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San José City Data Center
(19-SPPE-04)

Data Response Set 6A

Submitted to
California Energy Commission

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Contents

Introduction

On September 14, 2021, California Energy Commission ("Commission") staff filed Data Request Set 6 for the San Jose Data Center Project, seeking additional information related to the applicant's revised project description and changes to the technical sections of the applicant's small power plant exception ("SPPE") application related to the project's change of backup generation technology to renewable natural gas. (See TN 239692.) Commission staff subsequently filed a revised Data Request Set 6 on September 15, 2021, which added one data request and superseded the previous Data Request Set 6 request. (See TN 239719.)

Provided below are Commission staff's Background descriptions and Data Requests, followed by the applicant's Responses.

Air Quality Data Requests

Background: Ambient Air Quality Impact Analysis for Construction

The applicant's Supplemental Filing (Supplemental Filing) revised the construction-phase emissions estimates (Appendix 3.3A of the SPPE Application; TN# 239413,8/20/2021) and provided an analysis of potential health risks caused by toxic air contaminants during construction (Table 3.3-20, p. 3.3-39; TN# 239409, 8/20/2021). For toxics, the applicant decided to model 437 individual construction-phase point sources (Table 3.3-12 and Appendix 3.3D, Table 1), but the analysis does not explain why this number of point sources was selected, where they emit on or near the site, or why area or volume sources would not be more representative of construction. The Supplemental Filing concluded the discussion of construction-phase impacts without quantifying criteria pollutant ambient air quality impacts. The analysis should show the concentrations of criteria air pollutants resulting during construction.

Data Requests

64) Please provide an ambient air quality impact analysis that confirms whether the construction-phase criteria pollutant emissions would comply with the California Ambient Air Quality Standards (CAAQS) and the National Ambient Air Quality Standards (NAAQS).

Response: Construction-phase emission estimates were used to conduct an ambient air quality analysis for criteria air pollutants for which the San Francisco Bay Area Air Basin (SFBAAB) is in attainment relative to the NAAQS and/or CAAQS.

As to those pollutants designated as nonattainment for either the NAAQS or CAAQS in the SFBAAB (e.g., ozone, particulate matter with 10-micron diameter or less [PM_{10}], and particulate matter with 2.5-micron diameter or less [$PM_{2.5}$]), a dispersion modeling analysis of impacts relative to applicable standards was not conducted because the monitored background concentrations for the nonattainment pollutants already exceed their respective standards. Additional justification for not modeling nonattainment pollutants is provided in the applicant's Supplemental Filing (TN# 239409, 8/20/2021, p. 3.3-38). The NAAQS, CAAQS, and SFBAAB nonattainment status for each of the criteria air pollutants, as applicable, are presented in Table DR64-1.

Table DR64-1. Pollutant Modeling Summary

Pollutant	Averaging Time	Primary NAAQS (µg/m³)	CAAQS (µg/m³) [d]
PM_{10}	24-Hour	150 [a]	Nonattainment
	Annual	--	Nonattainment
$PM_{2.5}$	24-Hour	Nonattainment	--
	Annual	12 [b]	Nonattainment

Table DR64-1. Pollutant Modeling Summary

Pollutant	Averaging Time	Primary NAAQS (µg/m³)	CAAQS (µg/m³) [d]
Carbon Monoxide (CO)	1-Hour	40,000 [c]	23,000
	8-Hour	10,000 [c]	10,000
Sulfur Dioxide (SO_2)	1-Hour	196 [d]	655
	3-Hour	1,300 [c]	--
	24-Hour	365	105
	Annual	80	--
Oxides of Nitrogen (NO_x)	Annual	100 [e]	57
	1-Hour	188 [f]	339
Ozone	1-Hour	--	Nonattainment
	8-Hour	Nonattainment	Nonattainment

Notes:

[a] Not to be exceeded more than once per year on average over 3 years.
[b] Annual mean, averaged over 3 years.
[c] Not to be exceeded more than once per year.
[d] 99th percentile of 1-hour daily maximum concentrations, averaged over 3 years.
[e] Annual mean.
[f] 98th percentile of 1-hour daily maximum concentrations, averaged over 3 years.
-- : No applicable standard

Construction-phase dispersion modeling was conducted per the approach described below, including model set-up, characterization of construction-phase emission sources, estimation of modeled emissions, and identification of background ambient air concentrations. The modeled pollutant concentrations, combined with the background ambient air concentrations, were compared to the applicable NAAQS and/or CAAQS, based on the attainment pollutants and averaging times presented in Table DR64-1.

Dispersion Model Setup

Consistent with the construction-phase health risk assessment (HRA) included in the applicant's Supplemental Filing (TN# 239409, 08/20/2021, p. 3.3-28), the U.S. Environmental Protection Agency (EPA)-approved AERMOD modeling system (Version 12121) was used to calculate downwind ambient concentrations of criteria air pollutants. The meteorological data, property boundary, and receptor placement were also consistent with the construction-phase HRA described in the applicant's Supplemental Filing (TN# 239409, 08/20/2021, Section 3.3.5.2).

Source Characterization

Since emissions from construction-phase activities are generated from both tailpipe exhaust and fugitive dust, two source types were used to characterize emissions release in the dispersion model. Exhaust tailpipe emissions were characterized as a grid of 437 point sources covering the entire property, with a spacing of 25 meters and stack exhaust parameters consistent with the applicant's Supplemental Filing (TN# 239409, 08/20/2021, p. 3.3-29). Fugitive dust emissions from roadways, grading activities, and material loading/unloading were characterized as a single area-poly source within the property, with a 50-foot buffer from the nearest property boundary and assuming a ground-level release. This approach is conservative for modeling ground-level fugitive emissions with no initial vertical dimension and assumes grading activities would not continuously occur within 50-feet of the proposed facility fence line. Figure DR64-1 shows the AERMOD model setup.

Figure DR64-1. Model Layout

Table DR64-2 summarizes the source parameter characterization within AERMOD.

Table DR64-2. Construction-Phase Model Source Parameters

Source ID	Source Description	Stack Height (m)	Temperature (K)	Exit Velocity (m/s)	Stack Diameter (m)	Release Height (m)	Initial Vertical Dimension (m)
CPS_01 – CPS_437	Grid of Construction Point Sources	4.6	533	18	0.13	--	--
AS_01	Area-Poly Fugitive Source	--	--	--	--	0.0	0.0

Notes:
m: meter(s)
m/s: meter(s) per second
K: degrees Kelvin

Emissions Estimation

Since construction emissions would occur for 10-hours per day between the hours of 7:00 a.m. and 7:00 p.m., the AERMOD HROFDAY factor was used. This allows the model to only calculate emissions from construction during the hours in which the equipment could operate.

Emissions from the construction-phase activities of tailpipe exhaust and fugitive dust were calculated from the emissions presented in the applicant's Supplemental Filing (TN# 239413, 08/20/2021, Appendix 3.3A), with the following additional refinements:

- Removed demolition emissions to reflect the fact that all structures previously onsite have been removed since the initial filing of the Supplemental Filing (TN# 239409, 08/20/2021).
- Fugitive dust mitigation increased from 55 percent to 61 percent based on watering disturbed areas every 3 hours (control efficiency taken from Table XI-A of the South Coast Air Quality Management District's (SCAQMD) *California Environmental Quality Act (CEQA) Air Quality Handbook* for Construction & Demolition[1]) for the following sources of fugitive dust:
  - Loading of debris/building waste
  - Dismemberment and collapse of structures
  - Grading equipment passes
  - Truck dumping on a pile or loading to a truck from a pile
- Fugitive dust mitigation increased from 55 percent to 84 percent based on applying dust suppressant annually (control efficiency taken from Table XI-A of the SCAQMD's *CEQA Air Quality Handbook* for Travel Over Unpaved Roads) for unpaved roads throughout the site.
- Assumed a mix of Tier 3/Tier 4 equipment for $PM_{2.5}$ emissions, consistent with the approach used in the Supplemental Filing (TN# 239409, 08/20/2021) to estimate PM_{10} and NO_x emissions.

The control measures described above will be in addition to those presented in the Supplemental Filing (TN# 239409, 08/20/2021, p. 3.3-15), but will similarly be incorporated into the project's design features and implemented by the applicant during construction activities.

A revised Appendix 3.3A is included as Attachment DR64-1. Table DR64-3 summarizes the emissions used to establish emission rates for construction-phase dispersion modeling.

Table DR64-3. Onsite Construction Emissions for Modeling

Onsite Construction [a]	Criteria Pollutant Emissions [d]						
	CO	NO_X	SO_X	PM_{10}	$PM_{2.5}$	Fugitive PM_{10}	Fugitive $PM_{2.5}$
Maximum Daily Emissions (lb/day)	56.3	45.5	0.15	2.01	2.01	34.0	3.40
Maximum Hourly Emissions (lb/hour) [b]	4.69	3.79	0.01	0.17	0.17	2.83	0.28
Average Annual Emissions (tpy) [c]	4.07	2.56	0.01	0.12	0.12	1.43	0.14

Notes:

[a] For purposes of determining air quality impacts associated with construction activities, only emissions from onsite construction activities were evaluated. This includes emissions resulting from operation of onsite construction equipment and vehicles, as well as onsite fugitive dust emissions. It was also assumed that construction activities would occur for up to 10 hours per day.

[b] Hourly project emissions were calculated based on the assumption that these construction emissions could occur within a 12-hour window.

[c] Maximum project emissions were averaged over the entire construction duration (17 months) to determine a 12-month total for modeling.

[d] Modeling will be limited to the hours of 7 am to 7 pm in accordance with the local municipal codes for noise.

lb/day: pound(s) per day

lb/hour: pound(s) per hour

tpy: ton(s) per year

Total non-fugitive emissions (exhaust emissions) were split equally between each point source modeled. All fugitive emissions were modeled as being released from the single area-poly source.

To establish emission rates for modeling, the short-term hourly emission rates for the 1-hour, 3-hour, 8-hour, and 24-hour averaging times used the maximum 1-hour estimated emission rate. Annual emissions were input into AERMOD assuming the annual pounds per year would be evenly distributed over the potential hours of operation. That is, out of a potential 8,760 hours per year, construction activities would only occur over 50-percent of the time (12 hours in a day).

[1] South Coast Air Quality Management District (SCAQMD). 2007. *California Environmental Quality Act Air Quality Handbook*. April. Available at http://www.aqmd.gov/home/rules-compliance/ceqa/air-quality-analysis-handbook/mitigation-measures-and-control-efficiencies/fugitive-dust.

Background Concentrations

Consistent with the background ambient air concentrations used for the operational-phase ambient air quality analysis in the applicant's Supplemental Filing (TN# 239409, 08/20/2021, p. 3.3-5), Table DR64-4 presents the background ambient air concentrations used for the construction-phase ambient air quality analysis. As with Table DR64-1, nonattainment criteria air pollutants are identified and were not modeled. For each modeled criteria air pollutant and averaging time, these background ambient air concentrations were added to the applicable AERMOD-predicted concentrations at receptors at or beyond the fenceline for comparison to the NAAQS and/or CAAQS.

Table DR64-4. Background Ambient Air Concentrations

Pollutant	Averaging Time	NAAQS Background Concentration (µg/m³)	CAAQS Background Concentration (µg/m³)
PM_{10}	24-Hour	134	Nonattainment
	Annual	--	Nonattainment
$PM_{2.5}$	24-Hour	Nonattainment	--
	Annual	11.17	Nonattainment
CO	1-Hour	2,864	2,864
	8-Hour	2,406	2,406
SO_2	1-Hour	6.11	38
	3-Hour	38	--
	24-Hour	3.93	3.93
	Annual	0.55	--
NO_x	Annual	22.7	22.7
	1-Hour	97.8	162

Notes:
Background values were collected from Monitor Site ID 060850005 located at 158B Jackson Street in San Jose, California, as reported by the U.S. Environmental Protection Agency (EPA) on the Monitor Values Report Website (https://www.epa.gov/outdoor-air-quality-data/monitor-values-report).
-- : No applicable standard
µg/m³: micrograms per cubic meter

Model Results

Based on the approach described above, Tables DR64-5 and DR64-6 summarize the total predicted construction-phase pollutant concentrations compared to the NAAQs and CAAQS, respectively.

Table DR64-5. NAAQS Model Results

Pollutant	Averaging Time	NAAQS Modeled Concentration (µg/m³)	Background Concentration (µg/m³) [a]	Total Predicted Concentration (µg/m³)	Primary NAAQS (µg/m³)
PM_{10}	24-Hour [b]	13.29	134	147.29	150
$PM_{2.5}$	Annual [c]	0.16	11.17	11.3	12
CO	1-Hour [d]	28.0	2,864	2,892	40,000
	8-Hour [d]	13.0	2,406	2,419	10,000
SO_2	1-Hour [e]	0.07	6.11	6.2	196
	3-Hour [f]	0.06	38.00	38.1	1300
	24-Hour [f]	0.02	3.93	3.9	365
	Annual [f]	<0.01	0.55	0.6	80
NO_x	Annual [f]	1.00	22.70	23.7	100
	1-Hour [g]	22.0	97.80	119.8	188

Notes:
[a] Background concentrations from the Jackson Street Monitor (Site ID 060850005) were used to estimate the total predicted concentrations.
[b] The total predicted concentration for the PM_{10} 24-hour standard is the 6th highest value over the five modeled years (2013-2017) combined with the representative background concentration.
[c] The total predicted concentration for the $PM_{2.5}$ annual standard is the maximum 5-year average combined with the representative background concentration.
[d] The total predicted concentrations for the CO standards, 1-hour and 8-hour, are the high-2nd-high modeled concentrations of the five individual years modeled (2013-2017) combined with the representative background concentrations.
[e] The total predicted concentration for the SO_2 1-hour standard is the high-4th-high modeled concentration averaged over five years combined with the representative hourly background concentration.
[f] The total predicted concentrations for the SO_2 standards, annual, 24-hour, and 3-hour, and NO_x annual standard are the highest modeled concentrations of the five individual years modeled (2013-2017) combined with the representative background concentrations.
[g] The total predicted concentrations for the NO_x 1-hour standard is the 5-year average, high-8th-high modeled concentrations combined with the representative hourly background concentrations.

Table DR64-6. CAAQS Model Results

Pollutant	Averaging Time	CAAQS Maximum Modeled Concentration (µg/m³) [a]	Background Concentration (µg/m³) [b]	Total Predicted Concentration (µg/m³)	CAAQS (µg/m³)
CO	1-Hour	28.22	2,864	2,892.2	23,000
	8-Hour	13.17	2,406	2,419.2	10,000
SO_2	1-Hour	0.07	38	38.1	655
	24-Hour	0.02	3.930	3.9	105
NO_x	Annual	1.00	22.7	23.7	57
	1-Hour	22.80	162.0	184.8	339

Notes:
[a] The maximum modeled concentration for each pollutant and averaging period are the high-1st-high concentrations for comparison to the CAAQS.
[b] Maximum background concentrations from the Jackson Street Monitor (Site ID 060850005) were used to estimate the total predicted concentrations.

Based on the total predicted concentrations from dispersion modeling of the proposed project's construction-phase emissions, the CAAQS and NAAQS for which the SFBAAB is in attainment would not be exceeded. This supports the less-than-significant impact conclusion presented in the Supplemental Filing (TN# 239413, 08/20/2021, p. 3.3-33).

65) Please support the analysis of construction-phase criteria pollutant impacts by describing how the construction sources are represented in the dispersion model and how concentrations of criteria air pollutants during different averaging times are derived. This information should demonstrate how daytime-only construction activities are represented in the consideration of 1-hour and daily impacts.

Response: Please see the response to Data Request #64.

Land Use and Planning Data Requests

Background: Exemption from Natural Gas Prohibition

The Supplemental Filing provides a general discussion of multiple ways the project could be exempt from the City of San Jose's prohibition of natural gas infrastructure. The applicant states on page 3.11-9:

> *Section 17.845.030 of the (City of San Jose) Municipal Code prohibits natural gas infrastructure within newly constructed buildings and natural gas infrastructure extending into any system or device within a building for which an equivalent all-electric system or design is available. However, Section 17.845.040(B) provides an exception to the prohibition of natural gas infrastructure for facilities with a distributed energy resource that protects public health, safety, or economic welfare in the event of an electric grid outage, until December 31, 2024. The project would include 224 natural gas-fired generators, which will operate for load shedding, demand response and behind the meter RA in support of the electric grid as well as provide emergency power to the Project. Therefore, the project meets the necessary operational requirements for the protection of public health, safety, and economic welfare in the event of an electric grid outage. With concurrence from the City of San Jose, the project would be eligible for the exception provided under Section 17.845.040(B) of the Municipal Code. Further, the Applicant may apply for the Limited Exemption for Manufacturing and Industrial Facilities or the Hardship Exemption provided under Sections 17.845.045 and 17.845.050 of the Municipal Code, respectively.*

Data Request

83) Please provide a focused, specific description of the basis for how the project is exempt from the natural gas infrastructure prohibition discussed in Section 17.845 of the City of San Jose Municipal Code and correspondence with the City confirming the exemption.

Response: The City of San José's has been requested to provide their opinion of the applicability of Municipal Code Section 17.845 exemption to the San José Data Center project. The response will be filed when received.

Utilities And Service Systems Data Requests

Background

Sections 10910 et seq. of the California Water Code set forth the circumstances in which CEQA lead agencies must seek preparation of, or prepare themselves, water supply assessments (WSA) for proposed projects that meet certain criteria. One of the criteria is if a project's water demand is equal to or exceeds the total demand of 500 dwelling units. In the state of California, the demand of a dwelling unit ranges from 0.25 to 0.5 AFY, depending on several factors, such as the area and the cost of water, among many other. Using those numbers, the demand of 500 dwelling units is between 125 and 250 AFY. Since the demand of the revised San Jose Data Center project would be exceed the total for 500 dwelling units, it meets this criterion and thus a WSA is needed.

A fundamental task of a WSA is to determine whether total projected water supplies available during normal, single-dry, and multiple-dry water years will meet the projected water demand associated with a proposed project, in addition to the water supplier's existing and planned future uses. When making such a determination, the authors of the WSA must address several factors including information regarding existing water supplies, projected water demand, and dry year supply and demand. Suppliers are expressly permitted to rely on information contained in the most recently adopted Urban Water Management Plans, so long as the water needed for the proposed project was accounted for therein.

In the original SPPE application the applicant relied on a WSA that was prepared by the city of San Jose for a previous version of the San Jose Data Center. The water demand for that project was approximately 130 AFY. The city determined that it had sufficient supplies to meet the previous project's needs. CEQA allows a project to tier off an approved Environmental Impact Report (EIR) if the impact of a newly proposed project was accounted for in the approved EIR, or if the impact of the newly proposed project is comparable to that of the project for which the EIR was approved if that project has been canceled. However, the impact is substantially greater than that of the canceled project (535 AFY vs. 130 AFY). The assumption that the conclusion of the previous WSA that sufficient water supply was available for the project would still apply to the revised project, whose water demand is more than four times that of the project for which the WSA was prepared, is not valid.

Staff would like to know if the applicant contacted the City regarding the preparation of a new WSA for the revised project and the likelihood that the City would approve the request for total expected water demand (recycled and potable).

Data Requests

89) Please consult with the City on the need to prepare a new WSA for the revised project and provide any information the applicant might have regarding the time frame for the City to process the request.

Response: The SJC Data Center's projected water demand is divided into two categories, potable water demand and recycled water demand. As provided in the Applicant's SPPE Application Supplemental Filing, submitted and docketed on August 20, 2021, the Project's protected potable water demand is 1 acre feet per year (AFY), and the Project's operational recycled water demand is 535 AFY, and this information has been updated to account for the switch to natural gas emergency back-up generators. (SPPE Supplement, Vol. 2, p. 3.19-4, 3.19-6.) More recently, the Applicant obtained more detailed information on water use for the back-up generators, and recently submitted a revised data center recycled water demand figure of 423 AFY. (Transaction Number 240082). Of this recycled water demand, the project will use up to 1 acre-foot per year for landscape irrigation, which is only expected for the first year after the initial planting).

Thus, the SJC Data Center's total water demand, both for potable and recycled water, is significantly less than the previous amounts evaluated in the prior Environmental Impact Report ("EIR") and the 2017 Water Supply Assessment ("2017 WSA"), which both assumed a potable water demand for the data center use of 12.1 AFY and recycled water demand of 1,643 AFY for cooling purposes for the data

center. (See 237 Industrial Center Project Draft EIR, p. 227; 2017 WSA, p. 9.) See Table DR-89 comparing the current project water demand with the assumptions for demand in the 2017 WSA.

The background section of Staff's Data Request 89 compares the 2017 WSA's *potable* water demand figures to the current *recycled* water demand figures—resulting in an inaccurate comparison. Nevertheless, the applicant consulted with the City of San Jose regarding reliance on the previous 2017 WSA. Attachment DR-89 confirms that the City does not require a new Water Supply Assessment for the revised project given that the current water demand projections are significantly less than what was covered in the 2017 WSA.

Table DR-89 Comparison of the Water Supply Assessment Water Demand to the Project's Water Demand

Water Supply Assessment Site Use	**Potable Demand AFY**	**Recycled Demand AFY**
Light Industry	117.4	29.4
Data Center Cooling	0	1643.3
Data Center Domestic	12.1	0
Total WSA Water Demand	**129.5**	**1673**
SJC Water Demand	**1**	**423**

Attachment DR64-1
San José Data Center Construction Emissions Estimates

Appendix 3.3A, Table 1

Construction Emissions Summary and Threshold Comparison

Lightspeed SJC02

Revised November 2021

Lightspeed SJC02 Construction Emissions

Construction	Criteria Pollutant Emissions					
	CO	VOC	NO_X	SO_X	PM_{10} [d]	$PM_{2.5}$ [d]
Average Daily Emissions (lb/day) [e]	70.7	9.71	53.5	0.24	22.0	4.72
Maximum Project Emissions (tons)	13.2	1.82	10.0	0.04	4.12	0.88
BAAQMD Thresholds of Significance (lb/day) [a]	--	54	54	--	82	54
Exceeds Threshold (Y/N)?	N	N	N	N	N	N

Construction	GHG Emissions			
	CO_2	N_2O	CH_4	CO_2e [b]
Average Daily Emissions (metric tons/day) [e]	10.0	3.74E-04	1.12E-04	10.2
Maximum Project Emissions (metric tons)	3,756	1.40E-01	4.19E-02	3,799
BAAQMD Thresholds of Significance (metric tons/year) [b, c]	--	--	--	10,000
Exceeds Threshold (Y/N)?	N	N	N	N

Notes:

[a] BAAQMD Thresholds of Significance taken from Table 2-1 of the *2017 CEQA Air Quality Guidelines* (BAAQMD 2017c).

[b] The following global warming potentials were used to estimate CO_2 equivalent emissions, per 40 CFR Part 98, Table A-1:

CH_4 = 25

N_2O = 298

[c] BAAQMD does not have a GHG significance threshold for construction so, instead, the operation threshold was used. This threshold is applicable to stationary-source projects based on processes and equipment that would require an Air District permit to operate.

[d] These estimates conservatively include fugitive dust emissions, even though the significance threshold is specific to exhaust emissions only.

[e] Although peak daily emissions may be higher than what is reported here, the BAAQMD's significance thresholds are average daily thresholds. Accordingly, the results reported here are the total project emissions averaged over the entire construction duration.

Appendix 3.3A, Table 2
Construction Emissions Summary by Source Category
Lightspeed SJC02
Revised November 2021

CO Emissions

Emission Source	CO Emissions by Month																
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Onsite Construction Equipment																	
Total (lb/month)	658.95	658.95	658.95	1,216.67	1,234.29	1,130.15	1,207.70	1,107.91	812.81	568.96	568.96	457.91	457.91	262.47	163.35	131.23	131.23
Total (lb/day)	29.95	29.95	29.95	55.30	56.10	51.37	54.90	50.36	36.95	25.86	25.86	20.81	20.81	11.93	7.42	5.97	5.97
Onsite Construction Vehicle																	
Total (lb/month)	21.95	21.95	21.95	21.95	3.42	2.58	2.58	2.58	2.58	2.35	0.80	0.80	0.80	0.80	0.80	0.80	0.40
Total (lb/day)	1.00	1.00	1.00	1.00	0.16	0.12	0.12	0.12	0.12	0.11	0.04	0.04	0.04	0.04	0.04	0.04	0.02
Offsite Construction Equipment																	
Total (lb/month)	744.47	744.47	744.47	1,152.33	1,017.57	913.44	823.49	723.70	706.26	467.16	405.00	735.02	539.55	539.55	539.55	495.59	32.12
Total (lb/day)	33.84	33.84	33.84	52.38	46.25	41.52	37.43	32.90	32.10	21.23	18.41	33.41	24.53	24.53	24.53	22.53	1.46
Offsite Construction Vehicle																	
Total (lb/month)	2.57	2.57	2.57	2.57	2.57	2.57	2.57	2.57	5.96	5.52	1.90	1.90	1.90	1.45	1.45	1.45	0.40
Total (lb/day)	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.27	0.25	0.09	0.09	0.09	0.07	0.07	0.07	0.02
Onroad Construction Vehicle																	
Total (lb/month)	123.11	123.11	125.12	129.16	187.72	196.81	202.87	205.90	222.05	233.72	294.66	307.39	311.94	314.67	260.10	197.08	97.95
Total (lb/day)	5.60	5.60	5.69	5.87	8.53	8.95	9.22	9.36	10.09	10.62	13.39	13.97	14.18	14.30	11.82	8.96	4.45
Total Project CO Emissions (Construction Equipment and Vehicles)																	
Maximum Monthly Emissions (lb/month)	**1,551.05**	**1,551.05**	**1,553.07**	**2,522.68**	**2,445.58**	**2,245.55**	**2,239.21**	**2,042.65**	**1,749.66**	**1,277.71**	**1,271.32**	**1,503.02**	**1,312.10**	**1,118.93**	**965.25**	**826.15**	**262.09**
Maximum Daily Emissions (lb/day)	**70.50**	**70.50**	**70.59**	**114.67**	**111.16**	**102.07**	**101.78**	**92.85**	**79.53**	**58.08**	**57.79**	**68.32**	**59.64**	**50.86**	**43.87**	**37.55**	**11.91**
Maximum Project Emissions (tons)	**13.22**																
Average Daily Emissions (lb/day) [a]	**70.69**																

VOC Emissions

Emission Source	VOC Emissions by Month																
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Onsite Construction Equipment																	
Total (lb/month)	83.92	83.92	83.92	175.35	189.51	178.07	200.52	174.34	105.03	76.77	76.77	72.55	72.55	40.45	23.78	20.23	20.23
Total (lb/day)	3.81	3.81	3.81	7.97	8.61	8.09	9.11	7.92	4.77	3.49	3.49	3.30	3.30	1.84	1.08	0.92	0.92
Onsite Construction Vehicle																	
Total (lb/month)	6.60	6.60	6.60	6.60	0.84	0.58	0.58	0.58	0.58	0.45	0.05	0.05	0.05	0.05	0.05	0.05	0.03
Total (lb/day)	0.30	0.30	0.30	0.30	0.04	0.03	0.03	0.03	0.03	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite Construction Equipment																	
Total (lb/month)	85.14	85.14	85.14	160.38	157.21	145.76	125.21	99.03	89.90	57.48	52.33	120.12	92.78	92.78	92.78	83.35	3.56
Total (lb/day)	3.87	3.87	3.87	7.29	7.15	6.63	5.69	4.50	4.09	2.61	2.38	5.46	4.22	4.22	4.22	3.79	0.16
Offsite Construction Vehicle																	
Total (lb/month)	0.48	0.48	0.48	0.48	0.48	0.48	0.48	0.48	1.43	1.11	0.27	0.27	0.27	0.17	0.17	0.17	0.03
Total (lb/day)	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.07	0.05	0.01	0.01	0.01	0.01	0.01	0.01	0.00
Onsite Paving																	
Total (lb/month)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.39	5.39	5.39	5.39	5.39	5.39
Total (lb/day)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.24	0.24	0.24	0.24	0.24	0.24
Onroad Construction Vehicle																	
Total (lb/month)	15.11	15.11	15.15	15.21	16.17	16.31	16.41	16.46	16.73	14.29	15.23	15.42	15.49	15.54	14.69	11.51	9.98
Total (lb/day)	0.69	0.69	0.69	0.69	0.73	0.74	0.75	0.75	0.76	0.65	0.69	0.70	0.70	0.71	0.67	0.52	0.45
Total Project VOC Emissions (Construction Equipment, Paving, and Vehicles)																	
Maximum Monthly Emissions (lb/month)	**191.25**	**191.25**	**191.28**	**358.02**	**364.21**	**341.21**	**343.20**	**290.89**	**213.67**	**150.10**	**144.66**	**213.81**	**186.54**	**154.38**	**136.86**	**120.69**	**39.20**
Maximum Daily Emissions (lb/day)	**8.69**	**8.69**	**8.69**	**16.27**	**16.55**	**15.51**	**15.60**	**13.22**	**9.71**	**6.82**	**6.58**	**9.72**	**8.48**	**7.02**	**6.22**	**5.49**	**1.78**
Maximum Project Emissions (tons)	**1.82**																
Average Daily Emissions (lb/day) [a]	**9.71**																

Construction Emissions Summary by Source Category
Lightspeed SJC02
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SO_x Emissions

Emission Source	SO_x Emissions by Month																
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Onsite Construction Equipment																	
Total (lb/month)	1.68	1.68	1.68	2.92	3.20	3.06	3.07	2.70	1.73	1.34	1.34	1.27	1.27	0.83	0.46	0.41	0.41
Total (lb/day)	0.08	0.08	0.08	0.13	0.15	0.14	0.14	0.12	0.08	0.06	0.06	0.06	0.06	0.04	0.02	0.02	0.02
Onsite Construction Vehicle																	
Total (lb/month)	0.18	0.18	0.18	0.18	0.02	0.02	0.02	0.02	0.02	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total (lb/day)	0.01	0.01	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite Construction Equipment																	
Total (lb/month)	1.57	1.57	1.57	2.61	2.49	2.34	1.99	1.62	1.48	1.00	0.91	2.53	2.03	2.03	2.03	1.85	0.04
Total (lb/day)	0.07	0.07	0.07	0.12	0.11	0.11	0.09	0.07	0.07	0.05	0.04	0.11	0.09	0.09	0.09	0.08	0.00
Offsite Construction Vehicle																	
Total (lb/month)	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.04	0.04	0.01	0.01	0.01	0.01	0.01	0.01	0.00
Total (lb/day)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Onroad Construction Vehicle																	
Total (lb/month)	1.50	1.50	1.51	1.52	1.68	1.71	1.72	1.73	1.78	1.84	2.03	2.06	2.08	2.09	1.92	1.39	1.09
Total (lb/day)	0.07	0.07	0.07	0.07	0.08	0.08	0.08	0.08	0.08	0.08	0.09	0.09	0.09	0.09	0.09	0.06	0.05
Total Project SO_x Emissions (Construction Equipment and Vehicles)																	
Maximum Monthly Emissions (lb/month)	**4.94**	**4.94**	**4.94**	**7.24**	**7.42**	**7.14**	**6.82**	**6.08**	**5.04**	**4.24**	**4.29**	**5.87**	**5.39**	**4.95**	**4.42**	**3.66**	**1.55**
Maximum Daily Emissions (lb/day)	**0.22**	**0.22**	**0.22**	**0.33**	**0.34**	**0.32**	**0.31**	**0.28**	**0.23**	**0.19**	**0.20**	**0.27**	**0.24**	**0.23**	**0.20**	**0.17**	**0.07**
Maximum Project Emissions (tons)	**0.04**																
Average Daily Emissions (lb/day) [a]	**0.24**																

NO_x Emissions

Emission Source	NO_x Emissions by Month																
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Onsite Construction Equipment																	
Total (lb/month)	233.27	233.27	233.27	807.90	917.10	836.30	994.65	822.11	375.75	309.96	309.96	300.01	300.01	85.84	66.57	42.92	42.92
Total (lb/day)	10.60	10.60	10.60	36.72	41.69	38.01	45.21	37.37	17.08	14.09	14.09	13.64	13.64	3.90	3.03	1.95	1.95
Onsite Construction Vehicle																	
Total (lb/month)	78.20	78.20	78.20	78.20	9.45	6.33	6.33	6.33	6.33	6.04	0.07	0.07	0.07	0.07	0.07	0.07	0.03
Total (lb/day)	3.55	3.55	3.55	3.55	0.43	0.29	0.29	0.29	0.29	0.27	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite Construction Equipment																	
Total (lb/month)	270.37	270.37	270.37	777.05	844.14	763.34	598.88	426.34	363.72	262.31	257.78	268.78	178.55	178.55	178.55	96.32	23.65
Total (lb/day)	12.29	12.29	12.29	35.32	38.37	34.70	27.22	19.38	16.53	11.92	11.72	12.22	8.12	8.12	8.12	4.38	1.08
Offsite Construction Vehicle																	
Total (lb/month)	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	16.42	15.69	3.21	3.21	3.21	1.64	1.64	1.64	0.03
Total (lb/day)	0.23	0.23	0.23	0.23	0.23	0.23	0.23	0.23	0.75	0.71	0.15	0.15	0.15	0.07	0.07	0.07	0.00
Onroad Construction Vehicle																	
Total (lb/month)	419.81	419.81	419.96	420.27	424.69	425.37	425.83	426.06	427.28	373.32	377.72	378.64	378.96	379.16	375.22	276.26	269.10
Total (lb/day)	19.08	19.08	19.09	19.10	19.30	19.34	19.36	19.37	19.42	16.97	17.17	17.21	17.23	17.23	17.06	12.56	12.23
Total Project NO_x Emissions (Construction Equipment and Vehicles)																	
Maximum Monthly Emissions (lb/month)	**1,006.65**	**1,006.65**	**1,006.80**	**2,088.41**	**2,200.37**	**2,036.34**	**2,030.69**	**1,685.83**	**1,189.50**	**967.31**	**948.73**	**950.69**	**860.79**	**645.26**	**622.05**	**417.21**	**335.74**
Maximum Daily Emissions (lb/day)	**45.76**	**45.76**	**45.76**	**94.93**	**100.02**	**92.56**	**92.30**	**76.63**	**54.07**	**43.97**	**43.12**	**43.21**	**39.13**	**29.33**	**28.28**	**18.96**	**15.26**
Maximum Project Emissions (tons)	**10.00**																
Average Daily Emissions (lb/day) [a]	**53.47**																

Construction Emissions Summary by Source Category
Lightspeed SJC02
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PM_{10} Emissions

Emission Source	PM_{10} Emissions by Month																
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Demolition Fugitive Dust																	
Total (lb/month)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total (lb/day)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Onsite Construction Equipment																	
Total (lb/month)	8.36	8.36	8.36	37.35	42.23	36.57	43.99	37.44	21.27	17.60	17.60	14.66	14.66	4.50	3.91	2.25	2.25
Total (lb/day)	0.38	0.38	0.38	1.70	1.92	1.66	2.00	1.70	0.97	0.80	0.80	0.67	0.67	0.20	0.18	0.10	0.10
Onsite Construction Vehicle																	
Total (lb/month)	2.24	2.24	2.24	2.24	0.28	0.19	0.19	0.19	0.19	0.15	0.02	0.02	0.02	0.02	0.02	0.02	0.01
Total (lb/day)	0.10	0.10	0.10	0.10	0.01	0.01	0.01	0.01	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Onsite Fugitive Dust																	
Total (lb/month)	743.37	743.37	743.37	748.05	143.03	115.53	115.53	115.53	115.53	110.85	55.85	55.85	55.85	55.85	55.85	55.00	27.50
Total (lb/day)	33.79	33.79	33.79	34.00	6.50	5.25	5.25	5.25	5.25	5.04	2.54	2.54	2.54	2.54	2.54	2.50	1.25
Offsite Construction Equipment																	
Total (lb/month)	11.36	11.36	11.36	35.77	38.42	32.76	26.52	19.98	18.36	14.62	14.49	11.65	6.08	6.08	6.08	2.96	1.66
Total (lb/day)	0.52	0.52	0.52	1.63	1.75	1.49	1.21	0.91	0.83	0.66	0.66	0.53	0.28	0.28	0.28	0.13	0.08
Offsite Construction Vehicle																	
Total (lb/month)	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.47	0.35	0.09	0.09	0.09	0.06	0.06	0.06	0.01
Total (lb/day)	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.02	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite Fugitive Dust																	
Total (lb/month)	3.13	110.00	110.00	110.00	110.00	110.00	110.00	110.00	206.26	206.26	96.25	96.25	96.25	82.50	82.50	82.50	27.50
Total (lb/day)	0.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	9.38	9.38	4.38	4.38	4.38	3.75	3.75	3.75	1.25
Onroad Construction Vehicle																	
Total (lb/month)	72.85	72.85	73.58	75.03	96.10	99.37	101.55	102.64	108.45	121.82	146.15	151.23	153.05	154.14	132.35	100.25	60.68
Total (lb/day)	3.31	3.31	3.34	3.41	4.37	4.52	4.62	4.67	4.93	5.54	6.64	6.87	6.96	7.01	6.02	4.56	2.76
Total Project PM_{10} Emissions (Construction Equipment, Fugitive Dust, and Vehicles)																	
Maximum Monthly Emissions (lb/month)	**841.45**	**948.33**	**949.06**	**1,008.59**	**430.22**	**394.58**	**397.94**	**385.94**	**470.53**	**471.66**	**330.46**	**329.76**	**326.01**	**303.15**	**280.78**	**243.05**	**119.61**
Maximum Daily Emissions (lb/day)	**38.11**	**43.11**	**43.14**	**45.85**	**19.56**	**17.94**	**18.09**	**17.54**	**21.39**	**21.44**	**15.02**	**14.99**	**14.82**	**13.78**	**12.76**	**11.05**	**5.44**
Maximum Project Emissions (tons)	**4.12**																
Average Daily Emissions (lb/day) [a]	**22.01**																

$PM_{2.5}$ Emissions

Emission Source	$PM_{2.5}$ Emissions by Month																
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Demolition Fugitive Dust																	
Total (lb/month)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total (lb/day)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Onsite Construction Equipment																	
Total (lb/month)	8.36	8.36	8.36	37.35	42.23	36.57	43.99	37.44	21.27	17.60	17.60	14.66	14.66	4.50	3.91	2.25	2.25
Total (lb/day)	0.38	0.38	0.38	1.70	1.92	1.66	2.00	1.70	0.97	0.80	0.80	0.67	0.67	0.20	0.18	0.10	0.10
Onsite Construction Vehicle																	
Total (lb/month)	2.13	2.13	2.13	2.13	0.27	0.18	0.18	0.18	0.18	0.13	0.01	0.01	0.01	0.01	0.01	0.01	0.01
Total (lb/day)	0.10	0.10	0.10	0.10	0.01	0.01	0.01	0.01	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Onsite Fugitive Dust																	
Total (lb/month)	74.38	74.38	74.38	74.89	14.38	11.63	11.63	11.63	11.63	11.13	5.63	5.63	5.63	5.63	5.63	5.50	2.75
Total (lb/day)	3.38	3.38	3.38	3.40	0.65	0.53	0.53	0.53	0.53	0.51	0.26	0.26	0.26	0.26	0.26	0.25	0.13
Offsite Construction Equipment																	
Total (lb/month)	11.36	11.36	11.36	35.77	38.42	32.76	26.52	19.98	18.36	14.62	14.49	11.65	6.08	6.08	6.08	2.96	1.66
Total (lb/day)	0.52	0.52	0.52	1.63	1.75	1.49	1.21	0.91	0.83	0.66	0.66	0.53	0.28	0.28	0.28	0.13	0.08
Offsite Construction Vehicle																	
Total (lb/month)	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.44	0.32	0.07	0.07	0.07	0.04	0.04	0.04	0.01
Total (lb/day)	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.02	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite Fugitive Dust																	
Total (lb/month)	11.00	11.00	11.00	11.00	11.00	11.00	11.00	11.00	20.63	20.63	9.63	9.63	9.63	8.25	8.25	8.25	2.75
Total (lb/day)	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.94	0.94	0.44	0.44	0.44	0.38	0.38	0.38	0.13
Onroad Construction Vehicle																	
Total (lb/month)	24.72	24.72	24.92	25.31	31.04	31.93	32.52	32.82	34.39	37.24	43.85	45.23	45.72	46.02	40.10	30.83	20.08
Total (lb/day)	1.12	1.12	1.13	1.15	1.41	1.45	1.48	1.49	1.56	1.69	1.99	2.06	2.08	0.00	0.00	0.00	0.91
Total Project $PM_{2.5}$ Emissions (Construction Equipment, Fugitive Dust, and Vehicles)																	
Maximum Monthly Emissions (lb/month)	**132.09**	**132.09**	**132.29**	**186.60**	**137.48**	**124.21**	**125.98**	**113.19**	**106.91**	**101.68**	**91.28**	**86.88**	**81.81**	**70.54**	**64.03**	**49.85**	**29.50**
Maximum Daily Emissions (lb/day)	**6.00**	**6.00**	**6.01**	**8.48**	**6.25**	**5.65**	**5.73**	**5.15**	**4.86**	**4.62**	**4.15**	**3.95**	**3.72**	**1.12**	**1.09**	**0.87**	**1.34**
Maximum Project Emissions (tons)	**0.88**																
Average Daily Emissions (lb/day) [a]	**4.72**																

Construction Emissions Summary by Source Category
Lightspeed SJC02
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CO_2 Emissions

Emission Source	CO_2 Emissions by Month																
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Onsite Construction Equipment																	
Total (metric tons/month)	57.16	57.16	57.16	108.69	118.84	112.79	110.68	96.54	67.98	49.85	49.85	45.09	45.09	27.65	18.32	13.82	13.82
Total (metric tons/day)	2.60	2.60	2.60	4.94	5.40	5.13	5.03	4.39	3.09	2.27	2.27	2.05	2.05	1.26	0.83	0.63	0.63
Onsite Construction Vehicle																	
Total (metric tons/month)	3.99	3.99	3.99	3.99	0.53	0.38	0.38	0.38	0.38	0.37	0.06	0.06	0.06	0.06	0.06	0.06	0.03
Total (metric tons/day)	0.18	0.18	0.18	0.18	0.02	0.02	0.02	0.02	0.02	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite Construction Equipment																	
Total (metric tons/month)	63.96	63.96	63.96	104.33	97.66	91.61	79.02	64.89	62.31	42.35	38.78	75.74	52.92	52.92	52.92	46.63	4.50
Total (metric tons/day)	2.91	2.91	2.91	4.74	4.44	4.16	3.59	2.95	2.83	1.93	1.76	3.44	2.41	2.41	2.41	2.12	0.20
Offsite Construction Vehicle																	
Total (metric tons/month)	0.33	0.33	0.33	0.33	0.33	0.33	0.33	0.33	0.92	0.90	0.24	0.24	0.24	0.16	0.16	0.16	0.03
Total (metric tons/day)	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.04	0.04	0.01	0.01	0.01	0.01	0.01	0.01	0.00
Onroad Construction Vehicle																	
Total (metric tons/month)	84.24	84.24	84.53	85.13	93.81	95.16	96.06	96.51	98.90	102.77	112.53	114.57	115.30	115.74	107.00	76.24	60.36
Total (metric tons/day)	3.83	3.83	3.84	3.87	4.26	4.33	4.37	4.39	4.50	4.67	5.12	5.21	5.24	0.06	0.06	0.06	2.74
Total Project CO_2 Emissions (Construction Equipment and Vehicles)																	
Maximum Monthly Emissions (metric tons/month)	**209.68**	**209.68**	**209.98**	**302.47**	**311.17**	**300.27**	**286.46**	**258.64**	**230.49**	**196.25**	**201.47**	**235.70**	**213.61**	**196.52**	**178.46**	**136.91**	**78.74**
Maximum Daily Emissions (metric tons/day)	**9.53**	**9.53**	**9.54**	**13.75**	**14.14**	**13.65**	**13.02**	**11.76**	**10.48**	**8.92**	**9.16**	**10.71**	**9.71**	**3.74**	**3.31**	**2.82**	**3.58**
Maximum Project Emissions (metric tons)	**3,756.47**																
Average Daily Emissions (metric tons/day) [a]	**10.04**																

N_2O Emissions

Emission Source	N_2O Emissions by Month																
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Onsite Construction Equipment																	
Total (metric tons/month)	2.74E-03	2.74E-03	2.74E-03	5.22E-03	5.70E-03	5.41E-03	5.31E-03	4.63E-03	3.26E-03	2.39E-03	2.39E-03	2.16E-03	2.16E-03	1.33E-03	8.79E-04	6.63E-04	6.63E-04
Total (metric tons/day)	1.25E-04	1.25E-04	1.25E-04	2.37E-04	2.59E-04	2.46E-04	2.41E-04	2.11E-04	1.48E-04	1.09E-04	1.09E-04	9.84E-05	9.84E-05	6.03E-05	4.00E-05	3.02E-05	3.02E-05
Onsite Construction Vehicle																	
Total (metric tons/month)	9.51E-05	9.51E-05	9.51E-05	9.51E-05	1.16E-05	7.85E-06	7.85E-06	7.85E-06	7.85E-06	7.85E-06	2.64E-07	2.64E-07	2.64E-07	2.64E-07	2.64E-07	2.64E-07	1.32E-07
Total (metric tons/day)	4.32E-06	4.32E-06	4.32E-06	4.32E-06	5.29E-07	3.57E-07	3.57E-07	3.57E-07	3.57E-07	3.57E-07	1.20E-08	1.20E-08	1.20E-08	1.20E-08	1.20E-08	1.20E-08	6.00E-09
Offsite Construction Equipment																	
Total (metric tons/month)	3.07E-03	3.07E-03	3.07E-03	5.01E-03	4.69E-03	4.40E-03	3.79E-03	3.11E-03	2.99E-03	2.03E-03	1.86E-03	3.63E-03	2.54E-03	2.54E-03	2.54E-03	2.24E-03	2.16E-04
Total (metric tons/day)	1.40E-04	1.40E-04	1.40E-04	2.28E-04	2.13E-04	2.00E-04	1.72E-04	1.42E-04	1.36E-04	9.24E-05	8.46E-05	1.65E-04	1.15E-04	1.15E-04	1.15E-04	1.02E-04	9.81E-06
Offsite Construction Vehicle																	
Total (metric tons/month)	6.02E-06	6.02E-06	6.02E-06	6.02E-06	6.02E-06	6.02E-06	6.02E-06	6.02E-06	1.93E-05	1.93E-05	4.12E-06	4.12E-06	4.12E-06	2.23E-06	2.23E-06	2.23E-06	1.32E-07
Total (metric tons/day)	2.74E-07	2.74E-07	2.74E-07	2.74E-07	2.74E-07	2.74E-07	2.74E-07	2.74E-07	8.77E-07	8.77E-07	1.87E-07	1.87E-07	1.87E-07	1.01E-07	1.01E-07	1.01E-07	6.00E-09
Onroad Construction Vehicle																	
Total (metric tons/month)	2.24E-03	2.24E-03	2.24E-03	2.24E-03	2.29E-03	2.29E-03	2.30E-03	2.30E-03	2.31E-03	2.34E-03	2.39E-03	2.41E-03	2.41E-03	2.41E-03	2.37E-03	1.79E-03	1.70E-03
Total (metric tons/day)	1.02E-04	1.02E-04	1.02E-04	1.02E-04	1.04E-04	1.04E-04	1.05E-04	1.05E-04	1.05E-04	1.07E-04	1.09E-04	1.09E-04	1.10E-04	1.10E-04	1.08E-04	8.12E-05	7.75E-05
Total Project N_2O Emissions (Construction Equipment and Vehicles)																	
Maximum Monthly Emissions (metric tons/month)	**8.15E-03**	**8.15E-03**	**8.15E-03**	**1.26E-02**	**1.27E-02**	**1.21E-02**	**1.14E-02**	**1.01E-02**	**8.59E-03**	**6.80E-03**	**6.65E-03**	**8.21E-03**	**7.12E-03**	**6.28E-03**	**5.79E-03**	**4.69E-03**	**2.58E-03**
Maximum Daily Emissions (metric tons/day)	**3.71E-04**	**3.71E-04**	**3.71E-04**	**5.71E-04**	**5.77E-04**	**5.51E-04**	**5.19E-04**	**4.57E-04**	**3.91E-04**	**3.09E-04**	**3.02E-04**	**3.73E-04**	**3.24E-04**	**2.85E-04**	**2.63E-04**	**2.13E-04**	**1.17E-04**
Maximum Project Emissions (metric tons)	**1.40E-01**																
Average Daily Emissions (metric tons/day) [a]	**3.74E-04**																

Construction Emissions Summary by Source Category
Lightspeed SJC02
Revised November 2021

CH_4 Emissions

Emission Source	CH_4 Emissions by Month																
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Onsite Construction Equipment																	
Total (metric tons/month)	7.28E-04	7.28E-04	7.28E-04	1.38E-03	1.51E-03	1.44E-03	1.41E-03	1.23E-03	8.66E-04	6.35E-04	6.35E-04	5.74E-04	5.74E-04	3.52E-04	2.33E-04	1.76E-04	1.76E-04
Total (metric tons/day)	3.31E-05	3.31E-05	3.31E-05	6.29E-05	6.88E-05	6.53E-05	6.41E-05	5.59E-05	3.93E-05	2.89E-05	2.89E-05	2.61E-05	2.61E-05	1.60E-05	1.06E-05	8.00E-06	8.00E-06
Onsite Construction Vehicle																	
Total (metric tons/month)	2.75E-05	2.75E-05	2.75E-05	2.75E-05	4.55E-06	3.51E-06	3.51E-06	3.51E-06	3.51E-06	3.51E-06	1.43E-06	1.43E-06	1.43E-06	1.43E-06	1.43E-06	1.43E-06	7.13E-07
Total (metric tons/day)	2.35E-07	1.25E-06	1.25E-06	1.25E-06	2.07E-07	1.59E-07	1.59E-07	1.59E-07	1.59E-07	1.59E-07	6.48E-08	6.48E-08	6.48E-08	6.48E-08	6.48E-08	6.48E-08	3.24E-08
Offsite Construction Equipment																	
Total (metric tons/month)	8.14E-04	8.14E-04	8.14E-04	1.33E-03	1.24E-03	1.17E-03	1.01E-03	8.26E-04	7.93E-04	5.39E-04	4.94E-04	9.64E-04	6.74E-04	6.74E-04	6.74E-04	5.94E-04	5.73E-05
Total (metric tons/day)	3.70E-05	3.70E-05	3.70E-05	6.04E-05	5.65E-05	5.30E-05	4.57E-05	3.76E-05	3.61E-05	2.45E-05	2.24E-05	4.38E-05	3.06E-05	3.06E-05	3.06E-05	2.70E-05	2.60E-06
Offsite Construction Vehicle																	
Total (metric tons/month)	3.65E-06	3.65E-06	3.65E-06	3.65E-06	3.65E-06	3.65E-06	3.65E-06	3.65E-06	8.01E-06	8.00E-06	3.03E-06	3.03E-06	3.03E-06	2.40E-06	2.40E-06	2.40E-06	7.13E-07
Total (metric tons/day)	2.85E-08	1.66E-07	1.66E-07	1.66E-07	1.66E-07	1.66E-07	1.66E-07	1.66E-07	3.64E-07	3.64E-07	1.38E-07	1.38E-07	1.38E-07	1.09E-07	1.09E-07	1.09E-07	3.24E-08
Onroad Construction Vehicle																	
Total (metric tons/month)	6.41E-04	6.41E-04	6.46E-04	6.56E-04	7.99E-04	8.22E-04	8.37E-04	8.44E-04	8.83E-04	9.82E-04	1.15E-03	1.18E-03	1.19E-03	1.20E-03	1.05E-03	7.93E-04	5.24E-04
Total (metric tons/day)	2.91E-05	2.91E-05	2.94E-05	2.98E-05	3.63E-05	3.73E-05	3.80E-05	3.84E-05	4.02E-05	4.46E-05	5.22E-05	5.37E-05	5.43E-05	5.46E-05	4.79E-05	3.61E-05	2.38E-05
Total Project CH_4 Emissions (Construction Equipment and Vehicles)																	
Maximum Monthly Emissions (metric tons/month)	**2.21E-03**	**2.21E-03**	**2.22E-03**	**3.40E-03**	**3.56E-03**	**3.43E-03**	**3.26E-03**	**2.91E-03**	**2.55E-03**	**2.17E-03**	**2.28E-03**	**2.72E-03**	**2.45E-03**	**2.23E-03**	**1.96E-03**	**1.57E-03**	**7.59E-04**
Maximum Daily Emissions (metric tons/day)	**9.95E-05**	**1.01E-04**	**1.01E-04**	**1.55E-04**	**1.62E-04**	**1.56E-04**	**1.48E-04**	**1.32E-04**	**1.16E-04**	**9.85E-05**	**1.04E-04**	**1.24E-04**	**1.11E-04**	**1.01E-04**	**8.93E-05**	**7.12E-05**	**3.45E-05**
Maximum Project Emissions (metric tons)	**4.19E-02**																
Average Daily Emissions (metric tons/day) [a]	**1.12E-04**																

Notes:
[a] The days per month for construction in the data above was provided by the Applicant's engineering contractor.

Appendix 3.3A, Table 3
Number of Onsite Construction Equipment and Vehicles
Lightspeed SJC02
August 2021

Number of Onsite Construction Equipment for Lightspeed SJC02 Construction

Onsite Equipment	Number per Day [a]																
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Water Truck	2	2	2	2	2	2	2	2	2	2	2	2	2	2	1	1	1
Excavator [b]	4	4	4	4	2	2	2	2	2	0	0	0	0	0	0	0	0
Grader	0	0	0	4	4	4	4	2	1	0	0	0	0	0	0	0	0
Cranes [c]	0	0	0	0	0	0	4	4	0	1	1	2	2	0	0	0	0
Backhoe	0	0	0	1	2	2	1	1	1	1	1	0	0	0	0	0	0
Rubber Tired Loader [d]	2	2	2	2	3	3	1	1	0	0	0	0	0	0	0	0	0
Forklift	0	0	0	1	2	2	2	2	3	3	3	3	3	2	2	1	1
Roller [e]	0	0	0	4	4	2	2	2	2	2	2	0	0	0	0	0	0
Bore/Drill Rigs [f]	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0
Other General Industrial Equipment [g]	0	0	0	1	1	1	2	2	2	1	1	1	1	0	0	0	0

Notes:
[a] Equipment counts presented above were provided by the Applicant's engineering contractor.
[b] The Hydraulic Hammer for the Excavator was not included in the above table, or resulting emissions estimates, as they are expected to be hydraulically-powered with negligible emissions.
[c] Numbers presented for Cranes include the equipment counts for the 75 Ton Hydraulic Crane, 35 Ton Hydraulic Crane, and Heavy Lift Lattice Boom Main Crane.
[d] Numbers presented for Rubber Tired Loader include the equipment counts for the Front End Loader.
[e] Numbers presented for Roller include the equipment counts for the Compactor.
[f] Numbers presented for Bore/Drill Rigs include the equipment counts for the Horizontal Directional Drill Equipment.
[g] Numbers presented for Other General Industrial Equipment include the equipment counts for the Light Towers.

Number of Onsite Vehicles for Lightspeed SJC02 Construction

Vehicle Type	Number per Day [a]																
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Pick-up Truck	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	1
Dump Truck	25	25	25	25	3	2	2	2	2	2	0	0	0	0	0	0	0

Notes:
[a] Vehicle counts presented above were provided by the Applicant's engineering contractor.

Appendix 3.3A, Table 4
Onsite Construction Equipment Emissions
Lightspeed SJC02
Revised November 2021

Onsite Construction Equipment CO Emissions from Lightspeed SJC02 Construction

Onsite Equipment	CO Emissions (lb/month)																
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Water Truck	209.55	209.55	209.55	209.55	209.55	209.55	209.55	209.55	209.55	198.24	198.24	198.24	198.24	198.24	99.12	99.12	99.12
Excavator	359.45	359.45	359.45	359.45	179.73	179.73	179.73	179.73	179.73	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Grader	0.00	0.00	0.00	199.59	199.59	199.59	199.59	99.79	49.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Cranes	0.00	0.00	0.00	0.00	0.00	0.00	232.69	232.69	0.00	54.53	54.53	109.05	109.05	0.00	0.00	0.00	0.00
Backhoe	0.00	0.00	0.00	62.69	125.38	125.38	62.69	62.69	62.69	62.16	62.16	0.00	0.00	0.00	0.00	0.00	0.00
Rubber Tired Loader	89.95	89.95	89.95	89.95	134.92	134.92	44.97	44.97	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Forklift	0.00	0.00	0.00	32.46	64.91	64.91	64.91	64.91	97.37	96.35	96.35	96.35	96.35	64.23	64.23	32.12	32.12
Roller	0.00	0.00	0.00	208.27	208.27	104.13	104.13	104.13	104.13	103.42	103.42	0.00	0.00	0.00	0.00	0.00	0.00
Bore/Drill Rigs	0.00	0.00	0.00	0.00	57.22	57.22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Other General Industrial Equipment	0.00	0.00	0.00	54.72	54.72	54.72	109.44	109.44	109.44	54.28	54.28	54.28	54.28	0.00	0.00	0.00	0.00
Onsite Total (lb/month)	**658.95**	**658.95**	**658.95**	**1,216.67**	**1,234.29**	**1,130.15**	**1,207.70**	**1,107.91**	**812.81**	**568.96**	**568.96**	**457.91**	**457.91**	**262.47**	**163.35**	**131.23**	**131.23**
Onsite Total (lb/day) [a]	**29.95**	**29.95**	**29.95**	**55.30**	**56.10**	**51.37**	**54.90**	**50.36**	**36.95**	**25.86**	**25.86**	**20.81**	**20.81**	**11.93**	**7.42**	**5.97**	**5.97**
Onsite Project Total (tons)	**5.71**																

Onsite Construction Equipment VOC Emissions from Lightspeed SJC02 Construction

Onsite Equipment	VOC Emissions (lb/month)																
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Water Truck	36.45	36.45	36.45	36.45	36.45	36.45	36.45	36.45	36.45	33.34	33.34	33.34	33.34	33.34	16.67	16.67	16.67
Excavator	26.91	26.91	26.91	26.91	13.45	13.45	13.45	13.45	13.45	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Grader	0.00	0.00	0.00	52.36	52.36	52.36	52.36	26.18	13.09	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Cranes	0.00	0.00	0.00	0.00	0.00	0.00	49.91	49.91	0.00	11.34	11.34	22.68	22.68	0.00	0.00	0.00	0.00
Backhoe	0.00	0.00	0.00	5.76	11.52	11.52	5.76	5.76	5.76	5.15	5.15	0.00	0.00	0.00	0.00	0.00	0.00
Rubber Tired Loader	20.56	20.56	20.56	20.56	30.84	30.84	10.28	10.28	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Forklift	0.00	0.00	0.00	3.96	7.93	7.93	7.93	7.93	11.89	10.67	10.67	10.67	10.67	7.11	7.11	3.56	3.56
Roller	0.00	0.00	0.00	22.88	22.88	11.44	11.44	11.44	11.44	10.41	10.41	0.00	0.00	0.00	0.00	0.00	0.00
Bore/Drill Rigs	0.00	0.00	0.00	0.00	7.61	7.61	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Other General Industrial Equipment	0.00	0.00	0.00	6.47	6.47	6.47	12.94	12.94	12.94	5.86	5.86	5.86	5.86	0.00	0.00	0.00	0.00
Onsite Total (lb/month)	**83.92**	**83.92**	**83.92**	**175.35**	**189.51**	**178.07**	**200.52**	**174.34**	**105.03**	**76.77**	**76.77**	**72.55**	**72.55**	**40.45**	**23.78**	**20.23**	**20.23**
Onsite Total (lb/day) [a]	**3.81**	**3.81**	**3.81**	**7.97**	**8.61**	**8.09**	**9.11**	**7.92**	**4.77**	**3.49**	**3.49**	**3.30**	**3.30**	**1.84**	**1.08**	**0.92**	**0.92**
Onsite Project Total (tons)	**0.84**																

Onsite Construction Equipment NO_X Emissions from Lightspeed SJC02 Construction

Onsite Equipment	NO_X Emissions (lb/month)																
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Water Truck	38.53	38.53	38.53	38.53	38.53	38.53	38.53	38.53	38.53	38.53	38.53	38.53	38.53	38.53	19.26	19.26	19.26
Excavator	30.28	30.28	30.28	30.28	15.14	15.14	15.14	15.14	15.14	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Grader	0.00	0.00	0.00	345.08	345.08	345.08	345.08	172.54	86.27	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Cranes	0.00	0.00	0.00	0.00	0.00	0.00	301.51	301.51	0.00	75.38	75.38	150.76	150.76	0.00	0.00	0.00	0.00
Backhoe	0.00	0.00	0.00	4.53	9.05	9.05	4.53	4.53	4.53	4.53	4.53	0.00	0.00	0.00	0.00	0.00	0.00
Rubber Tired Loader	164.46	164.46	164.46	164.46	246.69	246.69	82.23	82.23	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Forklift	0.00	0.00	0.00	23.65	47.31	47.31	47.31	47.31	70.96	70.96	70.96	70.96	70.96	47.31	47.31	23.65	23.65
Roller	0.00	0.00	0.00	161.60	161.60	80.80	80.80	80.80	80.80	80.80	80.80	0.00	0.00	0.00	0.00	0.00	0.00
Bore/Drill Rigs	0.00	0.00	0.00	0.00	13.93	13.93	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Other General Industrial Equipment	0.00	0.00	0.00	39.76	39.76	39.76	79.52	79.52	79.52	39.76	39.76	39.76	39.76	0.00	0.00	0.00	0.00
Onsite Total (lb/month)	**233.27**	**233.27**	**233.27**	**807.90**	**917.10**	**836.30**	**994.65**	**822.11**	**375.75**	**309.96**	**309.96**	**300.01**	**300.01**	**85.84**	**66.57**	**42.92**	**42.92**
Onsite Total (lb/day) [a]	**10.60**	**10.60**	**10.60**	**36.72**	**41.69**	**38.01**	**45.21**	**37.37**	**17.08**	**14.09**	**14.09**	**13.64**	**13.64**	**3.90**	**3.03**	**1.95**	**1.95**
Onsite Project Total (tons)	**3.46**																

Onsite Construction Equipment Emissions
Lightspeed SJC02
Revised November 2021

Onsite Construction Equipment SO_X Emissions from Lightspeed SJC02 Construction

Onsite Equipment	SO_X Emissions (lb/month)																
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Water Truck	0.74	0.74	0.74	0.74	0.74	0.74	0.74	0.74	0.74	0.74	0.74	0.74	0.74	0.74	0.37	0.37	0.37
Excavator	0.58	0.58	0.58	0.58	0.29	0.29	0.29	0.29	0.29	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Grader	0.00	0.00	0.00	0.74	0.74	0.74	0.74	0.37	0.19	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Cranes	0.00	0.00	0.00	0.00	0.00	0.00	0.65	0.65	0.00	0.16	0.16	0.32	0.32	0.00	0.00	0.00	0.00
Backhoe	0.00	0.00	0.00	0.09	0.17	0.17	0.09	0.09	0.09	0.09	0.09	0.00	0.00	0.00	0.00	0.00	0.00
Rubber Tired Loader	0.35	0.35	0.35	0.35	0.53	0.53	0.18	0.18	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Forklift	0.00	0.00	0.00	0.04	0.09	0.09	0.09	0.09	0.13	0.13	0.13	0.13	0.13	0.09	0.09	0.04	0.04
Roller	0.00	0.00	0.00	0.29	0.29	0.15	0.15	0.15	0.15	0.15	0.15	0.00	0.00	0.00	0.00	0.00	0.00
Bore/Drill Rigs	0.00	0.00	0.00	0.00	0.27	0.27	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Other General Industrial Equipment	0.00	0.00	0.00	0.07	0.07	0.07	0.15	0.15	0.15	0.07	0.07	0.07	0.07	0.00	0.00	0.00	0.00
Onsite Total (lb/month)	**1.68**	**1.68**	**1.68**	**2.92**	**3.20**	**3.06**	**3.07**	**2.70**	**1.73**	**1.34**	**1.34**	**1.27**	**1.27**	**0.83**	**0.46**	**0.41**	**0.41**
Onsite Total (lb/day) [a]	**0.08**	**0.08**	**0.08**	**0.13**	**0.15**	**0.14**	**0.14**	**0.12**	**0.08**	**0.06**	**0.06**	**0.06**	**0.06**	**0.04**	**0.02**	**0.02**	**0.02**
Onsite Project Total (tons)	**0.01**																

Onsite Construction Equipment PM_{10} Emissions from Lightspeed SJC02 Construction

Onsite Equipment	PM_{10} Emissions (lb/month)																
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Water Truck	1.19	1.19	1.19	1.19	1.19	1.19	1.19	1.19	1.19	1.19	1.19	1.19	1.19	1.19	0.59	0.59	0.59
Excavator	0.93	0.93	0.93	0.93	0.47	0.47	0.47	0.47	0.47	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Grader	0.00	0.00	0.00	13.09	13.09	13.09	13.09	6.54	3.27	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Cranes	0.00	0.00	0.00	0.00	0.00	0.00	11.44	11.44	0.00	2.86	2.86	5.72	5.72	0.00	0.00	0.00	0.00
Backhoe	0.00	0.00	0.00	0.14	0.28	0.28	0.14	0.14	0.14	0.14	0.14	0.00	0.00	0.00	0.00	0.00	0.00
Rubber Tired Loader	6.24	6.24	6.24	6.24	9.36	9.36	3.12	3.12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Forklift	0.00	0.00	0.00	1.66	3.32	3.32	3.32	3.32	4.97	4.97	4.97	4.97	4.97	3.32	3.32	1.66	1.66
Roller	0.00	0.00	0.00	11.32	11.32	5.66	5.66	5.66	5.66	5.66	5.66	0.00	0.00	0.00	0.00	0.00	0.00
Bore/Drill Rigs	0.00	0.00	0.00	0.00	0.43	0.43	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Other General Industrial Equipment	0.00	0.00	0.00	2.79	2.79	2.79	5.57	5.57	5.57	2.79	2.79	2.79	2.79	0.00	0.00	0.00	0.00
Onsite Total (lb/month)	**8.36**	**8.36**	**8.36**	**37.35**	**42.23**	**36.57**	**43.99**	**37.44**	**21.27**	**17.60**	**17.60**	**14.66**	**14.66**	**4.50**	**3.91**	**2.25**	**2.25**
Onsite Total (lb/day) [a]	**0.38**	**0.38**	**0.38**	**1.70**	**1.92**	**1.66**	**2.00**	**1.70**	**0.97**	**0.80**	**0.80**	**0.67**	**0.67**	**0.20**	**0.18**	**0.10**	**0.10**
Onsite Project Total (tons)	**0.16**																

Onsite Construction Equipment $PM_{2.5}$ Emissions from Lightspeed SJC02 Construction

Onsite Equipment	$PM_{2.5}$ Emissions (lb/month)																
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Water Truck	1.19	1.19	1.19	1.19	1.19	1.19	1.19	1.19	1.19	1.19	1.19	1.19	1.19	1.19	0.59	0.59	0.59
Excavator	0.93	0.93	0.93	0.93	0.47	0.47	0.47	0.47	0.47	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Grader	0.00	0.00	0.00	13.09	13.09	13.09	13.09	6.54	3.27	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Cranes	0.00	0.00	0.00	0.00	0.00	0.00	11.44	11.44	0.00	2.86	2.86	5.72	5.72	0.00	0.00	0.00	0.00
Backhoe	0.00	0.00	0.00	0.14	0.28	0.28	0.14	0.14	0.14	0.14	0.14	0.00	0.00	0.00	0.00	0.00	0.00
Rubber Tired Loader	6.24	6.24	6.24	6.24	9.36	9.36	3.12	3.12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Forklift	0.00	0.00	0.00	1.66	3.32	3.32	3.32	3.32	4.97	4.97	4.97	4.97	4.97	3.32	3.32	1.66	1.66
Roller	0.00	0.00	0.00	11.32	11.32	5.66	5.66	5.66	5.66	5.66	5.66	0.00	0.00	0.00	0.00	0.00	0.00
Bore/Drill Rigs	0.00	0.00	0.00	0.00	0.43	0.43	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Other General Industrial Equipment	0.00	0.00	0.00	2.79	2.79	2.79	5.57	5.57	5.57	2.79	2.79	2.79	2.79	0.00	0.00	0.00	0.00
Onsite Total (lb/month)	**8.36**	**8.36**	**8.36**	**37.35**	**42.23**	**36.57**	**43.99**	**37.44**	**21.27**	**17.60**	**17.60**	**14.66**	**14.66**	**4.50**	**3.91**	**2.25**	**2.25**
Onsite Total (lb/day) [a]	**0.38**	**0.38**	**0.38**	**1.70**	**1.92**	**1.66**	**2.00**	**1.70**	**0.97**	**0.80**	**0.80**	**0.67**	**0.67**	**0.20**	**0.18**	**0.10**	**0.10**
Onsite Project Total (tons)	**0.16**																

Onsite Construction Equipment Emissions
Lightspeed SJC02
Revised November 2021

Onsite Construction Equipment CO_2 Emissions from Lightspeed SJC02 Construction

Onsite Equipment	CO_2 Emissions (metric tons/month)																
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Water Truck	18.64	18.64	18.64	18.64	18.64	18.64	18.64	18.64	18.64	18.65	18.65	18.65	18.65	18.65	9.33	9.33	9.33
Excavator	25.93	25.93	25.93	25.93	12.96	12.96	12.96	12.96	12.96	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Grader	0.00	0.00	0.00	28.27	28.27	28.27	28.27	14.13	7.07	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Cranes	0.00	0.00	0.00	0.00	0.00	0.00	19.69	19.69	0.00	4.91	4.91	9.81	9.81	0.00	0.00	0.00	0.00
Backhoe	0.00	0.00	0.00	3.57	7.14	7.14	3.57	3.57	3.57	3.57	3.57	0.00	0.00	0.00	0.00	0.00	0.00
Rubber Tired Loader	12.59	12.59	12.59	12.59	18.89	18.89	6.30	6.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Forklift	0.00	0.00	0.00	4.49	8.99	8.99	8.99	8.99	13.48	13.49	13.49	13.49	13.49	8.99	8.99	4.50	4.50
Roller	0.00	0.00	0.00	12.10	12.10	6.05	6.05	6.05	6.05	6.10	6.10	0.00	0.00	0.00	0.00	0.00	0.00
Bore/Drill Rigs	0.00	0.00	0.00	0.00	8.75	8.75	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Other General Industrial Equipment	0.00	0.00	0.00	3.11	3.11	3.11	6.21	6.21	6.21	3.13	3.13	3.13	3.13	0.00	0.00	0.00	0.00
Onsite Total (metric tons/month)	**57.16**	**57.16**	**57.16**	**108.69**	**118.84**	**112.79**	**110.68**	**96.54**	**67.98**	**49.85**	**49.85**	**45.09**	**45.09**	**27.65**	**18.32**	**13.82**	**13.82**
Onsite Total (metric tons/day) [a]	**2.60**	**2.60**	**2.60**	**4.94**	**5.40**	**5.13**	**5.03**	**4.39**	**3.09**	**2.27**	**2.27**	**2.05**	**2.05**	**1.26**	**0.83**	**0.63**	**0.63**
Onsite Project Total (metric tons)	**1,050.48**																

Onsite Construction Equipment N_2O Emissions from Lightspeed SJC02 Construction

Onsite Equipment	N_2O Emissions (metric tons/month)																
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Water Truck	8.95E-04	8.95E-04	8.95E-04	8.95E-04	8.95E-04	8.95E-04	8.95E-04	8.95E-04	8.95E-04	8.95E-04	8.95E-04	8.95E-04	8.95E-04	8.95E-04	4.48E-04	4.48E-04	4.48E-04
Excavator	1.24E-03	1.24E-03	1.24E-03	1.24E-03	6.22E-04	6.22E-04	6.22E-04	6.22E-04	6.22E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Grader	0.00E+00	0.00E+00	0.00E+00	1.36E-03	1.36E-03	1.36E-03	1.36E-03	6.78E-04	3.39E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Cranes	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	9.45E-04	9.45E-04	0.00E+00	2.35E-04	2.35E-04	4.71E-04	4.71E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Backhoe	0.00E+00	0.00E+00	0.00E+00	1.71E-04	3.42E-04	3.42E-04	1.71E-04	1.71E-04	1.71E-04	1.71E-04	1.71E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Rubber Tired Loader	6.04E-04	6.04E-04	6.04E-04	6.04E-04	9.06E-04	9.06E-04	3.02E-04	3.02E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Forklift	0.00E+00	0.00E+00	0.00E+00	2.16E-04	4.31E-04	4.31E-04	4.31E-04	4.31E-04	6.47E-04	6.48E-04	6.48E-04	6.48E-04	6.48E-04	4.32E-04	4.32E-04	2.16E-04	2.16E-04
Roller	0.00E+00	0.00E+00	0.00E+00	5.80E-04	5.80E-04	2.90E-04	2.90E-04	2.90E-04	2.90E-04	2.93E-04	2.93E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Bore/Drill Rigs	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.20E-04	4.20E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Other General Industrial Equipment	0.00E+00	0.00E+00	0.00E+00	1.49E-04	1.49E-04	1.49E-04	2.98E-04	2.98E-04	2.98E-04	1.50E-04	1.50E-04	1.50E-04	1.50E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Onsite Total (metric tons/month)	**2.74E-03**	**2.74E-03**	**2.74E-03**	**5.22E-03**	**5.70E-03**	**5.41E-03**	**5.31E-03**	**4.63E-03**	**3.26E-03**	**2.39E-03**	**2.39E-03**	**2.16E-03**	**2.16E-03**	**1.33E-03**	**8.79E-04**	**6.63E-04**	**6.63E-04**
Onsite Total (metric tons/day) [a]	**1.25E-04**	**1.25E-04**	**1.25E-04**	**2.37E-04**	**2.59E-04**	**2.46E-04**	**2.41E-04**	**2.11E-04**	**1.48E-04**	**1.09E-04**	**1.09E-04**	**9.84E-05**	**9.84E-05**	**6.03E-05**	**4.00E-05**	**3.02E-05**	**3.02E-05**
Onsite Project Total (metric tons)	**5.04E-02**																

Onsite Construction Equipment CH_4 Emissions from Lightspeed SJC02 Construction

Onsite Equipment	CH_4 Emissions (metric tons/month)																
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Water Truck	2.37E-04	2.37E-04	2.37E-04	2.37E-04	2.37E-04	2.37E-04	2.37E-04	2.37E-04	2.37E-04	2.37E-04	2.37E-04	2.37E-04	2.37E-04	2.37E-04	1.19E-04	1.19E-04	1.19E-04
Excavator	3.30E-04	3.30E-04	3.30E-04	3.30E-04	1.65E-04	1.65E-04	1.65E-04	1.65E-04	1.65E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Grader	0.00E+00	0.00E+00	0.00E+00	3.60E-04	3.60E-04	3.60E-04	3.60E-04	1.80E-04	9.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Cranes	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.51E-04	2.51E-04	0.00E+00	6.25E-05	6.25E-05	1.25E-04	1.25E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Backhoe	0.00E+00	0.00E+00	0.00E+00	4.54E-05	9.09E-05	9.09E-05	4.54E-05	4.54E-05	4.54E-05	4.54E-05	4.54E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Rubber Tired Loader	1.60E-04	1.60E-04	1.60E-04	1.60E-04	2.40E-04	2.40E-04	8.02E-05	8.02E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Forklift	0.00E+00	0.00E+00	0.00E+00	5.72E-05	1.14E-04	1.14E-04	1.14E-04	1.14E-04	1.72E-04	1.72E-04	1.72E-04	1.72E-04	1.72E-04	1.15E-04	1.15E-04	5.73E-05	5.73E-05
Roller	0.00E+00	0.00E+00	0.00E+00	1.54E-04	1.54E-04	7.70E-05	7.70E-05	7.70E-05	7.70E-05	7.77E-05	7.77E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Bore/Drill Rigs	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.11E-04	1.11E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Other General Industrial Equipment	0.00E+00	0.00E+00	0.00E+00	3.95E-05	3.95E-05	3.95E-05	7.91E-05	7.91E-05	7.91E-05	3.98E-05	3.98E-05	3.98E-05	3.98E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Onsite Total (metric tons/month)	**7.28E-04**	**7.28E-04**	**7.28E-04**	**1.38E-03**	**1.51E-03**	**1.44E-03**	**1.41E-03**	**1.23E-03**	**8.66E-04**	**6.35E-04**	**6.35E-04**	**5.74E-04**	**5.74E-04**	**3.52E-04**	**2.33E-04**	**1.76E-04**	**1.76E-04**
Onsite Total (metric tons/day) [a]	**3.31E-05**	**3.31E-05**	**3.31E-05**	**6.29E-05**	**6.88E-05**	**6.53E-05**	**6.41E-05**	**5.59E-05**	**3.93E-05**	**2.89E-05**	**2.89E-05**	**2.61E-05**	**2.61E-05**	**1.60E-05**	**1.06E-05**	**8.00E-06**	**8.00E-06**
Onsite Project Total (metric tons)	**1.34E-02**																

Notes:
[a] Per information provided by the Applicant's engineering contractor, the days per month are as follows: 22

Appendix 3.3A, Table 5
Onsite Vehicle Exhaust Emissions
Lightspeed SJC02
August 2021

Onsite Vehicle Exhaust CO Emissions from Lightspeed SJC02 Construction

Vehicle Type	CO Emissions (lb/day)																
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Onsite Pick-up Truck	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.02
Onsite Dump Truck	0.81	0.81	0.81	0.81	0.10	0.07	0.07	0.07	0.07	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Onsite Total (lb/day)	**0.85**	**0.85**	**0.85**	**0.85**	**0.14**	**0.11**	**0.11**	**0.11**	**0.11**	**0.09**	**0.04**	**0.04**	**0.04**	**0.04**	**0.04**	**0.04**	**0.02**
Vehicle Type	**CO Emissions (lb/month) [a]**																
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Onsite Pick-up Truck	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.40
Onsite Dump Truck	17.89	17.89	17.89	17.89	2.15	1.43	1.43	1.43	1.43	1.29	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Onsite Total (lb/month)	**18.78**	**18.78**	**18.78**	**18.78**	**3.04**	**2.32**	**2.32**	**2.32**	**2.32**	**2.09**	**0.80**	**0.80**	**0.80**	**0.80**	**0.80**	**0.80**	**0.40**
Onsite Project Total (tons)	**0.05**																

Onsite Vehicle Exhaust VOC Emissions from Lightspeed SJC02 Construction

Vehicle Type	VOC Emissions (lb/day)																
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Onsite Pick-up Truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Onsite Dump Truck	0.29	0.29	0.29	0.29	0.03	0.02	0.02	0.02	0.02	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Onsite Total (lb/day)	**0.29**	**0.29**	**0.29**	**0.29**	**0.04**	**0.03**	**0.03**	**0.03**	**0.03**	**0.02**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**
Vehicle Type	**VOC Emissions (lb/month) [a]**																
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Onsite Pick-up Truck	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.03
Onsite Dump Truck	6.30	6.30	6.30	6.30	0.76	0.50	0.50	0.50	0.50	0.38	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Onsite Total (lb/month)	**6.35**	**6.35**	**6.35**	**6.35**	**0.81**	**0.56**	**0.56**	**0.56**	**0.56**	**0.43**	**0.05**	**0.05**	**0.05**	**0.05**	**0.05**	**0.05**	**0.03**
Onsite Project Total (tons)	**0.01**																

Onsite Vehicle Exhaust Emissions
Lightspeed SJC02
August 2021

Onsite Vehicle Exhaust SO_X Emissions from Lightspeed SJC02 Construction

Vehicle Type	SO_X Emissions (lb/day)																
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Onsite Pick-up Truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Onsite Dump Truck	0.01	0.01	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Onsite Total (lb/day)	**0.01**	**0.01**	**0.01**	**0.01**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**
Vehicle Type	**SO_X Emissions (lb/month) [a]**																
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Onsite Pick-up Truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Onsite Dump Truck	0.17	0.17	0.17	0.17	0.02	0.01	0.01	0.01	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Onsite Total (lb/month)	**0.17**	**0.17**	**0.17**	**0.17**	**0.02**	**0.02**	**0.02**	**0.02**	**0.02**	**0.02**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**
Onsite Project Total (tons)	**0.00**																

Onsite Vehicle Exhaust NO_X Emissions from Lightspeed SJC02 Construction

Vehicle Type	NO_X Emissions (lb/day)																
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Onsite Pick-up Truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Onsite Dump Truck	3.39	3.39	3.39	3.39	0.41	0.27	0.27	0.27	0.27	0.26	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Onsite Total (lb/day)	**3.39**	**3.39**	**3.39**	**3.39**	**0.41**	**0.27**	**0.27**	**0.27**	**0.27**	**0.26**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**
Vehicle Type	**NO_X Emissions (lb/month) [a]**																
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Onsite Pick-up Truck	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.03
Onsite Dump Truck	74.61	74.61	74.61	74.61	8.95	5.97	5.97	5.97	5.97	5.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Onsite Total (lb/month)	**74.69**	**74.69**	**74.69**	**74.69**	**9.03**	**6.05**	**6.05**	**6.05**	**6.05**	**5.77**	**0.07**	**0.07**	**0.07**	**0.07**	**0.07**	**0.07**	**0.03**
Onsite Project Total (tons)	**0.17**																

Onsite Vehicle Exhaust Emissions
Lightspeed SJC02
August 2021

Onsite Vehicle Exhaust and Vehicle Wear PM_{10} Emissions from Lightspeed SJC02 Construction

Vehicle Type	PM_{10} Emissions (lb/day) [b]																
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Onsite Pick-up Truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Onsite Dump Truck	0.10	0.10	0.10	0.10	0.01	0.01	0.01	0.01	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Onsite Total (lb/day)	**0.10**	**0.10**	**0.10**	**0.10**	**0.01**	**0.01**	**0.01**	**0.01**	**0.01**	**0.01**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**
Vehicle Type	**PM_{10} Emissions (lb/month) [a, b]**																
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Onsite Pick-up Truck	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.01
Onsite Dump Truck	2.22	2.22	2.22	2.22	0.27	0.18	0.18	0.18	0.18	0.13	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Onsite Total (lb/month)	**2.23**	**2.23**	**2.23**	**2.23**	**0.28**	**0.19**	**0.19**	**0.19**	**0.19**	**0.15**	**0.02**	**0.02**	**0.02**	**0.02**	**0.02**	**0.02**	**0.01**
Onsite Project Total (tons)	**0.01**																

Onsite Vehicle Exhaust and Vehicle Wear $PM_{2.5}$ Emissions from Lightspeed SJC02 Construction

Vehicle Type	$PM_{2.5}$ Emissions (lb/day) [b]																
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Onsite Pick-up Truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Onsite Dump Truck	0.10	0.10	0.10	0.10	0.01	0.01	0.01	0.01	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Onsite Total (lb/day)	**0.10**	**0.10**	**0.10**	**0.10**	**0.01**	**0.01**	**0.01**	**0.01**	**0.01**	**0.01**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**
Vehicle Type	**$PM_{2.5}$ Emissions (lb/month) [a, b]**																
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Onsite Pick-up Truck	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
Onsite Dump Truck	2.12	2.12	2.12	2.12	0.25	0.17	0.17	0.17	0.17	0.12	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Onsite Total (lb/month)	**2.13**	**2.13**	**2.13**	**2.13**	**0.27**	**0.18**	**0.18**	**0.18**	**0.18**	**0.13**	**0.01**	**0.01**	**0.01**	**0.01**	**0.01**	**0.01**	**0.01**
Onsite Project Total (tons)	**0.00**																

Onsite Vehicle Exhaust Emissions
Lightspeed SJC02
August 2021

Onsite Vehicle Exhaust CO_2 Emissions from Lightspeed SJC02 Construction

Vehicle Type	CO_2 Emissions (metric tons/day)																
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Onsite Pick-up Truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Onsite Dump Truck	0.17	0.17	0.17	0.17	0.02	0.01	0.01	0.01	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Onsite Total (metric tons/day)	**0.17**	**0.17**	**0.17**	**0.17**	**0.02**	**0.02**	**0.02**	**0.02**	**0.02**	**0.02**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**
Vehicle Type	**CO_2 Emissions (metric tons/month) [a]**																
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Onsite Pick-up Truck	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.03
Onsite Dump Truck	3.65	3.65	3.65	3.65	0.44	0.29	0.29	0.29	0.29	0.29	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Onsite Total (metric tons/month)	**3.71**	**3.71**	**3.71**	**3.71**	**0.50**	**0.35**	**0.35**	**0.35**	**0.35**	**0.35**	**0.06**	**0.06**	**0.06**	**0.06**	**0.06**	**0.06**	**0.03**
Onsite Project Total (metric tons)	**17.48**																

Onsite Vehicle Exhaust N_2O Emissions from Lightspeed SJC02 Construction

Vehicle Type	N_2O Emissions (metric tons/day)																
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Onsite Pick-up Truck	1.20E-08	1.20E-08	1.20E-08	1.20E-08	1.20E-08	1.20E-08	1.20E-08	1.20E-08	1.20E-08	1.20E-08	1.20E-08	1.20E-08	1.20E-08	1.20E-08	1.20E-08	1.20E-08	6.00E-09
Onsite Dump Truck	4.31E-06	4.31E-06	4.31E-06	4.31E-06	5.17E-07	3.45E-07	3.45E-07	3.45E-07	3.45E-07	3.45E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Onsite Total (metric tons/day)	**4.32E-06**	**4.32E-06**	**4.32E-06**	**4.32E-06**	**5.29E-07**	**3.57E-07**	**3.57E-07**	**3.57E-07**	**3.57E-07**	**3.57E-07**	**1.20E-08**	**1.20E-08**	**1.20E-08**	**1.20E-08**	**1.20E-08**	**1.20E-08**	**6.00E-09**
Vehicle Type	**N_2O Emissions (metric tons/month) [a]**																
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Onsite Pick-up Truck	2.64E-07	2.64E-07	2.64E-07	2.64E-07	2.64E-07	2.64E-07	2.64E-07	2.64E-07	2.64E-07	2.64E-07	2.64E-07	2.64E-07	2.64E-07	2.64E-07	2.64E-07	2.64E-07	1.32E-07
Onsite Dump Truck	9.48E-05	9.48E-05	9.48E-05	9.48E-05	1.14E-05	7.59E-06	7.59E-06	7.59E-06	7.59E-06	7.59E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Onsite Total (metric tons/month)	**9.51E-05**	**9.51E-05**	**9.51E-05**	**9.51E-05**	**1.16E-05**	**7.85E-06**	**7.85E-06**	**7.85E-06**	**7.85E-06**	**7.85E-06**	**2.64E-07**	**2.64E-07**	**2.64E-07**	**2.64E-07**	**2.64E-07**	**2.64E-07**	**1.32E-07**
Onsite Project Total (metric tons)	**4.33E-04**																

Onsite Vehicle Exhaust Emissions
Lightspeed SJC02
August 2021

Onsite Vehicle Exhaust CH_4 Emissions from Lightspeed SJC02 Construction

Vehicle Type	CH_4 Emissions (metric tons/day)																
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Onsite Pick-up Truck	6.48E-08	6.48E-08	6.48E-08	6.48E-08	6.48E-08	6.48E-08	6.48E-08	6.48E-08	6.48E-08	6.48E-08	6.48E-08	6.48E-08	6.48E-08	6.48E-08	6.48E-08	6.48E-08	3.24E-08
Onsite Dump Truck	9.50E-07	9.50E-07	9.50E-07	9.50E-07	1.14E-07	7.60E-08	7.60E-08	7.60E-08	7.60E-08	7.60E-08	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Onsite Total (metric tons/day)	**2.15E-09**	**1.01E-06**	**1.01E-06**	**1.01E-06**	**1.79E-07**	**1.41E-07**	**1.41E-07**	**1.41E-07**	**1.41E-07**	**1.41E-07**	**6.48E-08**	**6.48E-08**	**6.48E-08**	**6.48E-08**	**6.48E-08**	**6.48E-08**	**3.24E-08**
Vehicle Type	**CH_4 Emissions (metric tons/month) [a]**																
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Onsite Pick-up Truck	1.43E-06	1.43E-06	1.43E-06	1.43E-06	1.43E-06	1.43E-06	1.43E-06	1.43E-06	1.43E-06	1.43E-06	1.43E-06	1.43E-06	1.43E-06	1.43E-06	1.43E-06	1.43E-06	7.13E-07
Onsite Dump Truck	2.09E-05	2.09E-05	2.09E-05	2.09E-05	2.51E-06	1.67E-06	1.67E-06	1.67E-06	1.67E-06	1.67E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Onsite Total (metric tons/month)	**2.23E-05**	**2.23E-05**	**2.23E-05**	**2.23E-05**	**3.93E-06**	**3.10E-06**	**3.10E-06**	**3.10E-06**	**3.10E-06**	**3.10E-06**	**1.43E-06**	**1.43E-06**	**1.43E-06**	**1.43E-06**	**1.43E-06**	**1.43E-06**	**7.13E-07**
Onsite Project Total (metric tons)	**1.18E-04**																

Notes:
[a] The days per month for construction in the data above was provided by the Applicant's engineering contractor.

Appendix 3.3A, Table 6
Onsite Vehicle Idling Emissions
Lightspeed SJC02
August 2021

Onsite Vehicle Idling CO Emissions from Lightspeed SJC02 Construction

Vehicle Type	CO Emissions (lb/day)																
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Onsite Dump Truck [a]	0.14	0.14	0.14	0.14	0.02	0.01	0.01	0.01	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Onsite Total (lb/day)	**0.14**	**0.14**	**0.14**	**0.14**	**0.02**	**0.01**	**0.01**	**0.01**	**0.01**	**0.01**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**
Vehicle Type	**CO Emissions (lb/month) [b]**																
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Onsite Dump Truck [a]	3.17	3.17	3.17	3.17	0.38	0.25	0.25	0.25	0.25	0.26	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Onsite Total (lb/month)	**3.17**	**3.17**	**3.17**	**3.17**	**0.38**	**0.25**	**0.25**	**0.25**	**0.25**	**0.26**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**
Onsite Project Total (tons)	**0.01**																

Onsite Vehicle Idling VOC Emissions from Lightspeed SJC02 Construction

Vehicle Type	VOC Emissions (lb/day)																
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Onsite Dump Truck [a]	0.01	0.01	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Onsite Total (lb/day)	**0.01**	**0.01**	**0.01**	**0.01**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**
Vehicle Type	**VOC Emissions (lb/month) [b]**																
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Onsite Dump Truck [a]	0.24	0.24	0.24	0.24	0.03	0.02	0.02	0.02	0.02	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Onsite Total (lb/month)	**0.24**	**0.24**	**0.24**	**0.24**	**0.03**	**0.02**	**0.02**	**0.02**	**0.02**	**0.02**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**
Onsite Project Total (tons)	**0.00**																

Onsite Vehicle Idling Emissions
Lightspeed SJC02
August 2021

Onsite Vehicle Idling SO_X Emissions from Lightspeed SJC02 Construction

Vehicle Type	SO_X Emissions (lb/day)																
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Onsite Dump Truck [a]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Onsite Total (lb/day)	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**
Vehicle Type	**SO_X Emissions (lb/month) [b]**																
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Onsite Dump Truck [a]	0.01	0.01	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Onsite Total (lb/month)	**0.01**	**0.01**	**0.01**	**0.01**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**
Onsite Project Total (tons)	**0.00**																

Onsite Vehicle Idling NO_X Emissions from Lightspeed SJC02 Construction

Vehicle Type	NO_X Emissions (lb/day)																
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Onsite Dump Truck [a]	0.16	0.16	0.16	0.16	0.02	0.01	0.01	0.01	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Onsite Total (lb/day)	**0.16**	**0.16**	**0.16**	**0.16**	**0.02**	**0.01**	**0.01**	**0.01**	**0.01**	**0.01**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**
Vehicle Type	**NO_X Emissions (lb/month) [b]**																
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Onsite Dump Truck [a]	3.51	3.51	3.51	3.51	0.42	0.28	0.28	0.28	0.28	0.27	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Onsite Total (lb/month)	**3.51**	**3.51**	**3.51**	**3.51**	**0.42**	**0.28**	**0.28**	**0.28**	**0.28**	**0.27**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**
Onsite Project Total (tons)	**0.01**																

Onsite Vehicle Idling Emissions
Lightspeed SJC02
August 2021

Onsite Vehicle Idling PM_{10} Emissions from Lightspeed SJC02 Construction

Vehicle Type	PM_{10} Emissions (lb/day)																
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Onsite Dump Truck [a]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Onsite Total (lb/day)	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**
Vehicle Type	**PM_{10} Emissions (lb/month) [b]**																
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Onsite Dump Truck [a]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Onsite Total (lb/month)	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**
Onsite Project Total (tons)	**0.00**																

Onsite Vehicle Idling $PM_{2.5}$ Emissions from Lightspeed SJC02 Construction

Vehicle Type	$PM_{2.5}$ Emissions (lb/day)																
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Onsite Dump Truck [a]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Onsite Total (lb/day)	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**
Vehicle Type	**$PM_{2.5}$ Emissions (lb/month) [b]**																
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Onsite Dump Truck [a]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Onsite Total (lb/month)	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**
Onsite Project Total (tons)	**0.00**																

Onsite Vehicle Idling Emissions
Lightspeed SJC02
August 2021

Onsite Vehicle Idling CO_2 Emissions from Lightspeed SJC02 Construction

Vehicle Type	CO_2 Emissions (metric tons/day)																
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Onsite Dump Truck [a]	0.01	0.01	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Onsite Total (metric tons/day)	**0.01**	**0.01**	**0.01**	**0.01**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**
Vehicle Type	CO_2 Emissions (metric tons/month) [b]																
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Onsite Dump Truck [a]	0.28	0.28	0.28	0.28	0.03	0.02	0.02	0.02	0.02	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Onsite Total (metric tons/month)	**0.28**	**0.28**	**0.28**	**0.28**	**0.03**	**0.02**	**0.02**	**0.02**	**0.02**	**0.02**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**
Onsite Project Total (metric tons)	**1.27**																

Onsite Vehicle Idling Emissions
Lightspeed SJC02
August 2021

Onsite Vehicle Idling CH_4 Emissions from Lightspeed SJC02 Construction

Vehicle Type	CH_4 Emissions (metric tons/day)																
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Onsite Dump Truck [a]	2.33E-07	2.33E-07	2.33E-07	2.33E-07	2.80E-08	1.87E-08	1.87E-08	1.87E-08	1.87E-08	1.85E-08	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Onsite Total (metric tons/day)	**2.33E-07**	**2.33E-07**	**2.33E-07**	**2.33E-07**	**2.80E-08**	**1.87E-08**	**1.87E-08**	**1.87E-08**	**1.87E-08**	**1.85E-08**	**0.00E+00**	**0.00E+00**	**0.00E+00**	**0.00E+00**	**0.00E+00**	**0.00E+00**	**0.00E+00**
Vehicle Type	**CH_4 Emissions (metric tons/month) [b]**																
	1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**	**17**
Onsite Dump Truck [a]	5.13E-06	5.13E-06	5.13E-06	5.13E-06	6.16E-07	4.10E-07	4.10E-07	4.10E-07	4.10E-07	4.08E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Onsite Total (metric tons/month)	**5.13E-06**	**5.13E-06**	**5.13E-06**	**5.13E-06**	**6.16E-07**	**4.10E-07**	**4.10E-07**	**4.10E-07**	**4.10E-07**	**4.08E-07**	**0.00E+00**	**0.00E+00**	**0.00E+00**	**0.00E+00**	**0.00E+00**	**0.00E+00**	**0.00E+00**
Onsite Project Total (metric tons)	**2.32E-05**																

Notes:
[a] It is estimated that each onsite dump truck idles for approximately 5 minutes each day, or: 0.083 idle-hrs/day.
[b] The days per month for construction in the data above was provided by the Applicant's engineering contractor, as presented in Appendix 3.3A, Table 11.

Appendix 3.3A, Table 7
Number of Offsite Construction Equipment and Vehicles
Lightspeed SJC02
August 2021

Number of Offsite Construction Equipment for Lightspeed SJC02 Construction

Offsite Equipment	Number per Day [a]																
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Water Truck	1	1	1	1	1	1	1	1	1	1	1	1	0	0	0	0	0
Concrete Truck	0	0	0	0	0	0	0	0	0	0	0	5	5	5	5	5	0
Excavator [b]	4	4	4	4	2	2	2	2	2	0	0	0	0	0	0	0	0
Grader	0	0	0	4	4	4	4	2	1	0	0	0	0	0	0	0	0
Backhoe	2	2	2	2	2	2	2	2	2	2	1	0	0	0	0	0	0
Rubber Tired Loader [c]	2	2	2	2	3	3	1	1	1	1	1	1	1	1	1	0	0
Forklift	2	2	2	2	2	2	2	2	3	3	3	3	0	0	0	0	1
Roller [d]	0	0	0	4	4	2	2	2	2	2	2	0	0	0	0	0	0
Bore/Drill Rigs [e]	0	0	0	0	0	0	1	1	1	1	0	0	0	0	0	0	0

Notes:
[a] Equipment counts presented above were provided by the Applicant's engineering contractor.
[b] The Hydraulic Hammer for the Excavator was not included in the above table, or resulting emissions estimates, as they are expected to be hydraulically-powered with negligible emissions.
[c] Numbers presented for Rubber Tired Loader include the equipment counts for the Front End Loader.
[d] Numbers presented for Roller include the equipment counts for the Compactor.
[e] Numbers presented for Bore/Drill Rigs include the equipment counts for the Horizontal Directional Drill Equipment.

Number of Offsite Vehicles for Lightspeed SJC02 Construction

Vehicle Type	Number per Day [a]																
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Pick-up Truck	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	2
Dump Truck	3	3	3	3	3	3	3	3	10	10	2	2	2	1	1	1	0

Notes:
[a] Vehicle counts presented above were provided by the Applicant's engineering contractor.

Appendix 3.3A, Table 8
Offsite Construction Equipment Emissions
Lightspeed SJC02
Revised November 2021

Offsite Construction Equipment CO Emissions from Lightspeed SJC02 Construction

Offsite Equipment	CO Emissions (lb/month)																
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Water Truck	104.78	104.78	104.78	104.78	104.78	104.78	104.78	104.78	104.78	99.12	99.12	99.12	0.00	0.00	0.00	0.00	0.00
Excavator	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	495.59	495.59	495.59	495.59	495.59	0.00
Grader	359.45	359.45	359.45	359.45	179.73	179.73	179.73	179.73	179.73	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Backhoe	0.00	0.00	0.00	199.59	199.59	199.59	199.59	99.79	49.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rubber Tired Loader	125.38	125.38	125.38	125.38	125.38	125.38	125.38	125.38	125.38	124.31	62.16	0.00	0.00	0.00	0.00	0.00	0.00
Forklift	89.95	89.95	89.95	89.95	134.92	134.92	44.97	44.97	44.97	43.96	43.96	43.96	43.96	43.96	43.96	0.00	0.00
Roller	64.91	64.91	64.91	64.91	64.91	64.91	64.91	64.91	97.37	96.35	96.35	96.35	0.00	0.00	0.00	0.00	32.12
Bore/Drill Rigs	0.00	0.00	0.00	208.27	208.27	104.13	104.13	104.13	104.13	103.42	103.42	0.00	0.00	0.00	0.00	0.00	0.00
Offsite Total (lb/month)	**744.47**	**744.47**	**744.47**	**1,152.33**	**1,017.57**	**913.44**	**823.49**	**723.70**	**706.26**	**467.16**	**405.00**	**735.02**	**539.55**	**539.55**	**539.55**	**495.59**	**32.12**
Offsite Total (lb/day) [a]	**33.84**	**33.84**	**33.84**	**52.38**	**46.25**	**41.52**	**37.43**	**32.90**	**32.10**	**21.23**	**18.41**	**33.41**	**24.53**	**24.53**	**24.53**	**22.53**	**1.46**
Offsite Project Total (tons)	**5.66**																

Offsite Construction Equipment VOC Emissions from Lightspeed SJC02 Construction

Offsite Equipment	VOC Emissions (lb/month)																
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Water Truck	18.23	18.23	18.23	18.23	18.23	18.23	18.23	18.23	18.23	16.67	16.67	16.67	0.00	0.00	0.00	0.00	0.00
Excavator	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	83.35	83.35	83.35	83.35	83.35	0.00
Grader	26.91	26.91	26.91	26.91	13.45	13.45	13.45	13.45	13.45	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Backhoe	0.00	0.00	0.00	52.36	52.36	52.36	52.36	26.18	13.09	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rubber Tired Loader	11.52	11.52	11.52	11.52	11.52	11.52	11.52	11.52	11.52	10.30	5.15	0.00	0.00	0.00	0.00	0.00	0.00
Forklift	20.56	20.56	20.56	20.56	30.84	30.84	10.28	10.28	10.28	9.43	9.43	9.43	9.43	9.43	9.43	0.00	0.00
Roller	7.93	7.93	7.93	7.93	7.93	7.93	7.93	7.93	11.89	10.67	10.67	10.67	0.00	0.00	0.00	0.00	3.56
Bore/Drill Rigs	0.00	0.00	0.00	22.88	22.88	11.44	11.44	11.44	11.44	10.41	10.41	0.00	0.00	0.00	0.00	0.00	0.00
Offsite Total (lb/month)	**85.14**	**85.14**	**85.14**	**160.38**	**157.21**	**145.76**	**125.21**	**99.03**	**89.90**	**57.48**	**52.33**	**120.12**	**92.78**	**92.78**	**92.78**	**83.35**	**3.56**
Offsite Total (lb/day) [a]	**3.87**	**3.87**	**3.87**	**7.29**	**7.15**	**6.63**	**5.69**	**4.50**	**4.09**	**2.61**	**2.38**	**5.46**	**4.22**	**4.22**	**4.22**	**3.79**	**0.16**
Offsite Project Total (tons)	**0.81**																

Offsite Construction Equipment NO_X Emissions from Lightspeed SJC02 Construction

Offsite Equipment	NO_X Emissions (lb/month)																
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Water Truck	19.26	19.26	19.26	19.26	19.26	19.26	19.26	19.26	19.26	19.26	19.26	19.26	0.00	0.00	0.00	0.00	0.00
Excavator	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	96.32	96.32	96.32	96.32	96.32	0.00
Grader	30.28	30.28	30.28	30.28	15.14	15.14	15.14	15.14	15.14	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Backhoe	0.00	0.00	0.00	345.08	345.08	345.08	345.08	172.54	86.27	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rubber Tired Loader	9.05	9.05	9.05	9.05	9.05	9.05	9.05	9.05	9.05	9.05	4.53	0.00	0.00	0.00	0.00	0.00	0.00
Forklift	164.46	164.46	164.46	164.46	246.69	246.69	82.23	82.23	82.23	82.23	82.23	82.23	82.23	82.23	82.23	0.00	0.00
Roller	47.31	47.31	47.31	47.31	47.31	47.31	47.31	47.31	70.96	70.96	70.96	70.96	0.00	0.00	0.00	0.00	23.65
Bore/Drill Rigs	0.00	0.00	0.00	161.60	161.60	80.80	80.80	80.80	80.80	80.80	80.80	0.00	0.00	0.00	0.00	0.00	0.00
Offsite Total (lb/month)	**270.37**	**270.37**	**270.37**	**777.05**	**844.14**	**763.34**	**598.88**	**426.34**	**363.72**	**262.31**	**257.78**	**268.78**	**178.55**	**178.55**	**178.55**	**96.32**	**23.65**
Offsite Total (lb/day) [a]	**12.29**	**12.29**	**12.29**	**35.32**	**38.37**	**34.70**	**27.22**	**19.38**	**16.53**	**11.92**	**11.72**	**12.22**	**8.12**	**8.12**	**8.12**	**4.38**	**1.08**
Offsite Project Total (tons)	**3.01**																

Offsite Construction Equipment Emissions
Lightspeed SJC02
Revised November 2021

Offsite Construction Equipment SO_X Emissions from Lightspeed SJC02 Construction

Offsite Equipment	SO_X Emissions (lb/month)																
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Water Truck	0.37	0.37	0.37	0.37	0.37	0.37	0.37	0.37	0.37	0.37	0.37	0.37	0.00	0.00	0.00	0.00	0.00
Excavator	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.85	1.85	1.85	1.85	1.85	0.00
Grader	0.58	0.58	0.58	0.58	0.29	0.29	0.29	0.29	0.29	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Backhoe	0.00	0.00	0.00	0.74	0.74	0.74	0.74	0.37	0.19	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rubber Tired Loader	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.09	0.00	0.00	0.00	0.00	0.00	0.00
Forklift	0.35	0.35	0.35	0.35	0.53	0.53	0.18	0.18	0.18	0.18	0.18	0.18	0.18	0.18	0.18	0.00	0.00
Roller	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.13	0.13	0.13	0.13	0.00	0.00	0.00	0.00	0.04
Bore/Drill Rigs	0.00	0.00	0.00	0.29	0.29	0.15	0.15	0.15	0.15	0.15	0.15	0.00	0.00	0.00	0.00	0.00	0.00
Offsite Total (lb/month)	**1.57**	**1.57**	**1.57**	**2.61**	**2.49**	**2.34**	**1.99**	**1.62**	**1.48**	**1.00**	**0.91**	**2.53**	**2.03**	**2.03**	**2.03**	**1.85**	**0.04**
Offsite Total (lb/day) [a]	**0.07**	**0.07**	**0.07**	**0.12**	**0.11**	**0.11**	**0.09**	**0.07**	**0.07**	**0.05**	**0.04**	**0.11**	**0.09**	**0.09**	**0.09**	**0.08**	**0.00**
Offsite Project Total (tons)	**0.01**																

Offsite Construction Equipment PM_{10} Emissions from Lightspeed SJC02 Construction

Offsite Equipment	PM_{10} Emissions (lb/month)																
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Water Truck	0.59	0.59	0.59	0.59	0.59	0.59	0.59	0.59	0.59	0.59	0.59	0.59	0.00	0.00	0.00	0.00	0.00
Excavator	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.96	2.96	2.96	2.96	2.96	0.00
Grader	0.93	0.93	0.93	0.93	0.47	0.47	0.47	0.47	0.47	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Backhoe	0.00	0.00	0.00	13.09	13.09	13.09	13.09	6.54	3.27	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rubber Tired Loader	0.28	0.28	0.28	0.28	0.28	0.28	0.28	0.28	0.28	0.28	0.14	0.00	0.00	0.00	0.00	0.00	0.00
Forklift	6.24	6.24	6.24	6.24	9.36	9.36	3.12	3.12	3.12	3.12	3.12	3.12	3.12	3.12	3.12	0.00	0.00
Roller	3.32	3.32	3.32	3.32	3.32	3.32	3.32	3.32	4.97	4.97	4.97	4.97	0.00	0.00	0.00	0.00	1.66
Bore/Drill Rigs	0.00	0.00	0.00	11.32	11.32	5.66	5.66	5.66	5.66	5.66	5.66	0.00	0.00	0.00	0.00	0.00	0.00
Offsite Total (lb/month)	**11.36**	**11.36**	**11.36**	**35.77**	**38.42**	**32.76**	**26.52**	**19.98**	**18.36**	**14.62**	**14.49**	**11.65**	**6.08**	**6.08**	**6.08**	**2.96**	**1.66**
Offsite Total (lb/day) [a]	**0.52**	**0.52**	**0.52**	**1.63**	**1.75**	**1.49**	**1.21**	**0.91**	**0.83**	**0.66**	**0.66**	**0.53**	**0.28**	**0.28**	**0.28**	**0.13**	**0.08**
Offsite Project Total (tons)	**0.13**																

Offsite Construction Equipment $PM_{2.5}$ Emissions from Lightspeed SJC02 Construction

Offsite Equipment	$PM_{2.5}$ Emissions (lb/month)																
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Water Truck	0.59	0.59	0.59	0.59	0.59	0.59	0.59	0.59	0.59	0.59	0.59	0.59	0.00	0.00	0.00	0.00	0.00
Excavator	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.96	2.96	2.96	2.96	2.96	0.00
Grader	0.93	0.93	0.93	0.93	0.47	0.47	0.47	0.47	0.47	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Backhoe	0.00	0.00	0.00	13.09	13.09	13.09	13.09	6.54	3.27	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rubber Tired Loader	0.28	0.28	0.28	0.28	0.28	0.28	0.28	0.28	0.28	0.28	0.14	0.00	0.00	0.00	0.00	0.00	0.00
Forklift	6.24	6.24	6.24	6.24	9.36	9.36	3.12	3.12	3.12	3.12	3.12	3.12	3.12	3.12	3.12	0.00	0.00
Roller	3.32	3.32	3.32	3.32	3.32	3.32	3.32	3.32	4.97	4.97	4.97	4.97	0.00	0.00	0.00	0.00	1.66
Bore/Drill Rigs	0.00	0.00	0.00	11.32	11.32	5.66	5.66	5.66	5.66	5.66	5.66	0.00	0.00	0.00	0.00	0.00	0.00
Offsite Total (lb/month)	**11.36**	**11.36**	**11.36**	**35.77**	**38.42**	**32.76**	**26.52**	**19.98**	**18.36**	**14.62**	**14.49**	**11.65**	**6.08**	**6.08**	**6.08**	**2.96**	**1.66**
Offsite Total (lb/day) [a]	**0.52**	**0.52**	**0.52**	**1.63**	**1.75**	**1.49**	**1.21**	**0.91**	**0.83**	**0.66**	**0.66**	**0.53**	**0.28**	**0.28**	**0.28**	**0.13**	**0.08**
Offsite Project Total (tons)	**0.13**																

Offsite Construction Equipment Emissions
Lightspeed SJC02
Revised November 2021

Offsite Construction Equipment CO_2 Emissions from Lightspeed SJC02 Construction

Offsite Equipment	CO_2 Emissions (metric tons/month)																
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Water Truck	9.32	9.32	9.32	9.32	9.32	9.32	9.32	9.32	9.32	9.33	9.33	9.33	0.00	0.00	0.00	0.00	0.00
Excavator	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	46.63	46.63	46.63	46.63	46.63	0.00
Grader	25.93	25.93	25.93	25.93	12.96	12.96	12.96	12.96	12.96	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Backhoe	0.00	0.00	0.00	28.27	28.27	28.27	28.27	14.13	7.07	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rubber Tired Loader	7.14	7.14	7.14	7.14	7.14	7.14	7.14	7.14	7.14	7.14	3.57	0.00	0.00	0.00	0.00	0.00	0.00
Forklift	12.59	12.59	12.59	12.59	18.89	18.89	6.30	6.30	6.30	6.29	6.29	6.29	6.29	6.29	6.29	0.00	0.00
Roller	8.99	8.99	8.99	8.99	8.99	8.99	8.99	8.99	13.48	13.49	13.49	13.49	0.00	0.00	0.00	0.00	4.50
Bore/Drill Rigs	0.00	0.00	0.00	12.10	12.10	6.05	6.05	6.05	6.05	6.10	6.10	0.00	0.00	0.00	0.00	0.00	0.00
Offsite Total (metric tons/month)	**63.96**	**63.96**	**63.96**	**104.33**	**97.66**	**91.61**	**79.02**	**64.89**	**62.31**	**42.35**	**38.78**	**75.74**	**52.92**	**52.92**	**52.92**	**46.63**	**4.50**
Offsite Total (metric tons/day) [a]	**2.91**	**2.91**	**2.91**	**4.74**	**4.44**	**4.16**	**3.59**	**2.95**	**2.83**	**1.93**	**1.76**	**3.44**	**2.41**	**2.41**	**2.41**	**2.12**	**0.20**
Offsite Project Total (metric tons)	**1,058.47**																

Offsite Construction Equipment N_2O Emissions from Lightspeed SJC02 Construction

Offsite Equipment	N_2O Emissions (metric tons/month)																
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Water Truck	4.47E-04	4.47E-04	4.47E-04	4.47E-04	4.47E-04	4.47E-04	4.47E-04	4.47E-04	4.47E-04	4.48E-04	4.48E-04	4.48E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Excavator	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.24E-03	2.24E-03	2.24E-03	2.24E-03	2.24E-03	0.00E+00
Grader	1.24E-03	1.24E-03	1.24E-03	1.24E-03	6.22E-04	6.22E-04	6.22E-04	6.22E-04	6.22E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Backhoe	0.00E+00	0.00E+00	0.00E+00	1.36E-03	1.36E-03	1.36E-03	1.36E-03	6.78E-04	3.39E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Rubber Tired Loader	3.42E-04	3.42E-04	3.42E-04	3.42E-04	3.42E-04	3.42E-04	3.42E-04	3.42E-04	3.42E-04	3.43E-04	1.71E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Forklift	6.04E-04	6.04E-04	6.04E-04	6.04E-04	9.06E-04	9.06E-04	3.02E-04	3.02E-04	3.02E-04	3.02E-04	3.02E-04	3.02E-04	3.02E-04	3.02E-04	3.02E-04	0.00E+00	0.00E+00
Roller	4.31E-04	4.31E-04	4.31E-04	4.31E-04	4.31E-04	4.31E-04	4.31E-04	4.31E-04	6.47E-04	6.48E-04	6.48E-04	6.48E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.16E-04
Bore/Drill Rigs	0.00E+00	0.00E+00	0.00E+00	5.80E-04	5.80E-04	2.90E-04	2.90E-04	2.90E-04	2.90E-04	2.93E-04	2.93E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Offsite Total (metric tons/month)	**3.07E-03**	**3.07E-03**	**3.07E-03**	**5.01E-03**	**4.69E-03**	**4.40E-03**	**3.79E-03**	**3.11E-03**	**2.99E-03**	**2.03E-03**	**1.86E-03**	**3.63E-03**	**2.54E-03**	**2.54E-03**	**2.54E-03**	**2.24E-03**	**2.16E-04**
Offsite Total (metric tons/day) [a]	**1.40E-04**	**1.40E-04**	**1.40E-04**	**2.28E-04**	**2.13E-04**	**2.00E-04**	**1.72E-04**	**1.42E-04**	**1.36E-04**	**9.24E-05**	**8.46E-05**	**1.65E-04**	**1.15E-04**	**1.15E-04**	**1.15E-04**	**1.02E-04**	**9.81E-06**
Offsite Project Total (metric tons)	**5.08E-02**																

Offsite Construction Equipment CH_4 Emissions from Lightspeed SJC02 Construction

Offsite Equipment	CH_4 Emissions (metric tons/month)																
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Water Truck	1.19E-04	1.19E-04	1.19E-04	1.19E-04	1.19E-04	1.19E-04	1.19E-04	1.19E-04	1.19E-04	1.19E-04	1.19E-04	1.19E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Excavator	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	5.94E-04	5.94E-04	5.94E-04	5.94E-04	5.94E-04	0.00E+00
Grader	3.30E-04	3.30E-04	3.30E-04	3.30E-04	1.65E-04	1.65E-04	1.65E-04	1.65E-04	1.65E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Backhoe	0.00E+00	0.00E+00	0.00E+00	3.60E-04	3.60E-04	3.60E-04	3.60E-04	1.80E-04	9.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Rubber Tired Loader	9.09E-05	9.09E-05	9.09E-05	9.09E-05	9.09E-05	9.09E-05	9.09E-05	9.09E-05	9.09E-05	9.09E-05	4.54E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Forklift	1.60E-04	1.60E-04	1.60E-04	1.60E-04	2.40E-04	2.40E-04	8.02E-05	8.02E-05	8.02E-05	8.01E-05	8.01E-05	8.01E-05	8.01E-05	8.01E-05	8.01E-05	0.00E+00	0.00E+00
Roller	1.14E-04	1.14E-04	1.14E-04	1.14E-04	1.14E-04	1.14E-04	1.14E-04	1.14E-04	1.72E-04	1.72E-04	1.72E-04	1.72E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	5.73E-05
Bore/Drill Rigs	0.00E+00	0.00E+00	0.00E+00	1.54E-04	1.54E-04	7.70E-05	7.70E-05	7.70E-05	7.70E-05	7.77E-05	7.77E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Offsite Total (metric tons/month)	**8.14E-04**	**8.14E-04**	**8.14E-04**	**1.33E-03**	**1.24E-03**	**1.17E-03**	**1.01E-03**	**8.26E-04**	**7.93E-04**	**5.39E-04**	**4.94E-04**	**9.64E-04**	**6.74E-04**	**6.74E-04**	**6.74E-04**	**5.94E-04**	**5.73E-05**
Offsite Total (metric tons/day) [a]	**3.70E-05**	**3.70E-05**	**3.70E-05**	**6.04E-05**	**5.65E-05**	**5.30E-05**	**4.57E-05**	**3.76E-05**	**3.61E-05**	**2.45E-05**	**2.24E-05**	**4.38E-05**	**3.06E-05**	**3.06E-05**	**3.06E-05**	**2.70E-05**	**2.60E-06**
Offsite Project Total (metric tons)	**1.35E-02**																

Notes:
[a] Per information provided by the Applicant's engineering contractor, the days per month are as follows: 22

Appendix 3.3A, Table 9
Offsite Vehicle Exhaust Emissions
Lightspeed SJC02
August 2021

Offsite Vehicle Exhaust CO Emissions from Lightspeed SJC02 Construction

	CO Emissions (lb/day)																
Vehicle Type	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**	**17**
Offsite Pick-up Truck	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.02
Offsite Dump Truck	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.16	0.15	0.03	0.03	0.03	0.01	0.01	0.01	0.00
Offsite Total (lb/day)	**0.10**	**0.10**	**0.10**	**0.10**	**0.10**	**0.10**	**0.10**	**0.10**	**0.21**	**0.19**	**0.07**	**0.07**	**0.07**	**0.06**	**0.06**	**0.06**	**0.02**
	CO Emissions (lb/month) [a]																
Vehicle Type	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**	**17**
Offsite Pick-up Truck	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.40
Offsite Dump Truck	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	3.58	3.23	0.65	0.65	0.65	0.32	0.32	0.32	0.00
Offsite Total (lb/month)	**2.19**	**2.19**	**2.19**	**2.19**	**2.19**	**2.19**	**2.19**	**2.19**	**4.69**	**4.23**	**1.64**	**1.64**	**1.64**	**1.32**	**1.32**	**1.32**	**0.40**
Offsite Project Total (tons)	**0.02**																

Offsite Vehicle Exhaust VOC Emissions from Lightspeed SJC02 Construction

	VOC Emissions (lb/day)																
Vehicle Type	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**	**17**
Offsite Pick-up Truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite Dump Truck	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.06	0.04	0.01	0.01	0.01	0.00	0.00	0.00	0.00
Offsite Total (lb/day)	**0.02**	**0.02**	**0.02**	**0.02**	**0.02**	**0.02**	**0.02**	**0.02**	**0.06**	**0.05**	**0.01**	**0.01**	**0.01**	**0.01**	**0.01**	**0.01**	**0.00**
	VOC Emissions (lb/month) [a]																
Vehicle Type	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**	**17**
Offsite Pick-up Truck	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.03
Offsite Dump Truck	0.38	0.38	0.38	0.38	0.38	0.38	0.38	0.38	1.26	0.95	0.19	0.19	0.19	0.09	0.09	0.09	0.00
Offsite Total (lb/month)	**0.45**	**0.45**	**0.45**	**0.45**	**0.45**	**0.45**	**0.45**	**0.45**	**1.33**	**1.01**	**0.25**	**0.25**	**0.25**	**0.16**	**0.16**	**0.16**	**0.03**
Offsite Project Total (tons)	**0.00**																

Offsite Vehicle Exhaust Emissions
Lightspeed SJC02
August 2021

Offsite Vehicle Exhaust SO_X Emissions from Lightspeed SJC02 Construction

Vehicle Type	SO_X Emissions (lb/day)																
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Offsite Pick-up Truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite Dump Truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite Total (lb/day)	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**
Vehicle Type	**SO_X Emissions (lb/month) [a]**																
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Offsite Pick-up Truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite Dump Truck	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.03	0.03	0.01	0.01	0.01	0.00	0.00	0.00	0.00
Offsite Total (lb/month)	**0.01**	**0.01**	**0.01**	**0.01**	**0.01**	**0.01**	**0.01**	**0.01**	**0.04**	**0.04**	**0.01**	**0.01**	**0.01**	**0.01**	**0.01**	**0.01**	**0.00**
Offsite Project Total (tons)	**0.00**																

Offsite Vehicle Exhaust NO_X Emissions from Lightspeed SJC02 Construction

Vehicle Type	NO_X Emissions (lb/day)																
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Offsite Pick-up Truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite Dump Truck	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.68	0.65	0.13	0.13	0.13	0.06	0.06	0.06	0.00
Offsite Total (lb/day)	**0.21**	**0.21**	**0.21**	**0.21**	**0.21**	**0.21**	**0.21**	**0.21**	**0.68**	**0.65**	**0.13**	**0.13**	**0.13**	**0.07**	**0.07**	**0.07**	**0.00**
Vehicle Type	**NO_X Emissions (lb/month) [a]**																
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Offsite Pick-up Truck	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.03
Offsite Dump Truck	4.48	4.48	4.48	4.48	4.48	4.48	4.48	4.48	14.92	14.25	2.85	2.85	2.85	1.43	1.43	1.43	0.00
Offsite Total (lb/month)	**4.57**	**4.57**	**4.57**	**4.57**	**4.57**	**4.57**	**4.57**	**4.57**	**15.02**	**14.33**	**2.93**	**2.93**	**2.93**	**1.51**	**1.51**	**1.51**	**0.03**
Offsite Project Total (tons)	**0.04**																

Offsite Vehicle Exhaust Emissions
Lightspeed SJC02
August 2021

Offsite Vehicle Exhaust and Vehicle Wear PM_{10} Emissions from Lightspeed SJC02 Construction

Vehicle Type	PM_{10} Emissions (lb/day) [b]																
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Offsite Pick-up Truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite Dump Truck	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.02	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite Total (lb/day)	**0.01**	**0.01**	**0.01**	**0.01**	**0.01**	**0.01**	**0.01**	**0.01**	**0.02**	**0.02**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**
Vehicle Type	**PM_{10} Emissions (lb/month) [a, b]**																
	1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**	**17**
Offsite Pick-up Truck	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.01
Offsite Dump Truck	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.44	0.32	0.06	0.06	0.06	0.03	0.03	0.03	0.00
Offsite Total (lb/month)	**0.15**	**0.15**	**0.15**	**0.15**	**0.15**	**0.15**	**0.15**	**0.15**	**0.46**	**0.35**	**0.09**	**0.09**	**0.09**	**0.06**	**0.06**	**0.06**	**0.01**
Offsite Project Total (tons)	**0.00**																

Offsite Vehicle Exhaust and Vehicle Wear $PM_{2.5}$ Emissions from Lightspeed SJC02 Construction

Vehicle Type	$PM_{2.5}$ Emissions (lb/day) [b]																
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Offsite Pick-up Truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite Dump Truck	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.02	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite Total (lb/day)	**0.01**	**0.01**	**0.01**	**0.01**	**0.01**	**0.01**	**0.01**	**0.01**	**0.02**	**0.01**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**
Vehicle Type	**$PM_{2.5}$ Emissions (lb/month) [a, b]**																
	1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**	**17**
Offsite Pick-up Truck	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
Offsite Dump Truck	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.42	0.30	0.06	0.06	0.06	0.03	0.03	0.03	0.00
Offsite Total (lb/month)	**0.14**	**0.14**	**0.14**	**0.14**	**0.14**	**0.14**	**0.14**	**0.14**	**0.44**	**0.32**	**0.07**	**0.07**	**0.07**	**0.04**	**0.04**	**0.04**	**0.01**
Offsite Project Total (tons)	**0.00**																

Offsite Vehicle Exhaust Emissions
Lightspeed SJC02
August 2021

Offsite Vehicle Exhaust CO_2 Emissions from Lightspeed SJC02 Construction

Vehicle Type	CO_2 Emissions (metric tons/day)																
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Offsite Pick-up Truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite Dump Truck	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.03	0.03	0.01	0.01	0.01	0.00	0.00	0.00	0.00
Offsite Total (metric tons/day)	**0.01**	**0.01**	**0.01**	**0.01**	**0.01**	**0.01**	**0.01**	**0.01**	**0.04**	**0.04**	**0.01**	**0.01**	**0.01**	**0.01**	**0.01**	**0.01**	**0.00**
Vehicle Type	**CO_2 Emissions (metric tons/month) [a]**																
	1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**	**17**
Offsite Pick-up Truck	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.03
Offsite Dump Truck	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.73	0.72	0.14	0.14	0.14	0.07	0.07	0.07	0.00
Offsite Total (metric tons/month)	**0.30**	**0.30**	**0.30**	**0.30**	**0.30**	**0.30**	**0.30**	**0.30**	**0.81**	**0.79**	**0.22**	**0.22**	**0.22**	**0.15**	**0.15**	**0.15**	**0.03**
Offsite Project Total (metric tons)	**5.08**																

Offsite Vehicle Exhaust N_2O Emissions from Lightspeed SJC02 Construction

Vehicle Type	N_2O Emissions (metric tons/day)																
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Offsite Pick-up Truck	1.50E-08	1.50E-08	1.50E-08	1.50E-08	1.50E-08	1.50E-08	1.50E-08	1.50E-08	1.50E-08	1.50E-08	1.50E-08	1.50E-08	1.50E-08	1.50E-08	1.50E-08	1.50E-08	6.00E-09
Offsite Dump Truck	2.59E-07	2.59E-07	2.59E-07	2.59E-07	2.59E-07	2.59E-07	2.59E-07	2.59E-07	8.62E-07	8.62E-07	1.72E-07	1.72E-07	1.72E-07	8.62E-08	8.62E-08	8.62E-08	0.00E+00
Offsite Total (metric tons/day)	**2.74E-07**	**2.74E-07**	**2.74E-07**	**2.74E-07**	**2.74E-07**	**2.74E-07**	**2.74E-07**	**2.74E-07**	**8.77E-07**	**8.77E-07**	**1.87E-07**	**1.87E-07**	**1.87E-07**	**1.01E-07**	**1.01E-07**	**1.01E-07**	**6.00E-09**
Vehicle Type	**N_2O Emissions (metric tons/month) [a]**																
	1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**	**17**
Offsite Pick-up Truck	3.30E-07	3.30E-07	3.30E-07	3.30E-07	3.30E-07	3.30E-07	3.30E-07	3.30E-07	3.30E-07	3.30E-07	3.30E-07	3.30E-07	3.30E-07	3.30E-07	3.30E-07	3.30E-07	1.32E-07
Offsite Dump Truck	5.69E-06	5.69E-06	5.69E-06	5.69E-06	5.69E-06	5.69E-06	5.69E-06	5.69E-06	1.90E-05	1.90E-05	3.79E-06	3.79E-06	3.79E-06	1.90E-06	1.90E-06	1.90E-06	0.00E+00
Offsite Total (metric tons/month)	**6.02E-06**	**6.02E-06**	**6.02E-06**	**6.02E-06**	**6.02E-06**	**6.02E-06**	**6.02E-06**	**6.02E-06**	**1.93E-05**	**1.93E-05**	**4.12E-06**	**4.12E-06**	**4.12E-06**	**2.23E-06**	**2.23E-06**	**2.23E-06**	**1.32E-07**
Offsite Project Total (metric tons)	**1.06E-04**																

Offsite Vehicle Exhaust Emissions
Lightspeed SJC02
August 2021

Offsite Vehicle Exhaust CH_4 Emissions from Lightspeed SJC02 Construction

Vehicle Type	CH_4 Emissions (metric tons/day)																
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Offsite Pick-up Truck	8.10E-08	8.10E-08	8.10E-08	8.10E-08	8.10E-08	8.10E-08	8.10E-08	8.10E-08	8.10E-08	8.10E-08	8.10E-08	8.10E-08	8.10E-08	8.10E-08	8.10E-08	8.10E-08	3.24E-08
Offsite Dump Truck	5.70E-08	5.70E-08	5.70E-08	5.70E-08	5.70E-08	5.70E-08	5.70E-08	5.70E-08	1.90E-07	1.90E-07	3.80E-08	3.80E-08	3.80E-08	1.90E-08	1.90E-08	1.90E-08	0.00E+00
Offsite Total (metric tons/day)	**5.04E-10**	**1.38E-07**	**1.38E-07**	**1.38E-07**	**1.38E-07**	**1.38E-07**	**1.38E-07**	**1.38E-07**	**2.71E-07**	**2.71E-07**	**1.19E-07**	**1.19E-07**	**1.19E-07**	**1.00E-07**	**1.00E-07**	**1.00E-07**	**3.24E-08**
Vehicle Type	**CH_4 Emissions (metric tons/month) [a]**																
	1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**	**17**
Offsite Pick-up Truck	1.78E-06	1.78E-06	1.78E-06	1.78E-06	1.78E-06	1.78E-06	1.78E-06	1.78E-06	1.78E-06	1.78E-06	1.78E-06	1.78E-06	1.78E-06	1.78E-06	1.78E-06	1.78E-06	7.13E-07
Offsite Dump Truck	1.25E-06	1.25E-06	1.25E-06	1.25E-06	1.25E-06	1.25E-06	1.25E-06	1.25E-06	4.18E-06	4.18E-06	8.36E-07	8.36E-07	8.36E-07	4.18E-07	4.18E-07	4.18E-07	0.00E+00
Offsite Total (metric tons/month)	**3.04E-06**	**3.04E-06**	**3.04E-06**	**3.04E-06**	**3.04E-06**	**3.04E-06**	**3.04E-06**	**3.04E-06**	**5.96E-06**	**5.96E-06**	**2.62E-06**	**2.62E-06**	**2.62E-06**	**2.20E-06**	**2.20E-06**	**2.20E-06**	**7.13E-07**
Offsite Project Total (metric tons)	**5.14E-05**																

Notes:
[a] The days per month for construction in the data above was provided by the Applicant's engineering contractor.

Appendix 3.3A, Table 10
Offsite Vehicle Idling Emissions
Lightspeed SJC02
August 2021

Offsite Vehicle Idling CO Emissions from Lightspeed SJC02 Construction

	CO Emissions (lb/day)																
Vehicle Type	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**	**17**
Offsite Dump Truck [a]	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.06	0.06	0.01	0.01	0.01	0.01	0.01	0.01	0.00
Offsite Total (lb/day)	**0.02**	**0.02**	**0.02**	**0.02**	**0.02**	**0.02**	**0.02**	**0.02**	**0.06**	**0.06**	**0.01**	**0.01**	**0.01**	**0.01**	**0.01**	**0.01**	**0.00**
	CO Emissions (lb/month) [b]																
Vehicle Type	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**	**17**
Offsite Dump Truck [a]	0.38	0.38	0.38	0.38	0.38	0.38	0.38	0.38	1.27	1.29	0.26	0.26	0.26	0.13	0.13	0.13	0.00
Offsite Total (lb/month)	**0.38**	**0.38**	**0.38**	**0.38**	**0.38**	**0.38**	**0.38**	**0.38**	**1.27**	**1.29**	**0.26**	**0.26**	**0.26**	**0.13**	**0.13**	**0.13**	**0.00**
Offsite Project Total (tons)	**0.00**																

Offsite Vehicle Idling VOC Emissions from Lightspeed SJC02 Construction

	VOC Emissions (lb/day)																
Vehicle Type	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**	**17**
Offsite Dump Truck [a]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite Total (lb/day)	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**
	VOC Emissions (lb/month) [b]																
Vehicle Type	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**	**17**
Offsite Dump Truck [a]	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.10	0.10	0.02	0.02	0.02	0.01	0.01	0.01	0.00
Offsite Total (lb/month)	**0.03**	**0.03**	**0.03**	**0.03**	**0.03**	**0.03**	**0.03**	**0.03**	**0.10**	**0.10**	**0.02**	**0.02**	**0.02**	**0.01**	**0.01**	**0.01**	**0.00**
Offsite Project Total (tons)	**0.00**																

Offsite Vehicle Idling Emissions
Lightspeed SJC02
August 2021

Offsite Vehicle Idling SO_X Emissions from Lightspeed SJC02 Construction

Vehicle Type	SO_X Emissions (lb/day)																
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Offsite Dump Truck [a]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite Total (lb/day)	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**
Vehicle Type	**SO_X Emissions (lb/month) [b]**																
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Offsite Dump Truck [a]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite Total (lb/month)	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**
Offsite Project Total (tons)	**0.00**																

Offsite Vehicle Idling NO_X Emissions from Lightspeed SJC02 Construction

Vehicle Type	NO_X Emissions (lb/day)																
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Offsite Dump Truck [a]	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.06	0.06	0.01	0.01	0.01	0.01	0.01	0.01	0.00
Offsite Total (lb/day)	**0.02**	**0.02**	**0.02**	**0.02**	**0.02**	**0.02**	**0.02**	**0.02**	**0.06**	**0.06**	**0.01**	**0.01**	**0.01**	**0.01**	**0.01**	**0.01**	**0.00**
Vehicle Type	**NO_X Emissions (lb/month) [b]**																
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Offsite Dump Truck [a]	0.42	0.42	0.42	0.42	0.42	0.42	0.42	0.42	1.41	1.36	0.27	0.27	0.27	0.14	0.14	0.14	0.00
Offsite Total (lb/month)	**0.42**	**0.42**	**0.42**	**0.42**	**0.42**	**0.42**	**0.42**	**0.42**	**1.41**	**1.36**	**0.27**	**0.27**	**0.27**	**0.14**	**0.14**	**0.14**	**0.00**
Offsite Project Total (tons)	**0.00**																

Offsite Vehicle Idling Emissions
Lightspeed SJC02
August 2021

Offsite Vehicle Idling PM_{10} Emissions from Lightspeed SJC02 Construction

Vehicle Type	PM_{10} Emissions (lb/day)																
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Offsite Dump Truck [a]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite Total (lb/day)	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**
Vehicle Type	**PM_{10} Emissions (lb/month) [b]**																
	1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**	**17**
Offsite Dump Truck [a]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite Total (lb/month)	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**
Offsite Project Total (tons)	**0.00**																

Offsite Vehicle Idling $PM_{2.5}$ Emissions from Lightspeed SJC02 Construction

Vehicle Type	$PM_{2.5}$ Emissions (lb/day)																
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Offsite Dump Truck [a]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite Total (lb/day)	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**
Vehicle Type	**$PM_{2.5}$ Emissions (lb/month) [b]**																
	1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**	**17**
Offsite Dump Truck [a]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite Total (lb/month)	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**
Offsite Project Total (tons)	**0.00**																

Offsite Vehicle Idling Emissions
Lightspeed SJC02
August 2021

Offsite Vehicle Idling CO_2 Emissions from Lightspeed SJC02 Construction

Vehicle Type	CO_2 Emissions (metric tons/day)																
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Offsite Dump Truck [a]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite Total (metric tons/day)	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.01**	**0.01**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**
Vehicle Type	CO_2 Emissions (metric tons/month) [b]																
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Offsite Dump Truck [a]	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.11	0.11	0.02	0.02	0.02	0.01	0.01	0.01	0.00
Offsite Total (metric tons/month)	**0.03**	**0.03**	**0.03**	**0.03**	**0.03**	**0.03**	**0.03**	**0.03**	**0.11**	**0.11**	**0.02**	**0.02**	**0.02**	**0.01**	**0.01**	**0.01**	**0.00**
Offsite Project Total (metric tons)	**0.59**																

Offsite Vehicle Idling Emissions
Lightspeed SJC02
August 2021

Offsite Vehicle Idling CH_4 Emissions from Lightspeed SJC02 Construction

Vehicle Type	CH_4 Emissions (metric tons/day)																
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Offsite Dump Truck [a]	2.80E-08	2.80E-08	2.80E-08	2.80E-08	2.80E-08	2.80E-08	2.80E-08	2.80E-08	9.33E-08	9.27E-08	1.85E-08	1.85E-08	1.85E-08	9.27E-09	9.27E-09	9.27E-09	0.00E+00
Offsite Total (metric tons/day)	**2.80E-08**	**2.80E-08**	**2.80E-08**	**2.80E-08**	**2.80E-08**	**2.80E-08**	**2.80E-08**	**2.80E-08**	**9.33E-08**	**9.27E-08**	**1.85E-08**	**1.85E-08**	**1.85E-08**	**9.27E-09**	**9.27E-09**	**9.27E-09**	**0.00E+00**
Vehicle Type	**CH_4 Emissions (metric tons/month) [b]**																
	1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**	**17**
Offsite Dump Truck [a]	6.16E-07	6.16E-07	6.16E-07	6.16E-07	6.16E-07	6.16E-07	6.16E-07	6.16E-07	2.05E-06	2.04E-06	4.08E-07	4.08E-07	4.08E-07	2.04E-07	2.04E-07	2.04E-07	0.00E+00
Offsite Total (metric tons/month)	**6.16E-07**	**6.16E-07**	**6.16E-07**	**6.16E-07**	**6.16E-07**	**6.16E-07**	**6.16E-07**	**6.16E-07**	**2.05E-06**	**2.04E-06**	**4.08E-07**	**4.08E-07**	**4.08E-07**	**2.04E-07**	**2.04E-07**	**2.04E-07**	**0.00E+00**
Offsite Project Total (metric tons)	**1.09E-05**																

Notes:
[a] It is estimated that each Offsite dump truck idles for approximately 5 minutes each day, or: 0.083 idle-hrs/day.
[b] The days per month for construction in the data above was provided by the Applicant's engineering contractor, as presented in Appendix 3.3A, Table 11.

Appendix 3.3A, Table 11
Emissions from Fugitive Dust and Other Offroad Activities
Lightspeed SJC02
Revised November 2021

Grading and Truck Dumping/Loading Activity Levels for Lightspeed SJC02 Construction

Source	Monthly Activity Levels																
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Graded Area (acres) [a]	0	0	0	11	11	11	11	11	11	0	0	0	0	0	0	0	0
Soil Imported/Exported (cubic yards) [b]	19,333	19,333	19,333	19,333	19,333	19,333	19,333	19,333	19,333	19,333	19,333	19,333	19,333	19,333	19,333	0	0

Notes:

[a] Estimated the entire site to be graded due to the need for laydown/storage; assumed this disturbance was equally distributed amongst the months in which graders are utilized.

[b] Soil Imported/Exported provided by the Applicant's engineering contractor. Assumed the imports/exports and associated loading/dumping activity are equally distributed amongst the months in which front end loaders are utilized either onsite or offsite.

Demolition Activity Levels

Source	Monthly Activity Levels																
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Debris Generated from Mechanical Dismemberment (tons) [a]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Notes:

[a] Demolition of existing buildings is no longer expected, as all existing buildings have already been removed from the project site. Accordingly, the demolition quantities have been set to zero, with no associated fugitive dust emissions from debris loading expected.

Onsite Vehicle Fugitive PM_{10} Emissions from Unpaved Roads During Lightspeed SJC02 Construction

Vehicle Type	Fugitive PM_{10} Emissions (lb/day) [a]																
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Onsite Pick-up Truck	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	1.25
Onsite Dump Truck	31.25	31.25	31.25	31.25	3.75	2.50	2.50	2.50	2.50	2.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Onsite Total (lb/day)	**33.75**	**33.75**	**33.75**	**33.75**	**6.25**	**5.00**	**5.00**	**5.00**	**5.00**	**5.00**	**2.50**	**2.50**	**2.50**	**2.50**	**2.50**	**2.50**	**1.25**
Vehicle Type	**Fugitive PM_{10} Emissions (lb/month) [a]**																
	1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**	**17**
Onsite Pick-up Truck	55.00	55.00	55.00	55.00	55.00	55.00	55.00	55.00	55.00	55.00	55.00	55.00	55.00	55.00	55.00	55.00	27.50
Onsite Dump Truck	687.52	687.52	687.52	687.52	82.50	55.00	55.00	55.00	55.00	55.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Onsite Total (lb/month)	**742.52**	**742.52**	**742.52**	**742.52**	**137.50**	**110.00**	**110.00**	**110.00**	**110.00**	**110.00**	**55.00**	**55.00**	**55.00**	**55.00**	**55.00**	**55.00**	**27.50**
Onsite Project Total (tons)	**2.01**																

Notes:

[a] Emissions based on the controlled unpaved road emission factor for PM_{10}.

Onsite Vehicle Fugitive $PM_{2.5}$ Emissions from Unpaved Roads During Lightspeed SJC02 Construction

Vehicle Type	Fugitive $PM_{2.5}$ Emissions (lb/day) [a]																
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Onsite Pick-up Truck	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.13
Onsite Dump Truck	3.13	3.13	3.13	3.13	0.38	0.25	0.25	0.25	0.25	0.25	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Onsite Total (lb/day)	**3.38**	**3.38**	**3.38**	**3.38**	**0.63**	**0.50**	**0.50**	**0.50**	**0.50**	**0.50**	**0.25**	**0.25**	**0.25**	**0.25**	**0.25**	**0.25**	**0.13**
Vehicle Type	**Fugitive $PM_{2.5}$ Emissions (lb/month) [a]**																
	1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**	**17**
Onsite Pick-up Truck	5.50	5.50	5.50	5.50	5.50	5.50	5.50	5.50	5.50	5.50	5.50	5.50	5.50	5.50	5.50	5.50	2.75
Onsite Dump Truck	68.75	68.75	68.75	68.75	8.25	5.50	5.50	5.50	5.50	5.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Onsite Total (lb/month)	**74.25**	**74.25**	**74.25**	**74.25**	**13.75**	**11.00**	**11.00**	**11.00**	**11.00**	**11.00**	**5.50**	**5.50**	**5.50**	**5.50**	**5.50**	**5.50**	**2.75**
Onsite Project Total (tons)	**0.20**																

Notes:

[a] Emissions based on the controlled unpaved road emission factor for $PM_{2.5}$.

Emissions from Fugitive Dust and Other Offroad Activities
Lightspeed SJC02
Revised November 2021

Offsite Vehicle Fugitive PM_{10} Emissions from Unpaved Roads During Lightspeed SJC02 Construction

Vehicle Type	Fugitive PM_{10} Emissions (lb/day) [a]																
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Offsite Pick-up Truck	3.13	3.13	3.13	3.13	3.13	3.13	3.13	3.13	3.13	3.13	3.13	3.13	3.13	3.13	3.13	3.13	1.25
Offsite Dump Truck	1.88	1.88	1.88	1.88	1.88	1.88	1.88	1.88	6.25	6.25	1.25	1.25	1.25	0.63	0.63	0.63	0.00
Onsite Total (lb/day)	**5.00**	**5.00**	**5.00**	**5.00**	**5.00**	**5.00**	**5.00**	**5.00**	**9.38**	**9.38**	**4.38**	**4.38**	**4.38**	**3.75**	**3.75**	**3.75**	**1.25**
Vehicle Type	**Fugitive PM_{10} Emissions (lb/month) [a]**																
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Offsite Pick-up Truck	68.75	68.75	68.75	68.75	68.75	68.75	68.75	68.75	68.75	68.75	68.75	68.75	68.75	68.75	68.75	68.75	27.50
Offsite Dump Truck	41.25	41.25	41.25	41.25	41.25	41.25	41.25	41.25	137.50	137.50	27.50	27.50	27.50	13.75	13.75	13.75	0.00
Onsite Total (lb/month)	**110.00**	**110.00**	**110.00**	**110.00**	**110.00**	**110.00**	**110.00**	**110.00**	**206.26**	**206.26**	**96.25**	**96.25**	**96.25**	**82.50**	**82.50**	**82.50**	**27.50**
Onsite Project Total (tons)	**0.93**																

Notes:
[a] Emissions based on the controlled unpaved road emission factor for PM_{10}.

Offsite Vehicle Fugitive $PM_{2.5}$ Emissions from Unpaved Roads During Lightspeed SJC02 Construction

Vehicle Type	Fugitive $PM_{2.5}$ Emissions (lb/day) [a]																
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Offsite Pick-up Truck	0.31	0.31	0.31	0.31	0.31	0.31	0.31	0.31	0.31	0.31	0.31	0.31	0.31	0.31	0.31	0.31	0.13
Offsite Dump Truck	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.63	0.63	0.13	0.13	0.13	0.06	0.06	0.06	0.00
Onsite Total (lb/day)	**0.50**	**0.50**	**0.50**	**0.50**	**0.50**	**0.50**	**0.50**	**0.50**	**0.94**	**0.94**	**0.44**	**0.44**	**0.44**	**0.38**	**0.38**	**0.38**	**0.13**
Vehicle Type	**Fugitive $PM_{2.5}$ Emissions (lb/month) [a]**																
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Offsite Pick-up Truck	6.88	6.88	6.88	6.88	6.88	6.88	6.88	6.88	6.88	6.88	6.88	6.88	6.88	6.88	6.88	6.88	2.75
Offsite Dump Truck	4.13	4.13	4.13	4.13	4.13	4.13	4.13	4.13	13.75	13.75	2.75	2.75	2.75	1.38	1.38	1.38	0.00
Onsite Total (lb/month)	**11.00**	**11.00**	**11.00**	**11.00**	**11.00**	**11.00**	**11.00**	**11.00**	**20.63**	**20.63**	**9.63**	**9.63**	**9.63**	**8.25**	**8.25**	**8.25**	**2.75**
Onsite Project Total (tons)	**0.09**																

Notes:
[a] Emissions based on the controlled unpaved road emission factor for $PM_{2.5}$.

Emissions from Fugitive Dust and Other Offroad Activities
Lightspeed SJC02
Revised November 2021

Grading and Truck Dumping/Loading Fugitive PM_{10} Emissions from Lightspeed SJC02 Construction

Construction Activity	Fugitive PM_{10} Emissions (lb/day) [a, b]																
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Grading [c]	0.00	0.00	0.00	0.21	0.21	0.21	0.21	0.21	0.21	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Truck Dumping/Loading [d, e]	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.00	0.00
Total (lb/day)	**0.04**	**0.04**	**0.04**	**0.25**	**0.25**	**0.25**	**0.25**	**0.25**	**0.25**	**0.04**	**0.04**	**0.04**	**0.04**	**0.04**	**0.04**	**0.00**	**0.00**
Construction Activity	**Fugitive PM_{10} Emissions (lb/month) [a, b]**																
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Grading	0.00	0.00	0.00	4.68	4.68	4.68	4.68	4.68	4.68	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Truck Dumping/Loading	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.00	0.00
Total (lb/month)	**0.85**	**0.85**	**0.85**	**5.53**	**5.53**	**5.53**	**5.53**	**5.53**	**5.53**	**0.85**	**0.85**	**0.85**	**0.85**	**0.85**	**0.85**	**0.00**	**0.00**
Project Total (tons)	**0.02**																

Notes:
[a] Work days per month are as follows, provided by the Applicant's engineering contractor: 22
[b] Emissions based on the controlled emission factor for PM_{10}.
[c] Per Section 4.3 of Appendix A of the *CalEEMod User's Guide* (BREEZE 2021), the following blade width was assumed for grading equipment: 12 ft
[d] Assume that soil is dumped from or loaded to the truck the same month it is imported or exported, respectively.
[e] Per Section 4.3 of Appendix A of the *CalEEMod User's Guide* (BREEZE 2021), the following conversion factor was used: 1.26 tons/cubic yard

Grading and Truck Dumping/Loading Fugitive $PM_{2.5}$ Emissions from Lightspeed SJC02 Construction

Construction Activity	Fugitive $PM_{2.5}$ Emissions (lb/day) [a, b]																
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Grading [c]	0.00	0.00	0.00	0.02	0.02	0.02	0.02	0.02	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Truck Dumping/Loading [d, e]	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.00	0.00
Onsite Total (lb/day)	**0.01**	**0.01**	**0.01**	**0.03**	**0.03**	**0.03**	**0.03**	**0.03**	**0.03**	**0.01**	**0.01**	**0.01**	**0.01**	**0.01**	**0.01**	**0.00**	**0.00**
Construction Activity	**Fugitive $PM_{2.5}$ Emissions (lb/month) [a, b]**																
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Grading	0.00	0.00	0.00	0.50	0.50	0.50	0.50	0.50	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Truck Dumping/Loading	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.00	0.00
Onsite Total (lb/month)	**0.13**	**0.13**	**0.13**	**0.63**	**0.63**	**0.63**	**0.63**	**0.63**	**0.63**	**0.13**	**0.13**	**0.13**	**0.13**	**0.13**	**0.13**	**0.00**	**0.00**
Onsite Project Total (tons)	**0.00**																

Notes:
[a] Work days per month are as follows, provided by the Applicant's engineering contractor: 22
[b] Emissions based on the controlled emission factor for $PM_{2.5}$.
[c] Per Section 4.3 of Appendix A of the *CalEEMod User's Guide* (BREEZE 2021), the following blade width was assumed for grading equipment: 12 ft
[d] Assume that soil is dumped from or loaded to the truck the same month it is imported or exported, respectively.
[e] Per Section 4.3 of Appendix A of the *CalEEMod User's Guide* (BREEZE 2021), the following conversion factor was used: 1.26 tons/cubic yard

Onsite Demolition Fugitive PM_{10} Emissions from Lightspeed SJC02 Construction

Demolition Activity	Fugitive PM_{10} Emissions (lbs/day) [a, b]																
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Dismemberment	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Debris Loading [c]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Onsite Total (lbs/day)	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**
Demolition Activity	**Fugitive PM_{10} Emissions (lbs/month) [a, b]**																
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Dismemberment	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Debris Loading [c]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Onsite Total (lbs/month)	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**
Onsite Project Total (tons)	**0.00**																

Notes:
[a] Work days per month are as follows, provided by the Applicant's engineering contractor: 22
[b] Emissions based on the controlled emission factor for PM_{10}.
[c] Assume that all debris generated per month from dismemberment is loaded in the same month that it is generated.

Emissions from Fugitive Dust and Other Offroad Activities
Lightspeed SJC02
Revised November 2021

Onsite Demolition Fugitive $PM_{2.5}$ Emissions from Lightspeed SJC02 Construction

Demolition Activity	Fugitive $PM_{2.5}$ Emissions (lbs/day) [a, b]																
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Dismemberment	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Debris Loading [c]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Onsite Total (lbs/day)	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**
Demolition Activity	**Fugitive $PM_{2.5}$ Emissions (lbs/month) [a, b]**																
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Dismemberment	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Debris Loading [c]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Onsite Total (lbs/month)	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**
Onsite Project Total (tons)	**0.00**																

Notes:
[a] Work days per month are as follows, provided by the Applicant's engineering contractor: 22
[b] Emissions based on the controlled emission factor for $PM_{2.5}$.
[c] Assume that all debris generated per month from dismemberment is loaded in the same month that it is generated.

Construction Vehicle Activity for Lightspeed SJC02 Construction

Vehicle Type	Onsite Miles/Day [a]	Offsite Miles/Day [a]	Working Days per Month [b]
Pick-up Truck	4	2	22
Dump Truck	4	2	22

Notes:
[a] Estimated based on the dimensions of the project site and anticipated activity onsite and offsite.
[b] Work days per month provided by the Applicant's engineering contractor.

Fugitive Dust Emission Factors for Unpaved Roads
Vehicles on Unpaved Surfaces at Industrial Sites

Parameter	PM_{10}	$PM_{2.5}$
Mean Vehicle Weight [a]	16.5	16.5
Silt Content [b]	8.5	8.5
k [c]	1.5	0.15
a [c]	0.9	0.9
b [c]	0.45	0.45
P [d]	64	64
Emission Factor (Uncontrolled, lb/mile) [e]	1.95	0.20
Reduction from Applying Dust Suppressant Annually [f]	84%	84%
Emission Factor (Controlled, lb/mile)	0.31	0.03

Notes:
[a] Mean vehicle weight assumes that medium/heavy duty trucks weigh 16.5 tons.
[b] Silt content taken from Table 13.2.2-1 of Section 13.2.2 of *AP-42* (EPA 2006) for a Construction Site, Scraper Route; this value is consistent with the CalEEMod default for the San Francisco Bay Area Air Basin.
[c] k, a, and b taken from Table 13.2.2-2 of Section 13.2.2 of *AP-42* (EPA 2006) for industrial roads.
[d] P taken as the CalEEMod default for the Santa Clara climate region of the San Francisco Bay Area Air Basin.
[e] Emission factor calculated using Equations 1a and 2 from Section 13.2.2 of *AP-42* (EPA 2006):
Emission Factor (lb/mile) = {k (lb/mile) x [Silt Content (%) / 12]^a x [Mean Vehicle Weight (tons) / 3]^b} x [(365 - P) / 365]
[f] Control efficiency taken from Table XI-D of the *SCAQMD CEQA Handbook* for Travel Over Unpaved Roads (SCAQMD 2007).

Emissions from Fugitive Dust and Other Offroad Activities
Lightspeed SJC02
Revised November 2021

Fugitive Dust Emission Factors for Truck Dumping/Loading
Truck Dumping on a Pile or Loading to a Truck from a Pile

Parameter	PM_{10}	$PM_{2.5}$
k [a]	0.35	0.053
U [b]	4.9	4.9
M [a]	12.0	12.0
Emission Factor (lb/ton) [c]	0.0001	0.00001
Reduction from Watering Every 3 Hours [d]	61%	61%
Emission Factor (Controlled, lb/ton)	0.00003	0.000005

Notes:
[a] k and M taken from Section 4.3 of Appendix A of the *CalEEMod User's Guide* (BREEZE 2021).
[b] U taken as the CalEEMod default for the Santa Clara climate region of the San Francisco Bay Area Air Basin. Value converted from units of m/s to mph.
[c] Emission factor calculated using the following equation from Section 4.3 of Appendix A of the *CalEEMod User's Guide* (BREEZE 2021):
Emission Factor (lb/ton) = k x 0.0032 x $[U \text{ (mph)} / 5]^{1.3}$ / $[M \text{ (\%)} / 2]^{1.4}$
[d] Control efficiency taken from Table XI-A of the *SCAQMD CEQA Handbook* for Construction & Demolition (SCAQMD 2007), based on watering disturbed areas every 3 hours.

Fugitive Dust Emission Factors for Grading
Grading Equipment Passes

Parameter	PM_{10}	$PM_{2.5}$
S [a]	7.1	7.1
F [a]	0.6	0.031
Emission Factor (lb/VMT) [b]	1.543	0.167
Reduction from Watering Every 3 Hours [c]	61%	61%
Emission Factor (Controlled, lb/VMT)	0.602	0.065

Notes:
[a] S and F taken from Section 4.3 of Appendix A of the *CalEEMod User's Guide* (BREEZE 2021).
[b] Emission factor calculated using the following equation from Section 4.3 of Appendix A of the *CalEEMod User's Guide* (BREEZE 2021):
PM_{10} Emission Factor (lb/VMT) = 0.051 x $[S \text{ (mph)}]^{2.0}$ x F_{PM10}
$PM_{2.5}$ Emission Factor (lb/VMT) = 0.04 x $[S \text{ (mph)}]^{2.5}$ x $F_{PM2.5}$
[c] Control efficiency taken from Table XI-A of the *SCAQMD CEQA Handbook* for Construction & Demolition (SCAQMD 2007), based on watering disturbed areas every 3 hours.

Fugitive Dust Emission Factors for Dismemberment
Dismemberment and Collapse of Structures

Parameter	PM_{10}	$PM_{2.5}$
k [a]	0.35	0.053
U (mph) [b]	4.9	4.9
M (%) [c]	2.0	2.0
Emission Factor (lbs/ton) [d]	0.00110	0.00017
Reduction from Watering Every 3 Hours [e]	61%	61%
Emission Factor (Controlled, lbs/ton)	0.00043	0.00006

Notes:
[a] k, the particle size multiplier, taken from Section 13.2.4.3 of *AP-42* (EPA 2006) per Section 4.4 of Appendix A of the *CalEEMod User's Guide (*BREEZE 2021).
[b] U, the mean wind speed, taken as the CalEEMod default for the Santa Clara climate region of the San Francisco Bay Area Air Basin. Converted from meters/second (m/s) to miles per hour (mph).
[c] M, the material moisture content, taken from Section 4.4 of Appendix A of the *CalEEMod User's Guide* (BREEZE 2021).
[d] Emission factor calculated using the following equation from Section 13.2.4.3 of *AP-42* (EPA 2006) per Section 4.4 of Appendix A of the *CalEEMod User's Guide* (BREEZE 2021):
Emission Factor (lbs/ton) = k x 0.0032 x $[U / 5]^{1.3}$ / $[M / 2]^{1.4}$
[e] Control efficiency taken from Table XI-A of the *SCAQMD CEQA Handbook* for Construction & Demolition (SCAQMD 2007), based on watering disturbed areas every 3 hours.

Emissions from Fugitive Dust and Other Offroad Activities
Lightspeed SJC02
Revised November 2021

Fugitive Dust Emission Factors for Debris Loading
Loading of Debris/Building Waste

Parameter	PM_{10}	$PM_{2.5}$
k [a]	0.35	0.053
$EF_{L\text{-}TSP}$ [b]	0.058	0.058
Emission Factor (lbs/ton) [c]	0.020	0.003
Reduction from Watering Every 3 Hours [d]	61%	61%
Emission Factor (Controlled, lbs/ton)	0.008	0.001

Notes:
[a] k taken from Section 13.2.4.3 of *AP-42* (EPA 2006) per Section 4.4 of Appendix A of the *CalEEMod User's Guide* (BREEZE 2021).
[b] $EF_{L\text{-}TSP}$ taken from Section 4.4 of Appendix A of the *CalEEMod User's Guide* (BREEZE 2021).
[c] Emission factor calculated using the following equation from Section 4.4 of Appendix A of the *CalEEMod User's Guide* (BREEZE 2021):
Emission Factor (lbs/ton) = k x $EF_{L\text{-}TSP}$ (lbs/ton)
[d] Control efficiency taken from Table XI-A of the *SCAQMD CEQA Handbook* for Construction & Demolition (SCAQMD 2007), based on watering disturbed areas every 3 hours.

Appendix 3.3A, Table 12
Onsite Paving Emissions
Lightspeed SJC02
August 2021

Paving VOC Emissions from Lightspeed SJC02 Construction

Paving Area	VOC Emissions (lb/day) [a]																
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Paved Areas	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.24	0.24	0.24	0.24	0.24	0.24
Onsite Total (lb/day)	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.24**	**0.24**	**0.24**	**0.24**	**0.24**	**0.24**
Paving Area	**VOC Emissions (lb/month) [a]**																
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Paved Areas	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.39	5.39	5.39	5.39	5.39	5.39
Onsite Total (lb/month)	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**5.39**	**5.39**	**5.39**	**5.39**	**5.39**	**5.39**
Onsite Project Total (tons)	**0.02**																

Notes:
[a] Assumed paving activities occur during only the last six months of construction.

Paving Emission Variables

Parameter	Value
Total Paved Area (acres) [a]	12.3
Working Days per Month [b]	22
Emission Factor (lb/acre) [c]	2.62

Notes:
[a] Total paved area estimated to include road and parking areas, sidewalks, motorcycle and bicycle parking spaces, outdoor equipment pads, and the substation, for a total area of 537,453 square feet.
[b] Working days per month were provided by the Applicant's engineering contractor.
[c] Emission factor is per Section 4.8 of Appendix A of the *CalEEMod User's Guide* (BREEZE 2021).

Appendix 3.3A, Table 13
Onroad Vehicle Exhaust Emissions
Lightspeed SJC02
August 2021

Onroad Vehicle Usage During Lightspeed SJC02 Construction

Vehicle Type	Number per Day																
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Onroad Delivery Trucks [a, d]	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	120	120
Onroad Material Hauling Trucks [b, d]	22	22	22	22	22	22	22	22	22	22	22	22	22	22	22	0	0
Construction Worker Commute [c]	56	56	58	62	120	129	135	138	154	194	261	275	280	283	223	166	57

Notes:

[a] Onroad Delivery Trucks include information provided by the Applicant's engineering contractor, and exclude material haul trucks separately reported. Concrete truck trips are assumed to be included in this estimate.

[b] Material Hauling Trucks include data from the Applicant's engineering contractor. A net volume of 15 cubic yards per tandum dump truck results in 7,333 total trips for soil imports/exports. Truck trips limited to the months in which soil imports/exports are expected to be handled onsite, as presented in Appendix 3.3A, Table 11.

[c] Assumed 1 commute per 1 worker; number of workers traveling to both onsite and offsite locations provided by the Applicant's engineering contractor as Total Staffing each month.

[d] Assumed deliveries and material hauling would occur 22 days per month based on information from the Applicant's engineering contractor.

Onroad Vehicle Exhaust CO Emissions from Lightspeed SJC02 Construction

Vehicle Type	CO Emissions (lb/day)																
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Onroad Delivery Trucks	1.52	1.52	1.52	1.52	1.52	1.52	1.52	1.52	1.52	1.25	1.25	1.25	1.25	1.25	1.25	1.54	1.54
Material Hauling Trucks	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.77	0.77	0.77	0.77	0.77	0.77	0.00	0.00
Construction Worker Commute	2.57	2.57	2.66	2.85	5.51	5.92	6.20	6.33	7.07	8.02	10.79	11.37	11.58	11.70	9.22	6.86	2.36
Onroad Total (lb/day)	**5.02**	**5.02**	**5.11**	**5.29**	**7.95**	**8.37**	**8.64**	**8.78**	**9.52**	**10.04**	**12.81**	**13.39**	**13.59**	**13.72**	**11.24**	**8.40**	**3.89**
Vehicle Type	**CO Emissions (lb/month)**																
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Onroad Delivery Trucks	33.48	33.48	33.48	33.48	33.48	33.48	33.48	33.48	33.48	27.54	27.54	27.54	27.54	27.54	27.54	33.80	33.80
Material Hauling Trucks	20.37	20.37	20.37	20.37	20.37	20.37	20.37	20.37	20.37	16.85	16.85	16.85	16.85	16.85	16.85	0.00	0.00
Construction Worker Commute	56.54	56.54	58.56	62.60	121.16	130.25	136.30	139.33	155.49	176.44	237.38	250.11	254.66	257.39	202.82	150.98	51.84
Onroad Total (lb/month)	**110.39**	**110.39**	**112.41**	**116.44**	**175.01**	**184.09**	**190.15**	**193.18**	**209.33**	**220.82**	**281.76**	**294.49**	**299.04**	**301.77**	**247.20**	**184.77**	**85.64**
Onroad Project Total (tons)	**1.66**																

Onroad Vehicle Exhaust VOC Emissions from Lightspeed SJC02 Construction

Vehicle Type	VOC Emissions (lb/day)																
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Onroad Delivery Trucks	0.38	0.38	0.38	0.38	0.38	0.38	0.38	0.38	0.38	0.31	0.31	0.31	0.31	0.31	0.31	0.38	0.38
Material Hauling Trucks	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.18	0.18	0.18	0.18	0.18	0.18	0.00	0.00
Construction Worker Commute	0.04	0.04	0.04	0.05	0.09	0.10	0.10	0.10	0.12	0.12	0.17	0.18	0.18	0.18	0.14	0.11	0.04
Onroad Total (lb/day)	**0.65**	**0.65**	**0.65**	**0.65**	**0.69**	**0.70**	**0.71**	**0.71**	**0.72**	**0.61**	**0.65**	**0.66**	**0.66**	**0.67**	**0.63**	**0.49**	**0.42**
Vehicle Type	**VOC Emissions (lb/month)**																
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Onroad Delivery Trucks	8.47	8.47	8.47	8.47	8.47	8.47	8.47	8.47	8.47	6.82	6.82	6.82	6.82	6.82	6.82	8.38	8.38
Material Hauling Trucks	4.83	4.83	4.83	4.83	4.83	4.83	4.83	4.83	4.83	3.87	3.87	3.87	3.87	3.87	3.87	0.00	0.00
Construction Worker Commute	0.92	0.92	0.95	1.02	1.97	2.12	2.22	2.27	2.53	2.72	3.67	3.86	3.93	3.97	3.13	2.33	0.80
Onroad Total (lb/month)	**14.22**	**14.22**	**14.25**	**14.32**	**15.27**	**15.42**	**15.52**	**15.57**	**15.83**	**13.42**	**14.36**	**14.55**	**14.63**	**14.67**	**13.82**	**10.71**	**9.18**
Onroad Project Total (tons)	**0.12**																

Onroad Vehicle Exhaust Emissions
Lightspeed SJC02
August 2021

Onroad Vehicle Exhaust SO_X Emissions from Lightspeed SJC02 Construction

Vehicle Type	SO_X Emissions (lb/day)																
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Onroad Delivery Trucks	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.04	0.04
Material Hauling Trucks	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.02	0.02	0.02	0.02	0.02	0.02	0.00	0.00
Construction Worker Commute	0.01	0.01	0.01	0.01	0.02	0.02	0.02	0.02	0.02	0.02	0.03	0.03	0.03	0.04	0.03	0.02	0.01
Onroad Total (lb/day)	**0.07**	**0.07**	**0.07**	**0.07**	**0.08**	**0.08**	**0.08**	**0.08**	**0.08**	**0.08**	**0.09**	**0.09**	**0.09**	**0.09**	**0.09**	**0.06**	**0.05**
Vehicle Type	**SO_X Emissions (lb/month)**																
	1.00	**2.00**	**3.00**	**4.00**	**5.00**	**6.00**	**7.00**	**8.00**	**9.00**	**10.00**	**11.00**	**12.00**	**13.00**	**14**	**15**	**16**	**17**
Onroad Delivery Trucks	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.73	0.73	0.73	0.73	0.73	0.73	0.90	0.90
Material Hauling Trucks	0.56	0.56	0.56	0.56	0.56	0.56	0.56	0.56	0.56	0.55	0.55	0.55	0.55	0.55	0.55	0.00	0.00
Construction Worker Commute	0.16	0.16	0.16	0.17	0.34	0.36	0.38	0.39	0.43	0.53	0.72	0.75	0.77	0.78	0.61	0.46	0.16
Onroad Total (lb/month)	**1.47**	**1.47**	**1.48**	**1.49**	**1.65**	**1.68**	**1.70**	**1.70**	**1.75**	**1.81**	**2.00**	**2.03**	**2.05**	**2.06**	**1.89**	**1.36**	**1.06**
Onroad Project Total (tons)	**0.01**																

Onroad Vehicle Exhaust NO_X Emissions from Lightspeed SJC02 Construction

Vehicle Type	NO_X Emissions (lb/day)																
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Onroad Delivery Trucks	10.47	10.47	10.47	10.47	10.47	10.47	10.47	10.47	10.47	8.96	8.96	8.96	8.96	8.96	8.96	10.99	10.99
Material Hauling Trucks	7.34	7.34	7.34	7.34	7.34	7.34	7.34	7.34	7.34	6.42	6.42	6.42	6.42	6.42	6.42	0.00	0.00
Construction Worker Commute	0.19	0.19	0.20	0.21	0.42	0.45	0.47	0.48	0.53	0.58	0.78	0.82	0.84	0.84	0.67	0.50	0.17
Onroad Total (lb/day)	**18.01**	**18.01**	**18.01**	**18.03**	**18.23**	**18.26**	**18.28**	**18.29**	**18.35**	**15.96**	**16.16**	**16.20**	**16.22**	**16.23**	**16.05**	**11.49**	**11.16**
Vehicle Type	**NO_X Emissions (lb/month)**																
	1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**	**17**
Onroad Delivery Trucks	230.37	230.37	230.37	230.37	230.37	230.37	230.37	230.37	230.37	197.08	197.08	197.08	197.08	197.08	197.08	241.87	241.87
Material Hauling Trucks	161.49	161.49	161.49	161.49	161.49	161.49	161.49	161.49	161.49	141.34	141.34	141.34	141.34	141.34	141.34	0.00	0.00
Construction Worker Commute	4.27	4.27	4.42	4.73	9.15	9.83	10.29	10.52	11.74	12.74	17.14	18.06	18.39	18.58	14.64	10.90	3.74
Onroad Total (lb/month)	**396.12**	**396.12**	**396.27**	**396.58**	**401.00**	**401.69**	**402.14**	**402.37**	**403.59**	**351.16**	**355.56**	**356.48**	**356.80**	**357.00**	**353.06**	**252.77**	**245.61**
Onroad Project Total (tons)	**3.11**																

Onroad Vehicle Exhaust Emissions
Lightspeed SJC02
August 2021

Onroad Vehicle Exhaust, Vehicle Wear, and Fugitive Dust PM_{10} Emissions from Lightspeed SJC02 Construction

Vehicle Type	PM_{10} Emissions (lb/day) [a]																
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Onroad Delivery Trucks	1.51	1.51	1.51	1.51	1.51	1.51	1.51	1.51	1.51	1.48	1.48	1.48	1.48	1.48	1.48	1.81	1.81
Material Hauling Trucks	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.85	0.85	0.85	0.85	0.85	0.85	0.00	0.00
Construction Worker Commute	0.92	0.92	0.96	1.02	1.98	2.13	2.23	2.28	2.54	3.20	4.31	4.54	4.62	4.67	3.68	2.74	0.94
Onroad Total (lb/day)	**3.31**	**3.31**	**3.34**	**3.41**	**4.37**	**4.51**	**4.61**	**4.66**	**4.93**	**5.54**	**6.64**	**6.87**	**6.95**	**7.00**	**6.01**	**4.55**	**2.76**
Vehicle Type	**PM_{10} Emissions (lb/month) [a]**																
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Onroad Delivery Trucks	33.29	33.29	33.29	33.29	33.29	33.29	33.29	33.29	33.29	32.53	32.53	32.53	32.53	32.53	32.53	39.93	39.93
Material Hauling Trucks	19.17	19.17	19.17	19.17	19.17	19.17	19.17	19.17	19.17	18.80	18.80	18.80	18.80	18.80	18.80	0.00	0.00
Construction Worker Commute	20.34	20.34	21.07	22.52	43.58	46.85	49.03	50.12	55.93	70.44	94.77	99.85	101.66	102.75	80.97	60.27	20.70
Onroad Total (lb/month)	**72.80**	**72.80**	**73.52**	**74.98**	**96.04**	**99.31**	**101.49**	**102.58**	**108.39**	**121.77**	**146.10**	**151.18**	**153.00**	**154.09**	**132.30**	**100.20**	**60.62**
Onroad Project Total (tons)	**0.91**																

Notes:
[a] PM_{10} Emissions include emissions from exhaust, paved roads, and tire and brake wear.

Onroad Vehicle Exhaust, Vehicle Wear, and Fugitive Dust $PM_{2.5}$ Emissions from Lightspeed SJC02 Construction

Vehicle Type	$PM_{2.5}$ Emissions (lb/day) [a]																
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Onroad Delivery Trucks	0.57	0.57	0.57	0.57	0.57	0.57	0.57	0.57	0.57	0.53	0.53	0.53	0.53	0.53	0.53	0.65	0.65
Material Hauling Trucks	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.29	0.29	0.29	0.29	0.29	0.29	0.00	0.00
Construction Worker Commute	0.25	0.25	0.26	0.28	0.54	0.58	0.61	0.62	0.69	0.87	1.17	1.23	1.26	1.27	1.00	0.74	0.26
Onroad Total (lb/day)	**1.12**	**1.12**	**1.13**	**1.15**	**1.41**	**1.45**	**1.48**	**1.49**	**1.56**	**1.69**	**1.99**	**2.05**	**2.08**				**0.91**
Vehicle Type	**$PM_{2.5}$ Emissions (lb/month) [a]**																
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Onroad Delivery Trucks	12.46	12.46	12.46	12.46	12.46	12.46	12.46	12.46	12.46	11.74	11.74	11.74	11.74	11.74	11.74	14.40	14.40
Material Hauling Trucks	6.69	6.69	6.69	6.69	6.69	6.69	6.69	6.69	6.69	6.33	6.33	6.33	6.33	6.33	6.33	0.00	0.00
Construction Worker Commute	5.53	5.53	5.72	6.12	11.84	12.73	13.32	13.62	15.20	19.13	25.74	27.12	27.61	27.91	21.99	16.37	5.62
Onroad Total (lb/month)	**24.67**	**24.67**	**24.87**	**25.26**	**30.98**	**31.87**	**32.47**	**32.76**	**34.34**	**37.20**	**43.81**	**45.19**	**45.68**	**45.98**	**40.06**	**30.77**	**20.02**
Onroad Project Total (tons)	**0.29**																

Notes:
[a] $PM_{2.5}$ Emissions include emissions from exhaust, paved roads, and tire and brake wear.

Onroad Vehicle Exhaust Emissions
Lightspeed SJC02
August 2021

Onroad Vehicle Exhaust CO_2 Emissions from Lightspeed SJC02 Construction

Vehicle Type	CO_2 Emissions (metric tons/day)																
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Onroad Delivery Trucks	1.91	1.91	1.91	1.91	1.91	1.91	1.91	1.91	1.91	1.88	1.88	1.88	1.88	1.88	1.88	2.30	2.30
Material Hauling Trucks	1.47	1.47	1.47	1.47	1.47	1.47	1.47	1.47	1.47	1.45	1.45	1.45	1.45	1.45	1.45	0.00	0.00
Construction Worker Commute	0.38	0.38	0.39	0.42	0.82	0.88	0.92	0.94	1.05	1.28	1.73	1.82	1.85	1.87	1.48	1.10	0.38
Onroad Total (metric tons/day)	**3.76**	**3.76**	**3.78**	**3.81**	**4.20**	**4.26**	**4.30**	**4.32**	**4.43**	**4.61**	**5.05**	**5.14**	**5.18**				**2.68**
Vehicle Type	**CO_2 Emissions (metric tons/month)**																
	1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**	**17**
Onroad Delivery Trucks	42.04	42.04	42.04	42.04	42.04	42.04	42.04	42.04	42.04	41.27	41.27	41.27	41.27	41.27	41.27	50.65	50.65
Material Hauling Trucks	32.41	32.41	32.41	32.41	32.41	32.41	32.41	32.41	32.41	31.85	31.85	31.85	31.85	31.85	31.85	0.00	0.00
Construction Worker Commute	8.38	8.38	8.68	9.28	17.96	19.31	20.20	20.65	23.05	28.26	38.02	40.06	40.79	41.23	32.49	24.18	8.30
Onroad Total (metric tons/month)	**82.83**	**82.83**	**83.13**	**83.72**	**92.40**	**93.75**	**94.65**	**95.10**	**97.49**	**101.38**	**111.14**	**113.18**	**113.91**	**114.35**	**105.61**	**74.84**	**58.96**
Onroad Project Total (metric tons)	**1,599.28**																

Onroad Vehicle Exhaust N_2O Emissions from Lightspeed SJC02 Construction

Vehicle Type	N_2O Emissions (metric tons/day)																
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Onroad Delivery Trucks	6.15E-05	6.15E-05	6.15E-05	6.15E-05	6.15E-05	6.15E-05	6.15E-05	6.15E-05	6.15E-05	6.15E-05	6.15E-05	6.15E-05	6.15E-05	6.15E-05	6.15E-05	7.55E-05	7.55E-05
Material Hauling Trucks	3.83E-05	3.83E-05	3.83E-05	3.83E-05	3.83E-05	3.83E-05	3.83E-05	3.83E-05	3.83E-05	3.83E-05	3.83E-05	3.83E-05	3.83E-05	3.83E-05	3.83E-05	0.00E+00	0.00E+00
Construction Worker Commute	1.94E-06	1.94E-06	2.00E-06	2.14E-06	4.15E-06	4.46E-06	4.67E-06	4.77E-06	5.32E-06	6.70E-06	9.02E-06	9.50E-06	9.68E-06	9.78E-06	7.71E-06	5.74E-06	1.97E-06
Onroad Total (metric tons/day)	**1.02E-04**	**1.02E-04**	**1.02E-04**	**1.02E-04**	**1.04E-04**	**1.04E-04**	**1.05E-04**	**1.05E-04**	**1.05E-04**	**1.07E-04**	**1.09E-04**	**1.09E-04**	**1.10E-04**	**1.10E-04**	**1.08E-04**	**8.12E-05**	**7.75E-05**
Vehicle Type	**N_2O Emissions (metric tons/month)**																
	1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**	**17**
Onroad Delivery Trucks	1.35E-03	1.35E-03	1.35E-03	1.35E-03	1.35E-03	1.35E-03	1.35E-03	1.35E-03	1.35E-03	1.35E-03	1.35E-03	1.35E-03	1.35E-03	1.35E-03	1.35E-03	1.66E-03	1.66E-03
Material Hauling Trucks	8.43E-04	8.43E-04	8.43E-04	8.43E-04	8.43E-04	8.43E-04	8.43E-04	8.43E-04	8.43E-04	8.43E-04	8.43E-04	8.43E-04	8.43E-04	8.43E-04	8.43E-04	0.00E+00	0.00E+00
Construction Worker Commute	4.26E-05	4.26E-05	4.41E-05	4.71E-05	9.12E-05	9.81E-05	1.03E-04	1.05E-04	1.17E-04	1.48E-04	1.98E-04	2.09E-04	2.13E-04	2.15E-04	1.70E-04	1.26E-04	4.33E-05
Onroad Total (metric tons/month)	**2.24E-03**	**2.24E-03**	**2.24E-03**	**2.24E-03**	**2.29E-03**	**2.29E-03**	**2.30E-03**	**2.30E-03**	**2.31E-03**	**2.34E-03**	**2.39E-03**	**2.41E-03**	**2.41E-03**	**2.41E-03**	**2.37E-03**	**1.79E-03**	**1.70E-03**
Onroad Project Total (metric tons)	**3.83E-02**																

Onroad Vehicle Exhaust Emissions
Lightspeed SJC02
August 2021

Onroad Vehicle Exhaust CH_4 Emissions from Lightspeed SJC02 Construction

Vehicle Type	CH_4 Emissions (metric tons/day)																
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Onroad Delivery Trucks	1.36E-05	1.36E-05	1.36E-05	1.36E-05	1.36E-05	1.36E-05	1.36E-05	1.36E-05	1.36E-05	1.36E-05	1.36E-05	1.36E-05	1.36E-05	1.36E-05	1.36E-05	1.66E-05	1.66E-05
Material Hauling Trucks	8.44E-06	8.44E-06	8.44E-06	8.44E-06	8.44E-06	8.44E-06	8.44E-06	8.44E-06	8.44E-06	8.44E-06	8.44E-06	8.44E-06	8.44E-06	8.44E-06	8.44E-06	0.00E+00	0.00E+00
Construction Worker Commute	6.29E-06	6.29E-06	6.51E-06	6.96E-06	1.35E-05	1.45E-05	1.52E-05	1.55E-05	1.73E-05	2.18E-05	2.93E-05	3.09E-05	3.14E-05	3.18E-05	2.50E-05	1.86E-05	6.40E-06
Onroad Total (metric tons/day)	**2.83E-05**	**2.83E-05**	**2.85E-05**	**2.90E-05**	**3.55E-05**	**3.65E-05**	**3.72E-05**	**3.75E-05**	**3.93E-05**	**4.38E-05**	**5.13E-05**	**5.29E-05**	**5.35E-05**	**5.38E-05**	**4.71E-05**	**3.53E-05**	**2.30E-05**
Vehicle Type	**CH_4 Emissions (metric tons/month)**																
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Onroad Delivery Trucks	2.98E-04	2.98E-04	2.98E-04	2.98E-04	2.98E-04	2.98E-04	2.98E-04	2.98E-04	2.98E-04	2.98E-04	2.98E-04	2.98E-04	2.98E-04	2.98E-04	2.98E-04	3.66E-04	3.66E-04
Material Hauling Trucks	1.86E-04	1.86E-04	1.86E-04	1.86E-04	1.86E-04	1.86E-04	1.86E-04	1.86E-04	1.86E-04	1.86E-04	1.86E-04	1.86E-04	1.86E-04	1.86E-04	1.86E-04	0.00E+00	0.00E+00
Construction Worker Commute	1.38E-04	1.38E-04	1.43E-04	1.53E-04	2.97E-04	3.19E-04	3.34E-04	3.41E-04	3.81E-04	4.79E-04	6.45E-04	6.80E-04	6.92E-04	6.99E-04	5.51E-04	4.10E-04	1.41E-04
Onroad Total (metric tons/month)	**6.23E-04**	**6.23E-04**	**6.27E-04**	**6.37E-04**	**7.81E-04**	**8.03E-04**	**8.18E-04**	**8.25E-04**	**8.65E-04**	**9.64E-04**	**1.13E-03**	**1.16E-03**	**1.18E-03**	**1.18E-03**	**1.04E-03**	**7.76E-04**	**5.07E-04**
Onroad Project Total (metric tons)	**1.45E-02**																

Onroad Construction Vehicle Activity for Lightspeed SJC02 Construction

Vehicle Type	Roundtrip Miles/Day	Working Days per Month [a]
Onroad Delivery Trucks [b]	14.6	22
Material Hauling Trucks [c]	40.0	22
Construction Worker Commute [b]	21.6	22

Notes:

[a] The working days per month was provided by the Applicant's engineering contractor.

[b] Roundtrip miles/day for Onroad Delivery Trucks and Construction Worker Commute taken as the Urban, San Francisco Bay Area Air Basin C-NW and H-W values, respectively, from Table 4.2 of Appendix D of the *CalEEMod User's Guide* (BREEZE 2021).

[c] Roundtrip miles/day for Material Hauling Trucks taken as the default from Section 4.5 of Appendix A of the *CalEEMod User's Guide* (BREEZE 2021).

Appendix 3.3A, Table 14
Onroad Vehicle Idling Emissions
Lightspeed SJC02
August 2021

Onroad Vehicle Idling CO Emissions from Lightspeed SJC02 Construction

Vehicle Type	CO Emissions (lb/day)																
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Onroad Delivery Trucks [a]	0.45	0.45	0.45	0.45	0.45	0.45	0.45	0.45	0.45	0.46	0.46	0.46	0.46	0.46	0.46	0.56	0.56
Material Hauling Trucks [a]	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.00	0.00
Onroad Total (lb/day)	**0.58**	**0.58**	**0.58**	**0.58**	**0.58**	**0.58**	**0.58**	**0.58**	**0.58**	**0.59**	**0.59**	**0.59**	**0.59**	**0.59**	**0.59**	**0.56**	**0.56**
Vehicle Type	**CO Emissions (lb/month) [b]**																
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Onroad Delivery Trucks [a]	9.90	9.90	9.90	9.90	9.90	9.90	9.90	9.90	9.90	10.03	10.03	10.03	10.03	10.03	10.03	12.31	12.31
Material Hauling Trucks [a]	2.82	2.82	2.82	2.82	2.82	2.82	2.82	2.82	2.82	2.86	2.86	2.86	2.86	2.86	2.86	0.00	0.00
Onroad Total (lb/month)	**12.72**	**12.72**	**12.72**	**12.72**	**12.72**	**12.72**	**12.72**	**12.72**	**12.72**	**12.90**	**12.90**	**12.90**	**12.90**	**12.90**	**12.90**	**12.31**	**12.31**
Onroad Project Total (tons)	**0.11**																

Onroad Vehicle Idling VOC Emissions from Lightspeed SJC02 Construction

Vehicle Type	VOC Emissions (lb/day)																
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Onroad Delivery Trucks [a]	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.04	0.04
Material Hauling Trucks [a]	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.00	0.00
Onroad Total (lb/day)	**0.04**	**0.04**	**0.04**	**0.04**	**0.04**	**0.04**	**0.04**	**0.04**	**0.04**	**0.04**	**0.04**	**0.04**	**0.04**	**0.04**	**0.04**	**0.04**	**0.04**
Vehicle Type	**VOC Emissions (lb/month) [b]**																
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Onroad Delivery Trucks [a]	0.67	0.67	0.67	0.67	0.67	0.67	0.67	0.67	0.67	0.65	0.65	0.65	0.65	0.65	0.65	0.80	0.80
Material Hauling Trucks [a]	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.00	0.00
Onroad Total (lb/month)	**0.89**	**0.89**	**0.89**	**0.89**	**0.89**	**0.89**	**0.89**	**0.89**	**0.89**	**0.87**	**0.87**	**0.87**	**0.87**	**0.87**	**0.87**	**0.80**	**0.80**
Onroad Project Total (tons)	**0.01**																

Onroad Vehicle Idling SO_X Emissions from Lightspeed SJC02 Construction

Vehicle Type	SO_X Emissions (lb/day)																
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Onroad Delivery Trucks [a]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Material Hauling Trucks [a]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Onroad Total (lb/day)	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**
Vehicle Type	**SO_X Emissions (lb/month) [b]**																
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Onroad Delivery Trucks [a]	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.03	0.03
Material Hauling Trucks [a]	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.00	0.00
Onroad Total (lb/month)	**0.03**	**0.03**	**0.03**	**0.03**	**0.03**	**0.03**	**0.03**	**0.03**	**0.03**	**0.03**	**0.03**	**0.03**	**0.03**	**0.03**	**0.03**	**0.03**	**0.03**
Onroad Project Total (tons)	**0.00**																

Onroad Vehicle Idling Emissions
Lightspeed SJC02
August 2021

Onroad Vehicle Idling NO_X Emissions from Lightspeed SJC02 Construction

Vehicle Type	NO_X Emissions (lb/day)																
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Onroad Delivery Trucks [a]	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.87	0.87	0.87	0.87	0.87	0.87	1.07	1.07
Material Hauling Trucks [a]	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.00	0.00
Onroad Total (lb/day)	**1.08**	**1.08**	**1.08**	**1.08**	**1.08**	**1.08**	**1.08**	**1.08**	**1.08**	**1.01**	**1.01**	**1.01**	**1.01**	**1.01**	**1.01**	**1.07**	**1.07**
Vehicle Type	**NO_X Emissions (lb/month) [b]**																
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Onroad Delivery Trucks [a]	20.56	20.56	20.56	20.56	20.56	20.56	20.56	20.56	20.56	19.14	19.14	19.14	19.14	19.14	19.14	23.49	23.49
Material Hauling Trucks [a]	3.12	3.12	3.12	3.12	3.12	3.12	3.12	3.12	3.12	3.02	3.02	3.02	3.02	3.02	3.02	0.00	0.00
Onroad Total (lb/month)	**23.69**	**23.69**	**23.69**	**23.69**	**23.69**	**23.69**	**23.69**	**23.69**	**23.69**	**22.16**	**22.16**	**22.16**	**22.16**	**22.16**	**22.16**	**23.49**	**23.49**
Onroad Project Total (tons)	**0.20**																

Onroad Vehicle Idling PM_{10} Emissions from Lightspeed SJC02 Construction

Vehicle Type	PM_{10} Emissions (lb/day)																
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Onroad Delivery Trucks [a]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Material Hauling Trucks [a]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Onroad Total (lb/day)	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**
Vehicle Type	**PM_{10} Emissions (lb/month) [b]**																
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Onroad Delivery Trucks [a]	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.04	0.04	0.04	0.04	0.04	0.04	0.05	0.05
Material Hauling Trucks [a]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Onroad Total (lb/month)	**0.06**	**0.06**	**0.06**	**0.06**	**0.06**	**0.06**	**0.06**	**0.06**	**0.06**	**0.05**	**0.05**	**0.05**	**0.05**	**0.05**	**0.05**	**0.05**	**0.05**
Onroad Project Total (tons)	**0.00**																

Onroad Vehicle Idling $PM_{2.5}$ Emissions from Lightspeed SJC02 Construction

Vehicle Type	$PM_{2.5}$ Emissions (lb/day)																
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Onroad Delivery Trucks [a]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Material Hauling Trucks [a]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Onroad Total (lb/day)	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**
Vehicle Type	**$PM_{2.5}$ Emissions (lb/month) [b]**																
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Onroad Delivery Trucks [a]	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.04	0.04	0.04	0.04	0.04	0.04	0.05	0.05
Material Hauling Trucks [a]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Onroad Total (lb/month)	**0.05**	**0.05**	**0.05**	**0.05**	**0.05**	**0.05**	**0.05**	**0.05**	**0.05**	**0.04**	**0.04**	**0.04**	**0.04**	**0.04**	**0.04**	**0.05**	**0.05**
Onroad Project Total (tons)	**0.00**																

Onroad Vehicle Idling Emissions
Lightspeed SJC02
August 2021

Onroad Vehicle Idling CO_2 Emissions from Lightspeed SJC02 Construction

Vehicle Type	CO_2 Emissions (metric tons/day)																
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Onroad Delivery Trucks [a]	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.06	0.06
Material Hauling Trucks [a]	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.00	0.00
Onroad Total (metric tons/day)	**0.06**	**0.06**	**0.06**	**0.06**	**0.06**	**0.06**	**0.06**	**0.06**	**0.06**	**0.06**	**0.06**	**0.06**	**0.06**	**0.06**	**0.06**	**0.06**	**0.06**
Vehicle Type	**CO_2 Emissions (metric tons/month) [b]**																
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Onroad Delivery Trucks [a]	1.16	1.16	1.16	1.16	1.16	1.16	1.16	1.16	1.16	1.14	1.14	1.14	1.14	1.14	1.14	1.40	1.40
Material Hauling Trucks [a]	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.00	0.00
Onroad Total (metric tons/month)	**1.41**	**1.41**	**1.41**	**1.41**	**1.41**	**1.41**	**1.41**	**1.41**	**1.41**	**1.39**	**1.39**	**1.39**	**1.39**	**1.39**	**1.39**	**1.40**	**1.40**
Onroad Project Total (metric tons)	**23.80**																

Onroad Vehicle Idling CH_4 Emissions from Lightspeed SJC02 Construction

Vehicle Type	CH_4 Emissions (metric tons/day)																
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Onroad Delivery Trucks [a]	6.46E-07	6.46E-07	6.46E-07	6.46E-07	6.46E-07	6.46E-07	6.46E-07	6.46E-07	6.46E-07	6.25E-07	6.25E-07	6.25E-07	6.25E-07	6.25E-07	6.25E-07	7.67E-07	7.67E-07
Material Hauling Trucks [a]	2.07E-07	2.07E-07	2.07E-07	2.07E-07	2.07E-07	2.07E-07	2.07E-07	2.07E-07	2.07E-07	2.06E-07	2.06E-07	2.06E-07	2.06E-07	2.06E-07	2.06E-07	0.00E+00	0.00E+00
Onroad Total (metric tons/day)	**8.54E-07**	**8.54E-07**	**8.54E-07**	**8.54E-07**	**8.54E-07**	**8.54E-07**	**8.54E-07**	**8.54E-07**	**8.54E-07**	**8.31E-07**	**8.31E-07**	**8.31E-07**	**8.31E-07**	**8.31E-07**	**8.31E-07**	**7.67E-07**	**7.67E-07**
Vehicle Type	**CH_4 Emissions (metric tons/month) [b]**																
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Onroad Delivery Trucks [a]	1.42E-05	1.42E-05	1.42E-05	1.42E-05	1.42E-05	1.42E-05	1.42E-05	1.42E-05	1.42E-05	1.38E-05	1.38E-05	1.38E-05	1.38E-05	1.38E-05	1.38E-05	1.69E-05	1.69E-05
Material Hauling Trucks [a]	4.56E-06	4.56E-06	4.56E-06	4.56E-06	4.56E-06	4.56E-06	4.56E-06	4.56E-06	4.56E-06	4.53E-06	4.53E-06	4.53E-06	4.53E-06	4.53E-06	4.53E-06	0.00E+00	0.00E+00
Onroad Total (metric tons/month)	**1.88E-05**	**1.88E-05**	**1.88E-05**	**1.88E-05**	**1.88E-05**	**1.88E-05**	**1.88E-05**	**1.88E-05**	**1.88E-05**	**1.83E-05**	**1.83E-05**	**1.83E-05**	**1.83E-05**	**1.83E-05**	**1.83E-05**	**1.69E-05**	**1.69E-05**
Onroad Project Total (metric tons)	**3.12E-04**																

Notes:
[a] It is estimated that each Onroad delivery truck and material haul truck idles for approximately 5 minutes each day, or: 0.083 idle-hrs/day.
[b] The days per month for construction in the data above was provided by the Applicant's engineering contractor.

Appendix 3.3A, Table 15
Equations Used to Calculate Criteria Pollutant and GHG Emissions
Lightspeed SJC02
August 2021

Equations Used to Calculate Emissions from Lightspeed SJC02 Construction

Emission Source	Pollutants	Equations	Variables
Construction Equipment Exhaust	CO, VOC, NO_X, SO_X, PM_{10}, and $PM_{2.5}$	$E_m = EF \times N \times Hp \times L \times H / 453.6$	E_m = Emissions (lb/month)
			EF = Emission factor (g/bhp-hr)
			N = Number of pieces of equipment
			Hp = Average horsepower
			L = Average load factor
			H = Hours per month
			453.6 = Conversion from g to lb
		$E_d = E_m / D$	E_d = Emissions (lb/day)
			E_m = Emissions (lb/month)
			D = Number of construction days per month
		$E_t = \Sigma E_m / 2,000$	E_t = Total Project Emissions (tons)
			E_m = Emissions (lb/month)
			2,000 = Conversion from lb to tons
	CO_2	$E_m = N \times FC \times EF \times H \times 0.001$	E_m = Emissions (metric tons/month)
			N = Number of pieces of equipment
			FC = Fuel consumption (gallons/hour)
			EF = Emission factor (kg/gallon)
			H = Hours per month
			0.001 = Conversion from kg to metric tons
		$E_d = E_m / D$	E_d = Emissions (metric tons/day)
			E_m = Emissions (metric tons/month)
			D = Number of construction days per month
		$E_t = \Sigma E_m$	E_m = Emissions (metric tons/month)
			E_t = Total Project Emissions (metric tons)
	CH_4 and N_2O	$E_m = N \times FC \times EF \times H / 1,000 \times 0.001$	E_m = Emissions (metric tons/month)
			N = Number of pieces of equipment
			FC = Fuel consumption (gallons/hour)
			EF = Emission factor (g/gallon)
			H = Hours per month
			1,000 = Conversion from g to kg
			0.001 = Conversion from kg to metric tons
		$E_d = E_m / D$	E_d = Emissions (metric tons/day)
			E_m = Emissions (metric tons/month)
			D = Number of construction days per month
		$E_t = \Sigma E_m$	E_m = Emissions (metric tons/month)
			E_t = Total Project Emissions (metric tons)

Equations Used to Calculate Criteria Pollutant and GHG Emissions
Lightspeed SJC02
August 2021

Equations Used to Calculate Emissions from Lightspeed SJC02 Construction

Emission Source	Pollutants	Equations	Variables
Vehicle Exhaust and Paved Road Fugitive PM_{10} and $PM_{2.5}$	CO, VOC, NO_X, SO_X, PM_{10}, and $PM_{2.5}$	$E_d = N \times VMT \times EF / 453.6$	E_d = Emissions (lb/day)
			N = Number of vehicles
			VMT = Vehicle miles traveled per day (miles/day)
			EF = EMFAC2017 emission factor (g/mile). Paved road fugitive PM_{10} and $PM_{2.5}$ emission factors calculated per Section 13.2.1 of *AP-42* (EPA 2011).
			453.6 = Conversion from g to lb
		$E_m = E_d \times D$	E_m = Emissions (lb/month)
			E_d = Emissions (lb/day)
			D = Number of construction days per month
		$E_t = \Sigma E_m / 2,000$	E_t = Total Project Emissions (tons)
			E_m = Emissions (lb/month)
			2,000 = Conversion from lb to tons
Unpaved Road Fugitive PM_{10} and $PM_{2.5}$	PM_{10} and $PM_{2.5}$	$E_d = N \times VMT \times EF$	E_d = Emissions (lb/day)
			N = Number of vehicles
			VMT = Vehicle miles traveled per day (miles/day)
			EF = Unpaved road fugitive PM_{10} and $PM_{2.5}$ emission factors (lb/mile) calculated per Section 13.2.2 of *AP-42* (EPA 2006).
		$E_m = E_d \times D$	E_m = Emissions (lb/month)
			E_d = Emissions (lb/day)
			D = Number of construction days per month
		$E_t = \Sigma E_m / 2,000$	E_t = Total Project Emissions (tons)
			E_m = Emissions (lb/month)
			2,000 = Conversion from lb to tons

Equations Used to Calculate Criteria Pollutant and GHG Emissions
Lightspeed SJC02
August 2021

Equations Used to Calculate Emissions from Lightspeed SJC02 Construction

Emission Source	Pollutants	Equations	Variables
Vehicle Exhaust	CO_2	$E_d = N \times VMT / FE \times EF \times 0.001$	E_d = Emissions (metric tons/day)
			N = Number of vehicles
			VMT = Vehicle miles traveled per day (miles/day)
			FE = Fuel economy (mpg)
			EF = Emission factor (kg/gallon)
			0.001 = Conversion from kg to metric tons
		$E_m = E_d \times D$	E_m = Emissions (metric tons/month)
			E_d = Emissions (metric tons/day)
			D = Number of construction days per month
		$E_t = \Sigma E_m$	E_t = Total Project Emissions (metric tons)
			E_m = Emissions (metric tons/month)
	CH_4 and N_2O	$E_d = N \times VMT \times EF / 1{,}000 \times 0.001$	E_d = Emissions (metric tons/day)
			N = Number of vehicles
			VMT = Vehicle miles traveled per day (miles/day)
			EF = Emission factor (g/mile)
			1,000 = Conversion from g to kg
			0.001 = Conversion from kg to metric tons
		$E_m = E_d \times D$	E_m = Emissions (metric tons/month)
			E_d = Emissions (metric tons/day)
			D = Number of construction days per month
		$E_t = \Sigma E_m$	E_m = Emissions (metric tons/month)
			E_t = Total Project Emissions (metric tons)
Vehicle Idling	CO, VOC, NO_X, SO_X, PM_{10}, and $PM_{2.5}$	$E_d = N \times I \times EF / 453.6$	E_d = Emissions (lb/day)
			N = Number of vehicles
			I = Idle time per vehicle per day (idle-hr/day)
			EF = EMFAC2017 emission factor (g/idle-hr)
			453.6 = Conversion from g to lb
		$E_m = E_d \times D$	E_m = Emissions (lb/month)
			E_d = Emissions (lb/day)
			D = Number of construction days per month
		$E_t = \Sigma E_m / 2{,}000$	E_t = Total Project Emissions (tons)
			E_m = Emissions (lb/month)
			2,000 = Conversion from lb to tons
Vehicle Idling	CO_2 and CH_4	$E_d = N \times I \times EF / 1{,}000 \times 0.001$	E_d = Emissions (metric tons/day)
			N = Number of vehicles
			I = Idle time per vehicle per day (idle-hr/day)
			EF = EMFAC2017 emission factor (g/idle-hr)
			1,000 = Conversion from g to kg
			0.001 = Conversion from kg to metric tons
		$E_m = E_d \times D$	E_m = Emissions (metric tons/month)
			E_d = Emissions (metric tons/day)
			D = Number of construction days per month

Equations Used to Calculate Criteria Pollutant and GHG Emissions
Lightspeed SJC02
August 2021

Equations Used to Calculate Emissions from Lightspeed SJC02 Construction

Emission Source	Pollutants	Equations	Variables
		$E_t = \Sigma E_m$	E_t = Total Project Emissions (metric tons)
			E_m = Emissions (metric tons/month)
Fugitive PM_{10} and $PM_{2.5}$ from Truck Dumping/Loading	PM_{10} and $PM_{2.5}$	$E_d = V \times 1.2641662 \times EF / D$	E_d = Emissions (lb/day)
			V= Volume of material dumped (cubic yards/month)
			1.2641662 = Conversion from cubic yards to tons
			EF = Fugitive PM_{10} and $PM_{2.5}$ emission factors (lb/ton), calculated per Section 4.3 of Appendix A of the *CalEEMod User's Guide* (BREEZE 2021).
			D = Number of construction days per month
		$E_m = E_d \times D$	E_m = Emissions (lb/month)
			E_d = Emissions (lb/day)
			D = Number of construction days per month
		$E_t = \Sigma E_m / 2{,}000$	E_m = Emissions (lb/month)
			E_t = Total Project Emissions (tons)
			2,000 = Conversion from lb to tons
Fugitive PM_{10} and $PM_{2.5}$ from Grading	PM_{10} and $PM_{2.5}$	$E_d = EF \times A / W \times 43{,}560 / 5{,}280 / D$	E_d = Emissions (lb/day)
			EF = Fugitive PM_{10} and $PM_{2.5}$ emission factors (lb/mile), calculated per Section 4.3 of Appendix A of the *CalEEMod User's Guide* (BREEZE 2021).
			A = Graded area (acres/month)
			W = Grading equipment blade width (ft)
			43,560 = Conversion factor from square feet to acres
			5,280 = Conversion factor from feet to miles
			D = Number of construction days per month
		$E_m = E_d \times D$	E_m = Emissions (lb/month)
			E_d = Emissions (lb/day)
			D = Number of construction days per month
		$E_t = \Sigma E_m / 2{,}000$	E_m = Emissions (lb/month)
			E_t = Total Project Emissions (tons)
			2,000 = Conversion from lb to tons
Fugitive PM_{10} and $PM_{2.5}$ from Dismemberment and Debris Loading	PM_{10} and $PM_{2.5}$	$E_d = T \times EF / D$	E_d = Emissions (lb/day)
			T = Debris Generated from Mechanical Dismemberment (tons/month)
			D = Number of construction days per month
			EF = Fugitive PM_{10} and $PM_{2.5}$ emission factors (lb/ton), calculated per Section 4.4 of Appendix A of the *CalEEMod User's Guide* (BREEZE 2021).
		$E_m = E_d \times D$	E_m = Emissions (lb/month)
			E_d = Emissions (lb/day)
			D = Number of construction days per month
		$E_t = \Sigma E_m / 2{,}000$	E_t = Total Project Emissions (tons)
			E_m = Emissions (lb/month)

Equations Used to Calculate Criteria Pollutant and GHG Emissions
Lightspeed SJC02
August 2021

Equations Used to Calculate Emissions from Lightspeed SJC02 Construction

Emission Source	Pollutants	Equations	Variables
			2,000 = Conversion from lb to tons
Paving	VOC	$E_d = A / M / D \times EF$	EF = VOC emission factor (lb/acre), calculated per Section 4.8 of Appendix A of the *CalEEMod User's Guide* (BREEZE 2021).
			A = Area of paved areas (acres)
			E_d = Emissions (lb/day)
			D = Number of construction days per month
			M = Number of paving construction months
		$E_m = E_d \times D$	E_m = Emissions (lb/month)
			E_d = Emissions (lb/day)
			D = Number of construction days per month
		$E_t = \Sigma E_m / 2{,}000$	E_t = Total Project Emissions (tons)
			E_m = Emissions (lb/month)
			2,000 = Conversion from lb to tons

Appendix 3.3A, Table 16
Construction Equipment Criteria Pollutant Emission Factors
Lightspeed SJC02
Revised November 2021

Construction Equipment Emission Factors for Lightspeed SJC02 Construction

Equipment [a]	Hours per Month [b]	Horsepower [c]	Load Factor [c]	2020 Emission Factors (g/bhp-hr) [d, e]						2021 Emission Factors (g/bhp-hr) [d, e]						2020 Fuel Consumption (gallons/hour) [f]	2021 Fuel Consumption (gallons/hour) [f]
				CO	VOC	NO_X [h]	SO_X	PM_{10} [h]	$PM_{2.5}$ [h]	CO	VOC	NO_X [h]	SO_X	PM_{10} [h]	$PM_{2.5}$ [h]		
Onsite																	
Water Truck [g]	220	402	0.38	1.414	0.246	0.260	0.005	0.008	0.008	1.338	0.225	0.260	0.005	0.008	0.008	4.15	4.15
Excavator	220	158	0.38	3.086	0.231	0.260	0.005	0.008	0.008	3.086	0.216	0.260	0.005	0.008	0.008	2.89	2.89
Grader	220	187	0.41	1.342	0.352	2.320	0.005	0.088	0.088	1.307	0.335	2.320	0.005	0.088	0.088	3.15	3.15
Cranes	220	231	0.29	1.790	0.384	2.320	0.005	0.088	0.088	1.678	0.349	2.320	0.005	0.088	0.088	2.19	2.18
Backhoe	220	97	0.37	3.601	0.331	0.260	0.005	0.008	0.008	3.571	0.296	0.260	0.005	0.008	0.008	1.59	1.59
Rubber Tired Loader	220	203	0.36	1.269	0.290	2.320	0.005	0.088	0.088	1.240	0.266	2.320	0.005	0.088	0.088	2.80	2.80
Forklift	220	89	0.20	3.760	0.459	2.740	0.005	0.192	0.192	3.720	0.412	2.740	0.005	0.192	0.192	2.00	2.00
Roller	220	80	0.38	3.531	0.388	2.740	0.005	0.192	0.192	3.507	0.353	2.740	0.005	0.192	0.192	1.35	1.36
Bore/Drill Rigs	220	221	0.5	1.068	0.142	0.260	0.005	0.008	0.008	1.064	0.132	0.260	0.005	0.008	0.008	3.90	3.89
Other General Industrial Equipment	220	88	0.34	3.771	0.446	2.740	0.005	0.192	0.192	3.740	0.404	2.740	0.005	0.192	0.192	1.38	1.39
Offsite																	
Water Truck [g]	220	402	0.38	1.414	0.246	0.260	0.005	0.008	0.008	1.338	0.225	0.260	0.005	0.008	0.008	4.15	4.15
Concrete Truck [g]	220	402	0.38	1.414	0.246	0.260	0.005	0.008	0.008	1.338	0.225	0.260	0.005	0.008	0.008	4.15	4.15
Excavator	220	158	0.38	3.086	0.231	0.260	0.005	0.008	0.008	3.086	0.216	0.260	0.005	0.008	0.008	2.89	2.89
Grader	220	187	0.41	1.342	0.352	2.320	0.005	0.088	0.088	1.307	0.335	2.320	0.005	0.088	0.088	3.15	3.15
Backhoe	220	97	0.37	3.601	0.331	0.260	0.005	0.008	0.008	3.571	0.296	0.260	0.005	0.008	0.008	1.59	1.59
Rubber Tired Loader	220	203	0.36	1.269	0.290	2.320	0.005	0.088	0.088	1.240	0.266	2.320	0.005	0.088	0.088	2.80	2.80
Forklift	220	89	0.20	3.760	0.459	2.740	0.005	0.192	0.192	3.720	0.412	2.740	0.005	0.192	0.192	2.00	2.00
Roller	220	80	0.38	3.531	0.388	2.740	0.005	0.192	0.192	3.507	0.353	2.740	0.005	0.192	0.192	1.35	1.36
Bore/Drill Rigs	220	221	0.5	1.068	0.142	0.260	0.005	0.008	0.008	1.064	0.132	0.260	0.005	0.008	0.008	3.90	3.89

Notes:

[a] Assumed all equipment is fired with diesel fuel, per Section 4.2 of Appendix A of the *CalEEMod User's Guide* (BREEZE 2021).

[b] Hours per month calculated based on the following schedule,

Work hours per day: 10

Work days per month: 22

[c] Construction equipment horsepower and load factor taken from Table 3.3 of Appendix D of the *CalEEMod User's Guide* (BREEZE 2021).

[d] Unless otherwise noted, construction equipment emission factors taken from Table 3.4 of Appendix D of the *CalEEMod User's Guide* (BREEZE 2021).

[e] Based on the preliminary construction schedule, Months 1 through 9 will occur in Year 1 and Months 10 through 17 will occur in Year 2. Although construction is not expected to begin until 2022, 2020 and 2021 emission factors and fuel consumption were used, as appropriate, to provide a more conservative emissions estimate.

[f] Fuel consumption based on consumption in the OFFROAD2017 Web database (https://www.arb.ca.gov/orion/) model for the San Francisco Bay Area in the year 2020 and 2021; value estimated by dividing the reported consumption (gallons/year) by the reported activity (hours/year)

[g] Horsepower, load factor, and emission factors for Off-Highway Trucks were assumed representative of Water and Concrete Trucks.

[h] NO_X, PM_{10}, and $PM_{2.5}$ construction equipment emission factors taken from Table 3.5 of Appendix D of the *CalEEMod User's Guide* (BREEZE 2021), assuming a mix of Tier 3/Tier 4-compliant equipment.

Appendix 3.3A, Table 17
Vehicle Criteria Pollutant Emission Factors
Lightspeed SJC02
August 2021

Vehicle Exhaust Emission Factors for Lightspeed SJC02 Construction

Vehicle Type	Location of Vehicle Operation	Vehicle Class [a]	2020 Exhaust Emission Factors (g/mile) [b, c]						2021 Exhaust Emission Factors (g/mile) [b, c]						Paved Road Emission Factors (g/mile) [d]		2020 Fuel Economy (mpg) [c, e]	2021 Fuel Economy (mpg) [c, e]
			CO	VOC	SO_X	NO_X	PM_{10}	$PM_{2.5}$	CO	VOC	SO_X	NO_X	PM_{10}	$PM_{2.5}$	PM_{10}	$PM_{2.5}$		
Pick-up Truck	Onsite or Offsite, Offroad	Light-duty Truck	2.303	0.152	0.008	0.200	0.044	0.029	2.053	0.132	0.008	0.173	0.057	0.029	N/A	N/A	25.162	25.870
Onroad Delivery Trucks	Onroad	Heavy/Medium-duty Diesel	0.484	0.122	0.011	3.327	0.180	0.105	0.398	0.099	0.011	2.846	0.169	0.094	0.300	0.075	7.628	7.769
Material Hauling Trucks	Onroad	Heavy-duty Diesel	0.472	0.112	0.013	3.746	0.144	0.080	0.391	0.090	0.013	3.279	0.136	0.072	0.300	0.075	6.161	6.269
Construction Worker Commute	Onroad	Light-duty Auto/Truck	0.964	0.016	0.003	0.073	0.046	0.019	0.868	0.013	0.003	0.063	0.046	0.019	0.300	0.075	27.879	28.639
Dump Truck	Onsite or Offsite, Offroad	Heavy-duty Diesel	3.688	1.298	0.034	15.383	0.457	0.437	3.334	0.978	0.034	14.691	0.328	0.313	N/A	N/A	6.161	6.269

Vehicle Idling Emission Factors for Lightspeed Construction

Vehicle Type	Location of Vehicle Operation	Vehicle Class [a]	2020 Idle Emission Factors (g/idle-hr) [b, c]						2021 Idle Emission Factors (g/idle-hr) [b, c]					
			CO	VOC	SO_X	NO_X	PM_{10}	$PM_{2.5}$	CO	VOC	SO_X	NO_X	PM_{10}	$PM_{2.5}$
Onroad Delivery Trucks	Onroad	Heavy/Medium-duty Diesel	25.051	1.708	0.062	52.031	0.138	0.132	25.387	1.652	0.061	48.438	0.113	0.108
Material Hauling Trucks	Onroad	Heavy-duty Diesel	31.380	2.410	0.059	34.785	0.029	0.027	31.899	2.394	0.058	33.596	0.024	0.023
Dump Truck	Onsite or Offsite, Offroad	Heavy-duty Diesel	31.380	2.410	0.059	34.785	0.029	0.027	31.899	2.394	0.058	33.596	0.024	0.023

Notes:

[a] The vehicle classes are represented as follows:
Light-duty Truck: Assumed to be 50% LDT1 Gas and 50% LDT2 Gas values, based on an understanding of the vehicle type.
Heavy-duty Diesel: Assumed to be 100% HHDT DSL values, per Section 4.5 of Appendix A of the *CalEEMod User's Guide* (BREEZE 2021).
Heavy/Medium-duty Diesel: Assumed to be 50% HHDT DSL and 50% MHDT DSL values, per Section 4.5 of Appendix A of the *CalEEMod User's Guide* (BREEZE 2021).
Light-duty Auto/Truck: Assumed to be 50% LDA Gas, 25% LDT1 Gas, and 25% LDT2 Gas values, per Section 4.5 of Appendix A of the *CalEEMod User's Guide* (BREEZE 2021) and assuming workers typically drive gasoline-fueled vehicles.

[b] Exhaust and idling emission factors from EMFAC2017 for Santa Clara County, calendar year 2020 and 2021. A speed of 5 mph was assumed for onsite and offsite vehicles; a speed of 40 mph was assumed for onroad vehicles and worker commutes, which is consistent with the CalEEMod defaults. An average temperature of 62°F and humidity of 63% were used per Table B-1 of *CT-EMFAC: A Computer Model to Estimate Transportation Project Emissions* (UC Davis 2007).

[c] Based on the preliminary construction schedule, Months 1 through 9 will occur in Year 1 and Months 10 through 17 will occur in Year 2. Although construction is not expected to begin until 2022, 2020 and 2021 emission factors and fuel economy were used, as appropriate, to provide a more conservative emissions estimate.

[d] Paved road emission factors calculated using CalEEMod methodology, as described below.

[e] Fuel economy from the EMFAC2017 Web Database (http://www.arb.ca.gov/emfac/2017/) for Santa Clara County, calendar year 2020 and 2021.

Derivation of Paved Road Emission Factors
Vehicles on Paved Roads

Parameter	PM_{10}	$PM_{2.5}$
Average Weight [a]	2.4	2.4
k [b]	1.0	0.25
sL [a]	0.1	0.1
Emission Factor (g/mile) [c]	0.300	0.075

Notes:

[a] Average Weight and sL taken as the CalEEMod defaults for the Santa Clara climate region of the San Francisco Bay Area Air Basin.

[b] k taken from Table 13.2.1-1 of Section 13.2.1 of *AP-42* (EPA 2011).

[c] Emission factor calculated using Equation 1 from Section 13.2.1 of *AP-42* (EPA 2011):

$$\text{Emission Factor (g/mile)} = k \text{ (g/mile)} \times [\text{sL (g/m}^2)]^{0.91} \times [\text{Average Weight (tons)}]^{1.02}$$

Appendix 3.3A, Table 18
GHG Emission Factors
Lightspeed SJC02
August 2021

GHG Exhaust Emission Factors for Lightspeed SJC02 Construction

Fuel / Category Type	Emission Factor	Emission Factor Units	Emission Factor Source
CO_2 Emission Factors			
Gasoline	8.78	kg CO_2/gallon	The Climate Registry. 2021. 2021 *Climate Registry Default Emission Factors*. Table 2.1. May.
Diesel	10.21	kg CO_2/gallon	The Climate Registry. 2021. 2021 *Climate Registry Default Emission Factors*. Table 2.1. May.
N_2O Emission Factors			
Gasoline Passenger Car Model Year 2018 [a]	0.0016	g N_2O/mile	The Climate Registry. 2021. *2021 Climate Registry Default Emission Factors*. Table 2.5. May.
Gasoline Light-duty Truck Model Year 2018 [a]	0.0015	g N_2O/mile	The Climate Registry. 2021. *2021 Climate Registry Default Emission Factors*. Table 2.5. May.
Diesel Heavy-duty Truck Model Year 2007 - 2018 [a]	0.0431	g N_2O/mile	The Climate Registry. 2021. *2021 Climate Registry Default Emission Factors*. Table 2.5. May.
Diesel Off-road Vehicle	0.49	g N_2O/gallon	The Climate Registry. 2021. *2021 Climate Registry Default Emission Factors*. Table 2.7. May.
CH_4 Emission Factors			
Gasoline Passenger Car Model Year 2018 [a]	0.0052	g CH_4/mile	The Climate Registry. 2021. *2021 Climate Registry Default Emission Factors*. Table 2.5. May.
Gasoline Light-duty Truck Model Year 2018 [a]	0.0081	g CH_4/mile	The Climate Registry. 2021. *2021 Climate Registry Default Emission Factors*. Table 2.5. May.
Diesel Heavy-duty Truck Model Year 2007 - 2018 [a]	0.0095	g CH_4/mile	The Climate Registry. 2021. *2021 Climate Registry Default Emission Factors*. Table 2.5. May.
Diesel Off-road Vehicle	0.13	g CH_4/gallon	The Climate Registry. 2021. *2021 Climate Registry Default Emission Factors*. Table 2.7. May.

Notes:
[a] Model Year 2018 was the most recent year of emission factors available. As a result, it was assumed representative of vehicles used for this project.

GHG Idling Emission Factors (Diesel Vehicles Only) for Lightspeed SJC02 Construction

Vehicle Type	Vehicle Class [a]	2020 Idling Emission Factors (g/idle-hr) [b, c]		2021 Idling Emission Factors (g/idle-hr) [b, c]	
		CO_2	CH_4	CO_2	CH_4
Onroad Delivery Trucks	Heavy/Medium-duty Diesel	6,457.043	0.079	6,364.980	0.077
Material Hauling Trucks	Heavy-duty Diesel	6,154.064	0.112	6,065.927	0.111
Dump Truck	Heavy-duty Diesel	6,154.064	0.112	6,065.927	0.111

Notes:
[a] The vehicle classes are represented as follows:
Heavy-duty Diesel: Assumed to be 100% HHDT DSL values, per Section 4.5 of Appendix A of the *CalEEMod User's Guide* (BREEZE 2021).
Heavy/Medium-duty Diesel: Assumed to be 50% HHDT DSL and 50% MHDT DSL values, per Section 4.5 of Appendix A of the *CalEEMod User's Guide* (BREEZE 2021).

[b] Idling emission factors from EMFAC2017 for the Santa Clara County, calendar year 2020 and 2021. An average temperature of 62°F and humidity of 63% were used per Table B-1 of *CT-EMFAC: A Computer Model to Estimate Transportation Project Emissions* (UC Davis 2007).

[c] Based on the preliminary construction schedule, Months 1 through 9 will occur in Year 1 and Months 10 through 17 will occur in Year 2. Although construction is not expected to begin until 2022, 2020 and 2021 emission factors were used, as appropriate, to provide a more conservative emissions estimate.

Attachment DR-89
City of San José Communication Regarding the Adequacy of the Water Supply Assessment

Salamy, Jerry/SAC

From: Petersen, Adam <Adam.Petersen@sanjoseca.gov>
Sent: Friday, October 22, 2021 2:17 PM
To: Salamy, Jerry/SAC
Cc: Madams, Sarah; Keyon, David
Subject: [EXTERNAL] Re: SJC Water Supply Assessment

Good Afternoon Jerry,
San Jose Municipal Water has stated that, after review with their attorney, because the current demand projections are less than what was covered in the original WSA, that WSA along with its associated conclusions and requirements could still be applied to the new/revised CEQA analysis. Please ensure that the updated water use projections are documented in the CEQA filing.

San Jose Muni Water will coordinate with you on the details as the project progresses. If you are confident in your figures and document them accordingly in the CEQA filing, that will work for now.

Thanks,

Adam Petersen
Contract Environmental Team
City of San Jose Planning, Building
and Code Enforcement Department
200 East Santa Clara Street, Room 300
San Jose, CA 95113

adam.petersen@sanjoseca.gov
http://www.sanjoseca.gov/index.aspx?nid=1725

From: Salamy, Jerry/SAC <Jerry.Salamy@jacobs.com>
Sent: Wednesday, October 20, 2021 4:21 PM
To: Petersen, Adam <Adam.Petersen@sanjoseca.gov>
Cc: Madams, Sarah <Sarah.Madams@jacobs.com>
Subject: RE: SJC Water Supply Assessment

[External Email]

Hi Adam,

The recycled would be used to establish the landscaping comprised of drought tolerant native plantings. The landscaping plans show a small planting in each of the two parking lots with a couple of small trees/shrubs and a line of trees/shrubs along on the southern property line. The balance of the site is either gravel, asphalt, buildings, or native grasses. The civil engineer on the project previously indicated the irrigation demand was less than an acre-foot of water for the first year, then as needed watering.

Thanks,

Jerry Salamy | Jacobs | Project Manager

M:+916.769.8919 | jerry.salamy@jacobs.com
2485 Natomas Park Drive, Suite 600 | Sacramento, CA 95833 | USA

From: Petersen, Adam <Adam.Petersen@sanjoseca.gov>
Sent: Wednesday, October 20, 2021 4:02 PM
To: Salamy, Jerry/SAC <Jerry.Salamy@jacobs.com>
Cc: Madams, Sarah <Sarah.Madams@jacobs.com>
Subject: [EXTERNAL] RE: SJC Water Supply Assessment

Hi Jerry,
There's a follow up question for the WSA. If the 1 AFY of potable water is used for sanitary water for employees, and the 423 AFY of water is used for cooling, what water is used for irrigation/landscaping?

Thanks for the information.

Sincerely,

Adam Petersen
Contract Environmental Team
City of San Jose Planning, Building
and Code Enforcement Department
200 East Santa Clara Street, Room 300
San Jose, CA 95113
408.535.1241

adam.petersen@sanjoseca.gov
http://www.sanjoseca.gov/

From: Salamy, Jerry/SAC <Jerry.Salamy@jacobs.com>
Sent: Thursday, October 7, 2021 8:54 AM
To: Petersen, Adam <Adam.Petersen@sanjoseca.gov>
Cc: Madams, Sarah <Sarah.Madams@jacobs.com>
Subject: RE: SJC Water Supply Assessment

> [External Email]

Hi Adam,

Sorry about As a result of the CEC's data request, the design engineers went back to the cooling vendor and the vendor revised the maximum expected recycled water use to 423 AFY, which we will be providing to the CEC next week when we file our responses to their data request. The data presented in the 10/5 email is the most current water use data (423 AFY of recycled and less than 1 AFY of potable).

The 21 AFY of recycled use comes from our Small Power Plant Exemption application for the original design. That design assumed a total water use of 29 AFY of water use with 8 AFY of potable and 21 AFY of recycled water use.

The potable water use of 1 AFY for the current design (which we are setting up an application meeting with Alec to present) is based on sanitary water use only for approximately 100 employees. Potable water will not be used for any irrigation/landscaping. The 129.5 AFY water use value was for the land uses (industrial and data center) analyzed in the site's 2017 EIR and I do not have access to the basis for this number beyond what was presented in the WSA and EIR utilities section.

Regarding the question you asked about water use for 500 dwelling units, the CEC assumed a 0.5 AFY per dwelling unit or 250 AFY for the project. As we already have a WSA that analyzed dry year conditions and projects surplus (over 3x for recycled) capacity in both the potable and recycled water supply well in excess of the project demand, updating the WSA doesn't seems warranted.

If we need to discuss further, let's set up a call.

Thanks,

Jerry Salamy | Jacobs | Project Manager
M:+916.769.8919 | jerry.salamy@jacobs.com
2485 Natomas Park Drive, Suite 600 | Sacramento, CA 95833 | USA

From: Petersen, Adam <Adam.Petersen@sanjoseca.gov>
Sent: Wednesday, October 6, 2021 3:54 PM
To: Salamy, Jerry/SAC <Jerry.Salamy@jacobs.com>
Cc: Madams, Sarah <Sarah.Madams@jacobs.com>
Subject: [EXTERNAL] RE: SJC Water Supply Assessment

Hi Jerry,
I'm also seeing different numbers in the emails below, which are summarized in the following two tables. Why did the 9/14/21 email indicate there was a demand of 21 AF/Yr for recycled water in the previously analyzed project, and why did the amount of recycled water for the proposed project decrease from 535 AF/Yr in the 9/14/21 email to 423 AF/Yr for the proposed project in the 10/5/21 email? Also, please provide the water demand calculations to support the <1 AF/Yr potable demand for water for the proposed project. How is that being reduced from 129.5 AF/Yr to <1 AF/Yr?

9/14/21 Email		
	Previous Project – WSA/EIR	Proposed Project
Recycled Water	21 AF/Yr Where does this # come from? Table 2-1 in WSA provides 1,673 AF/Yr	535 AF/Yr
Potable Water	129.5 AF/Yr	??

10/5/21 Email		
	Previous Project – WSA/EIR	Proposed Project
Recycled Water	1,673 AF/Yr	423 AF/Yr
Potable Water	129.5 AF/Yr	<1 AF/Yr

Table 2-1 of the WSA for Prior Project

Table 2-1: Summary of Project Water Demands

Site Use		Basis for Demand Calculation	Demand Factor (gal/day)	Water Demand (gal/day)	(AFY)	% Recycled	Potable Demand (AFY)	Recycled Demand (AFY)
LIGHT INDUSTRY		Building Area = 728,000 sqft	0.18 per sqft	131,040	146.8	20%	117.4	29.4
DATA CTR.	cooling	Electrical Power = 50 MW	29,340 per MW	1,467,000	1,643.3	100%	0	1,643.3
DATA CTR.	domestic	Engineer's estimate	*NA*	10,800	12.1	0%	12.1	0
			TOTALS:	**1,608,840**	**1,802**	**93%**	**129.5**	**1,673**

Table assumes normal operating conditions with no interruptions in recycled water supply. Supply interruptions might result in additional potable water use of up to 14.5 AFY.

Sincerely,

Adam Petersen
Contract Environmental Team
City of San Jose Planning, Building
and Code Enforcement Department
200 East Santa Clara Street, Room 300
San Jose, CA 95113
408.535.1241

adam.petersen@sanjoseca.gov
http://www.sanjoseca.gov/

From: Petersen, Adam
Sent: Wednesday, October 6, 2021 3:28 PM
To: Salamy, Jerry/SAC <Jerry.Salamy@jacobs.com>
Cc: Madams, Sarah <Sarah.Madams@jacobs.com>
Subject: RE: SJC Water Supply Assessment

Good Afternoon Jerry,
The critical piece of information I have been trying to ascertain is the equivalent water demand of the project relative to a 500 dwelling unit project. If you can provide me with the water demand for a 500 dwelling unit project, I can determine if a WSA is required.

Thanks,

Adam Petersen
Contract Environmental Team
City of San Jose Planning, Building
and Code Enforcement Department
200 East Santa Clara Street, Room 300
San Jose, CA 95113
408.535.1241

adam.petersen@sanjoseca.gov
http://www.sanjoseca.gov/

From: Salamy, Jerry/SAC [mailto:Jerry.Salamy@jacobs.com]
Sent: Tuesday, October 5, 2021 12:27 PM
To: Petersen, Adam <Adam.Petersen@sanjoseca.gov>
Cc: Madams, Sarah <Sarah.Madams@jacobs.com>
Subject: FW: SJC Water Supply Assessment

> [External Email]

Hi Adam,

Hope all is going well. I am trying to finish up my response to the California Energy Commission Data Requests by this Thursday and would like to know if the City has considered if an updated Water Supply Assessment is necessary. As noted previously, the proposed SJC redesign would use approximately than 1/4 of the recycled water (423 Acre-Feet/Year versus 1673 Acre-Feet/Year) analyzed in the existing Water Supply Assessment and less than 1 Acre-Feet/Year of potable (versus 130 Acre-Feet/Year analyzed in the Water Supply Assessment).

Thanks,

Jerry Salamy | Jacobs | Project Manager
M:+916.769.8919 | jerry.salamy@jacobs.com
2485 Natomas Park Drive, Suite 600 | Sacramento, CA 95833 | USA

From: Atienza, Manuel <Alec.Atienza@sanjoseca.gov>
Sent: Wednesday, September 29, 2021 1:57 PM
To: Salamy, Jerry/SAC <Jerry.Salamy@jacobs.com>
Cc: Madams, Sarah <Sarah.Madams@jacobs.com>
Subject: [EXTERNAL] Re: SJC Water Supply Assessment

Hi Jerry,

Adam updated me that he is still looking into this. He'll respond as ASAP. Apologies for the delay.

Kind Regards,
Manuel (Alec) Atienza
Planner | Planning Division | City of San Jose
200 E. Santa Clara Street, 3rd floor

From: Salamy, Jerry/SAC <Jerry.Salamy@jacobs.com>
Sent: Wednesday, September 29, 2021 9:36 AM
To: Atienza, Manuel <Alec.Atienza@sanjoseca.gov>
Cc: Madams, Sarah <Sarah.Madams@jacobs.com>
Subject: RE: SJC Water Supply Assessment

> [External Email]

Hi Alec,

Are you able to provide any feedback on sufficiency of the existing Water Supply Assessment which already shows a surplus of recycled and potable water for the project?

Jerry Salamy | Jacobs | Project Manager
M:+916.769.8919 | jerry.salamy@jacobs.com
2485 Natomas Park Drive, Suite 600 | Sacramento, CA 95833 | USA

From: Salamy, Jerry/SAC
Sent: Tuesday, September 14, 2021 2:59 PM
To: Atienza, Manuel <Alec.Atienza@sanjoseca.gov>
Cc: Madams, Sarah <Sarah.Madams@jacobs.com>
Subject: SJC Water Supply Assessment

Hi Alec,

I hope all is going well with you. Due to the supplemental filing with the California Energy Commission, they asked Microsoft if the City will need to update the Water Supply Assessment (WSA) due to an increase in recycled water demand (from 21 acre-feet per year to 535 acre-feet per year). The EIR's WSA indicated sufficient potable and recycled water supply to meet the project demand (130 acre-feet of potable and 1673 acre-feet of recycled water) with surplus available. Will the City require an updated WSA?

Thanks,

Jerry Salamy | Jacobs | Project Manager
M:+916.769.8919 | jerry.salamy@jacobs.com
2485 Natomas Park Drive, Suite 600 | Sacramento, CA 95833 | USA
