4	0	0	0	0	0	0	0	0
25771.34	43150.98	0.00106	0	0.003167	0.004227	0.000224	0	5.87E-05	0.000283
1554.927	0	0.074476	0	0.000674	0.07515	0.000234	0	7.49E-07	0.000235
517.5529	0	0.216224	0	0	0.216224	0.005404	0	0	0.005404
302018.1	0	0.450794	0.001484	0.144693	0.596971	0.000861	0	0.000164	0.001024
714881.8	0	3.164605	0.870542	1.263939	5.299087	0.036837	0.001976	0	0.038814
352.609	612.8494	0	0	0	0	0	0	0	0
7127.992	0	0.005138	0.006192	0	0.01133	3.67E-05	1.61E-05	0	5.29E-05
76206.23	0	0.085572	0.000272	0.033619	0.119463	0.000132	0	2.34E-05	0.000156
26660.67	0	0.337793	0.037506	0.049236	0.424535	0.00619	4.47E-05	0	0.006234
2847.008	0	0.003374	0.000551	0	0.003925	1.47E-05	1.15E-06	0	1.59E-05
5335.32	0	0.034032	0.001359	0.004284	0.039675	6.95E-05	0	2.8E-06	7.23E-05
23774.21	0	0.340045	0.062243	0.004442	0.406731	0.001915	8.13E-05	0	0.001996
23.80634	22.08111	0	0	0	0	0	0	0	0
20953.55	0	0.035357	0.00838	0	0.043737	0.000164	1.88E-05	0	0.000183
1754.903	0	0.008561	0	0.001705	0.010266	3.99E-05	0	9.9E-07	4.09E-05
38.97186	0	0.001192	0	0	0.001192	8.47E-06	0	0	8.47E-06
214.1232	5070.782	0	0	0	0	0	0	0	0
15522.39	0	0.315759	0	0	0.315759	0.000171	0	0	0.000171
873.6256	0	0.022257	0	0.00072	0.022977	5E-06	0	1.17E-06	6.17E-06
812033.7	0	13.31955	3.815161	2.503999	19.63871	0.170111	0.002004	0	0.172115

2224.44	29382.84	0	0	0	0	0	0	0	0
36370.01	0	0.337717	0.053094	0	0.390811	0.000912	0.000101	0	0.001013
15395682	0	6.255976	0	4.158275	10.41425	0.203252	0	0.033233	0.236485
36035.14	0	0.068604	0	0	0.068604	0.007714	0	0	0.007714
857942.9	3164445	0	0	0	0	0	0	0	0
380143.2	656617.5	0.016089	0	0.046716	0.062806	0.003314	0	0.00084	0.004154
1373845	0	2.245313	0	0.625242	2.870555	0.030053	0	0.004508	0.034561
338.8223	0	0.003952	0	0	0.003952	0.000667	0	0	0.000667
4075.934	13496.93	0	0	0	0	0	0	0	0
1951.865	4046.831	8.24E-05	0	0.00024	0.000322	1.15E-05	0	2.96E-06	1.45E-05
7373138	0	5.488997	0	2.589309	8.078305	0.103821	0	0.015894	0.119715
23893.23	0	0.011645	0	0	0.011645	0.001312	0	0	0.001312
53700.22	148745.8	0	0	0	0	0	0	0	0
56718.24	109322.9	0.002405	0	0.00697	0.009375	0.000399	0	0.000102	0.000501
1844981	0	0.893729	0.004869	1.243723	2.142321	0.006001	0	0.000648	0.006649
700038.2	0	3.089114	0.108132	0	3.197246	0.053639	0.001636	0	0.055275
7136.731	21582.07	0	0	0	0	0	0	0	0
282520.2	0	0.128382	0.000749	0.195361	0.324492	0.000769	0	7.97E-05	0.000849
315514.2	0	1.209456	0.048184	0	1.25764	0.023745	0.000744	0	0.024489
1750.362	5296.526	0	0	0	0	0	0	0	0
293984	0	0.578203	0	0.040895	0.619098	0.002279	0	0.001085	0.003365
4364748	0	4.922182	0	2.06122	6.983402	0.059162	0	0.009852	0.069014
51125.48	0	0.046206	0	0	0.046206	0.003882	0	0	0.003882
58543.45	162196.1	0	0	0	0	0	0	0	0
32863.99	56841.18	0.001293	0	0.004039	0.005331	0.00025	0	6.83E-05	0.000318
1504.374	0	0.063496	0	0.000664	0.06416	0.000215	0	6.76E-07	0.000216
535.2033	0	0.213716	0	0	0.213716	0.00519	0	0	0.00519
294456.9	0	0.379316	0.001449	0.138091	0.518855	0.000835	0	0.000154	0.000988
726825.6	0	2.928397	0.855057	1.298333	5.081787	0.033071	0.001679	0	0.034751
2643.907	11626.17	0	0	0	0	0	0	0	0
7503.19	0	0.005118	0.006566	0	0.011684	3.94E-05	1.76E-05	0	5.7E-05
73879.35	0	0.076025	0.000264	0.032592	0.108881	0.00013	0	2.29E-05	0.000153
27161.65	0	0.3378	0.038146	0.050371	0.426317	0.006199	4.4E-05	0	0.006243
156.9427	621.3033	0	0	0	0	0	0	0	0
2921.686	0	0.003308	0.000564	0	0.003872	1.59E-05	1.22E-06	0	1.71E-05
5488.044	0	0.033492	0.001398	0.004454	0.039344	7.12E-05	0	2.93E-06	7.41E-05
23124.88	0	0.317234	0.059853	0.004724	0.381811	0.001781	7.51E-05	0	0.001856
124.0754	416.516	0	0	0	0	0	0	0	0
21769.06	0	0.03511	0.008688	0	0.043798	0.000169	1.99E-05	0	0.000189
1750.261	0	0.007006	0	0.001565	0.008571	5.12E-05	0	1.24E-06	5.25E-05
37.83952	0	0.001074	0	0	0.001074	8.21E-06	0	0	8.21E-06
391.3511	17142.31	0	0	0	0	0	0	0	0
15386.4	0	0.289326	0	0	0.289326	0.000179	0	0	0.000179



PM2.5_PV	PM2.5_PV	PM2.5_TO	PM10_RUI	PM10_IDL	PM10_STR	PM10_TO	PM10_PM	PM10_PM	PM10_TO
1.95E-05	0.000138	0.000167	8.78E-06	0	2.36E-06	1.11E-05	7.8E-05	0.000393	0.000482
0.061912	0.204244	0.445237	0.184858	0.00232	0	0.187179	0.247646	0.583555	1.018379
0.003592	0.020825	0.02551	0.001087	0.000101	0	0.001188	0.014369	0.059501	0.075058
0.297461	0.457527	1.01821	0.246193	0	0.040078	0.286271	1.189845	1.30722	2.783335
0.000665	0.001037	0.012707	0.011503	0	0	0.011503	0.002659	0.002962	0.017124
0.012684	0.009689	0.022373	0	0	0	0	0.050735	0.027683	0.078418
0.008007	0.005777	0.01785	0.003579	0	0.000844	0.004423	0.032027	0.016506	0.052955
0.025607	0.048845	0.11539	0.038771	0	0.005748	0.04452	0.102428	0.139556	0.286504
6.55E-06	1.43E-05	0.000867	0.000885	0	0	0.000885	2.62E-05	4.08E-05	0.000952
4.69E-05	3.61E-05	8.3E-05	0	0	0	0	0.000188	0.000103	0.000291
1.99E-05	1.43E-05	4.02E-05	5.34E-06	0	1.25E-06	6.59E-06	7.94E-05	4.1E-05	0.000127
0.135342	0.245966	0.505642	0.117497	0	0.017724	0.135221	0.541368	0.70276	1.37935
0.00042	0.000744	0.002779	0.001687	0	0	0.001687	0.001682	0.002126	0.005495
0.000361	0.000275	0.000635	0	0	0	0	0.001442	0.000785	0.002227
0.000931	0.000672	0.001975	0.000328	0	7.65E-05	0.000405	0.003724	0.00192	0.006049
0.010503	0.143367	0.160698	0.006593	0	0.000833	0.007426	0.042012	0.40962	0.459058
0.006972	0.063448	0.129395	0.060127	0.001516	0	0.061642	0.027889	0.181279	0.27081
0.00154	0.024523	0.026952	0.000862	0	0.000105	0.000967	0.00616	0.070066	0.077192
0.003052	0.032402	0.060497	0.025505	0.000671	0	0.026176	0.012208	0.092576	0.13096
0.001	0.004199	0.00846	0.002271	0	0.001204	0.003474	0.003999	0.011998	0.019471
0.076013	0.142259	0.294413	0.071023	0	0.01177	0.082792	0.304052	0.406454	0.793298
0.000899	0.001648	0.006984	0.004638	0	0	0.004638	0.003594	0.00471	0.012942
0.000364	0.000277	0.000641	0	0	0	0	0.001455	0.000791	0.002246
0.000496	0.000358	0.001112	0.000223	0	5.63E-05	0.00028	0.001985	0.001023	0.003289
0.000505	0.002569	0.003336	0.000283	0	9.29E-07	0.000284	0.00202	0.007341	0.009645
0.000227	0.000861	0.00672	0.005887	0	0	0.005887	0.000908	0.002459	0.009253
0.00275	0.013991	0.017807	0.000967	0	0.000192	0.00116	0.011	0.039974	0.052134
0.008113	0.041355	0.096653	0.046867	0.002452	0	0.049319	0.032451	0.118157	0.199926
0.000125	0.000636	0.000808	3.51E-05	1.58E-05	0	5.09E-05	0.000501	0.001818	0.00237
0.00053	0.002724	0.003412	0.000146	0	2.6E-05	0.000172	0.002122	0.007783	0.010076
0.000541	0.004248	0.011347	0.006805	4.94E-05	0	0.006854	0.002164	0.012138	0.021155
7.33E-05	0.000376	0.000467	1.71E-05	1.42E-06	0	1.85E-05	0.000293	0.001075	0.001387
0.000126	0.001031	0.001229	7.56E-05	0	2.99E-06	7.86E-05	0.000503	0.002945	0.003527
0.000113	0.00062	0.002874	0.002146	9.18E-05	0	0.002237	0.000454	0.00177	0.004461
0.000116	0.000634	0.000927	0.000173	1.92E-05	0	0.000193	0.000464	0.001812	0.002468
9.39E-05	0.00126	0.001391	3.94E-05	0	9.76E-07	4.04E-05	0.000376	0.003601	0.004016
1.26E-05	5.85E-05	8.05E-05	9.82E-06	0	0	9.82E-06	5.04E-05	0.000167	0.000227
1.74E-05	5.09E-05	6.83E-05	0	0	0	0	6.96E-05	0.000145	0.000215

0.003852	0.017662	0.021681	0.000174	0	0	0.000174	0.015408	0.050464	0.066046
1.78E-05	0.000123	0.000149	6.9E-06	0	1.75E-06	8.65E-06	7.12E-05	0.000351	0.000431
0.063351	0.203815	0.436829	0.175188	0.002146	0	0.177334	0.253405	0.582328	1.013068
2.49E-05	4.03E-05	6.52E-05	0	0	0	0	9.96E-05	0.000115	0.000215
0.003478	0.020891	0.025402	0.001023	0.000101	0	0.001124	0.013913	0.059688	0.074725
0.293506	0.451767	0.995017	0.233646	0	0.037969	0.271615	1.174024	1.290764	2.736403
0.000616	0.000964	0.011115	0.010002	0	0	0.010002	0.002466	0.002755	0.015223
0.015361	0.011739	0.0271	0	0	0	0	0.061445	0.033539	0.094984
0.008783	0.006352	0.019266	0.003613	0	0.00088	0.004493	0.03513	0.018149	0.057773
0.025351	0.048301	0.111354	0.035699	0	0.005303	0.041002	0.101403	0.138004	0.280408
5.84E-06	1.27E-05	0.00077	0.000786	0	0	0.000786	2.34E-05	3.64E-05	0.000845
5.96E-05	4.58E-05	0.000105	0	0	0	0	0.000239	0.000131	0.000369
3.48E-05	2.52E-05	7E-05	8.66E-06	0	2.12E-06	1.08E-05	0.000139	7.21E-05	0.000222
0.139342	0.253009	0.514489	0.11538	0	0.017454	0.132834	0.55737	0.722883	1.413087
0.00045	0.000799	0.002751	0.001571	0	0	0.001571	0.001798	0.002282	0.005651
0.000599	0.000457	0.001056	0	0	0	0	0.002397	0.001305	0.003702
0.001234	0.000893	0.00257	0.000388	0	9.43E-05	0.000483	0.004934	0.002551	0.007969
0.010749	0.146723	0.164225	0.006578	0	0.000767	0.007344	0.042996	0.41921	0.46955
0.007639	0.069512	0.134379	0.058199	0.001617	0	0.059816	0.030555	0.198605	0.288976
0.00156	0.024837	0.027265	0.00085	0	9.51E-05	0.000945	0.006238	0.070962	0.078145
0.003363	0.035709	0.063908	0.025233	0.000726	0	0.025959	0.013454	0.102025	0.141438
0.001039	0.004363	0.008729	0.002371	0	0.001178	0.003549	0.004156	0.012467	0.020172
0.077816	0.145213	0.295702	0.067811	0	0.011216	0.079027	0.311265	0.414894	0.805186
0.00092	0.001695	0.006746	0.004318	0	0	0.004318	0.003678	0.004843	0.01284
0.000645	0.000492	0.001137	0	0	0	0	0.002581	0.001404	0.003985
0.00062	0.000448	0.001351	0.000244	0	6.38E-05	0.000308	0.002478	0.001281	0.004067
0.000499	0.002539	0.003273	0.000255	0	8.14E-07	0.000256	0.001997	0.007255	0.009507
0.000239	0.000904	0.006547	0.005648	0	0	0.005648	0.000955	0.002584	0.009187
0.002706	0.013765	0.017496	0.000936	0	0.000178	0.001114	0.010826	0.03933	0.05127
0.008209	0.041838	0.088861	0.038503	0.002066	0	0.040569	0.032837	0.119538	0.192944
1.94E-06	4.94E-06	6.88E-06	0	0	0	0	7.76E-06	1.41E-05	2.19E-05
0.000133	0.000676	0.000862	4E-05	1.76E-05	0	5.75E-05	0.000533	0.001932	0.002522
0.000507	0.002602	0.003264	0.000144	0	2.54E-05	0.000169	0.002027	0.007434	0.00963
0.000551	0.004271	0.011057	0.00647	4.67E-05	0	0.006516	0.002204	0.012204	0.020924
6.46E-05	0.000332	0.000412	1.6E-05	1.25E-06	0	1.73E-05	0.000258	0.000948	0.001224
0.00013	0.001066	0.001269	7.55E-05	0	3.05E-06	7.86E-05	0.00052	0.003047	0.003646
0.00011	0.0006	0.002706	0.002001	8.49E-05	0	0.002086	0.000439	0.001715	0.004241
6.32E-08	1.73E-07	2.36E-07	0	0	0	0	2.53E-07	4.93E-07	7.46E-07
0.00012	0.000653	0.000956	0.000179	2.04E-05	0	0.000199	0.000478	0.001866	0.002543
9.41E-05	0.001263	0.001398	4.34E-05	0	1.08E-06	4.44E-05	0.000376	0.003608	0.004029
1.22E-05	5.39E-05	7.46E-05	8.85E-06	0	0	8.85E-06	4.9E-05	0.000154	0.000212
1.74E-05	5.08E-05	6.82E-05	0	0	0	0	6.95E-05	0.000145	0.000215
0.00386	0.017703	0.021735	0.000179	0	0	0.000179	0.015441	0.050581	0.066201
1.63E-05	0.000109	0.000132	5.44E-06	0	1.27E-06	6.71E-06	6.51E-05	0.000312	0.000384
0.064469	0.206123	0.442707	0.177803	0.002095	0	0.179897	0.257875	0.588924	1.026696

0.000158	0.000263	0.000421	0	0	0	0	0.000632	0.000752	0.001384
0.003611	0.021743	0.026366	0.000992	0.00011	0	0.001101	0.014442	0.062122	0.077665
0.288449	0.443068	0.968002	0.221055	0	0.036144	0.257199	1.153796	1.265909	2.676904
0.000567	0.000886	0.009167	0.008063	0	0	0.008063	0.002266	0.002533	0.012861
0.01807	0.013814	0.031883	0	0	0	0	0.072279	0.039467	0.111746
0.009435	0.006833	0.020421	0.003604	0	0.000914	0.004518	0.037739	0.019522	0.061779
0.02504	0.047498	0.1071	0.032685	0	0.004903	0.037588	0.10016	0.13571	0.273458
5.22E-06	1.13E-05	0.000683	0.000697	0	0	0.000697	2.09E-05	3.24E-05	0.00075
7.71E-05	5.91E-05	0.000136	0	0	0	0	0.000308	0.000169	0.000477
5.33E-05	3.87E-05	0.000107	1.25E-05	0	3.21E-06	1.58E-05	0.000213	0.000111	0.00034
0.14263	0.258066	0.52041	0.112914	0	0.017286	0.1302	0.57052	0.73733	1.438051
0.000474	0.000842	0.002627	0.001371	0	0	0.001371	0.001894	0.002404	0.00567
0.000849	0.000648	0.001497	0	0	0	0	0.003397	0.001851	0.005248
0.001492	0.001082	0.003074	0.000434	0	0.000111	0.000545	0.005968	0.003091	0.009603
0.010879	0.148504	0.166032	0.006527	0	0.000705	0.007232	0.043518	0.424297	0.475046
0.008166	0.074311	0.137752	0.056064	0.00171	0	0.057774	0.032664	0.212317	0.302755
8.52E-05	0.000581	0.000666	0	0	0	0	0.000341	0.001661	0.002001
0.001565	0.024927	0.027341	0.000836	0	8.67E-05	0.000923	0.006261	0.071219	0.078403
0.003615	0.038384	0.066488	0.024819	0.000777	0	0.025596	0.014462	0.109669	0.149727
2.09E-05	0.000166	0.000187	0	0	0	0	8.35E-05	0.000475	0.000559
0.001068	0.004487	0.00892	0.002438	0	0.001155	0.003593	0.004274	0.012821	0.020688
0.07914	0.146904	0.295058	0.064341	0	0.010714	0.075055	0.316562	0.419726	0.811343
0.000934	0.001724	0.00654	0.004057	0	0	0.004057	0.003737	0.004925	0.012719
0.000926	0.000706	0.001632	0	0	0	0	0.003705	0.002018	0.005722
0.000788	0.000571	0.001677	0.000272	0	7.42E-05	0.000346	0.003151	0.001632	0.005129
0.000493	0.002507	0.003217	0.000234	0	7.35E-07	0.000235	0.001974	0.007164	0.009372
0.000249	0.000943	0.006382	0.005425	0	0	0.005425	0.000996	0.002694	0.009115
0.002647	0.013448	0.017083	0.000908	0	0.000167	0.001075	0.010587	0.038424	0.050085
0.00829	0.042208	0.085249	0.034566	0.001755	0	0.036322	0.033162	0.120593	0.190077
3.68E-05	9.35E-05	0.00013	0	0	0	0	0.000147	0.000267	0.000414
0.000139	0.000705	0.000901	4.28E-05	1.92E-05	0	6.2E-05	0.000556	0.002015	0.002634
0.000481	0.002474	0.003109	0.000142	0	2.49E-05	0.000167	0.001924	0.00707	0.009161
0.000552	0.004289	0.011084	0.00648	4.59E-05	0	0.006526	0.002207	0.012255	0.020987
1.95E-06	5.02E-06	6.97E-06	0	0	0	0	7.8E-06	1.43E-05	2.21E-05
6.54E-05	0.000337	0.000419	1.72E-05	1.32E-06	0	1.86E-05	0.000262	0.000961	0.001242
0.000134	0.001097	0.001305	7.74E-05	0	3.18E-06	8.06E-05	0.000535	0.003134	0.00375
0.000106	0.000579	0.002541	0.001861	7.84E-05	0	0.00194	0.000424	0.001655	0.004018
9.83E-07	3.26E-06	4.24E-06	0	0	0	0	3.93E-06	9.3E-06	1.32E-05
0.000123	0.000672	0.000983	0.000184	2.17E-05	0	0.000205	0.000491	0.001919	0.002615
9.35E-05	0.001255	0.001401	5.57E-05	0	1.35E-06	5.71E-05	0.000374	0.003587	0.004018
1.22E-05	5.27E-05	7.31E-05	8.58E-06	0	0	8.58E-06	4.86E-05	0.000151	0.000208
7.28E-05	0.000173	0.000245	0	0	0	0	0.000291	0.000493	0.000784
0.003814	0.017507	0.021499	0.000187	0	0	0.000187	0.015254	0.050019	0.065461

CO2_RUNIN	CO2_IDLE	CO2_STRE	CO2_TOTE	CH4_RUNIN	CH4_IDLE	CH4_STRE	CH4_TOTE	N2O_RUNIN	N2O_IDLE
8.625652	0	0.076327	8.701979	0.000771	0	1.02E-07	0.000771	0.000859	0
11375.6	722.5848	0	12098.18	0.010895	0.013437	0	0.024332	1.79223	0.113844
507.8908	50.10784	0	557.9986	0.617837	0.142966	0	0.760803	0.103537	0.010215
44716.69	0	1271.843	45988.54	0.528223	0	1.334102	1.862326	0.810252	0
86.05529	0	0	86.05529	0.000816	0	0	0.000816	0.013558	0
0	0	0	0	0	0	0	0	0	0
626.5858	0	23.42911	650.0149	0.002275	0	0.014246	0.016521	0.002666	0
4586.089	0	143.0678	4729.156	0.158434	0	0.20044	0.358874	0.186079	0
1.449933	0	0	1.449933	5.04E-05	0	0	5.04E-05	0.000228	0
0	0	0	0	0	0	0	0	0	0
1.436909	0	0.057741	1.49465	5.23E-06	0	3.21E-05	3.73E-05	6.14E-06	0
25313.47	0	709.1889	26022.65	0.312783	0	0.697267	1.01005	0.519683	0
71.46424	0	0	71.46424	0.000215	0	0	0.000215	0.011259	0
0	0	0	0	0	0	0	0	0	0
69.66319	0	3.030847	72.69404	0.000254	0	0.001552	0.001805	0.000298	0
3478.54	16.41372	52.63975	3547.593	0.040086	0.016187	0.071613	0.127887	0.06224	0.000419
1171.718	7.153089	0	1178.871	0.011897	0.000274	0	0.012171	0.184605	0.001127
580.3079	2.937724	8.081808	591.3274	0.004289	0.002506	0.011203	0.017999	0.009563	6.35E-05
611.0947	5.055117	0	616.1499	0.005026	0.000121	0	0.005147	0.096278	0.000796
196.473	0	15.01269	211.4856	0.188548	0	0.053924	0.242472	0.039716	0
17385.71	0	523.3938	17909.1	0.279895	0	0.553215	0.83311	0.428011	0
202.3111	0	0	202.3111	0.000452	0	0	0.000452	0.031874	0
0	0	0	0	0	0	0	0	0	0
38.23318	0	2.249664	40.48284	0.000138	0	0.000915	0.001052	0.000161	0
299.7148	0	0.05695	299.7717	0.003348	0	6.73E-05	0.003416	0.004986	0
57.85582	0	0	57.85582	0.000192	0	0	0.000192	0.009115	0
1541.63	9.40884	16.16965	1567.209	0.015099	0.004367	0.016939	0.036405	0.025329	0.000123
2965.696	147.0321	0	3112.729	0.004456	0.000797	0	0.005253	0.467247	0.023165
36.11687	4.69313	0	40.81	0.021801	0.016232	0	0.038032	0.007363	0.000957
303.1267	1.658423	2.749612	307.5347	0.002417	0.000836	0.003102	0.006355	0.004497	2.26E-05
258.9631	7.977381	0	266.9405	0.000613	0.000128	0	0.000741	0.0408	0.001257
21.97066	0.499837	0	22.47049	0.012821	0.001909	0	0.01473	0.004479	0.000102
57.03865	3.750729	0.327916	61.1173	0.000986	0.003437	0.000399	0.004823	0.00181	0.000119
48.39725	4.315363	0	52.71261	0.000293	1.52E-05	0	0.000308	0.007625	0.00068
67.09995	6.333487	0	73.43344	0.18643	0.023293	0	0.209723	0.013679	0.001291
64.23939	0	0.184059	64.42345	0.000173	0	0.000221	0.000394	0.000723	0
2.584507	0	0	2.584507	8.14E-06					

1185.483	0	0	1185.483	1.194023	0	0	1.194023	0.241668	0
7.690283	0	0.064054	7.754337	0.000612	0	1.02E-07	0.000612	0.000727	0
11477.2	712.95	0	12190.15	0.004689	0.013838	0	0.018527	1.808238	0.112326
0	0	0	0	0	0	0	0	0	0
478.5666	48.74894	0	527.3155	0.579156	0.130722	0	0.709878	0.097559	0.009938
43436.63	0	1228.892	44665.52	0.46855	0	1.243667	1.712216	0.747603	0
79.17504	0	0	79.17504	0.000715	0	0	0.000715	0.012474	0
0	0	0	0	0	0	0	0	0	0
669.9107	0	25.52644	695.4371	0.002422	0	0.015644	0.018065	0.002831	0
4472.083	0	137.7167	4609.8	0.141336	0	0.18489	0.326226	0.169401	0
1.292613	0	0	1.292613	4.48E-05	0	0	4.48E-05	0.000204	0
0	0	0	0	0	0	0	0	0	0
2.42491	0	0.100394	2.525304	8.77E-06	0	5.63E-05	6.51E-05	1.03E-05	0
25504.76	0	707.4963	26212.26	0.289456	0	0.66763	0.957085	0.486444	0
75.20752	0	0	75.20752	0.000215	0	0	0.000215	0.011849	0
0	0	0	0	0	0	0	0	0	0
89.18678	0	3.998707	93.18549	0.000323	0	0.002063	0.002386	0.000378	0
3451.54	16.31987	52.65341	3520.514	0.035708	0.015869	0.06858	0.120157	0.055938	0.000416
1269.918	7.547265	0	1277.466	0.011716	0.000294	0	0.01201	0.200076	0.001189
572.5302	2.913709	8.016512	583.4604	0.003697	0.002442	0.010697	0.016835	0.008631	6.25E-05
663.6921	5.395242	0	669.0873	0.00506	0.000131	0	0.005191	0.104565	0.00085
203.3182	0	14.96001	218.2782	0.188959	0	0.053512	0.24247	0.040449	0
17435.27	0	518.8473	17954.12	0.249833	0	0.516912	0.766745	0.390959	0
204.1451	0	0	204.1451	0.000428	0	0	0.000428	0.032163	0
0	0	0	0	0	0	0	0	0	0
46.09747	0	2.773829	48.8713	0.000165	0	0.00114	0.001306	0.000192	0
296.0026	0	0.054268	296.0569	0.00267	0	6.41E-05	0.002734	0.00439	0
60.84477	0	0	60.84477	0.000191	0	0	0.000191	0.009586	0
1498.726	9.105396	15.51979	1523.352	0.012508	0.004308	0.016046	0.032862	0.021989	0.000123
2989.346	144.2884	0	3133.635	0.003058	0.000741	0	0.003798	0.470973	0.022733
0	0	0	0	0	0	0	0	0	0
38.06575	4.998134	0	43.06389	0.023548	0.016902	0	0.040451	0.00776	0.001019
286.6855	1.60341	2.654176	290.9431	0.00214	0.000813	0.002984	0.005937	0.004049	2.2E-05
263.4049	7.855488	0	271.2604	0.000487	0.000128	0	0.000615	0.0415	0.001238
19.22162	0.424775	0	19.64639	0.011447	0.001609	0	0.013056	0.003918	8.66E-05
58.65935	3.847061	0.335039	62.84145	0.000943	0.003554	0.00041	0.004907	0.001823	0.000123
46.72858	4.214255	0	50.94284	0.000279	1.44E-05	0	0.000294	0.007362	0.000664
0	0	0	0	0	0	0	0	0	0
68.54359	6.596381	0	75.13998	0.188995	0.023994	0	0.212989	0.013973	0.001345
64.35083	0	0.184256	64.53509	0.000174	0	0.000221	0.000395	0.000723	0
2.426935	0	0	2.426935	6.76E-06	0	0	6.76E-06	0.000382	0
0	0	0	0	0	0	0	0	0	0
1186.405	0	0	1186.405	1.207191	0	0	1.207191	0.241856	0
6.857706	0	0.052849	6.910555	0.000493	0	8.7E-08	0.000493	0.000642	0
11522.54	726.2765	0	12248.82	0.004582	0.014326	0	0.018908	1.815381	0.114425

0	0	0	0	0	0	0	0	0	0
487.2097	51.09556	0	538.3052	0.56178	0.133578	0	0.695358	0.099321	0.010416
41943.45	0	1186.538	43129.99	0.414775	0	1.159809	1.574584	0.691639	0
71.91813	0	0	71.91813	0.000583	0	0	0.000583	0.011331	0
0	0	0	0	0	0	0	0	0	0
700.5491	0	27.34404	727.8932	0.002513	0	0.016886	0.019399	0.002938	0
4342.669	0	132.7847	4475.453	0.125376	0	0.170691	0.296067	0.153916	0
1.152398	0	0	1.152398	3.98E-05	0	0	3.98E-05	0.000182	0
0	0	0	0	0	0	0	0	0	0
3.588398	0	0.152955	3.741354	1.29E-05	0	8.67E-05	9.96E-05	1.5E-05	0
25532.35	0	705.6222	26237.98	0.267087	0	0.63946	0.906547	0.458253	0
77.83343	0	0	77.83343	0.000206	0	0	0.000206	0.012263	0
0	0	0	0	0	0	0	0	0	0
104.7232	0	4.851846	109.575	0.000376	0	0.00252	0.002896	0.000439	0
3393.82	16.1917	52.54958	3462.561	0.03141	0.015527	0.065694	0.11263	0.050031	0.000412
1344.805	7.897617	0	1352.702	0.011389	0.000313	0	0.011702	0.211875	0.001244
0	0	0	0	0	0	0	0	0	0
560.1703	2.884372	7.93604	570.9907	0.003168	0.002374	0.01021	0.015752	0.007765	6.13E-05
704.5932	5.702908	0	710.2961	0.005015	0.000141	0	0.005156	0.111009	0.000898
0	0	0	0	0	0	0	0	0	0
208.1318	0	14.91946	223.0513	0.188032	0	0.053184	0.241216	0.040936	0
17350.87	0	513.4156	17864.29	0.220309	0	0.48159	0.701899	0.355861	0
204.1292	0	0	204.1292	0.000405	0	0	0.000405	0.032161	0
0	0	0	0	0	0	0	0	0	0
56.28707	0	3.473761	59.76083	0.0002	0	0.001447	0.001648	0.000232	0
292.435	0	0.052106	292.4871	0.002194	0	6.12E-05	0.002255	0.00393	0
63.46271	0	0	63.46271	0.000189	0	0	0.000189	0.009999	0
1448.905	8.810711	14.90418	1472.62	0.010384	0.004239	0.015204	0.029827	0.019121	0.000123
3008.419	145.3542	0	3153.773	0.002717	0.000712	0	0.003429	0.473978	0.022901
0	0	0	0	0	0	0	0	0	0
39.46791	5.3244	0	44.79231	0.02467	0.017738	0	0.042409	0.008046	0.001085
270.0034	1.546109	2.554877	274.1044	0.001891	0.000788	0.002855	0.005534	0.003626	2.14E-05
262.8626	7.973562	0	270.8361	0.000493	0.000131	0	0.000625	0.041414	0.001256
0	0	0	0	0	0	0	0	0	0
19.42891	0.435972	0	19.86488	0.011828	0.001634	0	0.013462	0.003961	8.89E-05
60.01215	3.938392	0.341475	64.29202	0.000907	0.003661	0.00042	0.004988	0.001818	0.000127
44.93866	4.094782	0	49.03344	0.000265	1.37E-05	0	0.000279	0.00708	0.000645
0	0	0	0	0	0	0	0	0	0
69.92125	6.861814	0	76.78307	0.1914	0.024703	0	0.216103	0.014254	0.001399
63.86288	0	0.182963	64.04584	0.000173	0	0.000203	0.000376	0.00063	0
2.388982	0	0	2.388982	6.43E-06	0	0	6.43E-06	0.000376	0
0	0	0	0	0	0	0	0	0	0
1164.734	0	0	1164.734	1.268216	0	0	1.268216	0.237439	0

[illegible]

0	0.241668	0.01723	0	0	0.01723	0	0	0	0.01723
2.59E-05	0.000753	0.003441	0	5.29E-07	0.003441	0.000459	0.000126	0.001073	0.005099
0	1.920564	0.100954	0.297932	0	0.398886	0	0	0	0.398886
0	0	0	0	0	0	0	0	0	0
0	0.107497	0.016217	0.002244	0	0.018461	0	0	0	0.018461
0.56792	1.315523	1.831289	0	5.705702	7.536991	5.704117	1.666112	4.130063	19.03728
0	0.012474	0.015392	0	0	0.015392	0	0	0	0.015392
0	0	0	0	0	0	0	0	0	0
0.007922	0.010753	0.007586	0	0.062986	0.070572	0.044017	0.015832	0.013707	0.144129
0.063003	0.232404	0.638868	0	0.972307	1.611175	1.213741	0.323452	0.934506	4.082873
0	0.000204	0.000964	0	0	0.000964	0	0	0	0.000964
0	0	0	0	0	0	0	0	0	0
2.86E-05	3.88E-05	2.75E-05	0	0.000227	0.000254	0.000101	3.48E-05	3.03E-05	0.00042
0.299723	0.786167	1.165515	0	3.100813	4.266327	2.50454	0.688339	1.812148	9.271354
0	0.011849	0.004631	0	0	0.004631	0	0	0	0.004631
0	0	0	0	0	0	0	0	0	0
0.001046	0.001424	0.00101	0	0.008296	0.009306	0.004093	0.001348	0.001228	0.015975
0.104451	0.160804	0.179892	0.057444	0.335158	0.572494	0.411101	0.105831	0.572164	1.66159
0	0.201265	0.252228	0.006336	0	0.258564	0	0	0	0.258564
0.015887	0.02458	0.017366	0.008881	0.052337	0.078584	0.062535	0.015928	0.083812	0.24086
0	0.105415	0.108933	0.002829	0	0.111763	0	0	0	0.111763
0.002526	0.042975	1.237281	0	0.397929	1.63521	0.637841	1.141203	1.158156	4.57241
0.203376	0.594334	1.083674	0	2.612989	3.696664	1.938264	0.510385	1.440784	7.586098
0	0.032163	0.009218	0	0	0.009218	0	0	0	0.009218
0	0	0	0	0	0	0	0	0	0
0.000574	0.000765	0.000522	0	0.004626	0.005148	0.002565	0.000843	0.000776	0.009333
7.21E-05	0.004462	0.012202	0	0.000267	0.012468	0.081115	0.022022	0.000496	0.1161
0	0.009586	0.004115	0	0	0.004115	0	0	0	0.004115
0.01094	0.033053	0.061632	0.016661	0.087638	0.165931	0.050673	0.012368	0.095516	0.324488
0	0.493705	0.065835	0.015945	0	0.08178	0	0	0	0.08178
0	0	0	0	0	0	0	0	0	0
0	0.008779	0.000336	0.000241	0	0.000578	0	0	0	0.000578
0.002508	0.006579	0.010474	0.003122	0.015932	0.029528	0.012338	0.003096	0.013565	0.058527
0	0.042737	0.010485	0.002765	0	0.013249	0	0	0	0.013249
0	0.004005	0.000164	2.3E-05	0	0.000187	0	0	0	0.000187
0.000382	0.002327	0.004707	0.015591	0.002376	0.022674	0.002726	0.000741	0.001753	0.027894
0	0.008026	0.006017	0.00031	0	0.006326	0	0	0	0.006326
0	0	0	0	0	0	0	0	0	0
0	0.015318	0.0027	0.000343	0	0.003043	0	0	0	0.003043
0.000154	0.000877	0.000577	0	0.000948	0.001525	0.000322	0.000105	0.000219	0.002171
0	0.000382	0.000146	0	0	0.000146	0	0	0	0.000146
0	0	0	0	0	0	0	0	0	0
0	0.241856	0.017422	0	0	0.017422	0	0	0	0.017422
2.05E-05	0.000662	0.00273	0	4.5E-07	0.002731	0.000355	9.65E-05	0.000819	0.004001
0	1.929807	0.098656	0.308434	0	0.407089	0	0	0	0.407089



0	0	0	0	0	0	0	0	0	0
0	0.109737	0.015172	0.00225	0	0.017422	0	0	0	0.017422
0.545571	1.23721	1.590015	0	5.256478	6.846493	5.458797	1.583027	3.946045	17.83436
0	0.011331	0.012562	0	0	0.012562	0	0	0	0.012562
0	0	0	0	0	0	0	0	0	0
0.008523	0.01146	0.007902	0	0.06824	0.076141	0.047636	0.017364	0.01535	0.15649
0.060159	0.214075	0.562897	0	0.887878	1.450776	1.13214	0.301337	0.860707	3.74496
0	0.000182	0.000856	0	0	0.000856	0	0	0	0.000856
0	0	0	0	0	0	0	0	0	0
4.38E-05	5.88E-05	4.05E-05	0	0.00035	0.000391	0.000153	5.29E-05	4.51E-05	0.000642
0.293614	0.751868	1.060031	0	2.932052	3.992083	2.453666	0.66582	1.769954	8.881523
0	0.012263	0.004445	0	0	0.004445	0	0	0	0.004445
0	0	0	0	0	0	0	0	0	0
0.001273	0.001712	0.001181	0	0.010181	0.011363	0.00488	0.001634	0.001459	0.019335
0.102765	0.153208	0.157592	0.055771	0.318902	0.532265	0.393118	0.099323	0.545579	1.570285
0	0.213119	0.245208	0.006733	0	0.251942	0	0	0	0.251942
0	0	0	0	0	0	0	0	0	0
0.015531	0.023357	0.014751	0.008586	0.049635	0.072973	0.060823	0.01509	0.080965	0.22985
0	0.111907	0.107961	0.003035	0	0.110996	0	0	0	0.110996
0	0	0	0	0	0	0	0	0	0
0.002468	0.043404	1.217717	0	0.393162	1.61088	0.64119	1.169925	1.189303	4.611298
0.195448	0.551308	0.93763	0	2.395293	3.332923	1.907808	0.489718	1.413282	7.143731
0	0.032161	0.008719	0	0	0.008719	0	0	0	0.008719
0	0	0	0	0	0	0	0	0	0
0.000725	0.000957	0.000635	0	0.005899	0.006534	0.003099	0.001084	0.000938	0.011655
7.22E-05	0.004002	0.009737	0	0.00025	0.009987	0.074684	0.019714	0.000449	0.104834
0	0.009999	0.004067	0	0	0.004067	0	0	0	0.004067
0.010681	0.029925	0.050694	0.016278	0.082188	0.14916	0.047289	0.011353	0.08827	0.296072
0	0.496878	0.058487	0.015333	0	0.07382	0	0	0	0.07382
0	0	0	0	0	0	0	0	0	0
0	0.009131	0.000352	0.000253	0	0.000606	0	0	0	0.000606
0.002429	0.006077	0.009251	0.003027	0.015252	0.027531	0.012591	0.003052	0.013873	0.057047
0	0.04267	0.010623	0.002826	0	0.013449	0	0	0	0.013449
0	0	0	0	0	0	0	0	0	0
0	0.00405	0.000169	2.33E-05	0	0.000192	0	0	0	0.000192
0.000397	0.002342	0.004515	0.016047	0.002426	0.022987	0.003363	0.000836	0.002179	0.029366
0	0.007725	0.005709	0.000295	0	0.006004	0	0	0	0.006004
0	0	0	0	0	0	0	0	0	0
0	0.015653	0.002735	0.000353	0	0.003088	0	0	0	0.003088
0.000147	0.000777	0.000572	0	0.000863	0.001435	0.000267	8.31E-05	0.000201	0.001986
0	0.000376	0.000138	0	0	0.000138	0	0	0	0.000138
0	0	0	0	0	0	0	0	0	0
0	0.237439	0.018296	0	0	0.018296	0	0	0	0.018296

[illegible]

1.218773	0	0	1.218773	0	0	0	1.218773	17.79281	0
0.005021	0	5.79E-07	0.005021	0.000459	0.000126	0.001073	0.006679	0.179469	0
0.114928	0.339173	0	0.454101	0	0	0	0.454101	0.610735	4.32511
0	0	0	0	0	0	0	0	0	0
0.60012	0.13384	0	0.73396	0	0	0	0.73396	3.346473	0.366541
2.671328	0	6.247005	8.918332	5.704117	1.666112	4.130063	20.41862	128.5581	0
0.017522	0	0	0.017522	0	0	0	0.017522	0.148229	0
0	0	0	0	0	0	0	0	0	0
0.01107	0	0.068962	0.080032	0.044017	0.015832	0.013707	0.153588	1.090682	0
0.931952	0	1.064551	1.996503	1.213741	0.323452	0.934506	4.468201	27.33233	0
0.001098	0	0	0.001098	0	0	0	0.001098	0.005246	0
0	0	0	0	0	0	0	0	0	0
4.01E-05	0	0.000248	0.000288	0.000101	3.48E-05	3.03E-05	0.000454	0.003948	0
1.700518	0	3.394998	5.095516	2.50454	0.688339	1.812148	10.10054	72.46931	0
0.005272	0	0	0.005272	0	0	0	0.005272	0.040631	0
0	0	0	0	0	0	0	0	0	0
0.001474	0	0.009083	0.010557	0.004093	0.001348	0.001228	0.017226	0.145205	0
0.262498	0.083822	0.366956	0.713276	0.411101	0.105831	0.572164	1.802372	6.291535	0.510715
0.287145	0.007213	0	0.294358	0	0	0	0.294358	0.699687	0.052519
0.02534	0.01296	0.057302	0.095602	0.062535	0.015928	0.083812	0.257878	0.689857	0.078631
0.124014	0.003221	0	0.127234	0	0	0	0.127234	0.275355	0.02345
1.490076	0	0.432607	1.922684	0.637841	1.141203	1.158156	4.859884	13.48098	0
1.578177	0	2.860871	4.439048	1.938264	0.510385	1.440784	8.328482	52.52048	0
0.010494	0	0	0.010494	0	0	0	0.010494	0.142269	0
0	0	0	0	0	0	0	0	0	0
0.000762	0	0.005065	0.005827	0.002565	0.000843	0.000776	0.010012	0.075051	0
0.017805	0	0.000292	0.018097	0.081115	0.022022	0.000496	0.121729	0.369367	0
0.004685	0	0	0.004685	0	0	0	0.004685	0.017357	0
0.089933	0.024311	0.095953	0.210198	0.050673	0.012368	0.095516	0.368754	1.5997	0.238623
0.074949	0.018152	0	0.0931	0	0	0	0.0931	0.266486	0.476682
0	0	0	0	0	0	0	0	0	0
0.024033	0.01725	0	0.041283	0	0	0	0.041283	0.104602	0.030596
0.015284	0.004555	0.017443	0.037283	0.012338	0.003096	0.013565	0.066282	0.267466	0.024176
0.011936	0.003147	0	0.015083	0	0	0	0.015083	0.040915	0.041727
0.011683	0.001643	0	0.013325	0	0	0	0.013325	0.055962	0.00209
0.006868	0.022751	0.002601	0.03222	0.002726	0.000741	0.001753	0.037441	0.093149	0.120585
0.006849	0.000353	0	0.007202	0	0	0	0.007202	0.014199	0.004802
0	0	0	0	0	0	0	0	0	0
0.192883	0.024488	0	0.217371	0	0	0	0.217371	0.656482	0.034582
0.000842	0	0.001037	0.00188	0.000322	0.000105	0.000219	0.002526	0.014404	0
0.000166	0	0	0.000166	0	0	0	0.000166	0.000188	0
0	0	0	0	0	0	0	0	0	0
1.232217	0	0	1.232217	0	0	0	1.232217	17.90508	0
0.003984	0	4.92E-07	0.003984	0.000355	9.65E-05	0.000819	0.005255	0.140616	0
0.112312	0.351128	0	0.46344	0	0	0	0.46344	0.582856	4.488665

0	0	0	0	0	0	0	0	0	0
0.581478	0.136715	0	0.718193	0	0	0	0.718193	3.320468	0.385433
2.320146	0	5.755182	8.075328	5.458797	1.583027	3.946045	19.0632	118.6058	0
0.014301	0	0	0.014301	0	0	0	0.014301	0.131012	0
0	0	0	0	0	0	0	0	0	0
0.01153	0	0.074714	0.086244	0.047636	0.017364	0.01535	0.166593	1.138996	0
0.821278	0	0.972114	1.793393	1.13214	0.301337	0.860707	4.087577	24.73576	0
0.000974	0	0	0.000974	0	0	0	0.000974	0.004668	0
0	0	0	0	0	0	0	0	0	0
5.91E-05	0	0.000384	0.000443	0.000153	5.29E-05	4.51E-05	0.000693	0.005834	0
1.546726	0	3.210227	4.756953	2.453666	0.66582	1.769954	9.646393	68.72523	0
0.005061	0	0	0.005061	0	0	0	0.005061	0.041387	0
0	0	0	0	0	0	0	0	0	0
0.001724	0	0.011147	0.012871	0.00488	0.001634	0.001459	0.020844	0.170265	0
0.229958	0.08138	0.349157	0.660496	0.393118	0.099323	0.545579	1.698517	5.893596	0.512237
0.279153	0.007665	0	0.286819	0	0	0	0.286819	0.656367	0.05581
0	0	0	0	0	0	0	0	0	0
0.021525	0.012529	0.054344	0.088398	0.060823	0.01509	0.080965	0.245276	0.639016	0.078587
0.122907	0.003455	0	0.126362	0	0	0	0.126362	0.264037	0.025154
0	0	0	0	0	0	0	0	0	0
1.472877	0	0.427482	1.900359	0.64119	1.169925	1.189303	4.900778	13.40744	0
1.367132	0	2.622536	3.989668	1.907808	0.489718	1.413282	7.800475	47.65772	0
0.009926	0	0	0.009926	0	0	0	0.009926	0.138972	0
0	0	0	0	0	0	0	0	0	0
0.000926	0	0.006459	0.007386	0.003099	0.001084	0.000938	0.012506	0.091515	0
0.014208	0	0.000274	0.014482	0.074684	0.019714	0.000449	0.109329	0.286778	0
0.00463	0	0	0.00463	0	0	0	0.00463	0.016905	0
0.073973	0.023752	0.089986	0.187711	0.047289	0.011353	0.08827	0.334623	1.308939	0.233027
0.066583	0.017455	0	0.084038	0	0	0	0.084038	0.245227	0.482919
0	0	0	0	0	0	0	0	0	0
0.025178	0.018103	0	0.043281	0	0	0	0.043281	0.10765	0.033575
0.013499	0.004418	0.016699	0.034616	0.012591	0.003052	0.013873	0.064132	0.235151	0.023444
0.012093	0.003218	0	0.015311	0	0	0	0.015311	0.041233	0.042707
0	0	0	0	0	0	0	0	0	0
0.012072	0.001667	0	0.013739	0	0	0	0.013739	0.05668	0.002223
0.006589	0.023415	0.002656	0.032659	0.003363	0.000836	0.002179	0.039038	0.089587	0.124091
0.006499	0.000336	0	0.006835	0	0	0	0.006835	0.013549	0.004823
0	0	0	0	0	0	0	0	0	0
0.195338	0.025212	0	0.220549	0	0	0	0.220549	0.660747	0.036908
0.000835	0	0.000945	0.00178	0.000267	8.31E-05	0.000201	0.00233	0.013165	0
0.000158	0	0	0.000158	0	0	0	0.000158	0.00018	0
0	0	0	0	0	0	0	0	0	0
1.2945	0	0	1.2945	0	0	0	1.2945	18.23081	0

CO STREX CO TOTEX SOx RUNE SOx IDLEX SOx STREX SOx TOTE NH3 RUNI Fuel Consumption

0.005553	0.236114	8.53E-05	0	7.55E-07	8.6E-05	0.000167	0.917613
0	4.900032	0.10772	0.006842	0	0.114563	1.384248	1080.726
0	4.007374	0	0	0	0	0.323889	64.49613
59.15868	198.3862	0.44207	0	0.012573	0.454644	4.941561	4849.434
0	0.163246	0.000815	0	0	0.000815	0.00103	7.687285
0	0	0	0	0	0	0	0
0.434764	1.455045	0.006194	0	0.000232	0.006426	0.079104	68.54326
10.21317	40.47414	0.045338	0	0.001414	0.046753	0.480716	498.6836
0	0.005896	1.37E-05	0	0	1.37E-05	1.01E-05	0.129522
0	0	0	0	0	0	0	0
0.000977	0.003317	1.42E-05	0	5.71E-07	1.48E-05	0.000199	0.157609
30.37889	106.8272	0.250249	0	0.007011	0.25726	2.417003	2744.056
0	0.038852	0.000677	0	0	0.000677	0.000652	6.383872
0	0	0	0	0	0	0	0
0.047212	0.160645	0.000689	0	3E-05	0.000719	0.009645	7.665496
6.101233	13.30856	0.034389	0.000162	0.00052	0.035072	0.235305	374.0892
0	0.790199	0.011103	6.78E-05	0	0.01117	0.391794	105.3081
0.93625	1.76548	0.005737	2.9E-05	7.99E-05	0.005846	0.034614	62.35474
0	0.307061	0.00579	4.79E-05	0	0.005838	0.177735	55.04042
2.302826	15.80772	0.001942	0	0.000148	0.002091	0.00876	22.3009
20.95182	78.35	0.171875	0	0.005174	0.17705	1.349486	1888.492
0	0.143943	0.001917	0	0	0.001917	0.001393	18.07237
0	0	0	0	0	0	0	0
0.028095	0.090351	0.000378	0	2.22E-05	0.0004	0.005304	4.268865
0.006563	0.498534	0.002963	0	5.63E-07	0.002964	0.007476	31.61055
0	0.017729	0.000548	0	0	0.000548	0.008073	5.168237
1.990634	4.188471	0.015241	9.3E-05	0.00016	0.015493	0.041186	165.2602
0	0.787899	0.028083	0.001392	0	0.029476	0.527363	278.0588
0	0.127146	0	0	0	0	0.044275	4.717013
0.339984	0.669651	0.002997	1.64E-05	2.72E-05	0.00304	0.007947	32.42915
0	0.086379	0.002452	7.55E-05	0	0.002528	0.035729	23.84569
0	0.066221	0	0	0	0	0.025898	2.597246
0.054545	0.269772	0.000564	3.71E-05	3.24E-06	0.000604	0.002829	6.444743
0	0.019585	0.000458	4.09E-05	0	0.000499	0.002666	4.708797
0	0.684009	0	0	0	0	0.040992	8.487786
0.016474	0.030851	0.000635	0	1.82E-06	0.000637	0.001542	6.793372
0	0.000222	2.45E-05	0	0	2.45E-05	0.000246	0.230873
0	0	0	0	0	0	0	0

0	17.79281	0	0	0	0	0.445509	137.0237
0.005325	0.184794	7.6E-05	0	6.33E-07	7.67E-05	0.000155	0.817685
0	4.935845	0.108682	0.006751	0	0.115433	1.536713	1088.942
0	0	0	0	0	0	0	0
0	3.713014	0	0	0	0	0.304463	60.94963
54.89224	183.4503	0.429415	0	0.012149	0.441564	4.995237	4709.924
0	0.148229	0.00075	0	0	0.00075	0.000955	7.072675
0	0	0	0	0	0	0	0
0.479088	1.569771	0.006623	0	0.000252	0.006875	0.085782	73.33298
9.307444	36.63977	0.044211	0	0.001361	0.045573	0.47833	486.0976
0	0.005246	1.22E-05	0	0	1.22E-05	9.06E-06	0.115469
0	0	0	0	0	0	0	0
0.001724	0.005672	2.4E-05	0	9.92E-07	2.5E-05	0.000336	0.26629
29.01392	101.4832	0.252141	0	0.006994	0.259135	2.543612	2764.05
0	0.040631	0.000713	0	0	0.000713	0.000697	6.718258
0	0	0	0	0	0	0	0
0.063099	0.208304	0.000882	0	3.95E-05	0.000921	0.012358	9.826293
6.201774	13.00402	0.034122	0.000161	0.000521	0.034804	0.240977	371.2338
0	0.752206	0.012033	7.15E-05	0	0.012105	0.451604	114.1155
0.938734	1.707222	0.00566	2.88E-05	7.93E-05	0.005768	0.035063	61.52517
0	0.298805	0.006289	5.11E-05	0	0.00634	0.204395	59.76931
2.343119	15.8241	0.00201	0	0.000148	0.002158	0.009162	23.01717
19.58861	72.10909	0.172365	0	0.005129	0.177495	1.409427	1893.239
0	0.142269	0.001934	0	0	0.001934	0.001425	18.2362
0	0	0	0	0	0	0	0
0.035188	0.110239	0.000456	0	2.74E-05	0.000483	0.006397	5.153417
0.006019	0.375385	0.002926	0	5.36E-07	0.002927	0.007428	31.21883
0	0.017357	0.000577	0	0	0.000577	0.00898	5.435239
1.855476	3.693799	0.014816	9E-05	0.000153	0.01506	0.040557	160.6355
0	0.743167	0.028307	0.001366	0	0.029674	0.571634	279.9264
0	0	0	0	0	0	0	0
0	0.135198	0	0	0	0	0.047057	4.977529
0.32643	0.618073	0.002834	1.59E-05	2.62E-05	0.002876	0.007592	30.67958
0	0.082642	0.002494	7.44E-05	0	0.002569	0.038682	24.23159
0	0.058052	0	0	0	0	0.022833	2.270823
0.055194	0.268928	0.00058	3.8E-05	3.31E-06	0.000621	0.002927	6.626552
0	0.019001	0.000442	3.99E-05	0	0.000482	0.002739	4.550703
0	0	0	0	0	0	0	0
0	0.691064	0	0	0	0	0.042227	8.685035
0.01643	0.030834	0.000636	0	1.82E-06	0.000638	0.001545	6.805144
0	0.000188	2.3E-05	0	0	2.3E-05	0.000242	0.216797
0	0	0	0	0	0	0	0
0	17.90508	0	0	0	0	0.44654	137.1303
0.004369	0.144985	6.78E-05	0	5.22E-07	6.83E-05	0.000143	0.728709
0	5.071521	0.109112	0.006877	0	0.115989	1.567596	1094.182

0	0	0	0	0	0	0	0
0	3.705901	0	0	0	0	0.315231	62.21988
51.05226	169.6581	0.414654	0	0.01173	0.426384	5.024231	4548.004
0	0.131012	0.000681	0	0	0.000681	0.000878	6.424418
0	0	0	0	0	0	0	0
0.519046	1.658043	0.006926	0	0.00027	0.007196	0.090959	76.75542
8.518876	33.25464	0.042932	0	0.001313	0.044244	0.475026	471.931
0	0.004668	1.09E-05	0	0	1.09E-05	8.09E-06	0.102943
0	0	0	0	0	0	0	0
0.002665	0.008499	3.55E-05	0	1.51E-06	3.7E-05	0.000499	0.394521
27.74972	96.47495	0.252413	0	0.006976	0.259389	2.656729	2766.762
0	0.041387	0.000738	0	0	0.000738	0.000734	6.952829
0	0	0	0	0	0	0	0
0.077443	0.247708	0.001035	0	4.8E-05	0.001083	0.014555	11.55455
6.288907	12.69474	0.033551	0.00016	0.00052	0.034231	0.244077	365.1227
0	0.712176	0.012743	7.48E-05	0	0.012818	0.500985	120.8364
0	0	0	0	0	0	0	0
0.9396	1.657203	0.005538	2.85E-05	7.85E-05	0.005645	0.035196	60.21025
0	0.289191	0.006676	5.4E-05	0	0.00673	0.226662	63.45047
0	0	0	0	0	0	0	0
2.384251	15.79169	0.002058	0	0.000147	0.002205	0.009474	23.52048
18.27893	65.93664	0.171531	0	0.005076	0.176607	1.459356	1883.767
0	0.138972	0.001934	0	0	0.001934	0.001448	18.23478
0	0	0	0	0	0	0	0
0.044872	0.136387	0.000556	0	3.43E-05	0.000591	0.007832	6.301705
0.005589	0.292367	0.002891	0	5.15E-07	0.002892	0.007364	30.8424
0	0.016905	0.000601	0	0	0.000601	0.00981	5.669099
1.733149	3.275115	0.014324	8.71E-05	0.000147	0.014558	0.039676	155.2859
0	0.728145	0.028488	0.001376	0	0.029864	0.581485	281.7253
0	0	0	0	0	0	0	0
0	0.141225	0	0	0	0	0.049143	5.177308
0.312434	0.571028	0.002669	1.53E-05	2.53E-05	0.00271	0.007209	28.90396
0	0.08394	0.002489	7.55E-05	0	0.002565	0.03873	24.19368
0	0	0	0	0	0	0	0
0	0.058904	0	0	0	0	0.023112	2.296077
0.05562	0.269298	0.000593	3.89E-05	3.38E-06	0.000636	0.00301	6.779513
0	0.018373	0.000426	3.88E-05	0	0.000464	0.002806	4.380138
0	0	0	0	0	0	0	0
0	0.697654	0	0	0	0	0.043416	8.874952
0.016278	0.029443	0.000631	0	1.81E-06	0.000633	0.001537	6.753554
0	0.00018	2.26E-05	0	0	2.26E-05	0.00024	0.213407
0	0	0	0	0	0	0	0
0	18.23081	0	0	0	0	0.44159	134.6255

Source: EMFAC2021 (v1.0.1) Emission Rates

Region Type: Sub-Area

Region: Los Angeles (SC)

Calendar Year: 2022, 2023, 2024

Season: Annual

Vehicle Classification: EMFAC2007 Categories

Units: miles/day for CVMT and EVMT, trips/day for Trips, kWh/day for Energy Consumption, g/mile for RUNE

Region	Calendar Y	Vehicle Ca	Model Yea	Speed	Fuel	Population	Total VMT	CVMT	EVMT
Los Angele	2022	HHDT	Aggregate	Aggregate	Gasoline	63.26504	3538.774	3538.774	0
Los Angele	2022	HHDT	Aggregate	Aggregate	Diesel	48900.66	6345154	6345154	0
Los Angele	2022	HHDT	Aggregate	Aggregate	Natural Ga	5299.023	362100.3	362100.3	0
Los Angele	2022	LDA	Aggregate	Aggregate	Gasoline	3413352	1.35E+08	1.35E+08	0
Los Angele	2022	LDA	Aggregate	Aggregate	Diesel	10030.88	301513.3	301513.3	0
Los Angele	2022	LDA	Aggregate	Aggregate	Electricity	127659.5	5753219	0	5753219
Los Angele	2022	LDA	Aggregate	Aggregate	Plug-in Hyl	77005.03	3631755	1877599	1754156
Los Angele	2022	LDT1	Aggregate	Aggregate	Gasoline	321949.9	11615096	11615096	0
Los Angele	2022	LDT1	Aggregate	Aggregate	Diesel	144.794	2969.141	2969.141	0
Los Angele	2022	LDT1	Aggregate	Aggregate	Electricity	644.3267	21265.03	0	21265.03
Los Angele	2022	LDT1	Aggregate	Aggregate	Plug-in Hyl	173.0164	9003.844	4305.777	4698.068
Los Angele	2022	LDT2	Aggregate	Aggregate	Gasoline	1501512	61390141	61390141	0
Los Angele	2022	LDT2	Aggregate	Aggregate	Diesel	4360.211	190690.3	190690.3	0
Los Angele	2022	LDT2	Aggregate	Aggregate	Electricity	4368.949	163553.4	0	163553.4
Los Angele	2022	LDT2	Aggregate	Aggregate	Plug-in Hyl	8362.064	422347	208749.6	213597.4
Los Angele	2022	LHDT1	Aggregate	Aggregate	Gasoline	123039.5	4764116	4764116	0
Los Angele	2022	LHDT1	Aggregate	Aggregate	Diesel	48774.91	2108378	2108378	0
Los Angele	2022	LHDT2	Aggregate	Aggregate	Gasoline	18984.12	698489.8	698489.8	0
Los Angele	2022	LHDT2	Aggregate	Aggregate	Diesel	21545.4	922900.7	922900.7	0
Los Angele	2022	MCY	Aggregate	Aggregate	Gasoline	139413	907017.6	907017.6	0
Los Angele	2022	MDV	Aggregate	Aggregate	Gasoline	917463.4	34478878	34478878	0
Los Angele	2022	MDV	Aggregate	Aggregate	Diesel	10302.79	407586.1	407586.1	0
Los Angele	2022	MDV	Aggregate	Aggregate	Electricity	4413.467	165001.3	0	165001.3
Los Angele	2022	MDV	Aggregate	Aggregate	Plug-in Hyl	4976.123	225140.6	114567.8	110572.7
Los Angele	2022	MH	Aggregate	Aggregate	Gasoline	16165.03	152712.6	152712.6	0
Los Angele	2022	MH	Aggregate	Aggregate	Diesel	4996.117	51480.96	51480.96	0
Los Angele	2022	MHDT	Aggregate	Aggregate	Gasoline	15480.78	831622	831622	0
Los Angele	2022	MHDT	Aggregate	Aggregate	Diesel	57828.41	2453217	2453217	0
Los Angele	2022	MHDT	Aggregate	Aggregate	Natural Ga	784.0169	37892.11	37892.11	0
Los Angele	2022	OBUS	Aggregate	Aggregate	Gasoline	3918.132	160387.6	160387.6	0
Los Angele	2022	OBUS	Aggregate	Aggregate	Diesel	2023.908	163561.2	163561.2	0
Los Angele	2022	OBUS	Aggregate	Aggregate	Natural Ga	374.853	22164.01	22164.01	0
Los Angele	2022	SBUS	Aggregate	Aggregate	Gasoline	1293.495	57034.92	57034.92	0
Los Angele	2022	SBUS	Aggregate	Aggregate	Diesel	1680.356	34286.5	34286.5	0
Los Angele	2022	SBUS	Aggregate	Aggregate	Natural Ga	1391.292	35082.21	35082.21	0
Los Angele	2022	UBUS	Aggregate	Aggregate	Gasoline	437.8384	31090.4	31090.4	0
Los Angele	2022	UBUS	Aggregate	Aggregate	Diesel	10.87531	1378.445	1378.445	0
Los Angele	2022	UBUS	Aggregate	Aggregate	Electricity	53.56409	2418.986	0	2418.986



Los Angele	2022 UBUS	Aggregate	Aggregate	Natural Ga	3871.457	416658.6	416658.6	0
Los Angele	2023 HHDT	Aggregate	Aggregate	Gasoline	52.44057	3231.285	3231.285	0
Los Angele	2023 HHDT	Aggregate	Aggregate	Diesel	50357.26	6491637	6491637	0
Los Angele	2023 HHDT	Aggregate	Aggregate	Electricity	39.63669	2558.522	0	2558.522
Los Angele	2023 HHDT	Aggregate	Aggregate	Natural Ga	5415.87	350604.9	350604.9	0
Los Angele	2023 LDA	Aggregate	Aggregate	Gasoline	3363326	1.33E+08	1.33E+08	0
Los Angele	2023 LDA	Aggregate	Aggregate	Diesel	9465.937	279606	279606	0
Los Angele	2023 LDA	Aggregate	Aggregate	Electricity	149786.4	6967761	0	6967761
Los Angele	2023 LDA	Aggregate	Aggregate	Plug-in Hyl	84855.73	3983694	2007927	1975766
Los Angele	2023 LDT1	Aggregate	Aggregate	Gasoline	316618.5	11498861	11498861	0
Los Angele	2023 LDT1	Aggregate	Aggregate	Diesel	130.6972	2649.862	2649.862	0
Los Angele	2023 LDT1	Aggregate	Aggregate	Electricity	737.9431	27045.91	0	27045.91
Los Angele	2023 LDT1	Aggregate	Aggregate	Plug-in Hyl	305.3619	15799.37	7268.199	8531.169
Los Angele	2023 LDT2	Aggregate	Aggregate	Gasoline	1534013	63204641	63204641	0
Los Angele	2023 LDT2	Aggregate	Aggregate	Diesel	4672.025	203904.2	203904.2	0
Los Angele	2023 LDT2	Aggregate	Aggregate	Electricity	7316.505	271839.4	0	271839.4
Los Angele	2023 LDT2	Aggregate	Aggregate	Plug-in Hyl	11176.09	559555.6	267320.1	292235.5
Los Angele	2023 LHDT1	Aggregate	Aggregate	Gasoline	123582.3	4875651	4875651	0
Los Angele	2023 LHDT1	Aggregate	Aggregate	Diesel	52370.85	2309885	2309885	0
Los Angele	2023 LHDT2	Aggregate	Aggregate	Gasoline	18992.21	707424.2	707424.2	0
Los Angele	2023 LHDT2	Aggregate	Aggregate	Diesel	23383.97	1017094	1017094	0
Los Angele	2023 MCY	Aggregate	Aggregate	Gasoline	143314.4	942493.5	942493.5	0
Los Angele	2023 MDV	Aggregate	Aggregate	Gasoline	930000	35296866	35296866	0
Los Angele	2023 MDV	Aggregate	Aggregate	Diesel	10587.1	417108.6	417108.6	0
Los Angele	2023 MDV	Aggregate	Aggregate	Electricity	7870.579	292645.8	0	292645.8
Los Angele	2023 MDV	Aggregate	Aggregate	Plug-in Hyl	6232.489	281038.2	138168.2	142869.9
Los Angele	2023 MH	Aggregate	Aggregate	Gasoline	15543.05	150959.2	150959.2	0
Los Angele	2023 MH	Aggregate	Aggregate	Diesel	5175.529	54121.46	54121.46	0
Los Angele	2023 MHDT	Aggregate	Aggregate	Gasoline	15094.87	818409	818409	0
Los Angele	2023 MHDT	Aggregate	Aggregate	Diesel	58440.26	2482453	2482453	0
Los Angele	2023 MHDT	Aggregate	Aggregate	Electricity	27.28255	586.3877	0	586.3877
Los Angele	2023 MHDT	Aggregate	Aggregate	Natural Ga	827.543	40273.3	40273.3	0
Los Angele	2023 OBUS	Aggregate	Aggregate	Gasoline	3808.788	153201.7	153201.7	0
Los Angele	2023 OBUS	Aggregate	Aggregate	Diesel	2064.03	166622.2	166622.2	0
Los Angele	2023 OBUS	Aggregate	Aggregate	Natural Ga	319.8885	19541.03	19541.03	0
Los Angele	2023 SBUS	Aggregate	Aggregate	Gasoline	1333.83	59008.66	59008.66	0
Los Angele	2023 SBUS	Aggregate	Aggregate	Diesel	1641.865	33210.41	33210.41	0
Los Angele	2023 SBUS	Aggregate	Aggregate	Electricity	1.644084	19.09633	0	19.09633
Los Angele	2023 SBUS	Aggregate	Aggregate	Natural Ga	1447.068	36139.2	36139.2	0
Los Angele	2023 UBUS	Aggregate	Aggregate	Gasoline	438.7258	31153.41	31153.41	0
Los Angele	2023 UBUS	Aggregate	Aggregate	Diesel	9.742965	1269.075	1269.075	0
Los Angele	2023 UBUS	Aggregate	Aggregate	Electricity	53.53079	2415.769	0	2415.769
Los Angele	2023 UBUS	Aggregate	Aggregate	Natural Ga	3880.599	417623.3	417623.3	0
Los Angele	2024 HHDT	Aggregate	Aggregate	Gasoline	43.66381	2950.78	2950.78	0
Los Angele	2024 HHDT	Aggregate	Aggregate	Diesel	52323.87	6605323	6605323	0

Los Angeles	2024 HHDT	Aggregate	Aggregate	Electricity	159.3277	16508.8	0	16508.8
Los Angeles	2024 HHDT	Aggregate	Aggregate	Natural Ga	5707.004	363944.8	363944.8	0
Los Angeles	2024 LDA	Aggregate	Aggregate	Gasoline	3312060	1.31E+08	1.31E+08	0
Los Angeles	2024 LDA	Aggregate	Aggregate	Diesel	8789.19	256968.2	256968.2	0
Los Angeles	2024 LDA	Aggregate	Aggregate	Electricity	171677.7	8196290	0	8196290
Los Angeles	2024 LDA	Aggregate	Aggregate	Plug-in Hyl	91933.07	4279571	2105556	2174016
Los Angeles	2024 LDT1	Aggregate	Aggregate	Gasoline	311828.9	11357947	11357947	0
Los Angeles	2024 LDT1	Aggregate	Aggregate	Diesel	118.5294	2368.569	2368.569	0
Los Angeles	2024 LDT1	Aggregate	Aggregate	Electricity	868.5158	34958.66	0	34958.66
Los Angeles	2024 LDT1	Aggregate	Aggregate	Plug-in Hyl	472.0351	24184	10785.21	13398.78
Los Angeles	2024 LDT2	Aggregate	Aggregate	Gasoline	1566130	64695889	64695889	0
Los Angeles	2024 LDT2	Aggregate	Aggregate	Diesel	4948.489	214829	214829	0
Los Angeles	2024 LDT2	Aggregate	Aggregate	Electricity	10499.25	385269.4	0	385269.4
Los Angeles	2024 LDT2	Aggregate	Aggregate	Plug-in Hyl	13716.62	676714.5	314753.7	361960.7
Los Angeles	2024 LHDT1	Aggregate	Aggregate	Gasoline	123836.6	4934814	4934814	0
Los Angeles	2024 LHDT1	Aggregate	Aggregate	Diesel	55652.48	2469363	2469363	0
Los Angeles	2024 LHDT1	Aggregate	Aggregate	Electricity	510.8844	38629.84	0	38629.84
Los Angeles	2024 LHDT2	Aggregate	Aggregate	Gasoline	18962.98	709989.1	709989.1	0
Los Angeles	2024 LHDT2	Aggregate	Aggregate	Diesel	25083.13	1093296	1093296	0
Los Angeles	2024 LHDT2	Aggregate	Aggregate	Electricity	132.2329	9473.404	0	9473.404
Los Angeles	2024 MCY	Aggregate	Aggregate	Gasoline	146992	969260.7	969260.7	0
Los Angeles	2024 MDV	Aggregate	Aggregate	Gasoline	941104.7	35897503	35897503	0
Los Angeles	2024 MDV	Aggregate	Aggregate	Diesel	10836.34	423746.8	423746.8	0
Los Angeles	2024 MDV	Aggregate	Aggregate	Electricity	11444.76	420107.5	0	420107.5
Los Angeles	2024 MDV	Aggregate	Aggregate	Plug-in Hyl	7947.76	357372.5	169175.2	188197.3
Los Angeles	2024 MH	Aggregate	Aggregate	Gasoline	15037.72	149209.7	149209.7	0
Los Angeles	2024 MH	Aggregate	Aggregate	Diesel	5352.033	56471.38	56471.38	0
Los Angeles	2024 MHDT	Aggregate	Aggregate	Gasoline	14716.96	800329.5	800329.5	0
Los Angeles	2024 MHDT	Aggregate	Aggregate	Diesel	59315.44	2506988	2506988	0
Los Angeles	2024 MHDT	Aggregate	Aggregate	Electricity	193.0645	11118.77	0	11118.77
Los Angeles	2024 MHDT	Aggregate	Aggregate	Natural Ga	877.2928	42058.49	42058.49	0
Los Angeles	2024 OBUS	Aggregate	Aggregate	Gasoline	3692.49	145452.6	145452.6	0
Los Angeles	2024 OBUS	Aggregate	Aggregate	Diesel	2097.358	166829.4	166829.4	0
Los Angeles	2024 OBUS	Aggregate	Aggregate	Electricity	7.843995	589.8873	0	589.8873
Los Angeles	2024 OBUS	Aggregate	Aggregate	Natural Ga	328.2793	19780.16	19780.16	0
Los Angeles	2024 SBUS	Aggregate	Aggregate	Gasoline	1372.011	60689.42	60689.42	0
Los Angeles	2024 SBUS	Aggregate	Aggregate	Diesel	1597.022	32040.99	32040.99	0
Los Angeles	2024 SBUS	Aggregate	Aggregate	Electricity	11.68207	360.214	0	360.214
Los Angeles	2024 SBUS	Aggregate	Aggregate	Natural Ga	1503.388	37156.56	37156.56	0
Los Angeles	2024 UBUS	Aggregate	Aggregate	Gasoline	437.5652	30984.44	30984.44	0
Los Angeles	2024 UBUS	Aggregate	Aggregate	Diesel	9.45988	1241.732	1241.732	0
Los Angeles	2024 UBUS	Aggregate	Aggregate	Electricity	97.83777	8157.187	0	8157.187
Los Angeles	2024 UBUS	Aggregate	Aggregate	Natural Ga	3846.599	412993.5	412993.5	0

X, PMBW and PMTW, g/trip for STREX, HOTSOAK and RUNLOSS, g/vehicle/day for IDLEX and DIURN

Trips	Energy_Consumption	CO2_Emissions	NOx_Emissions	PM2.5_Emissions	PM10_Emissions	SO2_Emissions	NO2_Emissions	PM2.5_STI	PM2.5_PM	PM2.5_PN
1265.807		0	8.069225	0	0.562713	0.00207	0	0.001556	0.005	0.035254
752459.5		0	2.618912	72.76563	2.386063	0.025286	0.041186	0	0.008852	0.029201
35928.28		0	1.005246	9.501146	0	0.002504	0.015857	0	0.009	0.052174
15900218		0	0.05384	0	0.269415	0.001522	0	0.002103	0.002	0.003076
41570.24		0	0.291256	0	0	0.033114	0	0	0.002	0.003119
641939.7	2221217		0	0	0	0	0	0	0.002	0.001528
318415.8	529807.3	0.003598	0	0.111485	0.000822	0	0.002211	0.002	0.001443	
1417104		0	0.220143	0	0.465725	0.002785	0	0.003384	0.002	0.003815
429.3151		0	1.525416	0	0	0.258681	0	0	0.002	0.004366
2916.832	8210.057		0	0	0	0	0	0	0.002	0.001541
715.423	1418.956	0.003329	0	0.111485	0.000495	0	0.001455	0.002	0.001445	
7055330	EMFAC202	0.10005	0	0.37813	0.001596	0	0.002096	0.002	0.003635	
21120.42		0	0.063059	0	0	0.00768	0	0	0.002	0.00354
22514.53	63145.13		0	0	0	0	0	0	0.002	0.001523
34577.14	64512.77	0.00344	0	0.111485	0.000649	0	0.001845	0.002	0.001443	
1833105		0	0.215039	0.038064	0.654182	0.001154	0	0.000379	0.002	0.0273
613527		0	1.587169	2.030335	0	0.024752	0.02697	0	0.003	0.0273
282835.1		0	0.212082	0.038276	0.667149	0.00103	0	0.000309	0.002	0.03185
271014.1		0	1.373728	2.0105	0	0.023986	0.027018	0	0.003	0.03185
278825.9		0	0.573931	0	0.141489	0.002126	0	0.003691	0.001	0.0042
4239291		0	0.167997	0	0.521666	0.001719	0	0.002316	0.002	0.003743
48955.92		0	0.125279	0	0	0.009876	0	0	0.002	0.003669
22733.53	63704.1		0	0	0	0	0	0	0.002	0.001523
20576.27	33396.26	0.003542	0	0.111485	0.000828	0	0.002284	0.002	0.001443	
1617.149		0	0.529532	0	0.384814	0.001548	0	0.000479	0.003	0.015262
499.6117		0	3.841622	0	0	0.099246	0	0	0.004	0.015164
309739.4		0	0.584293	0.088989	0.442225	0.00097	0	0.000518	0.003	0.015262
705969.6		0	1.560287	15.29922	1.453734	0.016581	0.036807	0	0.003	0.015293
6890.154		0	0.125292	6.766319	0	0.000774	0.01679	0	0.003	0.015235
78393.98		0	0.541427	0.064861	0.401532	0.000759	0	0.000276	0.003	0.015407
26239.42		0	2.266888	18.61971	1.527833	0.036109	0.021193	0	0.003	0.023563
3336.192		0	0.163585	1.568387	0	0.000644	0.00316	0	0.003	0.015407
5173.98		0	0.541307	0.923297	0.7126	0.001106	0	0.000481	0.002	0.016396
24331.55		0	9.565782	34.71325	0.154568	0.054316	0.047431	0	0.003	0.016396
20145.9		0	0.920182	5.265334	0	0.004122	0.01149	0	0.003	0.016396
1751.354		0	0.25037	0	0.886622	0.001057	0	0.000465	0.00274	0.036771
43.50122		0	1.098995	0	0	0.006181	0	0	0.008295	0.0385
214.2564	5077.565		0	0	0	0	0	0	0.006524	0.019078

15485.83	0	0.692929	0	0	0.000363	0	0	0.008387	0.038456
1049.231	0	7.22101	0	0.820965	0.001782	0	0.001387	0.005	0.034509
778752.4	0	1.914201	66.74588	2.754727	0.023423	0.03699	0	0.008853	0.028482
631.7287	4542.85	0	0	0	0	0	0	0.008828	0.014293
34520.18	0	0.934858	8.685326	0	0.002434	0.015496	0	0.009	0.054055
15650235	0	0.048129	0	0.25647	0.001464	0	0.002024	0.002	0.003078
38923.82	0	0.26866	0	0	0.031047	0	0	0.002	0.003129
750975.1	2690131	0	0	0	0	0	0	0.002	0.001528
350878.5	596740.4	0.003507	0	0.111485	0.000757	0	0.002092	0.002	0.001447
1394224	0	0.1987	0	0.438486	0.00259	0	0.003173	0.002	0.003811
380.5267	0	1.518384	0	0	0.257322	0	0	0.002	0.004363
3402.44	10441.95	0	0	0	0	0	0	0.002	0.001537
1262.671	2576.667	0.003201	0	0.111485	0.000457	0	0.001399	0.002	0.001449
7216720	0	0.087194	0	0.345184	0.001523	0	0.002017	0.002	0.003631
22591.39	0	0.05609	0	0	0.006686	0	0	0.002	0.003553
37572.14	104952.4	0	0	0	0	0	0	0.002	0.001524
46213.12	88263.84	0.003324	0	0.111485	0.000579	0	0.001703	0.002	0.001448
1841192	0	0.187348	0.036826	0.632502	0.001125	0	0.000347	0.002	0.0273
658759.4	0	1.329232	1.884622	0	0.021868	0.026802	0	0.003	0.0273
282955.6	0	0.185991	0.03702	0.647506	0.001002	0	0.00028	0.002	0.03185
294140.9	0	1.16185	1.864095	0	0.021533	0.026941	0	0.003	0.03185
286628.8	0	0.555639	0	0.133392	0.002135	0	0.003507	0.001	0.0042
4305992	0	0.144678	0	0.472324	0.001603	0	0.002173	0.002	0.003732
50133.21	0	0.110777	0	0	0.008986	0	0	0.002	0.003687
40427.05	112985.4	0	0	0	0	0	0	0.002	0.001524
25771.34	43150.98	0.003421	0	0.111485	0.000725	0	0.002065	0.002	0.001447
1554.927	0	0.447561	0	0.393483	0.001408	0	0.000437	0.003	0.015259
517.5529	0	3.62435	0	0	0.090578	0	0	0.004	0.015161
302018.1	0	0.499694	0.089159	0.434621	0.000954	0	0.000492	0.003	0.015259
714881.8	0	1.15647	13.51368	1.603939	0.013462	0.030679	0	0.003	0.015289
352.609	612.8494	0	0	0	0	0	0	0.003	0.007647
7127.992	0	0.115742	6.787469	0	0.000828	0.0177	0	0.003	0.01523
76206.23	0	0.506714	0.06488	0.400214	0.000782	0	0.000278	0.003	0.015407
26660.67	0	1.839135	16.48458	1.675354	0.033701	0.019629	0	0.003	0.023256
2847.008	0	0.156634	1.563929	0	0.000685	0.003267	0	0.003	0.015407
5335.32	0	0.523207	0.923976	0.728489	0.001068	0	0.000476	0.002	0.016396
23774.21	0	9.288773	34.3916	0.169511	0.052306	0.044901	0	0.003	0.016396
23.80634	22.08111	0	0	0	0	0	0	0.003	0.008198
20953.55	0	0.887543	5.253544	0	0.004122	0.011771	0	0.003	0.016396
1754.903	0	0.249297	0	0.881578	0.001161	0	0.000512	0.00274	0.036771
38.97186	0	0.851911	0	0	0.006052	0	0	0.008751	0.0385
214.1232	5070.782	0	0	0	0	0	0	0.006528	0.019078
15522.39	0	0.68591	0	0	0.000372	0	0	0.008385	0.038456
873.6256	0	6.842669	0	0.747841	0.001537	0	0.001215	0.005	0.033623
812033.7	0	1.829327	66.14682	2.797408	0.023363	0.034745	0	0.008854	0.028309

2224.44	29382.84	0	0	0	0	0	0	0.008683	0.014462
36370.01	0	0.841807	8.439861	0	0.002273	0.016021	0	0.009	0.054197
15395682	0	0.043377	0	0.245025	0.001409	0	0.001958	0.002	0.003072
36035.14	0	0.242195	0	0	0.027232	0	0	0.002	0.003129
857942.9	3164445	0	0	0	0	0	0	0.002	0.001529
380143.2	656617.5	0.003411	0	0.111485	0.000703	0	0.002004	0.002	0.001448
1373845	0	0.179338	0	0.412863	0.0024	0	0.002977	0.002	0.003794
338.8223	0	1.513777	0	0	0.255353	0	0	0.002	0.004345
4075.934	13496.93	0	0	0	0	0	0	0.002	0.001534
1951.865	4046.831	0.003092	0	0.111485	0.000432	0	0.001374	0.002	0.001452
7373138	0	0.076968	0	0.318586	0.001456	0	0.001956	0.002	0.003619
23893.23	0	0.049174	0	0	0.00554	0	0	0.002	0.003554
53700.22	148745.8	0	0	0	0	0	0	0.002	0.001525
56718.24	109322.9	0.003224	0	0.111485	0.000535	0	0.001625	0.002	0.00145
1844981	0	0.164297	0.035671	0.611544	0.001103	0	0.000319	0.002	0.0273
700038.2	0	1.134866	1.76265	0	0.019706	0.02667	0	0.003	0.0273
7136.731	21582.07	0	0	0	0	0	0	0.002	0.01365
282520.2	0	0.164039	0.035836	0.627314	0.000982	0	0.000256	0.002	0.03185
315514.2	0	1.003571	1.742695	0	0.019703	0.026901	0	0.003	0.03185
1750.362	5296.526	0	0	0	0	0	0	0.002	0.015925
293984	0	0.541172	0	0.126195	0.002133	0	0.003349	0.001	0.0042
4364748	0	0.124391	0	0.428411	0.001495	0	0.002048	0.002	0.003712
51125.48	0	0.098921	0	0	0.00831	0	0	0.002	0.00369
58543.45	162196.1	0	0	0	0	0	0	0.002	0.001525
32863.99	56841.18	0.003282	0	0.111485	0.000634	0	0.001884	0.002	0.00145
1504.374	0	0.386051	0	0.400491	0.00131	0	0.000408	0.003	0.015244
535.2033	0	3.433237	0	0	0.083373	0	0	0.004	0.015148
294456.9	0	0.42996	0.089301	0.425441	0.000946	0	0.000473	0.003	0.015244
726825.6	0	1.059677	13.07746	1.62051	0.011967	0.025686	0	0.003	0.015273
2643.907	11626.17	0	0	0	0	0	0	0.003	0.007626
7503.19	0	0.110398	6.789441	0	0.000849	0.018232	0	0.003	0.015214
73879.35	0	0.474166	0.064895	0.400205	0.000812	0	0.000281	0.003	0.015433
27161.65	0	1.836889	16.49962	1.682361	0.033711	0.019013	0	0.003	0.023324
156.9427	621.3033	0	0	0	0	0	0	0.003	0.007717
2921.686	0	0.151708	1.559894	0	0.000727	0.003363	0	0.003	0.015433
5488.044	0	0.500634	0.924381	0.736248	0.001064	0	0.000484	0.002	0.016396
23124.88	0	8.981928	33.99912	0.185321	0.050416	0.042633	0	0.003	0.016396
124.0754	416.516	0	0	0	0	0	0	0.002475	0.008198
21769.06	0	0.857227	5.242555	0	0.004122	0.012033	0	0.003	0.016396
1750.261	0	0.205129	0	0.810949	0.0015	0	0.000642	0.002738	0.036758
37.83952	0	0.78455	0	0	0.005997	0	0	0.008878	0.0385
391.3511	17142.31	0	0	0	0	0	0	0.008096	0.019199
15386.4	0	0.635535	0	0	0.000393	0	0	0.008377	0.038456

PM10_RUI	PM10_IDL	PM10_STR	PM10_PM	PM10_PM	CO2_RUNE	CO2_IDLE	CO2_STRE	CH4_RUNE	CH4_IDLE
0.002251	0	0.001692	0.02	0.100726	2211.235	0	54.70269	0.197629	0
0.02643	0.043049	0	0.035407	0.083432	1626.402	13405.1	0	0.001558	0.249277
0.002724	0.017245	0	0.036	0.14907	1272.44	8578.389	0	1.547892	24.47566
0.001655	0	0.002287	0.008	0.008789	300.6557	0	72.56483	0.003552	0
0.034611	0	0	0.008	0.008911	258.9208	0	0	0.002456	0
0	0	0	0.008	0.004365	0	0	0	0	0
0.000894	0	0.002405	0.008	0.004123	156.5164	0	66.75088	0.000568	0
0.003028	0	0.00368	0.008	0.0109	358.1917	0	91.58745	0.012374	0
0.270377	0	0	0.008	0.012474	443.0095	0	0	0.015395	0
0	0	0	0.008	0.004403	0	0	0	0	0
0.000538	0	0.001582	0.008	0.004128	144.7762	0	73.21768	0.000527	0
0.001736	0	0.002279	0.008	0.010385	374.0665	0	91.18857	0.004622	0
0.008028	0	0	0.008	0.010114	339.9821	0	0	0.001023	0
0	0	0	0.008	0.004352	0	0	0	0	0
0.000705	0	0.002007	0.008	0.004124	149.6338	0	79.519	0.000545	0
0.001255	0	0.000412	0.008	0.078	662.385	121.0204	26.05088	0.007633	0.119352
0.025871	0.02819	0	0.012	0.078	504.1624	133.0433	0	0.005119	0.005098
0.00112	0	0.000336	0.008	0.091	753.6926	140.3836	25.92215	0.00557	0.119773
0.025071	0.02824	0	0.012	0.091	600.6886	212.8494	0	0.004941	0.005098
0.002271	0	0.003917	0.004	0.012	196.5092	0	48.84512	0.188583	0
0.001869	0	0.002519	0.008	0.010694	457.441	0	112.0034	0.007364	0
0.010322	0	0	0.008	0.010483	450.2942	0	0	0.001006	0
0	0	0	0.008	0.004351	0	0	0	0	0
0.0009	0	0.002484	0.008	0.004124	154.0574	0	99.18521	0.000555	0
0.001683	0	0.000521	0.012	0.043606	1780.448	0	31.94751	0.019891	0
0.103734	0	0	0.016	0.043326	1019.521	0	0	0.003391	0
0.001055	0	0.000564	0.012	0.043606	1681.706	551.365	47.35872	0.016471	0.255916
0.017331	0.038471	0	0.012	0.043694	1096.697	2306.571	0	0.001648	0.012502
0.000841	0.018261	0	0.012	0.043529	864.6835	5430.415	0	0.521933	18.78165
0.000826	0	0.0003	0.012	0.044021	1714.546	383.9831	31.81886	0.013672	0.193535
0.037742	0.022151	0	0.012	0.067321	1436.328	3575.735	0	0.0034	0.05731
0.0007	0.003437	0	0.012	0.044021	899.2709	1209.659	0	0.524781	4.619315
0.001203	0	0.000524	0.008	0.046845	907.2443	2630.552	57.49546	0.015689	2.410538
0.056772	0.049576	0	0.012	0.046845	1280.541	2329.764	0	0.007751	0.008183
0.004483	0.012496	0	0.012	0.046845	1735.127	4129.72	0	4.820867	15.18799
0.001149	0	0.000506	0.01096	0.105059	1874.437	0	95.3408	0.005056	0
0.006461	0	0	0.033181	0.109999	1700.921	0	0	0.005355	0
0	0	0	0.026094	0.054509	0	0	0	0	0

0.00038	0	0	0.033547	0.109875	2581.135	0	0	2.599729	0
0.001938	0	0.001509	0.02	0.098597	2159.051	0	55.38241	0.171698	0
0.024482	0.038663	0	0.035413	0.081378	1603.902	12843.78	0	0.000655	0.249294
0	0	0	0.035313	0.040837	0	0	0	0	0
0.002647	0.016853	0	0.036	0.154443	1238.284	8165.689	0	1.498558	21.89659
0.001592	0	0.002201	0.008	0.008795	295.9846	0	71.23424	0.003193	0
0.03245	0	0	0.008	0.00894	256.8843	0	0	0.00232	0
0	0	0	0.008	0.004367	0	0	0	0	0
0.000823	0	0.002275	0.008	0.004133	152.5551	0	65.9978	0.000551	0
0.002816	0	0.00345	0.008	0.010888	352.8182	0	89.60865	0.01115	0
0.268957	0	0	0.008	0.012467	442.5282	0	0	0.015331	0
0	0	0	0.008	0.004392	0	0	0	0	0
0.000497	0	0.001521	0.008	0.004141	139.2361	0	72.12945	0.000504	0
0.001656	0	0.002194	0.008	0.010376	366.0734	0	88.93653	0.004155	0
0.006988	0	0	0.008	0.010151	334.6039	0	0	0.000957	0
0	0	0	0.008	0.004355	0	0	0	0	0
0.00063	0	0.001852	0.008	0.004136	144.5949	0	78.49647	0.000523	0
0.001224	0	0.000378	0.008	0.078	642.2087	119.7999	25.94319	0.006644	0.116488
0.022857	0.028014	0	0.012	0.078	498.7481	130.7362	0	0.004601	0.005098
0.00109	0	0.000305	0.008	0.091	734.1999	139.1767	25.70177	0.00474	0.116629
0.022506	0.028159	0	0.012	0.091	591.9723	209.3093	0	0.004513	0.005098
0.002282	0	0.003727	0.004	0.012	195.7013	0	47.34869	0.18188	0
0.001743	0	0.002363	0.008	0.010663	448.1139	0	109.3106	0.006421	0
0.009392	0	0	0.008	0.010533	444.0027	0	0	0.000931	0
0	0	0	0.008	0.004354	0	0	0	0	0
0.000788	0	0.002246	0.008	0.004136	148.8016	0	97.64242	0.000534	0
0.001531	0	0.000475	0.012	0.043596	1778.819	0	31.6612	0.016046	0
0.094674	0	0	0.016	0.043317	1019.881	0	0	0.003204	0
0.001038	0	0.000535	0.012	0.043596	1661.299	547.2244	46.61749	0.013865	0.258906
0.01407	0.032066	0	0.012	0.043684	1092.424	2239.83	0	0.001117	0.011496
0	0	0	0.012	0.021848	0	0	0	0	0
0.0009	0.019251	0	0.012	0.043515	857.4585	5479.15	0	0.530446	18.52872
0.000851	0	0.000303	0.012	0.044021	1697.61	381.9035	31.59622	0.012673	0.193634
0.035224	0.020517	0	0.012	0.066446	1434.124	3452.653	0	0.002651	0.056438
0.000745	0.003553	0	0.012	0.044021	892.3565	1204.638	0	0.531423	4.564273
0.001161	0	0.000518	0.008	0.046845	901.8148	2616.522	56.96802	0.014496	2.417154
0.054671	0.046931	0	0.012	0.046845	1276.451	2328.516	0	0.007634	0.00795
0	0	0	0.012	0.023423	0	0	0	0	0
0.004483	0.012802	0	0.012	0.046845	1720.617	4135.353	0	4.744239	15.04242
0.001263	0	0.000557	0.01096	0.105059	1873.891	0	95.24967	0.005053	0
0.006326	0	0	0.035006	0.109999	1734.869	0	0	0.004835	0
0	0	0	0.026113	0.054509	0	0	0	0	0
0.000389	0	0	0.033541	0.109875	2577.176	0	0	2.622329	0
0.001672	0	0.001322	0.02	0.096066	2108.327	0	54.87894	0.151589	0
0.02442	0.036316	0	0.035417	0.080884	1582.524	12592.1	0	0.000629	0.248381

0	0	0	0.034731	0.04132	0	0	0	0	0
0.002472	0.017424	0	0.036	0.154847	1214.44	8122.148	0	1.400317	21.23355
0.001533	0	0.00213	0.008	0.008777	290.8206	0	69.91632	0.002876	0
0.028464	0	0	0.008	0.008941	253.8954	0	0	0.00206	0
0	0	0	0.008	0.004368	0	0	0	0	0
0.000764	0	0.00218	0.008	0.004138	148.5026	0	65.25461	0.000533	0
0.002611	0	0.003237	0.008	0.010839	346.8588	0	87.68109	0.010014	0
0.266899	0	0	0.008	0.012415	441.3796	0	0	0.015227	0
0	0	0	0.008	0.004384	0	0	0	0	0
0.00047	0	0.001494	0.008	0.004148	134.6073	0	71.09024	0.000483	0
0.001583	0	0.002127	0.008	0.010339	358.0223	0	86.81919	0.003745	0
0.005791	0	0	0.008	0.010154	328.6769	0	0	0.000872	0
0	0	0	0.008	0.004358	0	0	0	0	0
0.000582	0	0.001768	0.008	0.004143	140.389	0	77.60329	0.000504	0
0.0012	0	0.000347	0.008	0.078	623.8983	118.6149	25.83886	0.005774	0.113745
0.020597	0.027876	0	0.012	0.078	494.0491	128.7382	0	0.004184	0.005098
0	0	0	0.008	0.039	0	0	0	0	0
0.001068	0	0.000278	0.008	0.091	715.7547	137.9878	25.48298	0.004048	0.113584
0.020594	0.028117	0	0.012	0.091	584.651	206.2579	0	0.004161	0.005098
0	0	0	0.008	0.0455	0	0	0	0	0
0.002282	0	0.003565	0.004	0.012	194.8021	0	46.03894	0.17599	0
0.001626	0	0.002227	0.008	0.010607	438.4832	0	106.7102	0.005568	0
0.008686	0	0	0.008	0.010543	437.0132	0	0	0.000867	0
0	0	0	0.008	0.004357	0	0	0	0	0
0.000689	0	0.002049	0.008	0.004143	142.8839	0	95.89049	0.000508	0
0.001424	0	0.000443	0.012	0.043554	1777.985	0	31.42143	0.013339	0
0.087143	0	0	0.016	0.043279	1019.497	0	0	0.003035	0
0.001029	0	0.000515	0.012	0.043554	1642.354	543.1111	45.91791	0.011771	0.261298
0.012508	0.026847	0	0.012	0.043638	1088.634	2223.083	0	0.000983	0.010892
0	0	0	0.012	0.021789	0	0	0	0	0
0.000923	0.019829	0	0.012	0.04347	851.3073	5505.819	0	0.532133	18.34282
0.000884	0	0.000306	0.012	0.044095	1684.005	379.8538	31.37205	0.011796	0.193493
0.035236	0.019872	0	0.012	0.066639	1429.394	3448.86	0	0.002683	0.056785
0	0	0	0.012	0.022048	0	0	0	0	0
0.000791	0.003658	0	0.012	0.044095	891.0752	1204.788	0	0.542493	4.514452
0.001157	0	0.000526	0.008	0.046845	897.0611	2604.097	56.44657	0.013551	2.420974
0.052696	0.044561	0	0.012	0.046845	1272.36	2326.032	0	0.007508	0.007779
0	0	0	0.009901	0.023423	0	0	0	0	0
0.004483	0.013087	0	0.012	0.046845	1707.142	4140.603	0	4.673068	14.90675
0.001631	0	0.000698	0.010952	0.105022	1869.824	0	94.83205	0.005079	0
0.006268	0	0	0.035512	0.109999	1745.343	0	0	0.004697	0
0	0	0	0.032385	0.054854	0	0	0	0	0
0.000411	0	0	0.033507	0.109873	2558.464	0	0	2.785774	0



[illegible]

0	0.526181	0	0	0.037514	0	0	0	0	0
8.85E-05	0.204008	0	0.022424	0.965969	0	0.000458	0.109275	0.927453	7.936953
0	0.252695	2.023543	0	0.014108	5.367238	0	0	0	0
0	0	0	0	0	0	0	0	0	0
0	0.252432	1.664629	0	0.041962	0.375863	0	0	0	0
0.072091	0.005094	0	0.03292	0.012479	0	0.330738	0.096578	0.239404	1.538563
0	0.040472	0	0	0.049939	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0
0.040447	0.000645	0	0.020482	0.001728	0	0.162849	0.040933	0.03544	0.470582
0.120303	0.013365	0	0.040994	0.050403	0	0.632654	0.210462	0.608058	3.477648
0	0.06972	0	0	0.330067	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0
0.040481	0.000589	0	0.020516	0.001577	0	0.162849	0.024991	0.021755	0.300337
0.083925	0.006982	0	0.037677	0.016729	0	0.389791	0.086528	0.227798	1.481135
0	0.052717	0	0	0.020602	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0
0.040504	0.000612	0	0.020538	0.001637	0	0.162849	0.026465	0.024113	0.332211
0.03379	0.010408	0.003052	0.051464	0.033471	0.421683	0.165138	0.052145	0.281914	3.017785
0	0.078578	0.020598	0	0.09906	0.10976	0	0	0	0
0.034296	0.011068	0.002984	0.050935	0.02227	0.424225	0.167797	0.051068	0.268711	2.98707
0	0.093265	0.032977	0	0.097162	0.10976	0	0	0	0
0.169365	0.038934	0	0.007996	1.190929	0	1.259451	3.611925	3.665583	4.037558
0.108903	0.010048	0	0.042847	0.027852	0	0.550504	0.107528	0.303544	1.890714
0	0.069953	0	0	0.020048	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0
0.040143	0.00062	0	0.02019	0.001685	0	0.162849	0.029684	0.027333	0.373371
0.03738	0.026379	0	0.042083	0.073325	0	0.155598	12.84812	0.289144	4.734326
0	0.160683	0	0	0.068983	0	0	0	0	0
0.048198	0.024374	0.007412	0.032862	0.068318	1.001291	0.263243	0.03715	0.286907	3.045379
0	0.172112	0.352886	0	0.024059	0.247513	0	0	0	0
0	0	0	0	0	0	0	0	0	0
0	0.174799	1.116961	0	0.007579	0.264739	0	0	0	0
0.035518	0.023975	0.005243	0.029856	0.062023	0.743578	0.189658	0.03686	0.16148	2.938677
0	0.225947	0.543967	0	0.057085	1.215086	0	0	0	0
0	0.181913	0.245573	0	0.007593	0.065214	0	0	0	0
0.069769	0.028021	0.083771	0.064876	0.072365	10.60419	0.403954	0.125918	0.298144	1.854267
0	0.201105	0.366859	0	0.164352	0.171171	0	0	0	0
0	0	0	0	0	0	0	0	0	0
0	0.350759	0.843019	0	0.067786	0.214926	0	0	0	0
0.11441	0.021048	0	0.079738	0.016808	0	0.48982	0.054469	0.113386	0.665
0	0.273329	0	0	0.104107	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0
0	0.525374	0	0	0.037846	0	0	0	0	0
9.03E-05	0.197297	0	0.021338	0.839369	0	0.000467	0.100179	0.850533	7.382125
0	0.249327	1.98389	0	0.01355	5.347585	0	0	0	0

0	0	0	0	0	0	0	0	0	0
0	0.247572	1.655753	0	0.037818	0.357686	0	0	0	0
0.068341	0.004796	0	0.032148	0.011025	0	0.309736	0.093279	0.232519	1.495184
0	0.040001	0	0	0.044349	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0
0.040297	0.000623	0	0.020339	0.001675	0	0.162849	0.041438	0.036631	0.470062
0.112711	0.012294	0	0.039725	0.04496	0	0.586289	0.19898	0.568347	3.293667
0	0.06954	0	0	0.327836	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0
0.040292	0.000564	0	0.020335	0.001518	0	0.162849	0.024592	0.020945	0.293672
0.078679	0.006426	0	0.036126	0.014864	0	0.360757	0.081922	0.217774	1.421292
0	0.051783	0	0	0.018771	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0
0.040312	0.000589	0	0.020354	0.001583	0	0.162849	0.026128	0.023334	0.322764
0.032302	0.009197	0.003016	0.05053	0.028971	0.408557	0.156805	0.048838	0.268264	2.87985
0	0.077838	0.020283	0	0.090084	0.10976	0	0	0	0
0	0	0	0	0	0	0	0	0	0
0.032785	0.009922	0.002932	0.049871	0.018848	0.410763	0.159381	0.048455	0.259982	2.909742
0	0.092112	0.032496	0	0.089583	0.10976	0	0	0	0
0	0	0	0	0	0	0	0	0	0
0.164116	0.038314	0	0.007616	1.139729	0	1.213232	3.610192	3.669989	3.957209
0.100095	0.008993	0	0.040623	0.023695	0	0.497846	0.101785	0.293742	1.839046
0	0.068852	0	0	0.018666	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0
0.039954	0.000589	0	0.020009	0.001612	0	0.162849	0.02991	0.025892	0.353752
0.036907	0.023894	0	0.043518	0.059201	0	0.150832	11.88828	0.270822	4.50547
0	0.160622	0	0	0.065331	0	0	0	0	0
0.046842	0.021674	0.007569	0.032907	0.057463	1.003383	0.253212	0.034977	0.271948	2.914987
0	0.171515	0.350248	0	0.021164	0.234505	0	0	0	0
0	0	0	0	0	0	0	0	0	0
0	0.173545	1.122397	0	0.007603	0.262083	0	0	0	0
0.03506	0.022616	0.005252	0.029832	0.057698	0.743797	0.187289	0.037476	0.170347	3.093504
0	0.225202	0.543369	0	0.057766	1.222557	0	0	0	0
0	0	0	0	0	0	0	0	0	0
0	0.181652	0.245604	0	0.007751	0.064503	0	0	0	0
0.06939	0.027173	0.084039	0.065602	0.067494	10.6101	0.400961	0.138258	0.36023	2.223764
0	0.200461	0.366467	0	0.16164	0.167482	0	0	0	0
0	0	0	0	0	0	0	0	0	0
0	0.348012	0.844089	0	0.066769	0.212988	0	0	0	0
0.105163	0.018444	0	0.076135	0.016755	0	0.447307	0.043089	0.103965	0.552935
0	0.27498	0	0	0.10112	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0
0	0.52156	0	0	0.04019	0	0	0	0	0

[illegible]

2.653617	0	0	0	0	0	0.97	38.74005	0	0
1.409539	0	0.000501	0.109275	0.927453	7.936953	0.043517	50.38589	0	4.60426
0.016061	6.110192	0	0	0	0	0.214751	0.085348	77.91676	0
0	0	0	0	0	0	0	0	0	0
1.552802	22.41886	0	0	0	0	0.787793	8.658951	61.39735	0
0.018203	0	0.362115	0.096578	0.239404	1.538563	0.034038	0.876017	0	3.181896
0.056852	0	0	0	0	0	0.0031	0.48093	0	0
0	0	0	0	0	0	0	0	0	0
0.002521	0	0.178299	0.040933	0.03544	0.470582	0.019535	0.248375	0	1.238668
0.073525	0	0.692675	0.210462	0.608058	3.477648	0.037737	2.156342	0	6.056111
0.375759	0	0	0	0	0	0.0031	1.795873	0	0
0	0	0	0	0	0	0	0	0	0
0.002301	0	0.178299	0.024991	0.021755	0.300337	0.019321	0.22669	0	1.238668
0.024408	0	0.426772	0.086528	0.227798	1.481135	0.036509	1.040162	0	3.647224
0.023453	0	0	0	0	0	0.0031	0.18077	0	0
0	0	0	0	0	0	0	0	0	0
0.002389	0	0.178299	0.026465	0.024113	0.332211	0.020035	0.235415	0	1.238668
0.048841	0.615318	0.180805	0.052145	0.281914	3.017785	0.044837	1.17063	3.749026	3.055715
0.112773	0.124954	0	0	0	0	0.177363	0.274795	0.909745	0
0.032496	0.619028	0.183717	0.051068	0.268711	2.98707	0.044964	0.884657	3.755921	3.009677
0.110612	0.124954	0	0	0	0	0.182308	0.2456	0.909745	0
1.434254	0	1.369209	3.611925	3.665583	4.037558	0.008819	12.97594	0	7.416011
0.040562	0	0.602727	0.107528	0.303544	1.890714	0.036224	1.349859	0	4.126921
0.022823	0	0	0	0	0	0.0031	0.309426	0	0
0	0	0	0	0	0	0	0	0	0
0.002459	0	0.178299	0.029684	0.027333	0.373371	0.020649	0.242264	0	1.238668
0.106996	0	0.17036	12.84812	0.289144	4.734326	0.044635	2.219697	0	3.511419
0.078533	0	0	0	0	0	0.150527	0.290934	0	0
0.099689	1.461082	0.288218	0.03715	0.286907	3.045379	0.044956	1.773225	14.34099	5.573376
0.027389	0.281774	0	0	0	0	0.208897	0.097384	7.399668	0
0	0	0	0	0	0	0	0	0	0
0.541359	18.90992	0	0	0	0	1.06	2.356232	33.54096	0
0.090504	1.085027	0.207651	0.03686	0.16148	2.938677	0.044957	1.583804	5.758385	3.885937
0.064986	1.383283	0	0	0	0	0.210605	0.222764	18.33986	0
0.542356	4.658175	0	0	0	0	1.06	2.597993	5.927059	0
0.105594	15.47361	0.442279	0.125918	0.298144	1.854267	0.045	1.43205	82.01421	9.384848
0.187103	0.194865	0	0	0	0	0.074815	0.387858	2.653527	0
0	0	0	0	0	0	0	0	0	0
4.841844	15.35189	0	0	0	0	1.06	16.47934	21.68009	0
0.024526	0	0.536291	0.054469	0.113386	0.665	0.045	0.419446	0	8.493294
0.118518	0	0	0	0	0	0.172732	0.134529	0	0
0	0	0	0	0	0	0	0	0	0
2.676692	0	0	0	0	0	0.97	38.89443	0	0
1.224806	0	0.000511	0.100179	0.850533	7.382125	0.044117	43.23088	0	4.536579
0.015425	6.087818	0	0	0	0	0.215296	0.08005	77.82394	0

0	0	0	0	0	0	0	0	0	0
1.449418	21.73226	0	0	0	0	0.785758	8.276746	61.26839	0
0.016087	0	0.339122	0.093279	0.232519	1.495184	0.034836	0.82237	0	3.008236
0.050489	0	0	0	0	0	0.0031	0.462516	0	0
0	0	0	0	0	0	0	0	0	0
0.002444	0	0.178299	0.041438	0.036631	0.470062	0.019281	0.241445	0	1.238668
0.065597	0	0.641912	0.19898	0.568347	3.293667	0.037941	1.975702	0	5.62523
0.37322	0	0	0	0	0	0.0031	1.787785	0	0
0	0	0	0	0	0	0	0	0	0
0.002215	0	0.178299	0.024592	0.020945	0.293672	0.018731	0.218853	0	1.238668
0.021689	0	0.394984	0.081922	0.217774	1.421292	0.037253	0.963686	0	3.414304
0.02137	0	0	0	0	0	0.0031	0.17477	0	0
0	0	0	0	0	0	0	0	0	0
0.002311	0	0.178299	0.026128	0.023334	0.322764	0.019512	0.228253	0	1.238668
0.042274	0.596166	0.171682	0.048838	0.268264	2.87985	0.04487	1.083441	3.752477	3.092283
0.102554	0.124954	0	0	0	0	0.18405	0.241133	0.909745	0
0	0	0	0	0	0	0	0	0	0
0.027504	0.599384	0.174502	0.048455	0.259982	2.909742	0.044972	0.816499	3.759576	3.017098
0.101985	0.124954	0	0	0	0	0.188078	0.21909	0.909745	0
0	0	0	0	0	0	0	0	0	0
1.378548	0	1.319137	3.610192	3.669989	3.957209	0.008867	12.54877	0	7.357397
0.03455	0	0.545077	0.101785	0.293742	1.839046	0.03688	1.204384	0	3.799158
0.02125	0	0	0	0	0	0.0031	0.297521	0	0
0	0	0	0	0	0	0	0	0	0
0.002352	0	0.178299	0.02991	0.025892	0.353752	0.019882	0.23231	0	1.238668
0.086387	0	0.165142	11.88828	0.270822	4.50547	0.044771	1.743592	0	3.370392
0.074375	0	0	0	0	0	0.157593	0.271575	0	0
0.08385	1.464135	0.277235	0.034977	0.271948	2.914987	0.044973	1.483701	14.36426	5.339615
0.024094	0.266966	0	0	0	0	0.210418	0.088738	7.385877	0
0	0	0	0	0	0	0	0	0	0
0.54308	18.72019	0	0	0	0	1.06	2.321977	34.71874	0
0.084193	1.085347	0.205058	0.037476	0.170347	3.093504	0.044963	1.46663	5.759702	3.836465
0.065762	1.391789	0	0	0	0	0.210607	0.224215	18.47235	0
0	0	0	0	0	0	0	0	0	0
0.553654	4.607329	0	0	0	0	1.06	2.599558	6.144073	0
0.098487	15.48223	0.439002	0.138258	0.36023	2.223764	0.045	1.33914	82.0501	9.194067
0.184014	0.190665	0	0	0	0	0.079459	0.383629	2.739831	0
0	0	0	0	0	0	0	0	0	0
4.769209	15.21343	0	0	0	0	1.06	16.13227	22.27106	0
0.024449	0	0.489745	0.043089	0.103965	0.552935	0.045	0.385459	0	8.436889
0.115117	0	0	0	0	0	0.175698	0.131543	0	0
0	0	0	0	0	0	0	0	0	0
2.843509	0	0	0	0	0	0.97	40.04596	0	0

SOx_RUNE	SOx_IDLEX	SOx_STREX
0.02186	0	0.000541
0.015401	0.126938	0
0	0	0
0.002972	0	0.000717
0.002453	0	0
0	0	0
0.001547	0	0.00066
0.003541	0	0.000905
0.004198	0	0
0	0	0
0.001431	0	0.000724
0.003698	0	0.000901
0.003222	0	0
0	0	0
0.001479	0	0.000786
0.006548	0.001196	0.000258
0.004777	0.001261	0
0.007451	0.001388	0.000256
0.005692	0.002017	0
0.001943	0	0.000483
0.004522	0	0.001107
0.004267	0	0
0	0	0
0.001523	0	0.000981
0.017602	0	0.000316
0.00966	0	0
0.016625	0.005451	0.000468
0.010385	0.021842	0
0	0	0
0.01695	0.003796	0.000315
0.013601	0.03386	0
0	0	0
0.008969	0.026006	0.000568
0.012126	0.022061	0
0	0	0
0.018531	0	0.000943
0.016117	0	0
0	0	0

0	0	0
0.021344	0	0.000548
0.015188	0.121623	0
0	0	0
0	0	0
0.002926	0	0.000704
0.002434	0	0
0	0	0
0.001508	0	0.000652
0.003488	0	0.000886
0.004193	0	0
0	0	0
0.001376	0	0.000713
0.003619	0	0.000879
0.003171	0	0
0	0	0
0.001429	0	0.000776
0.006349	0.001184	0.000256
0.004726	0.001239	0
0.007258	0.001376	0.000254
0.005609	0.001983	0
0.001935	0	0.000468
0.00443	0	0.001081
0.004207	0	0
0	0	0
0.001471	0	0.000965
0.017585	0	0.000313
0.009664	0	0
0.016424	0.00541	0.000461
0.010345	0.02121	0
0	0	0
0	0	0
0.016783	0.003776	0.000312
0.01358	0.032695	0
0	0	0
0.008915	0.025867	0.000563
0.012087	0.02205	0
0	0	0
0	0	0
0.018525	0	0.000942
0.016439	0	0
0	0	0
0	0	0
0.020843	0	0.000543
0.014986	0.11924	0



0	0	0
0	0	0
0.002875	0	0.000691
0.002406	0	0
0	0	0
0.001468	0	0.000645
0.003429	0	0.000867
0.004182	0	0
0	0	0
0.001331	0	0.000703
0.003539	0	0.000858
0.003114	0	0
0	0	0
0.001388	0	0.000767
0.006168	0.001173	0.000255
0.004681	0.00122	0
0	0	0
0.007076	0.001364	0.000252
0.00554	0.001954	0
0	0	0
0.001926	0	0.000455
0.004335	0	0.001055
0.004141	0	0
0	0	0
0.001413	0	0.000948
0.017577	0	0.000311
0.00966	0	0
0.016236	0.005369	0.000454
0.010309	0.021051	0
0	0	0
0	0	0
0.016648	0.003755	0.00031
0.013536	0.032659	0
0	0	0
0	0	0
0.008868	0.025744	0.000558
0.012048	0.022026	0
0	0	0
0	0	0
0.018485	0	0.000938
0.016538	0	0
0	0	0
0	0	0

Source: EMFAC2021 (v1.0.1) Emission Rates

Region Type: Sub-Area

Region: Los Angeles (SC)

Calendar Year: 2022, 2023, 2024

Season: Summer

Vehicle Classification: EMFAC2007 Categories

Units: miles/day for CVMT and EVMT, trips/day for Trips, kWh/day for Energy Consumption, g/mile for RNE

Region	Calendar Y	Vehicle Ca	Model Yea	Speed	Fuel	Population	Total VMT	CVMT	EVMT
Los Angele	2022	HHDT	Aggregate	Aggregate	Gasoline	63.26504	3538.774	3538.774	0
Los Angele	2022	HHDT	Aggregate	Aggregate	Diesel	48900.66	6345154	6345154	0
Los Angele	2022	HHDT	Aggregate	Aggregate	Natural Ga	5299.023	362100.3	362100.3	0
Los Angele	2022	LDA	Aggregate	Aggregate	Gasoline	3413352	1.35E+08	1.35E+08	0
Los Angele	2022	LDA	Aggregate	Aggregate	Diesel	10030.88	301513.3	301513.3	0
Los Angele	2022	LDA	Aggregate	Aggregate	Electricity	127659.5	5753219	0	5753219
Los Angele	2022	LDA	Aggregate	Aggregate	Plug-in Hyl	77005.03	3631755	1877599	1754156
Los Angele	2022	LDT1	Aggregate	Aggregate	Gasoline	321949.9	11615096	11615096	0
Los Angele	2022	LDT1	Aggregate	Aggregate	Diesel	144.794	2969.141	2969.141	0
Los Angele	2022	LDT1	Aggregate	Aggregate	Electricity	644.3267	21265.03	0	21265.03
Los Angele	2022	LDT1	Aggregate	Aggregate	Plug-in Hyl	173.0164	9003.844	4305.777	4698.068
Los Angele	2022	LDT2	Aggregate	Aggregate	Gasoline	1501512	61390141	61390141	0
Los Angele	2022	LDT2	Aggregate	Aggregate	Diesel	4360.211	190690.3	190690.3	0
Los Angele	2022	LDT2	Aggregate	Aggregate	Electricity	4368.949	163553.4	0	163553.4
Los Angele	2022	LDT2	Aggregate	Aggregate	Plug-in Hyl	8362.064	422347	208749.6	213597.4
Los Angele	2022	LHDT1	Aggregate	Aggregate	Gasoline	123039.5	4764116	4764116	0
Los Angele	2022	LHDT1	Aggregate	Aggregate	Diesel	48774.91	2108378	2108378	0
Los Angele	2022	LHDT2	Aggregate	Aggregate	Gasoline	18984.12	698489.8	698489.8	0
Los Angele	2022	LHDT2	Aggregate	Aggregate	Diesel	21545.4	922900.7	922900.7	0
Los Angele	2022	MCY	Aggregate	Aggregate	Gasoline	139413	907017.6	907017.6	0
Los Angele	2022	MDV	Aggregate	Aggregate	Gasoline	917463.4	34478878	34478878	0
Los Angele	2022	MDV	Aggregate	Aggregate	Diesel	10302.79	407586.1	407586.1	0
Los Angele	2022	MDV	Aggregate	Aggregate	Electricity	4413.467	165001.3	0	165001.3
Los Angele	2022	MDV	Aggregate	Aggregate	Plug-in Hyl	4976.123	225140.6	114567.8	110572.7
Los Angele	2022	MH	Aggregate	Aggregate	Gasoline	16165.03	152712.6	152712.6	0
Los Angele	2022	MH	Aggregate	Aggregate	Diesel	4996.117	51480.96	51480.96	0
Los Angele	2022	MHDT	Aggregate	Aggregate	Gasoline	15480.78	831622	831622	0
Los Angele	2022	MHDT	Aggregate	Aggregate	Diesel	57828.41	2453217	2453217	0
Los Angele	2022	MHDT	Aggregate	Aggregate	Natural Ga	784.0169	37892.11	37892.11	0
Los Angele	2022	OBUS	Aggregate	Aggregate	Gasoline	3918.132	160387.6	160387.6	0
Los Angele	2022	OBUS	Aggregate	Aggregate	Diesel	2023.908	163561.2	163561.2	0
Los Angele	2022	OBUS	Aggregate	Aggregate	Natural Ga	374.853	22164.01	22164.01	0
Los Angele	2022	SBUS	Aggregate	Aggregate	Gasoline	1293.495	57034.92	57034.92	0
Los Angele	2022	SBUS	Aggregate	Aggregate	Diesel	1680.356	34286.5	34286.5	0
Los Angele	2022	SBUS	Aggregate	Aggregate	Natural Ga	1391.292	35082.21	35082.21	0
Los Angele	2022	UBUS	Aggregate	Aggregate	Gasoline	437.8384	31090.4	31090.4	0
Los Angele	2022	UBUS	Aggregate	Aggregate	Diesel	10.87531	1378.445	1378.445	0
Los Angele	2022	UBUS	Aggregate	Aggregate	Electricity	53.56409	2418.986	0	2418.986

Los Angele	2022 UBUS	Aggregate	Aggregate	Natural Ga	3871.457	416658.6	416658.6	0
Los Angele	2023 HHDT	Aggregate	Aggregate	Gasoline	52.44057	3231.285	3231.285	0
Los Angele	2023 HHDT	Aggregate	Aggregate	Diesel	50357.26	6491637	6491637	0
Los Angele	2023 HHDT	Aggregate	Aggregate	Electricity	39.63669	2558.522	0	2558.522
Los Angele	2023 HHDT	Aggregate	Aggregate	Natural Ga	5415.87	350604.9	350604.9	0
Los Angele	2023 LDA	Aggregate	Aggregate	Gasoline	3363326	1.33E+08	1.33E+08	0
Los Angele	2023 LDA	Aggregate	Aggregate	Diesel	9465.937	279606	279606	0
Los Angele	2023 LDA	Aggregate	Aggregate	Electricity	149786.4	6967761	0	6967761
Los Angele	2023 LDA	Aggregate	Aggregate	Plug-in Hyl	84855.73	3983694	2007927	1975766
Los Angele	2023 LDT1	Aggregate	Aggregate	Gasoline	316618.5	11498861	11498861	0
Los Angele	2023 LDT1	Aggregate	Aggregate	Diesel	130.6972	2649.862	2649.862	0
Los Angele	2023 LDT1	Aggregate	Aggregate	Electricity	737.9431	27045.91	0	27045.91
Los Angele	2023 LDT1	Aggregate	Aggregate	Plug-in Hyl	305.3619	15799.37	7268.199	8531.169
Los Angele	2023 LDT2	Aggregate	Aggregate	Gasoline	1534013	63204641	63204641	0
Los Angele	2023 LDT2	Aggregate	Aggregate	Diesel	4672.025	203904.2	203904.2	0
Los Angele	2023 LDT2	Aggregate	Aggregate	Electricity	7316.505	271839.4	0	271839.4
Los Angele	2023 LDT2	Aggregate	Aggregate	Plug-in Hyl	11176.09	559555.6	267320.1	292235.5
Los Angele	2023 LHDT1	Aggregate	Aggregate	Gasoline	123582.3	4875651	4875651	0
Los Angele	2023 LHDT1	Aggregate	Aggregate	Diesel	52370.85	2309885	2309885	0
Los Angele	2023 LHDT2	Aggregate	Aggregate	Gasoline	18992.21	707424.2	707424.2	0
Los Angele	2023 LHDT2	Aggregate	Aggregate	Diesel	23383.97	1017094	1017094	0
Los Angele	2023 MCY	Aggregate	Aggregate	Gasoline	143314.4	942493.5	942493.5	0
Los Angele	2023 MDV	Aggregate	Aggregate	Gasoline	930000	35296866	35296866	0
Los Angele	2023 MDV	Aggregate	Aggregate	Diesel	10587.1	417108.6	417108.6	0
Los Angele	2023 MDV	Aggregate	Aggregate	Electricity	7870.579	292645.8	0	292645.8
Los Angele	2023 MDV	Aggregate	Aggregate	Plug-in Hyl	6232.489	281038.2	138168.2	142869.9
Los Angele	2023 MH	Aggregate	Aggregate	Gasoline	15543.05	150959.2	150959.2	0
Los Angele	2023 MH	Aggregate	Aggregate	Diesel	5175.529	54121.46	54121.46	0
Los Angele	2023 MHDT	Aggregate	Aggregate	Gasoline	15094.87	818409	818409	0
Los Angele	2023 MHDT	Aggregate	Aggregate	Diesel	58440.26	2482453	2482453	0
Los Angele	2023 MHDT	Aggregate	Aggregate	Electricity	27.28255	586.3877	0	586.3877
Los Angele	2023 MHDT	Aggregate	Aggregate	Natural Ga	827.543	40273.3	40273.3	0
Los Angele	2023 OBUS	Aggregate	Aggregate	Gasoline	3808.788	153201.7	153201.7	0
Los Angele	2023 OBUS	Aggregate	Aggregate	Diesel	2064.03	166622.2	166622.2	0
Los Angele	2023 OBUS	Aggregate	Aggregate	Natural Ga	319.8885	19541.03	19541.03	0
Los Angele	2023 SBUS	Aggregate	Aggregate	Gasoline	1333.83	59008.66	59008.66	0
Los Angele	2023 SBUS	Aggregate	Aggregate	Diesel	1641.865	33210.41	33210.41	0
Los Angele	2023 SBUS	Aggregate	Aggregate	Electricity	1.644084	19.09633	0	19.09633
Los Angele	2023 SBUS	Aggregate	Aggregate	Natural Ga	1447.068	36139.2	36139.2	0
Los Angele	2023 UBUS	Aggregate	Aggregate	Gasoline	438.7258	31153.41	31153.41	0
Los Angele	2023 UBUS	Aggregate	Aggregate	Diesel	9.742965	1269.075	1269.075	0
Los Angele	2023 UBUS	Aggregate	Aggregate	Electricity	53.53079	2415.769	0	2415.769
Los Angele	2023 UBUS	Aggregate	Aggregate	Natural Ga	3880.599	417623.3	417623.3	0
Los Angele	2024 HHDT	Aggregate	Aggregate	Gasoline	43.66381	2950.78	2950.78	0
Los Angele	2024 HHDT	Aggregate	Aggregate	Diesel	52323.87	6605323	6605323	0

Los Angeles	2024 HHDT	Aggregate	Aggregate	Electricity	159.3277	16508.8	0	16508.8
Los Angeles	2024 HHDT	Aggregate	Aggregate	Natural Ga	5707.004	363944.8	363944.8	0
Los Angeles	2024 LDA	Aggregate	Aggregate	Gasoline	3312060	1.31E+08	1.31E+08	0
Los Angeles	2024 LDA	Aggregate	Aggregate	Diesel	8789.19	256968.2	256968.2	0
Los Angeles	2024 LDA	Aggregate	Aggregate	Electricity	171677.7	8196290	0	8196290
Los Angeles	2024 LDA	Aggregate	Aggregate	Plug-in Hyl	91933.07	4279571	2105556	2174016
Los Angeles	2024 LDT1	Aggregate	Aggregate	Gasoline	311828.9	11357947	11357947	0
Los Angeles	2024 LDT1	Aggregate	Aggregate	Diesel	118.5294	2368.569	2368.569	0
Los Angeles	2024 LDT1	Aggregate	Aggregate	Electricity	868.5158	34958.66	0	34958.66
Los Angeles	2024 LDT1	Aggregate	Aggregate	Plug-in Hyl	472.0351	24184	10785.21	13398.78
Los Angeles	2024 LDT2	Aggregate	Aggregate	Gasoline	1566130	64695889	64695889	0
Los Angeles	2024 LDT2	Aggregate	Aggregate	Diesel	4948.489	214829	214829	0
Los Angeles	2024 LDT2	Aggregate	Aggregate	Electricity	10499.25	385269.4	0	385269.4
Los Angeles	2024 LDT2	Aggregate	Aggregate	Plug-in Hyl	13716.62	676714.5	314753.7	361960.7
Los Angeles	2024 LHDT1	Aggregate	Aggregate	Gasoline	123836.6	4934814	4934814	0
Los Angeles	2024 LHDT1	Aggregate	Aggregate	Diesel	55652.48	2469363	2469363	0
Los Angeles	2024 LHDT1	Aggregate	Aggregate	Electricity	510.8844	38629.84	0	38629.84
Los Angeles	2024 LHDT2	Aggregate	Aggregate	Gasoline	18962.98	709989.1	709989.1	0
Los Angeles	2024 LHDT2	Aggregate	Aggregate	Diesel	25083.13	1093296	1093296	0
Los Angeles	2024 LHDT2	Aggregate	Aggregate	Electricity	132.2329	9473.404	0	9473.404
Los Angeles	2024 MCY	Aggregate	Aggregate	Gasoline	146992	969260.7	969260.7	0
Los Angeles	2024 MDV	Aggregate	Aggregate	Gasoline	941104.7	35897503	35897503	0
Los Angeles	2024 MDV	Aggregate	Aggregate	Diesel	10836.34	423746.8	423746.8	0
Los Angeles	2024 MDV	Aggregate	Aggregate	Electricity	11444.76	420107.5	0	420107.5
Los Angeles	2024 MDV	Aggregate	Aggregate	Plug-in Hyl	7947.76	357372.5	169175.2	188197.3
Los Angeles	2024 MH	Aggregate	Aggregate	Gasoline	15037.72	149209.7	149209.7	0
Los Angeles	2024 MH	Aggregate	Aggregate	Diesel	5352.033	56471.38	56471.38	0
Los Angeles	2024 MHDT	Aggregate	Aggregate	Gasoline	14716.96	800329.5	800329.5	0
Los Angeles	2024 MHDT	Aggregate	Aggregate	Diesel	59315.44	2506988	2506988	0
Los Angeles	2024 MHDT	Aggregate	Aggregate	Electricity	193.0645	11118.77	0	11118.77
Los Angeles	2024 MHDT	Aggregate	Aggregate	Natural Ga	877.2928	42058.49	42058.49	0
Los Angeles	2024 OBUS	Aggregate	Aggregate	Gasoline	3692.49	145452.6	145452.6	0
Los Angeles	2024 OBUS	Aggregate	Aggregate	Diesel	2097.358	166829.4	166829.4	0
Los Angeles	2024 OBUS	Aggregate	Aggregate	Electricity	7.843995	589.8873	0	589.8873
Los Angeles	2024 OBUS	Aggregate	Aggregate	Natural Ga	328.2793	19780.16	19780.16	0
Los Angeles	2024 SBUS	Aggregate	Aggregate	Gasoline	1372.011	60689.42	60689.42	0
Los Angeles	2024 SBUS	Aggregate	Aggregate	Diesel	1597.022	32040.99	32040.99	0
Los Angeles	2024 SBUS	Aggregate	Aggregate	Electricity	11.68207	360.214	0	360.214
Los Angeles	2024 SBUS	Aggregate	Aggregate	Natural Ga	1503.388	37156.56	37156.56	0
Los Angeles	2024 UBUS	Aggregate	Aggregate	Gasoline	437.5652	30984.44	30984.44	0
Los Angeles	2024 UBUS	Aggregate	Aggregate	Diesel	9.45988	1241.732	1241.732	0
Los Angeles	2024 UBUS	Aggregate	Aggregate	Electricity	97.83777	8157.187	0	8157.187
Los Angeles	2024 UBUS	Aggregate	Aggregate	Natural Ga	3846.599	412993.5	412993.5	0

X, PMBW and PMTW, g/trip for STREX, HOTSOAK and RUNLOSS, g/vehicle/day for IDLEX and DIURN

Trips	Energy_Consumption	CO2_Emissions	NOx_Emissions	PM2.5_Emissions	PM2.5_Conc	PM2.5_IDI	PM2.5_STI	PM2.5_PMI	PM2.5_PNI	
1265.807		0	7.040347	0	0.537577	0.00207	0	0.001556	0.005	0.035254
752459.5		0	2.48001	70.50908	2.386063	0.025286	0.035697	0	0.008852	0.029201
35928.28		0	0.948748	9.501146	0	0.002504	0.015857	0	0.009	0.052174
15900218		0	0.045928	0	0.249443	0.001522	0	0.002103	0.002	0.003076
41570.24		0	0.275275	0	0	0.033114	0	0	0.002	0.003119
641939.7	2221217		0	0	0	0	0	0	0.002	0.001528
318415.8	529807.3	0.003069	0	0.103142	0.000822	0	0.002211	0.002	0.001443	
1417104		0	0.187756	0	0.431311	0.002785	0	0.003384	0.002	0.003815
429.3151		0	1.441766	0	0	0.258681	0	0	0.002	0.004366
2916.832	8210.057		0	0	0	0	0	0	0.002	0.001541
715.423	1418.956	0.002839	0	0.103142	0.000495	0	0.001455	0.002	0.001445	
7055330		0	0.085359	0	0.350113	0.001596	0	0.002096	0.002	0.003635
21120.42		0	0.05959	0	0	0.00768	0	0	0.002	0.00354
22514.53	63145.13		0	0	0	0	0	0	0.002	0.001523
34577.14	64512.77	0.002934	0	0.103142	0.000649	0	0.001845	0.002	0.001443	
1833105		0	0.188993	0.038064	0.626784	0.001154	0	0.000379	0.002	0.0273
613527		0	1.505068	2.030335	0	0.024752	0.02697	0	0.003	0.0273
282835.1		0	0.186664	0.038276	0.639211	0.00103	0	0.000309	0.002	0.03185
271014.1		0	1.302666	2.0105	0	0.023986	0.027018	0	0.003	0.03185
278825.9		0	0.502195	0	0.133757	0.002126	0	0.003691	0.001	0.0042
4239291		0	0.143235	0	0.483006	0.001719	0	0.002316	0.002	0.003743
48955.92		0	0.1184	0	0	0.009876	0	0	0.002	0.003669
22733.53	63704.1		0	0	0	0	0	0	0.002	0.001523
20576.27	33396.26	0.003021	0	0.103142	0.000828	0	0.002284	0.002	0.001443	
1617.149		0	0.461728	0	0.367991	0.001548	0	0.000479	0.003	0.015262
499.6117		0	3.628964	0	0	0.099246	0	0	0.004	0.015164
309739.4		0	0.51133	0.092132	0.422931	0.00097	0	0.000518	0.003	0.015262
705969.6		0	1.473399	15.12577	1.453734	0.016581	0.031133	0	0.003	0.015293
6890.154		0	0.118312	6.766319	0	0.000774	0.01679	0	0.003	0.015235
78393.98		0	0.476512	0.064861	0.383982	0.000759	0	0.000276	0.003	0.015407
26239.42		0	2.144552	18.09041	1.527833	0.036109	0.018101	0	0.003	0.023563
3336.192		0	0.154489	1.568387	0	0.000644	0.00316	0	0.003	0.015407
5173.98		0	0.47586	0.923297	0.675561	0.001106	0	0.000481	0.002	0.016396
24331.55		0	9.031341	35.8031	0.154568	0.054316	0.040015	0	0.003	0.016396
20145.9		0	0.868684	5.265334	0	0.004122	0.01149	0	0.003	0.016396
1751.354		0	0.220156	0	0.847827	0.001057	0	0.000465	0.00274	0.036771
43.50122		0	1.098995	0	0	0.006181	0	0	0.008295	0.0385
214.2564	5077.565		0	0	0	0	0	0	0.006524	0.019078

15485.83	0	0.692831	0	0	0.000363	0	0	0.008387	0.038456
1049.231	0	6.30352	0	0.784257	0.001782	0	0.001387	0.005	0.034509
778752.4	0	1.812831	63.83389	2.754727	0.023423	0.032163	0	0.008853	0.028482
631.7287	4542.85	0	0	0	0	0	0	0.008828	0.014293
34520.18	0	0.882234	8.685326	0	0.002434	0.015496	0	0.009	0.054055
15650235	0	0.04106	0	0.237459	0.001464	0	0.002024	0.002	0.003078
38923.82	0	0.253918	0	0	0.031047	0	0	0.002	0.003129
750975.1	2690131	0	0	0	0	0	0	0.002	0.001528
350878.5	596740.4	0.002991	0	0.103142	0.000757	0	0.002092	0.002	0.001447
1394224	0	0.16949	0	0.406079	0.00259	0	0.003173	0.002	0.003811
380.5267	0	1.43512	0	0	0.257322	0	0	0.002	0.004363
3402.44	10441.95	0	0	0	0	0	0	0.002	0.001537
1262.671	2576.667	0.00273	0	0.103142	0.000457	0	0.001399	0.002	0.001449
7216720	0	0.074393	0	0.319608	0.001523	0	0.002017	0.002	0.003631
22591.39	0	0.053003	0	0	0.006686	0	0	0.002	0.003553
37572.14	104952.4	0	0	0	0	0	0	0.002	0.001524
46213.12	88263.84	0.002835	0	0.103142	0.000579	0	0.001703	0.002	0.001448
1841192	0	0.164672	0.036826	0.606011	0.001125	0	0.000347	0.002	0.0273
658759.4	0	1.260477	1.884622	0	0.021868	0.026802	0	0.003	0.0273
282955.6	0	0.163706	0.03702	0.62039	0.001002	0	0.00028	0.002	0.03185
294140.9	0	1.101752	1.864095	0	0.021533	0.026941	0	0.003	0.03185
286628.8	0	0.486424	0	0.126142	0.002135	0	0.003507	0.001	0.0042
4305992	0	0.123377	0	0.43732	0.001603	0	0.002173	0.002	0.003732
50133.21	0	0.104694	0	0	0.008986	0	0	0.002	0.003687
40427.05	112985.4	0	0	0	0	0	0	0.002	0.001524
25771.34	43150.98	0.002917	0	0.103142	0.000725	0	0.002065	0.002	0.001447
1554.927	0	0.390563	0	0.376284	0.001408	0	0.000437	0.003	0.015259
517.5529	0	3.423694	0	0	0.090578	0	0	0.004	0.015161
302018.1	0	0.437357	0.092308	0.41566	0.000954	0	0.000492	0.003	0.015259
714881.8	0	1.092107	13.19906	1.603939	0.013462	0.025968	0	0.003	0.015289
352.609	612.8494	0	0	0	0	0	0	0.003	0.007647
7127.992	0	0.109296	6.787469	0	0.000828	0.0177	0	0.003	0.01523
76206.23	0	0.44599	0.06488	0.382723	0.000782	0	0.000278	0.003	0.015407
26660.67	0	1.739856	15.78229	1.675354	0.033701	0.016781	0	0.003	0.023256
2847.008	0	0.147925	1.563929	0	0.000685	0.003267	0	0.003	0.015407
5335.32	0	0.459948	0.923976	0.690624	0.001068	0	0.000476	0.002	0.016396
23774.21	0	8.769812	35.45574	0.169511	0.052306	0.037883	0	0.003	0.016396
23.80634	22.08111	0	0	0	0	0	0	0.003	0.008198
20953.55	0	0.83787	5.253544	0	0.004122	0.011771	0	0.003	0.016396
1754.903	0	0.219213	0	0.843007	0.001161	0	0.000512	0.00274	0.036771
38.97186	0	0.851911	0	0	0.006052	0	0	0.008751	0.0385
214.1232	5070.782	0	0	0	0	0	0	0.006528	0.019078
15522.39	0	0.685807	0	0	0.000372	0	0	0.008385	0.038456
873.6256	0	5.974349	0	0.714518	0.001537	0	0.001215	0.005	0.033623
812033.7	0	1.732517	63.21555	2.797408	0.023363	0.030269	0	0.008854	0.028309

2224.44	29382.84	0	0	0	0	0	0	0.008683	0.014462
36370.01	0	0.794436	8.439861	0	0.002273	0.016021	0	0.009	0.054197
15395682	0	0.037008	0	0.226862	0.001409	0	0.001958	0.002	0.003072
36035.14	0	0.228904	0	0	0.027232	0	0	0.002	0.003129
857942.9	3164445	0	0	0	0	0	0	0.002	0.001529
380143.2	656617.5	0.002909	0	0.103142	0.000703	0	0.002004	0.002	0.001448
1373845	0	0.15299	0	0.382346	0.0024	0	0.002977	0.002	0.003794
338.8223	0	1.430762	0	0	0.255353	0	0	0.002	0.004345
4075.934	13496.93	0	0	0	0	0	0	0.002	0.001534
1951.865	4046.831	0.002637	0	0.103142	0.000432	0	0.001374	0.002	0.001452
7373138	0	0.065671	0	0.294982	0.001456	0	0.001956	0.002	0.003619
23893.23	0	0.046466	0	0	0.00554	0	0	0.002	0.003554
53700.22	148745.8	0	0	0	0	0	0	0.002	0.001525
56718.24	109322.9	0.00275	0	0.103142	0.000535	0	0.001625	0.002	0.00145
1844981	0	0.144436	0.035671	0.58593	0.001103	0	0.000319	0.002	0.0273
700038.2	0	1.076164	1.76265	0	0.019706	0.02667	0	0.003	0.0273
7136.731	21582.07	0	0	0	0	0	0	0.002	0.01365
282520.2	0	0.144393	0.035836	0.601043	0.000982	0	0.000256	0.002	0.03185
315514.2	0	0.951663	1.742695	0	0.019703	0.026901	0	0.003	0.03185
1750.362	5296.526	0	0	0	0	0	0	0.002	0.015925
293984	0	0.473961	0	0.119372	0.002133	0	0.003349	0.001	0.0042
4364748	0	0.106102	0	0.39666	0.001495	0	0.002048	0.002	0.003712
51125.48	0	0.093488	0	0	0.00831	0	0	0.002	0.00369
58543.45	162196.1	0	0	0	0	0	0	0.002	0.001525
32863.99	56841.18	0.002799	0	0.103142	0.000634	0	0.001884	0.002	0.00145
1504.374	0	0.33709	0	0.382988	0.00131	0	0.000408	0.003	0.015244
535.2033	0	3.243142	0	0	0.083373	0	0	0.004	0.015148
294456.9	0	0.376356	0.092456	0.406885	0.000946	0	0.000473	0.003	0.015244
726825.6	0	1.0007	12.73504	1.62051	0.011967	0.021759	0	0.003	0.015273
2643.907	11626.17	0	0	0	0	0	0	0.003	0.007626
7503.19	0	0.10425	6.789441	0	0.000849	0.018232	0	0.003	0.015214
73879.35	0	0.417356	0.064895	0.382714	0.000812	0	0.000281	0.003	0.015433
27161.65	0	1.73769	15.79288	1.682361	0.033711	0.016263	0	0.003	0.023324
156.9427	621.3033	0	0	0	0	0	0	0.003	0.007717
2921.686	0	0.143271	1.559894	0	0.000727	0.003363	0	0.003	0.015433
5488.044	0	0.440104	0.924381	0.69798	0.001064	0	0.000484	0.002	0.016396
23124.88	0	8.480116	35.03356	0.185321	0.050416	0.035973	0	0.003	0.016396
124.0754	416.516	0	0	0	0	0	0	0.002475	0.008198
21769.06	0	0.809251	5.242555	0	0.004122	0.012033	0	0.003	0.016396
1750.261	0	0.180374	0	0.775466	0.0015	0	0.000642	0.002738	0.036758
37.83952	0	0.78455	0	0	0.005997	0	0	0.008878	0.0385
391.3511	17142.31	0	0	0	0	0	0	0.008096	0.019199
15386.4	0	0.635426	0	0	0.000393	0	0	0.008377	0.038456

PM10_RUI	PM10_IDL	PM10_STR	PM10_PM	PM10_PM	CO2_RUNE	CO2_IDLE	CO2_STRE	CH4_RUNE	CH4_IDLE
0.002251	0	0.001692	0.02	0.100726	2214.063	0	54.38582	0.203086	0
0.02643	0.037311	0	0.035407	0.083432	1626.402	13353.26	0	0.001558	0.261039
0.002724	0.017245	0	0.036	0.14907	1272.44	8578.389	0	1.547892	24.47566
0.001655	0	0.002287	0.008	0.008789	314.175	0	71.6442	0.003671	0
0.034611	0	0	0.008	0.008911	258.9208	0	0	0.002456	0
0	0	0	0.008	0.004365	0	0	0	0	0
0.000894	0	0.002405	0.008	0.004123	163.6178	0	66.36787	0.000591	0
0.003028	0	0.00368	0.008	0.0109	372.9254	0	89.72838	0.012742	0
0.270377	0	0	0.008	0.012474	443.0095	0	0	0.015395	0
0	0	0	0.008	0.004403	0	0	0	0	0
0.000538	0	0.001582	0.008	0.004128	151.3449	0	72.83468	0.000548	0
0.001736	0	0.002279	0.008	0.010385	387.9298	0	90.11451	0.004774	0
0.008028	0	0	0.008	0.010114	339.9821	0	0	0.001023	0
0	0	0	0.008	0.004352	0	0	0	0	0
0.000705	0	0.002007	0.008	0.004124	156.4229	0	79.13599	0.000566	0
0.001255	0	0.000412	0.008	0.078	662.4354	121.0204	25.82096	0.007834	0.119718
0.025871	0.02819	0	0.012	0.078	504.1624	133.0433	0	0.005119	0.005098
0.00112	0	0.000336	0.008	0.091	753.7268	140.3836	25.69345	0.005696	0.120152
0.025071	0.02824	0	0.012	0.091	600.6886	212.8494	0	0.004941	0.005098
0.002271	0	0.003917	0.004	0.012	196.1284	0	47.25184	0.187264	0
0.001869	0	0.002519	0.008	0.010694	472.1167	0	110.709	0.007588	0
0.010322	0	0	0.008	0.010483	450.2942	0	0	0.001006	0
0	0	0	0.008	0.004351	0	0	0	0	0
0.0009	0	0.002484	0.008	0.004124	161.0472	0	98.8022	0.000578	0
0.001683	0	0.000521	0.012	0.043606	1780.598	0	31.60399	0.020469	0
0.103734	0	0	0.016	0.043326	1019.521	0	0	0.003391	0
0.001055	0	0.000564	0.012	0.043606	1681.79	574.7912	46.85835	0.016872	0.24153
0.017331	0.032541	0	0.012	0.043694	1096.697	2309.978	0	0.001648	0.012572
0.000841	0.018261	0	0.012	0.043529	864.6835	5430.415	0	0.521933	18.78165
0.000826	0	0.0003	0.012	0.044021	1714.607	383.9831	31.45449	0.013964	0.194069
0.037742	0.01892	0	0.012	0.067321	1436.328	3560.699	0	0.0034	0.05988
0.0007	0.003437	0	0.012	0.044021	899.2709	1209.659	0	0.524781	4.619315
0.001203	0	0.000524	0.008	0.046845	907.2993	2630.552	54.55511	0.015988	2.412895
0.056772	0.041824	0	0.012	0.046845	1280.541	2437.883	0	0.007751	0.007856
0.004483	0.012496	0	0.012	0.046845	1735.127	4129.72	0	4.820867	15.18799
0.001149	0	0.000506	0.01096	0.105059	1874.452	0	93.63956	0.005182	0
0.006461	0	0	0.033181	0.109999	1700.921	0	0	0.005355	0
0	0	0	0.026094	0.054509	0	0	0	0	0



0.00038	0	0	0.033547	0.109875	2581.135	0	0	2.599729	0
0.001938	0	0.001509	0.02	0.098597	2161.357	0	55.01582	0.176204	0
0.024482	0.033617	0	0.035413	0.081378	1603.902	12701.24	0	0.000655	0.263495
0	0	0	0.035313	0.040837	0	0	0	0	0
0.002647	0.016853	0	0.036	0.154443	1238.284	8165.689	0	1.498558	21.89659
0.001592	0	0.002201	0.008	0.008795	309.2674	0	70.37036	0.003301	0
0.03245	0	0	0.008	0.00894	256.8843	0	0	0.00232	0
0	0	0	0.008	0.004367	0	0	0	0	0
0.000823	0	0.002275	0.008	0.004133	159.4898	0	65.6148	0.000574	0
0.002816	0	0.00345	0.008	0.010888	367.2508	0	87.89428	0.011487	0
0.268957	0	0	0.008	0.012467	442.5282	0	0	0.015331	0
0	0	0	0.008	0.004392	0	0	0	0	0
0.000497	0	0.001521	0.008	0.004141	145.5653	0	71.74645	0.000524	0
0.001656	0	0.002194	0.008	0.010376	379.5613	0	87.93781	0.004292	0
0.006988	0	0	0.008	0.010151	334.6039	0	0	0.000957	0
0	0	0	0.008	0.004355	0	0	0	0	0
0.00063	0	0.001852	0.008	0.004136	151.1678	0	78.11346	0.000544	0
0.001224	0	0.000378	0.008	0.078	642.2542	119.7999	25.71307	0.006818	0.116849
0.022857	0.028014	0	0.012	0.078	498.7481	130.7362	0	0.004601	0.005098
0.00109	0	0.000305	0.008	0.091	734.2305	139.1767	25.47483	0.004848	0.117002
0.022506	0.028159	0	0.012	0.091	591.9723	209.3093	0	0.004513	0.005098
0.002282	0	0.003727	0.004	0.012	195.4191	0	45.77548	0.18111	0
0.001743	0	0.002363	0.008	0.010663	462.345	0	108.1295	0.006621	0
0.009392	0	0	0.008	0.010533	444.0027	0	0	0.000931	0
0	0	0	0.008	0.004354	0	0	0	0	0
0.000788	0	0.002246	0.008	0.004136	155.5657	0	97.25941	0.000555	0
0.001531	0	0.000475	0.012	0.043596	1778.93	0	31.3347	0.016487	0
0.094674	0	0	0.016	0.043317	1019.881	0	0	0.003204	0
0.001038	0	0.000535	0.012	0.043596	1661.368	570.3989	46.13903	0.0142	0.244392
0.01407	0.027142	0	0.012	0.043684	1092.424	2226.634	0	0.001117	0.011716
0	0	0	0.012	0.021848	0	0	0	0	0
0.0009	0.019251	0	0.012	0.043515	857.4585	5479.15	0	0.530446	18.52872
0.000851	0	0.000303	0.012	0.044021	1697.666	381.9035	31.23633	0.012944	0.19418
0.035224	0.017539	0	0.012	0.066446	1434.124	3414.441	0	0.002651	0.059511
0.000745	0.003553	0	0.012	0.044021	892.3565	1204.638	0	0.531423	4.564273
0.001161	0	0.000518	0.008	0.046845	901.8652	2616.522	54.08068	0.014774	2.419563
0.054671	0.039596	0	0.012	0.046845	1276.451	2434.266	0	0.007634	0.007654
0	0	0	0.012	0.023423	0	0	0	0	0
0.004483	0.012802	0	0.012	0.046845	1720.617	4135.353	0	4.744239	15.04242
0.001263	0	0.000557	0.01096	0.105059	1873.906	0	93.5551	0.005178	0
0.006326	0	0	0.035006	0.109999	1734.869	0	0	0.004835	0
0	0	0	0.026113	0.054509	0	0	0	0	0
0.000389	0	0	0.033541	0.109875	2577.176	0	0	2.622329	0
0.001672	0	0.001322	0.02	0.096066	2110.213	0	54.51774	0.155409	0
0.02442	0.031638	0	0.035417	0.080884	1582.524	12449.57	0	0.000629	0.262626

0	0	0	0.034731	0.04132	0	0	0	0	0
0.002472	0.017424	0	0.036	0.154847	1214.44	8122.148	0	1.400317	21.23355
0.001533	0	0.00213	0.008	0.008777	303.8501	0	69.10342	0.002975	0
0.028464	0	0	0.008	0.008941	253.8954	0	0	0.00206	0
0	0	0	0.008	0.004368	0	0	0	0	0
0.000764	0	0.00218	0.008	0.004138	155.2617	0	64.87161	0.000554	0
0.002611	0	0.003237	0.008	0.010839	360.9833	0	86.09519	0.01032	0
0.266899	0	0	0.008	0.012415	441.3796	0	0	0.015227	0
0	0	0	0.008	0.004384	0	0	0	0	0
0.00047	0	0.001494	0.008	0.004148	140.7339	0	70.70723	0.000502	0
0.001583	0	0.002127	0.008	0.010339	371.1436	0	85.88779	0.00387	0
0.005791	0	0	0.008	0.010154	328.6769	0	0	0.000872	0
0	0	0	0.008	0.004358	0	0	0	0	0
0.000582	0	0.001768	0.008	0.004143	146.7788	0	77.22028	0.000524	0
0.0012	0	0.000347	0.008	0.078	623.9394	118.6149	25.60822	0.005923	0.114101
0.020597	0.027876	0	0.012	0.078	494.0491	128.7382	0	0.004184	0.005098
0	0	0	0.008	0.039	0	0	0	0	0
0.001068	0	0.000278	0.008	0.091	715.7826	137.9878	25.25751	0.00414	0.113951
0.020594	0.028117	0	0.012	0.091	584.651	206.2579	0	0.004161	0.005098
0	0	0	0.008	0.0455	0	0	0	0	0
0.002282	0	0.003565	0.004	0.012	194.6022	0	44.48179	0.175682	0
0.001626	0	0.002227	0.008	0.010607	452.2769	0	105.633	0.005747	0
0.008686	0	0	0.008	0.010543	437.0132	0	0	0.000867	0
0	0	0	0.008	0.004357	0	0	0	0	0
0.000689	0	0.002049	0.008	0.004143	149.3873	0	95.50749	0.000529	0
0.001424	0	0.000443	0.012	0.043554	1778.07	0	31.1088	0.013688	0
0.087143	0	0	0.016	0.043279	1019.497	0	0	0.003035	0
0.001029	0	0.000515	0.012	0.043554	1642.411	566.038	45.45941	0.012055	0.246685
0.012508	0.022743	0	0.012	0.043638	1088.634	2207.542	0	0.000983	0.011163
0	0	0	0.012	0.021789	0	0	0	0	0
0.000923	0.019829	0	0.012	0.04347	851.3073	5505.819	0	0.532133	18.34282
0.000884	0	0.000306	0.012	0.044095	1684.056	379.8538	31.01679	0.012049	0.194046
0.035236	0.016998	0	0.012	0.066639	1429.394	3410.476	0	0.002683	0.059891
0	0	0	0.012	0.022048	0	0	0	0	0
0.000791	0.003658	0	0.012	0.044095	891.0752	1204.788	0	0.542493	4.514452
0.001157	0	0.000526	0.008	0.046845	897.1082	2604.097	53.61604	0.01381	2.42342
0.052696	0.0376	0	0.012	0.046845	1272.36	2429.1	0	0.007508	0.007512
0	0	0	0.009901	0.023423	0	0	0	0	0
0.004483	0.013087	0	0.012	0.046845	1707.142	4140.603	0	4.673068	14.90675
0.001631	0	0.000698	0.010952	0.105022	1869.838	0	93.15755	0.005204	0
0.006268	0	0	0.035512	0.109999	1745.343	0	0	0.004697	0
0	0	0	0.032385	0.054854	0	0	0	0	0
0.000411	0	0	0.033507	0.109873	2558.464	0	0	2.785774	0

[illegible]

0	0.526181	0	0	0.037514	0	0	0	0	0
8.48E-05	0.18561	0	0.021935	0.996885	0	0.00044	0.114955	0.932945	9.637217
0	0.252695	2.001085	0	0.014108	5.672981	0	0	0	0
0	0	0	0	0	0	0	0	0	0
0	0.252432	1.664629	0	0.041962	0.375863	0	0	0	0
0.065088	0.004513	0	0.031612	0.01278	0	0.29542	0.100515	0.241195	1.765417
0	0.040472	0	0	0.049939	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0
0.036032	0.000567	0	0.019523	0.001771	0	0.142967	0.042795	0.03625	0.569337
0.107903	0.011891	0	0.039465	0.051579	0	0.562345	0.220077	0.610644	4.010416
0	0.06972	0	0	0.330067	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0
0.036063	0.000518	0	0.019555	0.001616	0	0.142967	0.026057	0.022197	0.347263
0.075729	0.006195	0	0.036205	0.017136	0	0.348111	0.089973	0.229474	1.67861
0	0.052717	0	0	0.020602	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0
0.036083	0.000538	0	0.019577	0.001678	0	0.142967	0.027675	0.024657	0.38999
0.032663	0.009412	0.00311	0.050232	0.034428	0.421683	0.159126	0.054351	0.283779	3.417845
0	0.078578	0.020598	0	0.09906	0.10976	0	0	0	0
0.033155	0.010002	0.003043	0.049756	0.02278	0.424225	0.161691	0.053222	0.270635	3.380032
0	0.093265	0.032977	0	0.097162	0.10976	0	0	0	0
0.151928	0.035456	0	0.007867	1.174764	0	1.118578	3.700751	3.603274	5.024618
0.098147	0.008922	0	0.041206	0.02846	0	0.491125	0.111586	0.305175	2.113496
0	0.069953	0	0	0.020048	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0
0.035768	0.000544	0	0.019239	0.001727	0	0.142967	0.031085	0.027982	0.444767
0.035794	0.023998	0	0.04185	0.075799	0	0.149326	13.43569	0.290234	5.481583
0	0.160683	0	0	0.068983	0	0	0	0	0
0.046457	0.022053	0.007879	0.032289	0.069922	0.941218	0.252905	0.038756	0.28867	3.528411
0	0.172112	0.350807	0	0.024059	0.252248	0	0	0	0
0	0	0	0	0	0	0	0	0	0
0	0.174799	1.116961	0	0.007579	0.264739	0	0	0	0
0.034175	0.021774	0.005373	0.029264	0.063339	0.743578	0.182061	0.038297	0.162107	3.370923
0	0.225947	0.537947	0	0.057085	1.28125	0	0	0	0
0	0.181913	0.245573	0	0.007593	0.065214	0	0	0	0
0.062263	0.025488	0.086236	0.063324	0.073772	10.60419	0.360215	0.130791	0.295982	2.145907
0	0.201105	0.38352	0	0.164352	0.164799	0	0	0	0
0	0	0	0	0	0	0	0	0	0
0	0.350759	0.843019	0	0.067786	0.214926	0	0	0	0
0.106486	0.019157	0	0.078849	0.017153	0	0.45381	0.056743	0.114162	0.805742
0	0.273329	0	0	0.104107	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0
0	0.525374	0	0	0.037846	0	0	0	0	0
8.65E-05	0.179542	0	0.020838	0.865273	0	0.000449	0.105324	0.855525	8.921164
0	0.249327	1.961435	0	0.01355	5.65427	0	0	0	0

0	0	0	0	0	0	0	0	0	0
0	0.247572	1.655753	0	0.037818	0.357686	0	0	0	0
0.061732	0.004247	0	0.030866	0.011295	0	0.276786	0.097007	0.234182	1.707646
0	0.040001	0	0	0.044349	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0
0.035903	0.000547	0	0.019383	0.001717	0	0.142967	0.04324	0.037363	0.563812
0.101158	0.010936	0	0.038233	0.046025	0	0.521403	0.207942	0.570734	3.788142
0	0.06954	0	0	0.327836	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0
0.035899	0.000495	0	0.019379	0.001556	0	0.142967	0.025621	0.021348	0.338477
0.071017	0.0057	0	0.034709	0.015228	0	0.322256	0.085133	0.219318	1.603612
0	0.051783	0	0	0.018771	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0
0.035916	0.000517	0	0.019398	0.001623	0	0.142967	0.027289	0.023829	0.377594
0.031227	0.008315	0.003072	0.049304	0.02978	0.408557	0.151105	0.05087	0.269946	3.245133
0	0.077838	0.020283	0	0.090084	0.10976	0	0	0	0
0	0	0	0	0	0	0	0	0	0
0.031697	0.008961	0.002989	0.048705	0.019276	0.410763	0.153587	0.050446	0.26172	3.268614
0	0.092112	0.032496	0	0.089583	0.10976	0	0	0	0
0	0	0	0	0	0	0	0	0	0
0.147523	0.034903	0	0.007495	1.127758	0	1.080026	3.697815	3.606811	4.903322
0.090264	0.007984	0	0.039058	0.02424	0	0.444412	0.105541	0.295238	2.042712
0	0.068852	0	0	0.018666	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0
0.035604	0.000517	0	0.019063	0.001652	0	0.142967	0.031236	0.026451	0.419092
0.035344	0.021744	0	0.043275	0.061106	0	0.144764	12.41724	0.271805	5.172197
0	0.160622	0	0	0.065331	0	0	0	0	0
0.04516	0.019598	0.008044	0.032322	0.058785	0.943184	0.243268	0.036453	0.273545	3.357055
0	0.171515	0.347799	0	0.021164	0.24033	0	0	0	0
0	0	0	0	0	0	0	0	0	0
0	0.173545	1.122397	0	0.007603	0.262083	0	0	0	0
0.033737	0.020531	0.00538	0.029233	0.058916	0.743797	0.179787	0.038905	0.170948	3.519918
0	0.225202	0.537322	0	0.057766	1.289445	0	0	0	0
0	0	0	0	0	0	0	0	0	0
0	0.181652	0.245604	0	0.007751	0.064503	0	0	0	0
0.061927	0.024711	0.086508	0.064031	0.068807	10.6101	0.357546	0.143213	0.358291	2.514404
0	0.200461	0.382706	0	0.16164	0.161722	0	0	0	0
0	0	0	0	0	0	0	0	0	0
0	0.348012	0.844089	0	0.066769	0.212988	0	0	0	0
0.097865	0.016781	0	0.075279	0.017099	0	0.414437	0.044921	0.10441	0.664518
0	0.27498	0	0	0.10112	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0
0	0.52156	0	0	0.04019	0	0	0	0	0



2.653617	0	0	0	0	0	0.97	38.74005	0	0
1.454652	0	0.000481	0.114955	0.932945	9.637217	0.043517	51.75531	0	4.373253
0.016061	6.458257	0	0	0	0	0.214751	0.085348	76.78745	0
0	0	0	0	0	0	0	0	0	0
1.552802	22.41886	0	0	0	0	0.787793	8.658951	61.39735	0
0.018643	0	0.323447	0.100515	0.241195	1.765417	0.034038	1.027544	0	2.712221
0.056852	0	0	0	0	0	0.0031	0.48093	0	0
0	0	0	0	0	0	0	0	0	0
0.002584	0	0.156531	0.042795	0.03625	0.569337	0.019535	0.289822	0	1.039375
0.075242	0	0.615696	0.220077	0.610644	4.010416	0.037737	2.510571	0	5.124497
0.375759	0	0	0	0	0	0.0031	1.795873	0	0
0	0	0	0	0	0	0	0	0	0
0.002358	0	0.156531	0.026057	0.022197	0.347263	0.019321	0.264519	0	1.039375
0.025002	0	0.381137	0.089973	0.229474	1.67861	0.036509	1.21955	0	3.106027
0.023453	0	0	0	0	0	0.0031	0.18077	0	0
0	0	0	0	0	0	0	0	0	0
0.002449	0	0.156531	0.027675	0.024657	0.38999	0.020035	0.2747	0	1.039375
0.050237	0.615318	0.174223	0.054351	0.283779	3.417845	0.044837	1.1967	3.749026	2.92341
0.112773	0.124954	0	0	0	0	0.177363	0.274795	0.909745	0
0.033241	0.619028	0.177031	0.053222	0.270635	3.380032	0.044964	0.902566	3.755921	2.879578
0.110612	0.124954	0	0	0	0	0.182308	0.2456	0.909745	0
1.418049	0	1.216148	3.700751	3.603274	5.024618	0.008819	12.82867	0	6.719225
0.04145	0	0.537716	0.111586	0.305175	2.113496	0.036224	1.570712	0	3.508286
0.022823	0	0	0	0	0	0.0031	0.309426	0	0
0	0	0	0	0	0	0	0	0	0
0.00252	0	0.156531	0.031085	0.027982	0.444767	0.020649	0.282691	0	1.039375
0.110606	0	0.163493	13.43569	0.290234	5.481583	0.044635	2.282821	0	3.318917
0.078533	0	0	0	0	0	0.150527	0.290934	0	0
0.10203	1.373423	0.276899	0.038756	0.28867	3.528411	0.044956	1.812176	10.42825	5.293716
0.027389	0.287165	0	0	0	0	0.208897	0.097384	7.114338	0
0	0	0	0	0	0	0	0	0	0
0.541359	18.90992	0	0	0	0	1.06	2.356232	33.54096	0
0.092425	1.085027	0.199334	0.038297	0.162107	3.370923	0.044957	1.615234	5.758385	3.675201
0.064986	1.458606	0	0	0	0	0.210605	0.222764	18.00134	0
0.542356	4.658175	0	0	0	0	1.06	2.597993	5.927059	0
0.107648	15.47361	0.39439	0.130791	0.295982	2.145907	0.045	1.459965	82.01421	7.657701
0.187103	0.187611	0	0	0	0	0.074815	0.387858	2.277567	0
0	0	0	0	0	0	0	0	0	0
4.841844	15.35189	0	0	0	0	1.06	16.47934	21.68009	0
0.025029	0	0.496865	0.056743	0.114162	0.805742	0.045	0.427771	0	7.501524
0.118518	0	0	0	0	0	0.172732	0.134529	0	0
0	0	0	0	0	0	0	0	0	0
2.676692	0	0	0	0	0	0.97	38.89443	0	0
1.262604	0	0.000491	0.105324	0.855525	8.921164	0.044117	44.34905	0	4.308968
0.015425	6.436956	0	0	0	0	0.215296	0.08005	76.7122	0

0	0	0	0	0	0	0	0	0	0
1.449418	21.73226	0	0	0	0	0.785758	8.276746	61.26839	0
0.016482	0	0.303046	0.097007	0.234182	1.707646	0.034836	0.964703	0	2.565672
0.050489	0	0	0	0	0	0.0031	0.462516	0	0
0	0	0	0	0	0	0	0	0	0
0.002505	0	0.156531	0.04324	0.037363	0.563812	0.019281	0.281776	0	1.039375
0.067152	0	0.57087	0.207942	0.570734	3.788142	0.037941	2.303249	0	4.763098
0.37322	0	0	0	0	0	0.0031	1.787785	0	0
0	0	0	0	0	0	0	0	0	0
0.002271	0	0.156531	0.025621	0.021348	0.338477	0.018731	0.25541	0	1.039375
0.022219	0	0.352829	0.085133	0.219318	1.603612	0.037253	1.130234	0	2.908811
0.02137	0	0	0	0	0	0.0031	0.17477	0	0
0	0	0	0	0	0	0	0	0	0
0.002368	0	0.156531	0.027289	0.023829	0.377594	0.019512	0.266381	0	1.039375
0.043455	0.596166	0.165441	0.05087	0.269946	3.245133	0.04487	1.107134	3.752477	2.958996
0.102554	0.124954	0	0	0	0	0.18405	0.241133	0.909745	0
0	0	0	0	0	0	0	0	0	0
0.028128	0.599384	0.168159	0.050446	0.26172	3.268614	0.044972	0.832907	3.759576	2.887258
0.101985	0.124954	0	0	0	0	0.188078	0.21909	0.909745	0
0	0	0	0	0	0	0	0	0	0
1.367096	0	1.174392	3.697815	3.606811	4.903322	0.008867	12.4444	0	6.654737
0.035345	0	0.486573	0.105541	0.295238	2.042712	0.03688	1.407617	0	3.233405
0.02125	0	0	0	0	0	0.0031	0.297521	0	0
0	0	0	0	0	0	0	0	0	0
0.002411	0	0.156531	0.031236	0.026451	0.419092	0.019882	0.271115	0	1.039375
0.089165	0	0.158499	12.41724	0.271805	5.172197	0.044771	1.791822	0	3.186206
0.074375	0	0	0	0	0	0.157593	0.271575	0	0
0.085779	1.376292	0.266347	0.036453	0.273545	3.357055	0.044973	1.515964	10.44517	5.071697
0.024094	0.273597	0	0	0	0	0.210418	0.088738	7.131211	0
0	0	0	0	0	0	0	0	0	0
0.54308	18.72019	0	0	0	0	1.06	2.321977	34.71874	0
0.085969	1.085347	0.196844	0.038905	0.170948	3.519918	0.044963	1.495629	5.759702	3.628448
0.065762	1.467935	0	0	0	0	0.210607	0.224215	18.13573	0
0	0	0	0	0	0	0	0	0	0
0.553654	4.607329	0	0	0	0	1.06	2.599558	6.144073	0
0.100402	15.48223	0.391468	0.143213	0.358291	2.514404	0.045	1.365244	82.0501	7.50203
0.184014	0.184108	0	0	0	0	0.079459	0.383629	2.374675	0
0	0	0	0	0	0	0	0	0	0
4.769209	15.21343	0	0	0	0	1.06	16.13227	22.27106	0
0.02495	0	0.453756	0.044921	0.10441	0.664518	0.045	0.393105	0	7.45112
0.115117	0	0	0	0	0	0.175698	0.131543	0	0
0	0	0	0	0	0	0	0	0	0
2.843509	0	0	0	0	0	0.97	40.04596	0	0



SOx_RUNE	SOx_IDLEX	SOx_STREX
0.021888	0	0.000538
0.015401	0.126447	0
0	0	0
0.003106	0	0.000708
0.002453	0	0
0	0	0
0.001618	0	0.000656
0.003687	0	0.000887
0.004198	0	0
0	0	0
0.001496	0	0.00072
0.003835	0	0.000891
0.003222	0	0
0	0	0
0.001546	0	0.000782
0.006549	0.001196	0.000255
0.004777	0.001261	0
0.007451	0.001388	0.000254
0.005692	0.002017	0
0.001939	0	0.000467
0.004667	0	0.001094
0.004267	0	0
0	0	0
0.001592	0	0.000977
0.017603	0	0.000312
0.00966	0	0
0.016626	0.005682	0.000463
0.010385	0.021874	0
0	0	0
0.016951	0.003796	0.000311
0.013601	0.033718	0
0	0	0
0.00897	0.026006	0.000539
0.012126	0.023085	0
0	0	0
0.018531	0	0.000926
0.016117	0	0
0	0	0

0	0	0
0.021367	0	0.000544
0.015188	0.120273	0
0	0	0
0	0	0
0.003057	0	0.000696
0.002434	0	0
0	0	0
0.001577	0	0.000649
0.003631	0	0.000869
0.004193	0	0
0	0	0
0.001439	0	0.000709
0.003752	0	0.000869
0.003171	0	0
0	0	0
0.001494	0	0.000772
0.006349	0.001184	0.000254
0.004726	0.001239	0
0.007259	0.001376	0.000252
0.005609	0.001983	0
0.001932	0	0.000453
0.004571	0	0.001069
0.004207	0	0
0	0	0
0.001538	0	0.000962
0.017587	0	0.00031
0.009664	0	0
0.016424	0.005639	0.000456
0.010345	0.021085	0
0	0	0
0	0	0
0.016783	0.003776	0.000309
0.01358	0.032333	0
0	0	0
0.008916	0.025867	0.000535
0.012087	0.023051	0
0	0	0
0	0	0
0.018525	0	0.000925
0.016439	0	0
0	0	0
0	0	0
0.020862	0	0.000539
0.014986	0.11789	0

0	0	0
0	0	0
0.003004	0	0.000683
0.002406	0	0
0	0	0
0.001535	0	0.000641
0.003569	0	0.000851
0.004182	0	0
0	0	0
0.001391	0	0.000699
0.003669	0	0.000849
0.003114	0	0
0	0	0
0.001451	0	0.000763
0.006168	0.001173	0.000253
0.004681	0.00122	0
0	0	0
0.007076	0.001364	0.00025
0.00554	0.001954	0
0	0	0
0.001924	0	0.00044
0.004471	0	0.001044
0.004141	0	0
0	0	0
0.001477	0	0.000944
0.017578	0	0.000308
0.00966	0	0
0.016237	0.005596	0.000449
0.010309	0.020904	0
0	0	0
0	0	0
0.016649	0.003755	0.000307
0.013536	0.032295	0
0	0	0
0	0	0
0.008869	0.025744	0.00053
0.012048	0.023002	0
0	0	0
0	0	0
0.018485	0	0.000921
0.016538	0	0
0	0	0
0	0	0

Source: EMFAC2021 (v1.0.1) Emission Rates

Region Type: Sub-Area

Region: Los Angeles (SC)

Calendar Year: 2022, 2023, 2024

Season: Winter

Vehicle Classification: EMFAC2007 Categories

Units: miles/day for CVMT and EVMT, trips/day for Trips, kWh/day for Energy Consumption, g/mile for RUNE

Region	Calendar Y	Vehicle Ca	Model Yea	Speed	Fuel	Population	Total VMT	CVMT	EVMT
Los Angele	2022	HHDT	Aggregate	Aggregate	Gasoline	63.26504	3538.774	3538.774	0
Los Angele	2022	HHDT	Aggregate	Aggregate	Diesel	48900.66	6345154	6345154	0
Los Angele	2022	HHDT	Aggregate	Aggregate	Natural Ga	5299.023	362100.3	362100.3	0
Los Angele	2022	LDA	Aggregate	Aggregate	Gasoline	3413352	1.35E+08	1.35E+08	0
Los Angele	2022	LDA	Aggregate	Aggregate	Diesel	10030.88	301513.3	301513.3	0
Los Angele	2022	LDA	Aggregate	Aggregate	Electricity	127659.5	5753219	0	5753219
Los Angele	2022	LDA	Aggregate	Aggregate	Plug-in Hyl	77005.03	3631755	1877599	1754156
Los Angele	2022	LDT1	Aggregate	Aggregate	Gasoline	321949.9	11615096	11615096	0
Los Angele	2022	LDT1	Aggregate	Aggregate	Diesel	144.794	2969.141	2969.141	0
Los Angele	2022	LDT1	Aggregate	Aggregate	Electricity	644.3267	21265.03	0	21265.03
Los Angele	2022	LDT1	Aggregate	Aggregate	Plug-in Hyl	173.0164	9003.844	4305.777	4698.068
Los Angele	2022	LDT2	Aggregate	Aggregate	Gasoline	1501512	61390141	61390141	0
Los Angele	2022	LDT2	Aggregate	Aggregate	Diesel	4360.211	190690.3	190690.3	0
Los Angele	2022	LDT2	Aggregate	Aggregate	Electricity	4368.949	163553.4	0	163553.4
Los Angele	2022	LDT2	Aggregate	Aggregate	Plug-in Hyl	8362.064	422347	208749.6	213597.4
Los Angele	2022	LHDT1	Aggregate	Aggregate	Gasoline	123039.5	4764116	4764116	0
Los Angele	2022	LHDT1	Aggregate	Aggregate	Diesel	48774.91	2108378	2108378	0
Los Angele	2022	LHDT2	Aggregate	Aggregate	Gasoline	18984.12	698489.8	698489.8	0
Los Angele	2022	LHDT2	Aggregate	Aggregate	Diesel	21545.4	922900.7	922900.7	0
Los Angele	2022	MCY	Aggregate	Aggregate	Gasoline	139413	907017.6	907017.6	0
Los Angele	2022	MDV	Aggregate	Aggregate	Gasoline	917463.4	34478878	34478878	0
Los Angele	2022	MDV	Aggregate	Aggregate	Diesel	10302.79	407586.1	407586.1	0
Los Angele	2022	MDV	Aggregate	Aggregate	Electricity	4413.467	165001.3	0	165001.3
Los Angele	2022	MDV	Aggregate	Aggregate	Plug-in Hyl	4976.123	225140.6	114567.8	110572.7
Los Angele	2022	MH	Aggregate	Aggregate	Gasoline	16165.03	152712.6	152712.6	0
Los Angele	2022	MH	Aggregate	Aggregate	Diesel	4996.117	51480.96	51480.96	0
Los Angele	2022	MHDT	Aggregate	Aggregate	Gasoline	15480.78	831622	831622	0
Los Angele	2022	MHDT	Aggregate	Aggregate	Diesel	57828.41	2453217	2453217	0
Los Angele	2022	MHDT	Aggregate	Aggregate	Natural Ga	784.0169	37892.11	37892.11	0
Los Angele	2022	OBUS	Aggregate	Aggregate	Gasoline	3918.132	160387.6	160387.6	0
Los Angele	2022	OBUS	Aggregate	Aggregate	Diesel	2023.908	163561.2	163561.2	0
Los Angele	2022	OBUS	Aggregate	Aggregate	Natural Ga	374.853	22164.01	22164.01	0
Los Angele	2022	SBUS	Aggregate	Aggregate	Gasoline	1293.495	57034.92	57034.92	0
Los Angele	2022	SBUS	Aggregate	Aggregate	Diesel	1680.356	34286.5	34286.5	0
Los Angele	2022	SBUS	Aggregate	Aggregate	Natural Ga	1391.292	35082.21	35082.21	0
Los Angele	2022	UBUS	Aggregate	Aggregate	Gasoline	437.8384	31090.4	31090.4	0
Los Angele	2022	UBUS	Aggregate	Aggregate	Diesel	10.87531	1378.445	1378.445	0
Los Angele	2022	UBUS	Aggregate	Aggregate	Electricity	53.56409	2418.986	0	2418.986

Los Angele	2022	UBUS	Aggregate	Aggregate	Natural Ga	3871.457	416658.6	416658.6	0
Los Angele	2023	HHDT	Aggregate	Aggregate	Gasoline	52.44057	3231.285	3231.285	0
Los Angele	2023	HHDT	Aggregate	Aggregate	Diesel	50357.26	6491637	6491637	0
Los Angele	2023	HHDT	Aggregate	Aggregate	Electricity	39.63669	2558.522	0	2558.522
Los Angele	2023	HHDT	Aggregate	Aggregate	Natural Ga	5415.87	350604.9	350604.9	0
Los Angele	2023	LDA	Aggregate	Aggregate	Gasoline	3363326	1.33E+08	1.33E+08	0
Los Angele	2023	LDA	Aggregate	Aggregate	Diesel	9465.937	279606	279606	0
Los Angele	2023	LDA	Aggregate	Aggregate	Electricity	149786.4	6967761	0	6967761
Los Angele	2023	LDA	Aggregate	Aggregate	Plug-in Hyl	84855.73	3983694	2007927	1975766
Los Angele	2023	LDT1	Aggregate	Aggregate	Gasoline	316618.5	11498861	11498861	0
Los Angele	2023	LDT1	Aggregate	Aggregate	Diesel	130.6972	2649.862	2649.862	0
Los Angele	2023	LDT1	Aggregate	Aggregate	Electricity	737.9431	27045.91	0	27045.91
Los Angele	2023	LDT1	Aggregate	Aggregate	Plug-in Hyl	305.3619	15799.37	7268.199	8531.169
Los Angele	2023	LDT2	Aggregate	Aggregate	Gasoline	1534013	63204641	63204641	0
Los Angele	2023	LDT2	Aggregate	Aggregate	Diesel	4672.025	203904.2	203904.2	0
Los Angele	2023	LDT2	Aggregate	Aggregate	Electricity	7316.505	271839.4	0	271839.4
Los Angele	2023	LDT2	Aggregate	Aggregate	Plug-in Hyl	11176.09	559555.6	267320.1	292235.5
Los Angele	2023	LHDT1	Aggregate	Aggregate	Gasoline	123582.3	4875651	4875651	0
Los Angele	2023	LHDT1	Aggregate	Aggregate	Diesel	52370.85	2309885	2309885	0
Los Angele	2023	LHDT2	Aggregate	Aggregate	Gasoline	18992.21	707424.2	707424.2	0
Los Angele	2023	LHDT2	Aggregate	Aggregate	Diesel	23383.97	1017094	1017094	0
Los Angele	2023	MCY	Aggregate	Aggregate	Gasoline	143314.4	942493.5	942493.5	0
Los Angele	2023	MDV	Aggregate	Aggregate	Gasoline	930000	35296866	35296866	0
Los Angele	2023	MDV	Aggregate	Aggregate	Diesel	10587.1	417108.6	417108.6	0
Los Angele	2023	MDV	Aggregate	Aggregate	Electricity	7870.579	292645.8	0	292645.8
Los Angele	2023	MDV	Aggregate	Aggregate	Plug-in Hyl	6232.489	281038.2	138168.2	142869.9
Los Angele	2023	MH	Aggregate	Aggregate	Gasoline	15543.05	150959.2	150959.2	0
Los Angele	2023	MH	Aggregate	Aggregate	Diesel	5175.529	54121.46	54121.46	0
Los Angele	2023	MHDT	Aggregate	Aggregate	Gasoline	15094.87	818409	818409	0
Los Angele	2023	MHDT	Aggregate	Aggregate	Diesel	58440.26	2482453	2482453	0
Los Angele	2023	MHDT	Aggregate	Aggregate	Electricity	27.28255	586.3877	0	586.3877
Los Angele	2023	MHDT	Aggregate	Aggregate	Natural Ga	827.543	40273.3	40273.3	0
Los Angele	2023	OBUS	Aggregate	Aggregate	Gasoline	3808.788	153201.7	153201.7	0
Los Angele	2023	OBUS	Aggregate	Aggregate	Diesel	2064.03	166622.2	166622.2	0
Los Angele	2023	OBUS	Aggregate	Aggregate	Natural Ga	319.8885	19541.03	19541.03	0
Los Angele	2023	SBUS	Aggregate	Aggregate	Gasoline	1333.83	59008.66	59008.66	0
Los Angele	2023	SBUS	Aggregate	Aggregate	Diesel	1641.865	33210.41	33210.41	0
Los Angele	2023	SBUS	Aggregate	Aggregate	Electricity	1.644084	19.09633	0	19.09633
Los Angele	2023	SBUS	Aggregate	Aggregate	Natural Ga	1447.068	36139.2	36139.2	0
Los Angele	2023	UBUS	Aggregate	Aggregate	Gasoline	438.7258	31153.41	31153.41	0
Los Angele	2023	UBUS	Aggregate	Aggregate	Diesel	9.742965	1269.075	1269.075	0
Los Angele	2023	UBUS	Aggregate	Aggregate	Electricity	53.53079	2415.769	0	2415.769
Los Angele	2023	UBUS	Aggregate	Aggregate	Natural Ga	3880.599	417623.3	417623.3	0
Los Angele	2024	HHDT	Aggregate	Aggregate	Gasoline	43.66381	2950.78	2950.78	0
Los Angele	2024	HHDT	Aggregate	Aggregate	Diesel	52323.87	6605323	6605323	0

Los Angeles	2024 HHDT	Aggregate	Aggregate Electricity	159.3277	16508.8	0	16508.8
Los Angeles	2024 HHDT	Aggregate	Aggregate Natural Ga	5707.004	363944.8	363944.8	0
Los Angeles	2024 LDA	Aggregate	Aggregate Gasoline	3312060	1.31E+08	1.31E+08	0
Los Angeles	2024 LDA	Aggregate	Aggregate Diesel	8789.19	256968.2	256968.2	0
Los Angeles	2024 LDA	Aggregate	Aggregate Electricity	171677.7	8196290	0	8196290
Los Angeles	2024 LDA	Aggregate	Aggregate Plug-in Hyl	91933.07	4279571	2105556	2174016
Los Angeles	2024 LDT1	Aggregate	Aggregate Gasoline	311828.9	11357947	11357947	0
Los Angeles	2024 LDT1	Aggregate	Aggregate Diesel	118.5294	2368.569	2368.569	0
Los Angeles	2024 LDT1	Aggregate	Aggregate Electricity	868.5158	34958.66	0	34958.66
Los Angeles	2024 LDT1	Aggregate	Aggregate Plug-in Hyl	472.0351	24184	10785.21	13398.78
Los Angeles	2024 LDT2	Aggregate	Aggregate Gasoline	1566130	64695889	64695889	0
Los Angeles	2024 LDT2	Aggregate	Aggregate Diesel	4948.489	214829	214829	0
Los Angeles	2024 LDT2	Aggregate	Aggregate Electricity	10499.25	385269.4	0	385269.4
Los Angeles	2024 LDT2	Aggregate	Aggregate Plug-in Hyl	13716.62	676714.5	314753.7	361960.7
Los Angeles	2024 LHDT1	Aggregate	Aggregate Gasoline	123836.6	4934814	4934814	0
Los Angeles	2024 LHDT1	Aggregate	Aggregate Diesel	55652.48	2469363	2469363	0
Los Angeles	2024 LHDT1	Aggregate	Aggregate Electricity	510.8844	38629.84	0	38629.84
Los Angeles	2024 LHDT2	Aggregate	Aggregate Gasoline	18962.98	709989.1	709989.1	0
Los Angeles	2024 LHDT2	Aggregate	Aggregate Diesel	25083.13	1093296	1093296	0
Los Angeles	2024 LHDT2	Aggregate	Aggregate Electricity	132.2329	9473.404	0	9473.404
Los Angeles	2024 MCY	Aggregate	Aggregate Gasoline	146992	969260.7	969260.7	0
Los Angeles	2024 MDV	Aggregate	Aggregate Gasoline	941104.7	35897503	35897503	0
Los Angeles	2024 MDV	Aggregate	Aggregate Diesel	10836.34	423746.8	423746.8	0
Los Angeles	2024 MDV	Aggregate	Aggregate Electricity	11444.76	420107.5	0	420107.5
Los Angeles	2024 MDV	Aggregate	Aggregate Plug-in Hyl	7947.76	357372.5	169175.2	188197.3
Los Angeles	2024 MH	Aggregate	Aggregate Gasoline	15037.72	149209.7	149209.7	0
Los Angeles	2024 MH	Aggregate	Aggregate Diesel	5352.033	56471.38	56471.38	0
Los Angeles	2024 MHDT	Aggregate	Aggregate Gasoline	14716.96	800329.5	800329.5	0
Los Angeles	2024 MHDT	Aggregate	Aggregate Diesel	59315.44	2506988	2506988	0
Los Angeles	2024 MHDT	Aggregate	Aggregate Electricity	193.0645	11118.77	0	11118.77
Los Angeles	2024 MHDT	Aggregate	Aggregate Natural Ga	877.2928	42058.49	42058.49	0
Los Angeles	2024 OBUS	Aggregate	Aggregate Gasoline	3692.49	145452.6	145452.6	0
Los Angeles	2024 OBUS	Aggregate	Aggregate Diesel	2097.358	166829.4	166829.4	0
Los Angeles	2024 OBUS	Aggregate	Aggregate Electricity	7.843995	589.8873	0	589.8873
Los Angeles	2024 OBUS	Aggregate	Aggregate Natural Ga	328.2793	19780.16	19780.16	0
Los Angeles	2024 SBUS	Aggregate	Aggregate Gasoline	1372.011	60689.42	60689.42	0
Los Angeles	2024 SBUS	Aggregate	Aggregate Diesel	1597.022	32040.99	32040.99	0
Los Angeles	2024 SBUS	Aggregate	Aggregate Electricity	11.68207	360.214	0	360.214
Los Angeles	2024 SBUS	Aggregate	Aggregate Natural Ga	1503.388	37156.56	37156.56	0
Los Angeles	2024 UBUS	Aggregate	Aggregate Gasoline	437.5652	30984.44	30984.44	0
Los Angeles	2024 UBUS	Aggregate	Aggregate Diesel	9.45988	1241.732	1241.732	0
Los Angeles	2024 UBUS	Aggregate	Aggregate Electricity	97.83777	8157.187	0	8157.187
Los Angeles	2024 UBUS	Aggregate	Aggregate Natural Ga	3846.599	412993.5	412993.5	0

X, PMBW and PMTW, g/trip for STREX, HOTSOAK and RUNLOSS, g/vehicle/day for IDLEX and DIURN

Trips	Energy_Consumption	CO2_Emissions	NOx_Emissions	PM2.5_Emissions	PM10_Emissions	SO2_Emissions	NO2_Emissions	PM2.5_Conc	PM10_Conc	SO2_Conc	NO2_Conc
1265.807	0	7.883649	0	0.568687	0.00207	0	0.001556	0.005	0.035254	0	0.001556
752459.5	0	2.572949	75.88182	2.386063	0.025286	0.048766	0	0.008852	0.029201	0	0.008852
35928.28	0	0.988021	9.501146	0	0.002504	0.015857	0	0.009	0.052174	0	0.009
15900218	0	0.052773	0	0.273857	0.001522	0	0.002103	0.002	0.003076	0	0.002103
41570.24	0	0.285743	0	0	0.033114	0	0	0.002	0.003119	0	0.002
641939.7	2221217	0	0	0	0	0	0	0.002	0.001528	0	0.002
318415.8	529807.3	0.003528	0	0.113564	0.000822	0	0.002211	0.002	0.001443	0	0.002211
1417104	0	0.215787	0	0.473435	0.002785	0	0.003384	0.002	0.003815	0	0.003384
429.3151	0	1.496542	0	0	0.258681	0	0	0.002	0.004366	0	0.002
2916.832	8210.057	0	0	0	0	0	0	0.002	0.001541	0	0.002
715.423	1418.956	0.003263	0	0.113564	0.000495	0	0.001455	0.002	0.001445	0	0.001455
7055330	0	0.098064	0	0.384369	0.001596	0	0.002096	0.002	0.003635	0	0.002096
21120.42	0	0.061866	0	0	0.00768	0	0	0.002	0.00354	0	0.002
22514.53	63145.13	0	0	0	0	0	0	0.002	0.001523	0	0.002
34577.14	64512.77	0.003373	0	0.113564	0.000649	0	0.001845	0.002	0.001443	0	0.001845
1833105	0	0.20982	0.038064	0.660397	0.001154	0	0.000379	0.002	0.0273	0	0.000379
613527	0	1.558978	2.030335	0	0.024752	0.02697	0	0.003	0.0273	0	0.003
282835.1	0	0.206865	0.038276	0.673487	0.00103	0	0.000309	0.002	0.03185	0	0.000309
271014.1	0	1.349326	2.0105	0	0.023986	0.027018	0	0.003	0.03185	0	0.003
278825.9	0	0.560245	0	0.143301	0.002126	0	0.003691	0.001	0.0042	0	0.003691
4239291	0	0.164688	0	0.530291	0.001719	0	0.002316	0.002	0.003743	0	0.002316
48955.92	0	0.122908	0	0	0.009876	0	0	0.002	0.003669	0	0.002
22733.53	63704.1	0	0	0	0	0	0	0.002	0.001523	0	0.002
20576.27	33396.26	0.003472	0	0.113564	0.000828	0	0.002284	0.002	0.001443	0	0.002284
1617.149	0	0.517439	0	0.388859	0.001548	0	0.000479	0.003	0.015262	0	0.000479
499.6117	0	3.769858	0	0	0.099246	0	0	0.004	0.015164	0	0.004
309739.4	0	0.570429	0.084589	0.446814	0.00097	0	0.000518	0.003	0.015262	0	0.000518
705969.6	0	1.531647	15.53875	1.453734	0.016581	0.044642	0	0.003	0.015293	0	0.003
6890.154	0	0.122984	6.766319	0	0.000774	0.01679	0	0.003	0.015235	0	0.000774
78393.98	0	0.527705	0.064861	0.405751	0.000759	0	0.000276	0.003	0.015407	0	0.000276
26239.42	0	2.226171	19.35064	1.527833	0.036109	0.025463	0	0.003	0.023563	0	0.003
3336.192	0	0.160514	1.568387	0	0.000644	0.00316	0	0.003	0.015407	0	0.00064

15485.83	0	0.692896	0	0	0.000363	0	0	0.008387	0.038456
1049.231	0	7.054039	0	0.829691	0.001782	0	0.001387	0.005	0.034509
778752.4	0	1.880918	70.76721	2.754727	0.023423	0.043656	0	0.008853	0.028482
631.7287	4542.85	0	0	0	0	0	0	0.008828	0.014293
34520.18	0	0.918905	8.685326	0	0.002434	0.015496	0	0.009	0.054055
15650235	0	0.047175	0	0.260697	0.001464	0	0.002024	0.002	0.003078
38923.82	0	0.263575	0	0	0.031047	0	0	0.002	0.003129
750975.1	2690131	0	0	0	0	0	0	0.002	0.001528
350878.5	596740.4	0.003438	0	0.113564	0.000757	0	0.002092	0.002	0.001447
1394224	0	0.194762	0	0.445742	0.00259	0	0.003173	0.002	0.003811
380.5267	0	1.489643	0	0	0.257322	0	0	0.002	0.004363
3402.44	10441.95	0	0	0	0	0	0	0.002	0.001537
1262.671	2576.667	0.003138	0	0.113564	0.000457	0	0.001399	0.002	0.001449
7216720	0	0.085463	0	0.350876	0.001523	0	0.002017	0.002	0.003631
22591.39	0	0.055029	0	0	0.006686	0	0	0.002	0.003553
37572.14	104952.4	0	0	0	0	0	0	0.002	0.001524
46213.12	88263.84	0.003258	0	0.113564	0.000579	0	0.001703	0.002	0.001448
1841192	0	0.182797	0.036826	0.638516	0.001125	0	0.000347	0.002	0.0273
658759.4	0	1.305623	1.884622	0	0.021868	0.026802	0	0.003	0.0273
282955.6	0	0.181414	0.03702	0.653661	0.001002	0	0.00028	0.002	0.03185
294140.9	0	1.141212	1.864095	0	0.021533	0.026941	0	0.003	0.03185
286628.8	0	0.542329	0	0.135092	0.002135	0	0.003507	0.001	0.0042
4305992	0	0.141821	0	0.48013	0.001603	0	0.002173	0.002	0.003732
50133.21	0	0.108681	0	0	0.008986	0	0	0.002	0.003687
40427.05	112985.4	0	0	0	0	0	0	0.002	0.001524
25771.34	43150.98	0.003353	0	0.113564	0.000725	0	0.002065	0.002	0.001447
1554.927	0	0.437253	0	0.397618	0.001408	0	0.000437	0.003	0.015259
517.5529	0	3.556643	0	0	0.090578	0	0	0.004	0.015161
302018.1	0	0.48782	0.08475	0.43913	0.000954	0	0.000492	0.003	0.015259
714881.8	0	1.135214	13.94816	1.603939	0.013462	0.037184	0	0.003	0.015289
352.609	612.8494	0	0	0	0	0	0	0.003	0.007647
7127.992	0	0.113609	6.787469	0	0.000828	0.0177	0	0.003	0.01523
76206.23	0	0.493866	0.06488	0.404419	0.000782	0	0.000278	0.003	0.015407
26660.67	0	1.806072	17.45442	1.675354	0.033701	0.023563	0	0.003	0.023256
2847.008	0	0.153693	1.563929	0	0.000685	0.003267	0	0.003	0.015407
5335.32	0	0.511001	0.923976	0.739559	0.001068	0	0.000476	0.002	0.016396
23774.21	0	9.125796	32.92206	0.169511	0.052306	0.054592	0	0.003	0.016396
23.80634	22.08111	0	0	0	0	0	0	0.003	0.008198
20953.55	0	0.871699	5.253544	0	0.004122	0.011771	0	0.003	0.016396
1754.903	0	0.243303	0	0.890461	0.001161	0	0.000512	0.00274	0.036771
38.97186	0	0.851911	0	0	0.006052	0	0	0.008751	0.0385
214.1232	5070.782	0	0	0	0	0	0	0.006528	0.019078
15522.39	0	0.685876	0	0	0.000372	0	0	0.008385	0.038456
873.6256	0	6.684128	0	0.755763	0.001537	0	0.001215	0.005	0.033623
812033.7	0	1.797488	70.19475	2.797408	0.023363	0.040927	0	0.008854	0.028309



2224.44	29382.84	0	0	0	0	0	0	0.008683	0.014462
36370.01	0	0.827437	8.439861	0	0.002273	0.016021	0	0.009	0.054197
15395682	0	0.042515	0	0.249062	0.001409	0	0.001958	0.002	0.003072
36035.14	0	0.237611	0	0	0.027232	0	0	0.002	0.003129
857942.9	3164445	0	0	0	0	0	0	0.002	0.001529
380143.2	656617.5	0.003343	0	0.113564	0.000703	0	0.002004	0.002	0.001448
1373845	0	0.17578	0	0.419694	0.0024	0	0.002977	0.002	0.003794
338.8223	0	1.485125	0	0	0.255353	0	0	0.002	0.004345
4075.934	13496.93	0	0	0	0	0	0	0.002	0.001534
1951.865	4046.831	0.003031	0	0.113564	0.000432	0	0.001374	0.002	0.001452
7373138	0	0.075439	0	0.323837	0.001456	0	0.001956	0.002	0.003619
23893.23	0	0.048243	0	0	0.00554	0	0	0.002	0.003554
53700.22	148745.8	0	0	0	0	0	0	0.002	0.001525
56718.24	109322.9	0.003161	0	0.113564	0.000535	0	0.001625	0.002	0.00145
1844981	0	0.1603	0.035671	0.617362	0.001103	0	0.000319	0.002	0.0273
700038.2	0	1.114709	1.76265	0	0.019706	0.02667	0	0.003	0.0273
7136.731	21582.07	0	0	0	0	0	0	0.002	0.01365
282520.2	0	0.160001	0.035836	0.633281	0.000982	0	0.000256	0.002	0.03185
315514.2	0	0.985745	1.742695	0	0.019703	0.026901	0	0.003	0.03185
1750.362	5296.526	0	0	0	0	0	0	0.002	0.015925
293984	0	0.528157	0	0.127795	0.002133	0	0.003349	0.001	0.0042
4364748	0	0.121928	0	0.435488	0.001495	0	0.002048	0.002	0.003712
51125.48	0	0.097049	0	0	0.00831	0	0	0.002	0.00369
58543.45	162196.1	0	0	0	0	0	0	0.002	0.001525
32863.99	56841.18	0.003217	0	0.113564	0.000634	0	0.001884	0.002	0.00145
1504.374	0	0.377102	0	0.404699	0.00131	0	0.000408	0.003	0.015244
535.2033	0	3.36909	0	0	0.083373	0	0	0.004	0.015148
294456.9	0	0.419733	0.084886	0.429854	0.000946	0	0.000473	0.003	0.015244
726825.6	0	1.040202	13.55032	1.62051	0.011967	0.031108	0	0.003	0.015273
2643.907	11626.17	0	0	0	0	0	0	0.003	0.007626
7503.19	0	0.108364	6.789441	0	0.000849	0.018232	0	0.003	0.015214
73879.35	0	0.46214	0.064895	0.40441	0.000812	0	0.000281	0.003	0.015433
27161.65	0	1.803849	17.4756	1.682361	0.033711	0.022811	0	0.003	0.023324
156.9427	621.3033	0	0	0	0	0	0	0.003	0.007717
2921.686	0	0.148859	1.559894	0	0.000727	0.003363	0	0.003	0.015433
5488.044	0	0.488954	0.924381	0.747436	0.001064	0	0.000484	0.002	0.016396
23124.88	0	8.824335	32.5706	0.185321	0.050416	0.05183	0	0.003	0.016396
124.0754	416.516	0	0	0	0	0	0	0.002475	0.008198
21769.06	0	0.841925	5.242555	0	0.004122	0.012033	0	0.003	0.016396
1750.261	0	0.200196	0	0.81912	0.0015	0	0.000642	0.002738	0.036758
37.83952	0	0.78455	0	0	0.005997	0	0	0.008878	0.0385
391.3511	17142.31	0	0	0	0	0	0	0.008096	0.019199
15386.4	0	0.635498	0	0	0.000393	0	0	0.008377	0.038456

PM10_RUI	PM10_IDL	PM10_STR	PM10_PM	PM10_PM	CO2_RUNE	CO2_IDLE	CO2_STRE	CH4_RUNE	CH4_IDLE
0.002251	0	0.001692	0.02	0.100726	2210.436	0	54.76558	0.196065	0
0.02643	0.050971	0	0.035407	0.083432	1626.402	13476.69	0	0.001558	0.233036
0.002724	0.017245	0	0.036	0.14907	1272.44	8578.389	0	1.547892	24.47566
0.001655	0	0.002287	0.008	0.008789	295.6757	0	72.77788	0.00352	0
0.034611	0	0	0.008	0.008911	258.9208	0	0	0.002456	0
0	0	0	0.008	0.004365	0	0	0	0	0
0.000894	0	0.002405	0.008	0.004123	153.8966	0	66.84021	0.000562	0
0.003028	0	0.00368	0.008	0.0109	352.7654	0	92.01757	0.012272	0
0.270377	0	0	0.008	0.012474	443.0095	0	0	0.015395	0
0	0	0	0.008	0.004403	0	0	0	0	0
0.000538	0	0.001582	0.008	0.004128	142.3528	0	73.30701	0.000521	0
0.001736	0	0.002279	0.008	0.010385	368.96	0	91.438	0.004582	0
0.008028	0	0	0.008	0.010114	339.9821	0	0	0.001023	0
0	0	0	0.008	0.004352	0	0	0	0	0
0.000705	0	0.002007	0.008	0.004124	147.1292	0	79.60832	0.000539	0
0.001255	0	0.000412	0.008	0.078	662.3718	121.0204	26.09368	0.00758	0.119275
0.025871	0.02819	0	0.012	0.078	504.1624	133.0433	0	0.005119	0.005098
0.00112	0	0.000336	0.008	0.091	753.6837	140.3836	25.96501	0.005537	0.119694
0.025071	0.02824	0	0.012	0.091	600.6886	212.8494	0	0.004941	0.005098
0.002271	0	0.003917	0.004	0.012	196.5695	0	49.16817	0.188816	0
0.001869	0	0.002519	0.008	0.010694	452.0343	0	112.3033	0.007301	0
0.010322	0	0	0.008	0.010483	450.2942	0	0	0.001006	0
0	0	0	0.008	0.004351	0	0	0	0	0
0.0009	0	0.002484	0.008	0.004124	151.4787	0	99.27454	0.00055	0
0.001683	0	0.000521	0.012	0.043606	1780.405	0	32.01607	0.019725	0
0.103734	0	0	0.016	0.043326	1019.521	0	0	0.003391	0
0.001055	0	0.000564	0.012	0.043606	1681.682	518.5682	47.45887	0.016348	0.276663
0.017331	0.046661	0	0.012	0.043694	1096.697	2301.866	0	0.001648	0.012406
0.000841	0.018261	0	0.012	0.043529	864.6835	5430.415	0	0.521933	18.78165
0.000826	0	0.0003	0.012	0.044021	1714.531	383.9831	31.89524	0.0136	0.193409
0.037742	0.026614	0	0.012	0.067321	1436.328	3596.499	0	0.0034	0.053761
0.0007	0.003437	0	0.012	0.044021	899.2709	1209.659	0	0.524781	4.619315
0.001203	0	0.000524	0.008	0.046845	907.2311	2630.552	58.05861	0.01562	2.410002
0.056772	0.06028	0	0.012	0.046845	1280.541	2180.456	0	0.007751	0.008634
0.004483	0.012496	0	0.012	0.046845	1735.127	4129.72	0	4.820867	15.18799
0.001149	0	0.000506	0.01096	0.105059	1874.433	0	95.68596	0.005024	0
0.006461	0	0	0.033181	0.109999	1700.921	0	0	0.005355	0
0	0	0	0.026094	0.054509	0	0	0	0	0

0.00038	0	0	0.033547	0.109875	2581.135	0	0	2.599729	0
0.001938	0	0.001509	0.02	0.098597	2158.398	0	55.45517	0.170408	0
0.024482	0.04563	0	0.035413	0.081378	1603.902	13040.62	0	0.000655	0.229683
0	0	0	0.035313	0.040837	0	0	0	0	0
0.002647	0.016853	0	0.036	0.154443	1238.284	8165.689	0	1.498558	21.89659
0.001592	0	0.002201	0.008	0.008795	291.0917	0	71.43406	0.003164	0
0.03245	0	0	0.008	0.00894	256.8843	0	0	0.00232	0
0	0	0	0.008	0.004367	0	0	0	0	0
0.000823	0	0.002275	0.008	0.004133	149.9968	0	66.08713	0.000546	0
0.002816	0	0.00345	0.008	0.010888	347.503	0	90.00537	0.011057	0
0.268957	0	0	0.008	0.012467	442.5282	0	0	0.015331	0
0	0	0	0.008	0.004392	0	0	0	0	0
0.000497	0	0.001521	0.008	0.004141	136.9011	0	72.21878	0.000498	0
0.001656	0	0.002194	0.008	0.010376	361.1051	0	89.16835	0.004118	0
0.006988	0	0	0.008	0.010151	334.6039	0	0	0.000957	0
0	0	0	0.008	0.004355	0	0	0	0	0
0.00063	0	0.001852	0.008	0.004136	142.1701	0	78.5858	0.000518	0
0.001224	0	0.000378	0.008	0.078	642.1967	119.7999	25.98614	0.006598	0.116413
0.022857	0.028014	0	0.012	0.078	498.7481	130.7362	0	0.004601	0.005098
0.00109	0	0.000305	0.008	0.091	734.1918	139.1767	25.7444	0.004712	0.11655
0.022506	0.028159	0	0.012	0.091	591.9723	209.3093	0	0.004513	0.005098
0.002282	0	0.003727	0.004	0.012	195.7411	0	47.66906	0.181985	0
0.001743	0	0.002363	0.008	0.010663	442.8714	0	109.5844	0.006365	0
0.009392	0	0	0.008	0.010533	444.0027	0	0	0.000931	0
0	0	0	0.008	0.004354	0	0	0	0	0
0.000788	0	0.002246	0.008	0.004136	146.3062	0	97.73175	0.000528	0
0.001531	0	0.000475	0.012	0.043596	1778.787	0	31.72735	0.015919	0
0.094674	0	0	0.016	0.043317	1019.881	0	0	0.003204	0
0.001038	0	0.000535	0.012	0.043596	1661.279	514.7801	46.7134	0.013762	0.279866
0.01407	0.038866	0	0.012	0.043684	1092.424	2258.053	0	0.001117	0.011193
0	0	0	0.012	0.021848	0	0	0	0	0
0.0009	0.019251	0	0.012	0.043515	857.4585	5479.15	0	0.530446	18.52872
0.000851	0	0.000303	0.012	0.044021	1697.597	381.9035	31.6717	0.012606	0.193505
0.035224	0.024628	0	0.012	0.066446	1434.124	3505.423	0	0.002651	0.052194
0.000745	0.003553	0	0.012	0.044021	892.3565	1204.638	0	0.531423	4.564273
0.001161	0	0.000518	0.008	0.046845	901.8027	2616.522	57.5211	0.014432	2.416607
0.054671	0.05706	0	0.012	0.046845	1276.451	2182.48	0	0.007634	0.008359
0	0	0	0.012	0.023423	0	0	0	0	0
0.004483	0.012802	0	0.012	0.046845	1720.617	4135.353	0	4.744239	15.04242
0.001263	0	0.000557	0.01096	0.105059	1873.887	0	95.59342	0.005021	0
0.006326	0	0	0.035006	0.109999	1734.869	0	0	0.004835	0
0	0	0	0.026113	0.054509	0	0	0	0	0
0.000389	0	0	0.033541	0.109875	2577.176	0	0	2.622329	0
0.001672	0	0.001322	0.02	0.096066	2107.792	0	54.95063	0.150497	0
0.02442	0.042777	0	0.035417	0.080884	1582.524	12788.92	0	0.000629	0.22871

0	0	0	0.034731	0.04132	0	0	0	0	0
0.002472	0.017424	0	0.036	0.154847	1214.44	8122.148	0	1.400317	21.23355
0.001533	0	0.00213	0.008	0.008777	286.021	0	70.10425	0.00285	0
0.028464	0	0	0.008	0.008941	253.8954	0	0	0.00206	0
0	0	0	0.008	0.004368	0	0	0	0	0
0.000764	0	0.00218	0.008	0.004138	146.0093	0	65.34394	0.000527	0
0.002611	0	0.003237	0.008	0.010839	341.6574	0	88.04807	0.00993	0
0.266899	0	0	0.008	0.012415	441.3796	0	0	0.015227	0
0	0	0	0.008	0.004384	0	0	0	0	0
0.00047	0	0.001494	0.008	0.004148	132.3472	0	71.17957	0.000478	0
0.001583	0	0.002127	0.008	0.010339	353.1891	0	87.03524	0.003712	0
0.005791	0	0	0.008	0.010154	328.6769	0	0	0.000872	0
0	0	0	0.008	0.004358	0	0	0	0	0
0.000582	0	0.001768	0.008	0.004143	138.0319	0	77.69261	0.000498	0
0.0012	0	0.000347	0.008	0.078	623.8875	118.6149	25.88201	0.005735	0.11367
0.020597	0.027876	0	0.012	0.078	494.0491	128.7382	0	0.004184	0.005098
0	0	0	0.008	0.039	0	0	0	0	0
0.001068	0	0.000278	0.008	0.091	715.7474	137.9878	25.52542	0.004024	0.113506
0.020594	0.028117	0	0.012	0.091	584.651	206.2579	0	0.004161	0.005098
0	0	0	0.008	0.0455	0	0	0	0	0
0.002282	0	0.003565	0.004	0.012	194.8248	0	46.35732	0.175989	0
0.001626	0	0.002227	0.008	0.010607	433.4024	0	106.9599	0.005519	0
0.008686	0	0	0.008	0.010543	437.0132	0	0	0.000867	0
0	0	0	0.008	0.004357	0	0	0	0	0
0.000689	0	0.002049	0.008	0.004143	140.4849	0	95.97982	0.000503	0
0.001424	0	0.000443	0.012	0.043554	1777.961	0	31.48541	0.013239	0
0.087143	0	0	0.016	0.043279	1019.497	0	0	0.003035	0
0.001029	0	0.000515	0.012	0.043554	1642.338	511.0135	46.00989	0.011682	0.282426
0.012508	0.032514	0	0.012	0.043638	1088.634	2244.545	0	0.000983	0.010519
0	0	0	0.012	0.021789	0	0	0	0	0
0.000923	0.019829	0	0.012	0.04347	851.3073	5505.819	0	0.532133	18.34282
0.000884	0	0.000306	0.012	0.044095	1683.993	379.8538	31.4466	0.011733	0.193363
0.035236	0.023842	0	0.012	0.066639	1429.394	3501.866	0	0.002683	0.052494
0	0	0	0.012	0.022048	0	0	0	0	0
0.000791	0.003658	0	0.012	0.044095	891.0752	1204.788	0	0.542493	4.514452
0.001157	0	0.000526	0.008	0.046845	897.0498	2604.097	56.98884	0.01349	2.420418
0.052696	0.054174	0	0.012	0.046845	1272.36	2183.701	0	0.007508	0.008149
0	0	0	0.009901	0.023423	0	0	0	0	0
0.004483	0.013087	0	0.012	0.046845	1707.142	4140.603	0	4.673068	14.90675
0.001631	0	0.000698	0.010952	0.105022	1869.821	0	95.17143	0.005048	0
0.006268	0	0	0.035512	0.109999	1745.343	0	0	0.004697	0
0	0	0	0.032385	0.054854	0	0	0	0	0
0.000411	0	0	0.033507	0.109873	2558.464	0	0	2.785774	0

[illegible]

0	0.526181	0	0	0.037514	0	0	0	0	0
8.94E-05	0.200656	0	0.022657	0.95714	0	0.000462	0.108155	0.973	7.817214
0	0.252695	2.054556	0	0.014108	4.94502	0	0	0	0
0	0	0	0	0	0	0	0	0	0
0	0.252432	1.664629	0	0.041962	0.375863	0	0	0	0
0.073658	0.005001	0	0.033495	0.012391	0	0.338688	0.095884	0.244021	1.522002
0	0.040472	0	0	0.049939	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0
0.041441	0.00063	0	0.02081	0.001715	0	0.167371	0.040584	0.035761	0.458312
0.123077	0.013144	0	0.041756	0.050046	0	0.648421	0.208653	0.626131	3.414804
0	0.06972	0	0	0.330067	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0
0.041477	0.000576	0	0.020845	0.001565	0	0.167371	0.024799	0.021751	0.289806
0.085761	0.006858	0	0.038346	0.016611	0	0.399177	0.08593	0.231359	1.467275
0	0.052717	0	0	0.020602	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0
0.041501	0.000599	0	0.020867	0.001626	0	0.167371	0.026238	0.024143	0.320489
0.034035	0.010185	0.003051	0.051927	0.033214	0.421683	0.16644	0.051749	0.2901	2.971851
0	0.078578	0.020598	0	0.09906	0.10976	0	0	0	0
0.034545	0.010822	0.002984	0.051411	0.022132	0.424225	0.169121	0.050683	0.27582	2.943253
0	0.093265	0.032977	0	0.097162	0.10976	0	0	0	0
0.173109	0.038252	0	0.008144	1.19413	0	1.289699	3.603022	3.960361	4.006408
0.111313	0.009875	0	0.043625	0.027658	0	0.563865	0.106849	0.30819	1.879125
0	0.069953	0	0	0.020048	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0
0.041129	0.000606	0	0.02051	0.001673	0	0.167371	0.029415	0.027445	0.36109
0.037765	0.025944	0	0.042818	0.072615	0	0.157085	12.73844	0.299607	4.642057
0	0.160683	0	0	0.068983	0	0	0	0	0
0.048529	0.023904	0.00706	0.033281	0.067858	1.085395	0.265624	0.036862	0.295064	3.043011
0	0.172112	0.355757	0	0.024059	0.240974	0	0	0	0
0	0	0	0	0	0	0	0	0	0
0	0.174799	1.116961	0	0.007579	0.264739	0	0	0	0
0.035841	0.023475	0.005252	0.030224	0.061696	0.743578	0.191487	0.036616	0.165329	2.963926
0	0.225947	0.552281	0	0.057085	1.123717	0	0	0	0
0	0.181913	0.245573	0	0.007593	0.065214	0	0	0	0
0.07149	0.027511	0.084048	0.066081	0.072039	10.60419	0.413989	0.125011	0.304317	1.887863
0	0.201105	0.343851	0	0.164352	0.17997	0	0	0	0
0	0	0	0	0	0	0	0	0	0
0	0.350759	0.843019	0	0.067786	0.214926	0	0	0	0
0.116209	0.020657	0	0.080962	0.016719	0	0.498007	0.054063	0.116838	0.668484
0	0.273329	0	0	0.104107	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0
0	0.525374	0	0	0.037846	0	0	0	0	0
9.12E-05	0.194055	0	0.021547	0.831978	0	0.000471	0.099171	0.891033	7.279508
0	0.249327	2.014899	0	0.01355	4.924067	0	0	0	0

0	0	0	0	0	0	0	0	0	0
0	0.247572	1.655753	0	0.037818	0.357686	0	0	0	0
0.069821	0.004707	0	0.032706	0.010947	0	0.317155	0.09263	0.236751	1.480879
0	0.040001	0	0	0.044349	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0
0.041287	0.000609	0	0.020663	0.001663	0	0.167371	0.041108	0.036978	0.459405
0.115297	0.01209	0	0.040458	0.044642	0	0.600845	0.197307	0.584704	3.237269
0	0.06954	0	0	0.327836	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0
0.041283	0.000551	0	0.020659	0.001507	0	0.167371	0.024408	0.020948	0.283756
0.080395	0.006311	0	0.036765	0.014759	0	0.369428	0.08137	0.220976	1.409088
0	0.051783	0	0	0.018771	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0
0.041303	0.000576	0	0.020678	0.001572	0	0.167371	0.025913	0.023379	0.311996
0.032536	0.008999	0.003014	0.050978	0.028753	0.408557	0.158042	0.048477	0.275732	2.83926
0	0.077838	0.020283	0	0.090084	0.10976	0	0	0	0
0	0	0	0	0	0	0	0	0	0
0.033022	0.009699	0.002931	0.050332	0.018734	0.410763	0.160638	0.048104	0.26634	2.872096
0	0.092112	0.032496	0	0.089583	0.10976	0	0	0	0
0	0	0	0	0	0	0	0	0	0
0.167695	0.037642	0	0.007756	1.141969	0	1.241933	3.60163	3.965026	3.938706
0.102298	0.008836	0	0.041355	0.023529	0	0.509877	0.101167	0.297827	1.829793
0	0.068852	0	0	0.018666	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0
0.040935	0.000576	0	0.020325	0.0016	0	0.167371	0.029665	0.026023	0.343122
0.037287	0.023498	0	0.044277	0.058655	0	0.152278	11.79105	0.279936	4.427657
0	0.160622	0	0	0.065331	0	0	0	0	0
0.047158	0.021251	0.00721	0.033323	0.057085	1.087663	0.255502	0.034717	0.27915	2.91656
0	0.171515	0.353629	0	0.021164	0.226462	0	0	0	0
0	0	0	0	0	0	0	0	0	0
0	0.173545	1.122397	0	0.007603	0.262083	0	0	0	0
0.035378	0.02214	0.00526	0.030196	0.057395	0.743797	0.189095	0.037237	0.174122	3.121462
0	0.225202	0.55172	0	0.057766	1.130189	0	0	0	0
0	0	0	0	0	0	0	0	0	0
0	0.181652	0.245604	0	0.007751	0.064503	0	0	0	0
0.071101	0.026676	0.084316	0.066819	0.06719	10.6101	0.410922	0.137377	0.365855	2.267743
0	0.200461	0.344043	0	0.16164	0.175435	0	0	0	0
0	0	0	0	0	0	0	0	0	0
0	0.348012	0.844089	0	0.066769	0.212988	0	0	0	0
0.10682	0.018099	0	0.077301	0.016666	0	0.454782	0.042759	0.107514	0.553858
0	0.27498	0	0	0.10112	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0
0	0.52156	0	0	0.04019	0	0	0	0	0

[illegible]



2.653617	0	0	0	0	0	0.97	38.74005	0	0
1.396656	0	0.000506	0.108155	0.973	7.817214	0.043517	49.99845	0	4.650112
0.016061	5.629529	0	0	0	0	0.214751	0.085348	79.47628	0
0	0	0	0	0	0	0	0	0	0
1.552802	22.41886	0	0	0	0	0.787793	8.658951	61.39735	0
0.018075	0	0.370819	0.095884	0.244021	1.522002	0.034038	0.821161	0	3.291001
0.056852	0	0	0	0	0	0.0031	0.48093	0	0
0	0	0	0	0	0	0	0	0	0
0.002503	0	0.18325	0.040584	0.035761	0.458312	0.019535	0.233368	0	1.285392
0.073005	0	0.709938	0.208653	0.626131	3.414804	0.037737	2.027648	0	6.272763
0.375759	0	0	0	0	0	0.0031	1.795873	0	0
0	0	0	0	0	0	0	0	0	0
0.002284	0	0.18325	0.024799	0.021751	0.289806	0.019321	0.212993	0	1.285392
0.024236	0	0.437048	0.08593	0.231359	1.467275	0.036509	0.975223	0	3.773453
0.023453	0	0	0	0	0	0.0031	0.18077	0	0
0	0	0	0	0	0	0	0	0	0
0.002372	0	0.18325	0.026238	0.024143	0.320489	0.020035	0.221191	0	1.285392
0.048465	0.615318	0.182231	0.051749	0.2901	2.971851	0.044837	1.163804	3.749026	3.08003
0.112773	0.124954	0	0	0	0	0.177363	0.274795	0.909745	0
0.032296	0.619028	0.185166	0.050683	0.27582	2.943253	0.044964	0.879957	3.755921	3.033741
0.110612	0.124954	0	0	0	0	0.182308	0.2456	0.909745	0
1.437341	0	1.402077	3.603022	3.960361	4.006408	0.008819	12.99514	0	7.55463
0.040279	0	0.617356	0.106849	0.30819	1.879125	0.036224	1.269375	0	4.271183
0.022823	0	0	0	0	0	0.0031	0.309426	0	0
0	0	0	0	0	0	0	0	0	0
0.002441	0	0.18325	0.029415	0.027445	0.36109	0.020649	0.227626	0	1.285392
0.10596	0	0.171989	12.73844	0.299607	4.642057	0.044635	2.201859	0	3.549961
0.078533	0	0	0	0	0	0.150527	0.290934	0	0
0.099019	1.583805	0.290824	0.036862	0.295064	3.043011	0.044956	1.7621	19.81883	5.628783
0.027389	0.27433	0	0	0	0	0.208897	0.097384	7.793695	0
0	0	0	0	0	0	0	0	0	0
0.541359	18.90992	0	0	0	0	1.06	2.356232	33.54096	0
0.090027	1.085027	0.209654	0.036616	0.165329	2.963926	0.044957	1.576101	5.758385	3.929641
0.064986	1.279267	0	0	0	0	0.210605	0.222764	18.80735	0
0.542356	4.658175	0	0	0	0	1.06	2.597993	5.927059	0
0.105119	15.47361	0.453266	0.125011	0.304317	1.887863	0.045	1.425308	82.01421	9.712181
0.187103	0.204882	0	0	0	0	0.074815	0.387858	3.17271	0
0	0	0	0	0	0	0	0	0	0
4.841844	15.35189	0	0	0	0	1.06	16.47934	21.68009	0
0.024397	0	0.545255	0.054063	0.116838	0.668484	0.045	0.417316	0	8.692607
0.118518	0	0	0	0	0	0.172732	0.134529	0	0
0	0	0	0	0	0	0	0	0	0
2.676692	0	0	0	0	0	0.97	38.89443	0	0
1.214021	0	0.000516	0.099171	0.891033	7.279508	0.044117	42.91389	0	4.581757
0.015425	5.605675	0	0	0	0	0.215296	0.08005	79.3592	0

0	0	0	0	0	0	0	0	0	0
1.449418	21.73226	0	0	0	0	0.785758	8.276746	61.26839	0
0.015974	0	0.347245	0.09263	0.236751	1.480879	0.034836	0.770868	0	3.110973
0.050489	0	0	0	0	0	0.0031	0.462516	0	0
0	0	0	0	0	0	0	0	0	0
0.002427	0	0.18325	0.041108	0.036978	0.459405	0.019281	0.226843	0	1.285392
0.065134	0	0.657849	0.197307	0.584704	3.237269	0.037941	1.856845	0	5.825698
0.37322	0	0	0	0	0	0.0031	1.787785	0	0
0	0	0	0	0	0	0	0	0	0
0.0022	0	0.18325	0.024408	0.020948	0.283756	0.018731	0.205618	0	1.285392
0.021536	0	0.404477	0.08137	0.220976	1.409088	0.037253	0.903415	0	3.532113
0.02137	0	0	0	0	0	0.0031	0.17477	0	0
0	0	0	0	0	0	0	0	0	0
0.002294	0	0.18325	0.025913	0.023379	0.311996	0.019512	0.214449	0	1.285392
0.041956	0.596166	0.173037	0.048477	0.275732	2.83926	0.04487	1.077248	3.752477	3.116865
0.102554	0.124954	0	0	0	0	0.18405	0.241133	0.909745	0
0	0	0	0	0	0	0	0	0	0
0.027336	0.599384	0.175879	0.048104	0.26634	2.872096	0.044972	0.812203	3.759576	3.041183
0.101985	0.124954	0	0	0	0	0.188078	0.21909	0.909745	0
0	0	0	0	0	0	0	0	0	0
1.380543	0	1.350328	3.60163	3.965026	3.938706	0.008867	12.55926	0	7.497984
0.034307	0	0.558249	0.101167	0.297827	1.829793	0.03688	1.130619	0	3.931102
0.02125	0	0	0	0	0	0.0031	0.297521	0	0
0	0	0	0	0	0	0	0	0	0
0.002335	0	0.18325	0.029665	0.026023	0.343122	0.019882	0.218261	0	1.285392
0.08559	0	0.166726	11.79105	0.279936	4.427657	0.044771	1.729955	0	3.407654
0.074375	0	0	0	0	0	0.157593	0.271575	0	0
0.083298	1.587115	0.279743	0.034717	0.27915	2.91656	0.044973	1.474484	19.85098	5.392737
0.024094	0.257809	0	0	0	0	0.210418	0.088738	7.737558	0
0	0	0	0	0	0	0	0	0	0
0.54308	18.72019	0	0	0	0	1.06	2.321977	34.71874	0
0.083751	1.085347	0.207035	0.037237	0.174122	3.121462	0.044963	1.45952	5.759702	3.879629
0.065762	1.286634	0	0	0	0	0.210607	0.224215	18.93721	0
0	0	0	0	0	0	0	0	0	0
0.553654	4.607329	0	0	0	0	1.06	2.599558	6.144073	0
0.098044	15.48223	0.449907	0.137377	0.365855	2.267743	0.045	1.332835	82.0501	9.514746
0.184014	0.19972	0	0	0	0	0.079459	0.383629	3.244095	0
0	0	0	0	0	0	0	0	0	0
4.769209	15.21343	0	0	0	0	1.06	16.13227	22.27106	0
0.02432	0	0.497929	0.042759	0.107514	0.553858	0.045	0.383505	0	8.634957
0.115117	0	0	0	0	0	0.175698	0.131543	0	0
0	0	0	0	0	0	0	0	0	0
2.843509	0	0	0	0	0	0.97	40.04596	0	0

SOx_RUNE	SOx_IDLEX	SOx_STREX
0.021852	0	0.000541
0.015401	0.127616	0
0	0	0
0.002923	0	0.000719
0.002453	0	0
0	0	0
0.001521	0	0.000661
0.003487	0	0.00091
0.004198	0	0
0	0	0
0.001407	0	0.000725
0.003648	0	0.000904
0.003222	0	0
0	0	0
0.001455	0	0.000787
0.006548	0.001196	0.000258
0.004777	0.001261	0
0.007451	0.001388	0.000257
0.005692	0.002017	0
0.001943	0	0.000486
0.004469	0	0.00111
0.004267	0	0
0	0	0
0.001498	0	0.000981
0.017601	0	0.000317
0.00966	0	0
0.016625	0.005127	0.000469
0.010385	0.021797	0
0	0	0
0.01695	0.003796	0.000315
0.013601	0.034057	0
0	0	0
0.008969	0.026006	0.000574
0.012126	0.020648	0
0	0	0
0.018531	0	0.000946
0.016117	0	0
0	0	0

0	0	0
0.021338	0	0.000548
0.015188	0.123487	0
0	0	0
0	0	0
0.002878	0	0.000706
0.002434	0	0
0	0	0
0.001483	0	0.000653
0.003435	0	0.00089
0.004193	0	0
0	0	0
0.001353	0	0.000714
0.00357	0	0.000882
0.003171	0	0
0	0	0
0.001405	0	0.000777
0.006349	0.001184	0.000257
0.004726	0.001239	0
0.007258	0.001376	0.000255
0.005609	0.001983	0
0.001935	0	0.000471
0.004378	0	0.001083
0.004207	0	0
0	0	0
0.001446	0	0.000966
0.017585	0	0.000314
0.009664	0	0
0.016423	0.005089	0.000462
0.010345	0.021382	0
0	0	0
0	0	0
0.016782	0.003776	0.000313
0.01358	0.033194	0
0	0	0
0.008915	0.025867	0.000569
0.012087	0.020667	0
0	0	0
0	0	0
0.018525	0	0.000945
0.016439	0	0
0	0	0
0	0	0
0.020838	0	0.000543
0.014986	0.121103	0

0	0	0
0	0	0
0.002828	0	0.000693
0.002406	0	0
0	0	0
0.001443	0	0.000646
0.003378	0	0.00087
0.004182	0	0
0	0	0
0.001308	0	0.000704
0.003492	0	0.00086
0.003114	0	0
0	0	0
0.001365	0	0.000768
0.006168	0.001173	0.000256
0.004681	0.00122	0
0	0	0
0.007076	0.001364	0.000252
0.00554	0.001954	0
0	0	0
0.001926	0	0.000458
0.004285	0	0.001057
0.004141	0	0
0	0	0
0.001389	0	0.000949
0.017577	0	0.000311
0.00966	0	0
0.016236	0.005052	0.000455
0.010309	0.021254	0
0	0	0
0	0	0
0.016648	0.003755	0.000311
0.013536	0.033161	0
0	0	0
0	0	0
0.008868	0.025744	0.000563
0.012048	0.020678	0
0	0	0
0	0	0
0.018485	0	0.000941
0.016538	0	0
0	0	0
0	0	0

# Exhibit B

## **Construction Noise Analysis**



To	Kimberly Comacho/ ESA	Project number
		2021103
cc	Amir Yazdaniyaz/ AES Michael Nazzal/ Yorkwood	File reference
		M-6831 Hawthorn_LAUSD
From	Sean Bui, P.E.	Date
		October 13, 2021
Subject	6831 West Hawthorn Project <u>LAUSD Comment Letter, August 31, 2021</u> Construction Noise Impact Analysis	

AES has reviewed the Los Angeles Unified School District (LAUSD) comment letter dated August 31, 2021, and wish to provide this memorandum summarizing the results of construction related noise analysis for the proposed 6831 West Hawthorn Project (Project). The analysis estimates the Project construction related noise levels at the LAUSD Hollywood High School and identifies noise control measures, as required.

Figure 1 (on page 2) shows the location of the Project Site and the locations of noise receptor at the Hollywood High School campus, receptor R1 (representing the athletic field) and receptor R2 (representing the nearest classroom building).

## **LAUSD Noise Standards**

The following noise standards from LAUSD Standard Conditions of Approval for District Construction, Upgrade, and Improvement Projects (LAUSD, Updated 2018) are applicable to this Project:

**SC-N-1 Exterior Campus Noise** – LAUSD shall design new buildings and other noise-generating sources to include features such as sound walls, building configuration, and other design features that attenuate exterior noise levels on a school campus to less than 67 dBA  $L_{eq}$ .

**SC-N-2 Interior Classroom Noise** – LAUSD shall analyze the acoustical environment of the site (such as traffic) and the characteristics of planned building components (such as Heating, Ventilation, and Air Conditioning (HVAC), and designs shall achieve interior classroom noise levels of less than 45 dBA ( $L_{eq}$ ).

**SC-N-9 Construction Noise** – Construction Contractor shall ensure that LAUSD interior classroom noise and exterior noise standards are met to the maximum extent feasible, or that construction noise is not disruptive to the school environment, through implementation of noise control measures, as necessary.<sup>1</sup>

<sup>1</sup> The need for noise control measures depends on the type and quantity of equipment being used, the work being performed, and the proximity of the construction activity to achieve exterior use areas (e.g., playgrounds, athletic fields, etc.) or classrooms. LAUSD 2018.



October 13, 2021



Figure 1. Aerial Photo Showing Project Site and Hollywood High School



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Therefore, based on the LAUSD noise standards, the Project construction noise levels shall not exceed 67 dBA  $L_{eq}$  at the exterior (athletic field and classroom) and 45 dBA  $L_{eq}$  at the interior of the classroom.

### **Project Construction Noise Levels**

The Project construction activities would include demolition of the existing surface parking lot, grading/excavation for the underground parking, building construction, and paving/landscaping. Construction noise associated with the Project was calculated based on the Project's anticipated construction equipment inventory, including type and number of pieces, utilized on during various construction stages (i.e., demolition, grading/excavation, foundation, building construction and paving/landscape). The construction noise model for the Project is based on using construction equipment noise levels as published by the FHWA's Roadway Construction Noise Model, as provided in Table 1 (below). The construction noise levels were then calculated at the two Project noise receptors (R1 and R2) at the Hollywood High School based on the standard point source noise-distance attenuation factor of 6.0 dBA for each doubling of distance. In addition, a 10 dBA noise reduction provided by the existing building (between the Project Site and the nearest classroom building) was assumed for receptor R2.

**Table 1. Construction Equipment Noise Levels**

<b>Equipment</b>	<b>Estimated Usage Factor,<sup>a</sup> %</b>	<b>Noise Level at 50 feet from Equipment, dBA (<math>L_{max}</math>)</b>
Air Compressor	40	78
Cement and Mortar Mixers	50	80
Compactor	20	83
Concrete Pump	20	81
Concrete Truck	40	79
Concrete Saw	20	90
Crane	16	81
Drill Rig	20	84
Excavator	40	81
Forklift	20	75
Grader	40	85
Generator Set	50	81
Loader	40	79
Paving Equipment	50	77
Tractor/Loader/Backhoe	40	84
Welder	40	74
<i>Notes:</i> <sup>a</sup> Usage factor represents the percentage of time the equipment would be operating at full speed. Source: FHWA Roadway Construction Noise Model User's Guide, 2006		

Table 2 on page 4 provides the estimated construction noise levels for various construction phases at the Hollywood High School (receptors R1 and R2). To present a conservative noise impact analysis, the estimated noise levels were calculated for a scenario in which all pieces of construction equipment were assumed to operate simultaneously along the south side of the Project Site, nearest to the school.

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As indicated in Table 2, the estimated construction noise level could exceed the LAUSD 67 dBA  $L_{eq}$  exterior noise limit at the athletic field (receptor R1) by up to 13.9 dBA  $L_{eq}$ . The estimated noise level at the nearest classroom building (receptor R2) would be below the LAUSD 67 dBA exterior noise limit. Per Caltrans, typical buildings structures would provide exterior to interior noise reduction ranging from 20 dBA (for light frame building) to 25 dBA (for masonry building).<sup>2</sup> Therefore, the estimated construction noise level at the interior of the classroom would be 40 dBA  $L_{eq}$  (based 20 dBA noise reduction), which would be below the LAUSD interior noise limit of 45 dBA  $L_{eq}$ .

**Table 2. Estimated Construction Noise Levels**

Noise Receptor Location	Estimated Construction Noise Levels by Construction Phase, <sup>a</sup> dBA ( $L_{eq}$ )					LAUSD Exterior Noise Limits, dBA ( $L_{eq}$ )	Maximum Noise Exceedance, dBA ( $L_{eq}$ )
	Demo	Grading/Excavation	Foundation	Building Construction	Paving/Landscape		
R1	80.9	79.9	76.7	78.9	76.2	67	13.9
R2	60.0	59.9	56.4	58.8	55.3	67	--
<i>Notes:</i>							
<sup>a</sup> Detailed noise calculations worksheets are included in Appendix A.							
Source: AES, 2021							

### **Construction Noise Control Measures**

As set forth in the Project's proposed California Environmental Quality Act (CEQA) Sustainable Communities Project Exemption, the Project will implement relevant construction noise control measures identified by SCAG's 2020-2045 RTP/SCS plan and associated program EIR. These noise control measures include compliance with applicable noise regulations, equipping construction equipment with exhaust mufflers or other suitable noise reduction devices, and the installation of temporary noise barriers between noise sources and noise-sensitive uses during construction. As analyzed above, the Project construction activities would generate noise levels, which would exceed the LAUSD noise limit by up to 13.9 dBA at the athletic field. Therefore, consistent with SCAG's identified noise control measures, the Project construction contractor shall implement the following measures, to reduce the construction noise levels to meet the LAUSD exterior noise limit.

#### **Temporary Noise Barrier**

- Install and maintain a temporary noise barrier along the Project western and southern boundary between the construction area and the athletic field, as shown on Figure 2 (on page 5). The temporary noise barrier shall provide minimum 14 dBA at the athletic field.
- The temporary noise barrier shall be uninterrupted throughout the height and length, (i.e., no openings), and have a minimum density of 2 pounds per square foot and provide a minimum Sound Transmission Class (STC) rating of STC-25, as tested in accordance with ASTM E-90 and ASTM E-413 standards.

<sup>2</sup> Caltrans, Technical Noise Supplement, Table 7-1, September 2013.

- Acceptable material for the temporary noise barrier includes exterior plywood with minimum 5/8" thick or Environmental Noise Control (ENC) STC-25 Acoustical Barrier Blanket.

With implementation of the construction noise control measures as outline above, the construction noise levels at the athletic field would be reduced to maximum of 66 dBA  $L_{eq}$ , which would be below the LAUSD exterior noise limit.



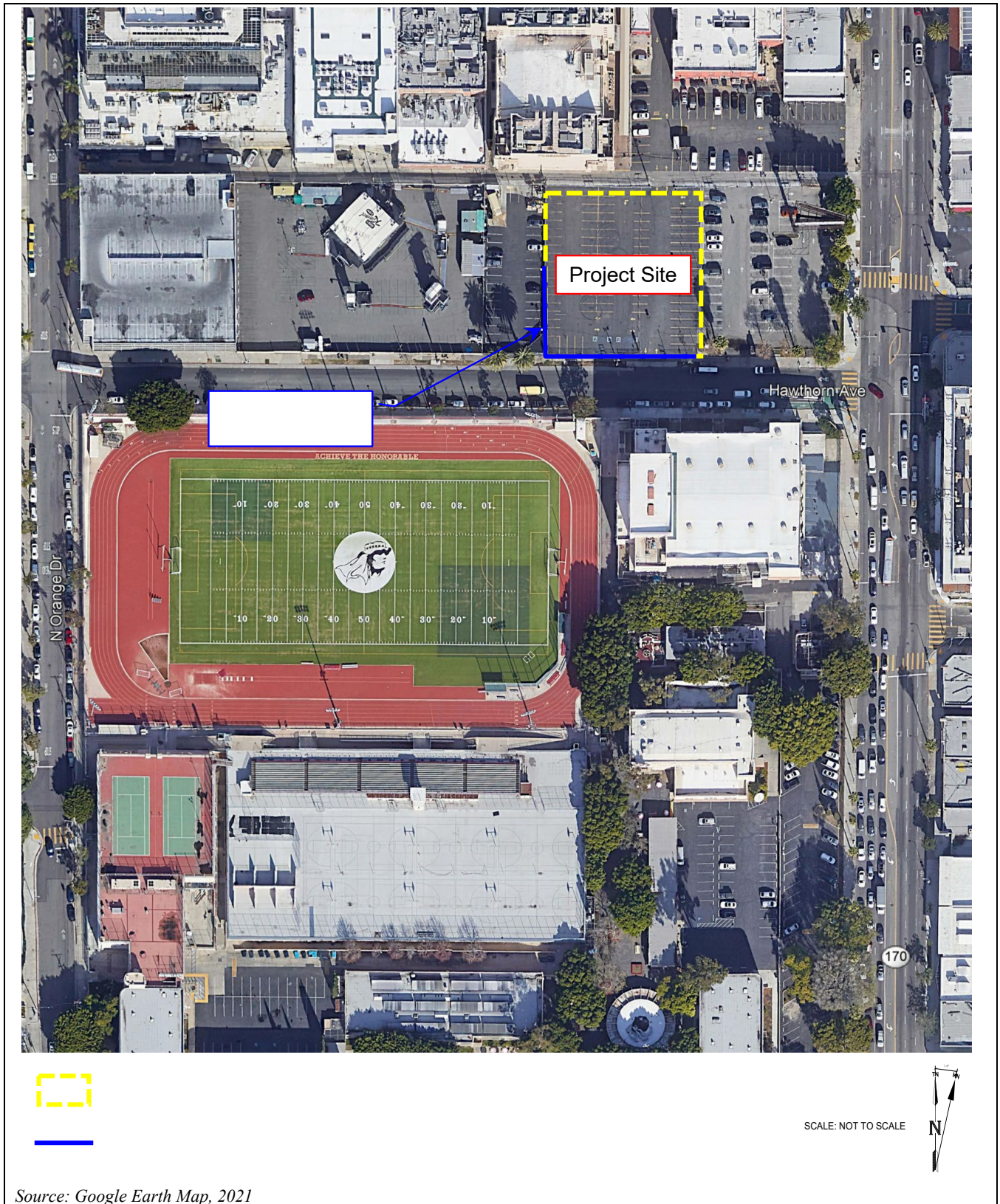


Figure 2. Temporary Construction Noise Barrier

**APPENDIX A**

**Construction Noise Calculation Worksheets**

### Construction Phase: *Demolition*

Description	No. of Equip.	Reference	Acoustical Usage Factor	Distance to Receptor, ft	Estimated
		Noise Level at 50ft, Lmax			Noise Shielding, dBA
Concrete Saw	1	90	20%	75	0
Backhoe	1	78	40%	75	0
Loader	1	79	40%	100	0
Generator	1	81	50%	100	0

**Results:**

<b>1-hour Leq:</b>	<b>80.9</b>
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10/11/2021

**Project: 6831 West Hawthorn Project**

**Construction Phase: *Grading/Excavation***

**Equipment**

<b>Description</b>	<b>No. of Equip.</b>	<b>Reference Noise Level at 50ft, Lmax</b>	<b>Acoustical Usage Factor</b>	<b>Distance to Receptor, ft</b>	<b>Estimated Noise Shielding, dBA</b>
Bore/Drill Rig	1	84	20%	75	0
Excavator	1	81	40%	75	0
Grader	1	85	40%	100	0
Rubber Tired Loader	1	79	40%	100	0
Crane	1	81	16%	125	0
Generator	1	81	50%	125	0

6

**Receptor:** ***R1***

**Results:**

**1-hour Leq: 79.9**

Source for Ref. Noise Levels: FHWA RCNM, 2006

**Project: 6831 West Hawthorn Project**

**Construction Phase: *Foundation***

**Equipment**

<b>Description</b>	<b>No. of Equip.</b>	<b>Reference Noise Level at 50ft, Lmax</b>	<b>Acoustical Usage Factor</b>	<b>Distance to Receptor, ft</b>	<b>Estimated Noise Shielding, dBA</b>
Concrete Pump	1	81	20%	75	0
Concrete Truck	1	79	40%	75	0
Generator	1	81	50%	100	0
Crane	1	81	16%	100	0
Fork Lift	1	75	20%	125	0

5

**Receptor:** ***R1***

**Results:**  
**1-hour Leq: 76.7**

Source for Ref. Noise Levels: FHWA RCNM, 2006



**Project: 6831 West Hawthorn Project**

**Construction Phase: *Building Construction***

**Equipment**

<b>Description</b>	<b>No. of Equip.</b>	<b>Reference Noise Level at 50ft, Lmax</b>	<b>Acoustical Usage Factor</b>	<b>Distance to Receptor, ft</b>	<b>Estimated Noise Shielding, dBA</b>
Crane	1	81	16%	75	0
Tractor/Loader/Backhoe	1	84	40%	75	0
Air Compressor	1	78	40%	100	0
Aerial Lift	1	75	20%	100	0
Fork Lift	1	75	20%	125	0
Concrete Pump	1	81	20%	125	0
Plate Compactor	1	83	20%	150	0
Welders	2	74	40%	150	0
Air Compressor	1	78	40%	175	0
Aerial Lift	1	75	20%	175	0
Fork Lift	1	75	20%	200	0
Welders	1	74	40%	200	0

13

**Receptor: *R1***

**Results:**

**1-hour Leq: 78.9**

Source for Ref. Noise Levels: FHWA RCNM, 2006

### Construction Phase: Paving

Description	No. of Equip.	Reference Noise Level at 50ft, Lmax	Acoustical Usage Factor	Distance to Receptor, ft	Estimated Noise Shielding, dBA
Cement and Mortar Mixer	1	80	50%	75	0
Paving Equipment	1	77	50%	75	0
Skid Steer Loaders	1	79	40%	100	0

**Results:**

<b>1-hour Leq:</b>	<b>76.2</b>
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10/11/2021

**Project: 6831 West Hawthorn Project**

**Construction Phase: *Demolition***

**Equipment**

<b>Description</b>	<b>No. of Equip.</b>	<b>Reference Noise Level at 50ft, Lmax</b>	<b>Acoustical Usage Factor</b>	<b>Distance to Receptor, ft</b>	<b>Estimated Noise Shielding, dBA</b>
Concrete Saw	1	90	20%	275	10
Backhoe	1	78	40%	275	10
Loader	1	79	40%	300	10
Generator	1	81	50%	300	10

4

**Receptor:** ***R2***

**Results:**  
**1-hour Leq: 60.0**

Source for Ref. Noise Levels: FHWA RCNM, 2006

**Project: 6831 West Hawthorn Project**

**Construction Phase: *Grading/Excavation***

**Equipment**

<b>Description</b>	<b>No. of Equip.</b>	<b>Reference Noise Level at 50ft, Lmax</b>	<b>Acoustical Usage Factor</b>	<b>Distance to Receptor, ft</b>	<b>Estimated Noise Shielding, dBA</b>
Bore/Drill Rig	1	84	20%	275	10
Excavator	1	81	40%	275	10
Grader	1	85	40%	300	10
Rubber Tired Loader	1	79	40%	300	10
Crane	1	81	16%	325	10
Generator	1	81	50%	325	10

6

**Receptor: *R2***

**Results:**

**1-hour Leq: 59.9**

Source for Ref. Noise Levels: FHWA RCNM, 2006

**Project: 6831 West Hawthorn Project**

**Construction Phase: *Foundation***

**Equipment**

<b>Description</b>	<b>No. of Equip.</b>	<b>Reference Noise Level at 50ft, Lmax</b>	<b>Acoustical Usage Factor</b>	<b>Distance to Receptor, ft</b>	<b>Estimated Noise Shielding, dBA</b>
Concrete Pump	1	81	20%	275	10
Concrete Truck	1	79	40%	275	10
Generator	1	81	50%	300	10
Crane	1	81	16%	300	10
Fork Lift	1	75	20%	325	10

5

**Receptor:** ***R2***

**Results:**  
**1-hour Leq: 56.4**

Source for Ref. Noise Levels: FHWA RCNM, 2006

**Project: 6831 West Hawthorn Project**

**Construction Phase: *Building Construction***

**Equipment**

<b>Description</b>	<b>No. of Equip.</b>	<b>Reference Noise Level at 50ft, Lmax</b>	<b>Acoustical Usage Factor</b>	<b>Distance to Receptor, ft</b>	<b>Estimated Noise Shielding, dBA</b>
Crane	1	81	16%	275	10
Tractor/Loader/Backhoe	1	84	40%	275	10
Air Compressor	1	78	40%	300	10
Aerial Lift	1	75	20%	300	10
Fork Lift	1	75	20%	325	10
Concrete Pump	1	81	20%	325	10
Plate Compactor	1	83	20%	350	10
Welders	2	74	40%	350	10
Air Compressor	1	78	40%	375	10
Aerial Lift	1	75	20%	375	10
Fork Lift	1	75	20%	400	10
Welders	1	74	40%	400	10

13

**Receptor: *R2***

**Results:**

**1-hour Leq: 58.8**

Source for Ref. Noise Levels: FHWA RCNM, 2006

### Construction Phase: Paving

Description	No. of Equip.	Reference Noise Level at 50ft, Lmax	Acoustical Usage Factor	Distance to Receptor, ft	Estimated Noise Shielding, dBA
Cement and Mortar Mixer	1	80	50%	275	10
Paving Equipment	1	77	50%	275	10
Skid Steer Loaders	1	79	40%	300	10

3

**1-hour Leq: 55.3**

Source for Ref. Noise Levels: FHWA RCNM, 2006