

DOCKETED

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| Docket Number: | 20-SPPE-01 |
| Project Title: | Great Oaks South Backup Generating Facility Small Power Plant Exemption |
| TN #: | 233638 |
| Document Title: | SV1 Responses to CEC Data Request Set 3 - GOSBGF |
| Description: | Set 3, (65-75) |
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| Submitter Role: | Applicant Representative |
| Submission Date: | 6/24/2020 2:44:36 PM |
| Docketed Date: | 6/24/2020 |



RESPONSE TO CEC STAFF DATA REQUEST SET 3 (65-75)

Great Oaks South Backup Generating Facility (20-SPPE-01)

SUBMITTED TO: CALIFORNIA ENERGY COMMISSION

SUBMITTED BY: **SV1, LLC**

June 2020



INTRODUCTION

Attached are SV1, LLC's (SV1) responses to California Energy Commission (CEC) Staff Data Request Set No. 3 (65-75) for the Great Oaks South Backup Generation Facility (SBGF) Application for Small Power Plant Exemption (SPPE) (20-SPPE-01). Staff issued Data Request Set No. 1 (1-64) on May 18, 2020.

The Data Responses are grouped by individual discipline or topic area. Within each discipline area, the responses are presented in the same order as Staff presented them and are keyed to the Data Request numbers (65-75). Additional tables, figures, or documents submitted in response to a data request (e.g., supporting data, stand-alone documents such as plans, folding graphics, etc.) are found in Attachments at the end of the document and labeled with the Data Request Number for ease of reference.

For context the text of the Background and Data Request precede each Data Response.

GENERAL OBJECTIONS

SV1 objects to all data requests that require analysis beyond which is necessary to comply with the California Environmental Quality Act (CEQA) or which requires SV1 to provide data that is in the control of third parties and not reasonably available to SV1. SV1 encourages Staff to follow the clear directions in the CEQA guidelines to minimize duplicative analyses and to "tier" off of the prior IS/MND and City of San Jose Approval and therefor to focus its analysis on the changes to the project that were not evaluated in the prior IS/MND. Notwithstanding this objection, SV1 has worked diligently to provide these responses swiftly to allow the CEC Staff to prepare the Initial Study/Mitigated Negative Declaration (IS/MND).

AIR QUALITY AND PUBLIC HEALTH

BACKGROUND

Staff noticed that the receptor number and Universal Transverse Mercator (UTM) coordinates for the maximum exposed individual sensitive receptor (MEIS) shown in Table 4.5-21 of the small power plant exemption (SPPE) application (TN 232466) are not consistent with each other. The UTM coordinates (608080, 4121560) for the receptor #12164 shown in Table 4.5-21 are as shown in the modeling files, which is to the northeast of the project site and close to one of the modeled worker receptors.

However, the UTM coordinates (609037, 4120914) shown in Table 4.5-21 are for the receptor #12341, which represents the Los Paseos Elementary School. The modeling files show that the cancer risk at this school would be 1.55 in a million (1.55×10^{-6}) during testing and maintenance of the standby engines of the project. The cancer risk modeling files also show that the applicant used age-specific fraction of time at home (FAH) for 3rd trimester to 16 years as well as for 16 years to 70 years.

Chapter 11 of the Office of Environmental Health Hazard Assessment (OEHHA) 2012 Air Toxics Hot Spots Program Risk Assessment Guidelines; Technical Support Document for Exposure Assessment and Stochastic Analysis states that the time that a person is away from his or her residence can mean either no exposure to a small facility's emissions, or in the case of a facility with a large isopleth footprint, continuing significant exposure.

OEHHA notes it is appropriate to consider the fraction of time people spend at home as an adjustment for exposure to carcinogens. However, a good fraction of the time away from residence will be spent at school for the first sixteen years of life and many California schoolchildren attend a local neighborhood school. Therefore, OEHHA recommends that time away from residence be considered as away from facility emissions (no facility cancer risk) for facilities that do not have a school within the 1×10^{-6} or greater cancer risk isopleth. OEHHA recommends no adjustment for time away from residence when there are schools inside the 1×10^{-6} (or greater) cancer risk isopleth. The larger facilities with multiple emissions sources are most likely to have schools within the 1×10^{-6} isopleth and are more likely to cause significant exposure to people while they are away from their residences. Therefore, page 8-5 of the OEHHA 2015 Air Toxics Hot Spots Program Risk Assessment Guidelines states that facilities with any school within the 1×10^{-6} (or greater) isopleth should use FAH = 1 for the child age groups (3rd Trimester, 0<2 years, and 2<16 years). The applicant needs to revise the cancer risk assessment using FAH = 1 for testing and maintenance of the standby

engines to be consistent with the OEHHA guidelines. This applies to any revised health risks assessment requested in Data Request #13 in Data Requests Set 2 (TN 232755).

DATA REQUEST

65. Please revise the cancer risk assessment for testing and maintenance of the standby engines using FAH = 1 for the child age groups (3rd Trimester, 0<2 years, and 2<16 years). Alternatively, justify that the approach used by the applicant meets OEHHA guidelines.

RESPONSE TO DATA REQUEST 65

The Health Risk Assessment is being revised and will be submitted under separate cover on or before June 26, 2020.

BACKGROUND

Page 92 of the SPPE application only shows health risk results for the maximum impacted sensitive/residential receptor (#6444) for construction of the project. Staff needs health risk results for the point of maximum impact (PMI) and maximum exposed individual worker receptor (MEIW) to complete analysis of the project impacts. The applicant also used the age-specific FAH for 3rd trimester to 16 years as well as for 16 years to 70 years in the cancer risk analysis for construction of the project. Staff needs to verify that the cancer risks at any school would be less than 1 in a million using FAH = 1, so that the age-specific FAH factors could be used for the cancer risk analysis for construction of the project. This applies to any revised health risks assessment requested in Data Request #13 in Data Requests Set 2 (TN 232755).

DATA REQUESTS

66. Please provide health risk results for PMI, MEIW, and school receptors for construction of the project.

RESPONSE TO DATA REQUEST 66

See Response to Data Request 65.

67. Please verify that the cancer risks at any school would be less than 1 in a million using FAH = 1, so that the age-specific FAH factors could be used for the cancer

risk analysis for construction of the project.

RESPONSE TO DATA REQUEST 67

See Response to Data Request 65.

BACKGROUND

Table AQ5-1 in Appendix AQ5 (TN 232467-1) provides a list of sensitive receptors. These sensitive receptors match those in the modeling files starting from receptor #12334. However, the modeling files included more receptors for residential areas and workers. For example, the maximum exposed individual residential receptor (MEIR) with receptor #6493 shown in Table 4.5-21 and MEIW with receptor #3572 shown in Table 4.5-22 of the SPPE application are not listed in Table AQ5-1. In order to verify the modeling results, staff needs all the receptor numbers and UTM coordinates for the residential areas and worker receptors other than those listed in Table AQ5-1.

DATA REQUEST

68. Please provide all the receptor numbers and UTM coordinates for the residential areas and worker receptors other than those listed in Table AQ5-1.

RESPONSE TO DATA REQUEST 68

Please See Response to Data Request 65.

BACKGROUND

Staff compared the sensitive receptor locations provided by the applicant and those from the Homeland Infrastructure Foundation-Level Data (HIFLD) website (<https://hifld-geoplatform.opendata.arcgis.com/>). Staff noticed the applicant missed some sensitive receptors in the project area. Staff needs to have the health risk impacts on all the sensitive receptors in the project area to verify the MEIR, MEIW, and MEIS. This applies to health risk assessment for both construction of the project and testing and maintenance of the standby engines.

DATA REQUESTS

69. Please provide a complete list of sensitive receptors in the project area and complete a health risk assessment for the project that includes calculated impacts at all the sensitive receptors. This applies to the health risk assessment for construction of the project and testing and maintenance of the standby engines.

RESPONSE TO DATA REQUEST 69

Please See Response to Data Request 65.

CULTURAL/TRIBAL CULTURAL RESOURCES

BACKGROUND

On April 13, 2020, the applicant filed under request for confidentiality a cultural resources technical report on the proposed project (TN 232859; TN 232727). Staff reviewed the cultural resources technical report and observe that numerous sources of information cited in the text lack bibliographic information in the References section. This missing information hinders staff's ability to verify and use the information contained in the cultural resources technical report.

DATA REQUEST

70. Provide bibliographic information for the following citations. Staff lists the missing material in the order encountered in the cultural resources technical report (see D'Oro 2018, pages 6-12).
- a. USDA (2018)
 - b. Heizer (1967, 1974)
 - c. Levy (1978)
 - d. Bean (1994)
 - e. Whistler (1977)
 - f. Cook (1943)
 - g. Kroeber (1925)
 - h. Milliken (1995)
 - i. Beechey (1968)
 - j. Bickel (1981)
 - k. Broadbent (1972)
 - l. King (1974)
 - m. Baumhoff (1963)
 - n. Garr (1976)
 - o. Winther (1935)
 - p. Lockhart (1986)
 - q. Skowronek (1999)
 - r. Cartier et al. (1979, 1994)
 - s. Bancroft (1886)
 - t. Beilharz (1971)
 - u. Arbuckle (1986)
 - v. Dawson (1841)
 - w. Costello (1985)
 - x. Voss (2005)

- y. Estudillo (1809)
- z. Lambert et al. (1998)
- aa. Boysen (1976)

RESPONSE TO DATA REQUEST 70

- a.
 - U.S. Department of Agriculture (USDA)
 - 2018 <https://websoilsurvey.nrcs.usda.gov/app/WebSoilSurvey.aspx>. U.S. Department of Agriculture, Natural Resources Conservation, Fort Worth, TX. Accessed October 1, 2018.
- b.
 - Heizer, R.F.
 - 1967 Ethnographic Notes on California Indian Tribes. *Reports of the University of California Archaeological Survey* 68(3).
 - 1974 The Costanoan Indians: An Assemblage of Papers on the Language and Culture of the Costanoan Indians who in Aboriginal Times Occupied San Francisco, San Mateo, Santa Clara, Alameda, and Parts of Contra Costa, Monterey, and San Benito Counties. *Local History Studies* 18.
- c.
 - Levy, R.
 - 1978 Costanoan. *Handbook of North American Indians*, Robert F. Heizer, editor, Vol. 8, pp. 485–495. Washington, D.C. Smithsonian Institution.
- d.
 - Bean, L. J.
 - 1994 The Ohlone Past and Present: Native Americans of the San Francisco Bay Region. *Ballena Press Anthropological Papers, No. 42*. Ramona, California.
- e.
 - Whistler, K.W.
 - 1977 Wintun Prehistory: An Interpretation Based on Linguistic Reconstruction of Plant and Animal Nomenclature. *Proceedings of the Third Annual Meeting of the Berkeley Linguistics Society* 157-174.
- f.
 - Cook, S.F.
 - 1943 *The Conflict between the California Indian and White Civilization: Vol. 1, The Indian Versus the Spanish Mission*. Ibero-Americana 23. University of California Press, Berkeley, California.
- g.
 - Kroeber, A.L.
 - 1925 Handbook of the Indians of California. *Bureau of American Ethnology Bulletin* 78.
- h.
 - Milliken, R.
 - 1995 *A Time of Little Choice: The Disintegration of Tribal Culture in the San Francisco Bay Area, 1769-1810*. Ballena Press, Menlo Park, CA.

- i.
Beechey, F.W.
1968 *Narrative of a Voyager to the Pacific and Bering Strait [1831]*. Da Capo Press, New York.
- j.
Bickel, P.
1981 San Francisco Bay Archaeology: Sites Ala-328, Ala-13, Ala-12. *Contributions of the University of California Archaeological Research Facility* (43).
- k.
Broadbent, S.M.
1972 The Rumsen of Monterey, An Ethnography from Historical Sources. In *Miscellaneous Papers on Archaeology*, pp. 45-93. vol. 14. Contributions of the University of California Archaeology Research Facility, Berkeley, California.
- l.
King, C.
1974 *Northern Santa Clara County Ethnography: Report to Santa Clara Valley Water District, from Environmental Science Associates*. Foster City, CA.
- m.
Baumhoff, M. A.
1963 Ecological Determinants of Aboriginal California Populations. *University of California Publications in American Archaeology and Ethnology* 49 (2):155–236. Berkeley.
- n.
Garr, D.J.
1976 A Frontier Agrarian Settlement: San Jose de Guadalupe, 1777 - 1850. *San Jose Studies* 2:93-105.
- o.
Winther, O.O.
1935 The Story of San Jose, 177-1869, California's First Pueblo. *California Historical Society Quarterly* 14(1):2-27.
- p.
Lockhart, K.M.
1986 A Demographic Profile of an Alta California Pueblo: San Jose de Guadalupe, Department of History, University of Colorado.
- q.
Skowronek, R.K.
1999 Identifying the First Pueblo de San Jose de Guadalupe: Some Archaeological, Historical, and Geographical Considerations. *California Mission Studies Association Occasional Paper* 2:1-17.
- r.
Cartier, R., B. Bocek, C. Detlefs and J. Whitlow
1979 *The Preliminary and Secondary Archaeological Investigations of Block B, San Jose, CA*. On file at Archaeological Resource Management, San Jose, CA.
Cartier, R., E. Reese and J.C. Wizorek
1994 *Peralta Adobe and Fallon House Gift Shop Project*. On file at A Report for the Redevelopment Agency of the City of San Jose by Archaeological Resource Management, San Jose.

- s.
Bancroft, Hubert H.
1886 *History of California* IV. Bancroft and Co., San Francisco.
- t.
Beilharz, E.A.
1971 *Felipe de Neve, First Governor of California*. California Historical Society, San Francisco.
- u.
Arbuckle, C.
1986 *Clyde Arbuckle's History of San Jose*. Smith & McKay, San Jose.
- v.
(Nicholas Dawson, 1841; **quoted in Winther 1935:18**) See above for Winther 1935
- w.
Costello, J.
1985 Mission Pottery - Analysis from Feature 1. Appendix G. In *Report of Phase III Research for Block 1, San Antonio Plaza, San Jose*. A Report for the Redevelopment Agency of the City of San Jose, by Archaeological Resource Management, San Jose.
- x.
Voss, B.
2005 From Casta to Californio: Social Identity and the Archaeology of Culture Contact. *American Anthropologist* 107(3):461-474.
- y.
(Jose Maria Estudillo, 1809; In **Lambert et al. 1998:15-16**) See below.
- z.
Lambert, D.
1998 A Year in the Life of a Spanish Colonial Pueblo: San Jose de Guadalupe in 1809 Official Correspondence. *Research Manuscript Series on the Cultural and Natural History of Santa Clara* 9.
- aa.
(Boysen 1976 in **Cartier et al. 1979:54**)

GREENHOUSE GAS EMISSIONS

BACKGROUND

Table 4.8-1 of the SPPE application summarizes the greenhouse gas (GHG) emissions generated by the operation of GOSDC, with the details provided in Appendix AQ4 (TN 232467-1). The GHG emissions from energy use are significantly lower than those of similar projects. To validate the applicant's work, staff needs the spreadsheet files of the emission estimates with live, embedded calculations to complete the review.

DATA REQUESTS

71. Please provide the basis for the calculation of GHG emissions from energy use, including the carbon intensity factor (lbs/MWh) and the maximum project electrical usage (MWh/year).

RESPONSE TO DATA REQUEST 71

The energy use emissions were calculated using the following equation, which uses PG&E's 2018 carbon intensity factor of 206 lbs/MWh and maximum project usage of 867,240 MWh/year. The source of PG&E's carbon intensity factor is included in Attachment GHG DR-71.

$99 \text{ MW} \times 24 \text{ hours} \times 365 \text{ days} = 867,240 \text{ MWh per year} \times 206 \text{ lbs CO}_2\text{e/MWh} = 178,651,440 \text{ lbs CO}_2\text{e} / 2,000 \text{ lbs/short ton} = 89,325.72 \text{ short tons} \times .907185 \text{ metric tons/short tons} = 81,034.95 \text{ metric tons CO}_2\text{e per year}.$

72. Please provide the spreadsheet versions of the worksheets in appendices AQ4 with the embedded calculations live and intact, including those for GHG emissions from area, mobile sources, water use, and waste generation.

RESPONSE TO DATA REQUEST 72

The revised GHG emissions table is included below. The updated CalEEMod spreadsheet is attached as Attachment GHG DR-72.

| Table 4.8-1: GOSDC GHG Emissions | |
|--|--|
| Source | Annual Emissions (Metric Tons of CO₂e) |
| Energy Use ¹ | 81,034.93 |
| Mobile Sources ² | 575.72 |
| Area Sources ³ | 774.69 |
| Water Use ⁴ | 2.05 |
| Waste Generation ⁵ | 341.14 |
| Total | 82,701.53 |
| <p>Notes:</p> <p>¹ Based on 2018 PG&E carbon intensity factor of 206 pounds of CO₂e per MWh.</p> <p>² Based on ITE trip rates for Data Center (Land Use Code 160) applied to a 547,050 square foot data center.</p> <p>³ Based on CalEEMod default emission factors for General Light Industrial land uses applied to a 547,050 square foot data center. The total includes natural gas emissions, which are conservatively assumed to apply to all 547,050 square feet of the building, even though the data halls will not require natural gas.</p> <p>⁴ CalEEMod default emissions adjusted to reflect the maximum project water demand of 1,310 acre-feet per year.</p> <p>⁵ Based on CalEEMod default emission factors for General Light Industrial land uses applied to a 547,050 square foot data center.</p> | |

LAND USE AND PLANNING

BACKGROUND

Section 2.3.2.1 of the SPPE application describes the data center buildings, stating that the two-story office component would be approximately 49 feet high (53 feet to the top of the parapet). Figure 2.3-1 shows the building elevations. In the figure, there are hexagon icons with numbers from 1–4, which suggests that there is a key missing from the figure. Also, the structures labeled “4” do not appear to correspond to the elevation marking for the penthouse, which is at 72 feet 3 inches.

DATA REQUESTS

73. Please provide a key for the numbers in the hexagon icons in Figure 2.3-1.

RESPONSE TO DATA REQUEST 73

Figure 2.3-1 has been revised and is included in Attachment LU DR-73. The figure has been revised to address the Commission’s questions about heights in these data requests and to remove reference to cooling towers as they have been eliminated and replaced with air cooled chillers. The air cooled chillers will not be visible as they are behind and will be completely screened by the Screenwall.

74. Please show what structures correspond to the elevation marking for the penthouse.

RESPONSE TO DATA REQUEST 74

The top of Screenwall for the penthouse (denoted T/Screenwall on Revised Figure 2.3-1) elevation is 63 feet 3 inches and the penthouse elevation will be 72 feet 3 inches.

75. The top of the coping in Figure 2.3-1 appears to be some number of feet taller than the 49-foot-tall “precast.” Please explain if the top of the parapet (stated to be 53 feet in height) is the same thing as the “sheet metal coping” shown in Figure 2.3-1.

RESPONSE TO DATA REQUEST 75

Figure 2.3-1 has been revised to indicate that the top of sheet metal coping and top of parapet are the same elevation.

ATTACHMENT GHG DR-71

PG&E Reported Carbon Intensity Factor



MENU



EMERGENCIES



ABOUT

ENVIRONMENT

WHAT PG&E IS DOING

FIGHTING CLIMATE CHANGE

Fighting climate change

[\[+\] Feedback](#)

Lowering our carbon footprint

As a provider of gas and electricity to millions of Californians, PG&E works hard to manage greenhouse gas emissions. Doing so is integral to our ongoing efforts to provide safe, reliable, affordable and clean energy.

We remain focused on:

- Managing our carbon footprint
- Helping customers reduce their energy use with industry-leading tools and incentives
- Advancing low-carbon policies for California and the country
- Addressing the need to adapt to changing climate conditions

Reporting our impact

GET MORE INFORMATION

Access the following resources for more information:

[Visit Currents](#)

[Visit Corporate Responsibility and Sustainability Report](#)

We report our greenhouse gas emissions to the California Air Resources Board and U.S. Environmental Protection Agency on a mandatory basis. Visit [Greenhouse Gas Emission Inventory](#) and [Greenhouse Gas Reporting Program](#).

On a voluntary basis, we report our [greenhouse gas emissions and climate change strategies to the CDP \(PDF, 1.9 MB\)](#), an international not-for-profit organization that requests information on behalf of institutional investors. We also report a more comprehensive emissions inventory to [The Climate Registry](#) (a nonprofit organization). [Review PG&E's greenhouse gas emissions data](#).

Reducing our greenhouse gas emissions

The electricity we provide ranks among the lowest rates of greenhouse gas emissions in the nation. In 2018, our independently verified CO₂ emissions rate was 206 pounds of CO₂ per megawatt hour (MWh), our lowest level on record.

Beyond providing clean and renewable energy, we're actively working to reduce our carbon footprint in a variety of other ways, such as:

- Reducing energy use in our facilities.
- Reducing methane and sulfur hexafluoride emissions in our operations.
- Investing in lower-emission vehicles.
- Building a more sustainable supply chain.



Advancing responsible solutions

We were the first investor-owned utility to support California's enactment of Assembly Bill (AB) 32. This landmark law set a goal of reducing state greenhouse gas emissions to 1990 levels by the year 2020. PG&E supported AB 398, which extends California's cap-and-trade program for reducing greenhouse gas emissions. We also supported AB 617, which addresses local air quality concerns in affected communities.

California's Senate Bill (SB) 100 increased the state's Renewables Portfolio Standard (RPS) target to 60 percent by 2030 and set a policy of meeting 100 percent of retail sales from eligible renewables or zero-carbon resources by 2045. PG&E is committed to meeting California's vision for a sustainable energy future in a reliable and cost-effective manner for customers.

We also continue to work with our customers to achieve energy savings and greenhouse gas emission reductions. We offer a full portfolio of options, including programs for energy efficiency, demand response and solar installation. PG&E's Solar Choice Program gives customers the option to purchase up to 100 percent of their power from solar energy, without the need to install panels. [Find out which program is best for you.](#)

Planning for potential climate change impacts

From extreme weather to rising tides, the threat that climate change poses to crucial sectors of the U.S. economy is becoming all too apparent. For PG&E, it requires that we act now to manage the potential risk to our energy infrastructure and operations.

PG&E's Climate Change Vulnerability Assessment examines our exposure to the forces of climate change, including:

- Flooding during severe storms
- Sea level rise
- Land subsidence
- Heat waves
- Changes in precipitation patterns
- Wildfire danger

It also describes the steps we're taking to prepare for altered climate conditions. [Download Climate Change Vulnerability Assessment \(PDF, 6.3 MB\)](#).

Our approach to addressing changing climate conditions includes:

- Integrating climate science into key company functions and creating tools to support planning and decision-making that takes into account the future climate.
- Engaging with utility peers and policymakers to advance energy sector climate resilience, stay up-to-date on the most recent developments in the field, and help state and federal officials in their efforts to prepare for climate change.
- Partner with customers and communities to enhance climate resilience in California. PG&E offers grants to help communities through our [Better Together Resilient Communities program](#).

We also continue to make substantial investments to build a more modern and resilient gas and electric system that can better withstand extreme weather and natural disasters.

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ATTACHMENT GHG DR-72

CalEEMod Spreadsheet

GOSDC Mobile and Area Source Emissions - Santa Clara County, Annual

GOSDC Mobile and Area Source Emissions
Santa Clara County, Annual

1.0 Project Characteristics

1.1 Land Usage

| Land Uses | Size | Metric | Lot Acreage | Floor Surface Area | Population |
|------------------------|--------|----------|-------------|--------------------|------------|
| General Light Industry | 547.05 | 1000sqft | 18.00 | 547,050.00 | 0 |

1.2 Other Project Characteristics

| | | | | | |
|--------------------------------|--------------------------------|--------------------------------|-------|----------------------------------|-------|
| Urbanization | Urban | Wind Speed (m/s) | 2.2 | Precipitation Freq (Days) | 58 |
| Climate Zone | 4 | | | Operational Year | 2022 |
| Utility Company | Pacific Gas & Electric Company | | | | |
| CO2 Intensity (lb/MWhr) | 206 | CH4 Intensity (lb/MWhr) | 0.029 | N2O Intensity (lb/MWhr) | 0.006 |

1.3 User Entered Comments & Non-Default Data

Project Characteristics - CO2 Intensity Factor - PG&E 2018 Emission Factor

Land Use - Acreage adjusted to match site

Vehicle Trips - ITE Land Use Code 160 Data Center daily trip rate

Energy Use - Electricity emissions calculated separately

Water And Wastewater - Default water demand changed to match project demand

GOSDC Mobile and Area Source Emissions - Santa Clara County, Annual

| Table Name | Column Name | Default Value | New Value |
|---------------------------|--------------------|----------------|--------------|
| tblEnergyUse | LightingElect | 3.08 | 0.00 |
| tblEnergyUse | NT24E | 3.70 | 0.00 |
| tblEnergyUse | T24E | 1.48 | 0.00 |
| tblLandUse | LotAcreage | 12.56 | 18.00 |
| tblProjectCharacteristics | CO2IntensityFactor | 641.35 | 206 |
| tblVehicleTrips | ST_TR | 1.32 | 0.99 |
| tblVehicleTrips | SU_TR | 0.68 | 0.99 |
| tblVehicleTrips | WD_TR | 6.97 | 0.99 |
| tblWater | IndoorWaterUseRate | 126,505,312.50 | 1,094,859.00 |

2.0 Emissions Summary

GOSDC Mobile and Area Source Emissions - Santa Clara County, Annual

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

| Quarter | Start Date | End Date | Maximum Unmitigated ROG + NOX (tons/quarter) | Maximum Mitigated ROG + NOX (tons/quarter) |
|---------|------------|----------|--|--|
| | | Highest | | |

2.2 Overall Operational

Unmitigated Operational

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|---------|-----|----|-----|---------------|--------------|------------|----------------|---------------|-------------|----------|-----------|-----------|-----|-----|-------------------|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Area | | | | | | | | | | | | | | | | 0.0104 |
| Energy | | | | | | | | | | | | | | | | 774.6790 |
| Mobile | | | | | | | | | | | | | | | | 575.7164 |
| Waste | | | | | | | | | | | | | | | | 341.1382 |
| Water | | | | | | | | | | | | | | | | 2.0506 |
| Total | | | | | | | | | | | | | | | | 1,693.5946 |

GOSDC Mobile and Area Source Emissions - Santa Clara County, Annual

2.2 Overall Operational

Mitigated Operational

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|---------|-----|----|-----|---------------|--------------|------------|----------------|---------------|-------------|----------|-----------|-----------|-----|-----|-------------------|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Area | | | | | | | | | | | | | | | | 0.0104 |
| Energy | | | | | | | | | | | | | | | | 774.6790 |
| Mobile | | | | | | | | | | | | | | | | 575.7164 |
| Waste | | | | | | | | | | | | | | | | 341.1382 |
| Water | | | | | | | | | | | | | | | | 2.0506 |
| Total | | | | | | | | | | | | | | | | 1,693.5946 |

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

3.0 Construction Detail

Construction Phase

GOSDC Mobile and Area Source Emissions - Santa Clara County, Annual

| Phase Number | Phase Name | Phase Type | Start Date | End Date | Num Days Week | Num Days | Phase Description |
|--------------|-----------------------|-----------------------|------------|------------|---------------|----------|-------------------|
| 1 | Demolition | Demolition | 10/1/2020 | 10/28/2020 | 5 | 20 | |
| 2 | Site Preparation | Site Preparation | 10/29/2020 | 11/11/2020 | 5 | 10 | |
| 3 | Grading | Grading | 11/12/2020 | 12/23/2020 | 5 | 30 | |
| 4 | Building Construction | Building Construction | 12/24/2020 | 2/16/2022 | 5 | 300 | |
| 5 | Paving | Paving | 2/17/2022 | 3/16/2022 | 5 | 20 | |
| 6 | Architectural Coating | Architectural Coating | 3/17/2022 | 4/13/2022 | 5 | 20 | |

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 75

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 820,575; Non-Residential Outdoor: 273,525; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

GOSDC Mobile and Area Source Emissions - Santa Clara County, Annual

| Phase Name | Offroad Equipment Type | Amount | Usage Hours | Horse Power | Load Factor |
|-----------------------|---------------------------|--------|-------------|-------------|-------------|
| Architectural Coating | Air Compressors | 1 | 6.00 | 78 | 0.48 |
| Demolition | Excavators | 3 | 8.00 | 158 | 0.38 |
| Demolition | Concrete/Industrial Saws | 1 | 8.00 | 81 | 0.73 |
| Grading | Excavators | 2 | 8.00 | 158 | 0.38 |
| Building Construction | Cranes | 1 | 7.00 | 231 | 0.29 |
| Building Construction | Forklifts | 3 | 8.00 | 89 | 0.20 |
| Building Construction | Generator Sets | 1 | 8.00 | 84 | 0.74 |
| Paving | Pavers | 2 | 8.00 | 130 | 0.42 |
| Paving | Rollers | 2 | 8.00 | 80 | 0.38 |
| Demolition | Rubber Tired Dozers | 2 | 8.00 | 247 | 0.40 |
| Grading | Rubber Tired Dozers | 1 | 8.00 | 247 | 0.40 |
| Building Construction | Tractors/Loaders/Backhoes | 3 | 7.00 | 97 | 0.37 |
| Grading | Graders | 1 | 8.00 | 187 | 0.41 |
| Grading | Tractors/Loaders/Backhoes | 2 | 8.00 | 97 | 0.37 |
| Paving | Paving Equipment | 2 | 8.00 | 132 | 0.36 |
| Site Preparation | Tractors/Loaders/Backhoes | 4 | 8.00 | 97 | 0.37 |
| Site Preparation | Rubber Tired Dozers | 3 | 8.00 | 247 | 0.40 |
| Grading | Scrapers | 2 | 8.00 | 367 | 0.48 |
| Building Construction | Welders | 1 | 8.00 | 46 | 0.45 |

Trips and VMT

GOSDC Mobile and Area Source Emissions - Santa Clara County, Annual

3.7 Architectural Coating - 2022

Mitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e | |
|--------------|---------|-----|----|-----|---------------|--------------|------------|----------------|---------------|-------------|----------|-----------|-----------|-----|-----|------|---------------|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | | |
| Hauling | | | | | | | | | | | | | | | | | 0.0000 |
| Vendor | | | | | | | | | | | | | | | | | 0.0000 |
| Worker | | | | | | | | | | | | | | | | | 2.9119 |
| Total | | | | | | | | | | | | | | | | | 2.9119 |

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

GOSDC Mobile and Area Source Emissions - Santa Clara County, Annual

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|-------------|---------|-----|----|-----|---------------|--------------|------------|----------------|---------------|-------------|----------|-----------|-----------|-----|-----|----------|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Mitigated | | | | | | | | | | | | | | | | 575.7164 |
| Unmitigated | | | | | | | | | | | | | | | | 575.7164 |

4.2 Trip Summary Information

| Land Use | Average Daily Trip Rate | | | Unmitigated | Mitigated |
|------------------------|-------------------------|----------|--------|-------------|------------|
| | Weekday | Saturday | Sunday | Annual VMT | Annual VMT |
| General Light Industry | 541.58 | 541.58 | 541.58 | 1,581,147 | 1,581,147 |
| Total | 541.58 | 541.58 | 541.58 | 1,581,147 | 1,581,147 |

4.3 Trip Type Information

| Land Use | Miles | | | Trip % | | | Trip Purpose % | | |
|------------------------|------------|------------|-------------|------------|------------|-------------|----------------|----------|---------|
| | H-W or C-W | H-S or C-C | H-O or C-NW | H-W or C-W | H-S or C-C | H-O or C-NW | Primary | Diverted | Pass-by |
| General Light Industry | 9.50 | 7.30 | 7.30 | 59.00 | 28.00 | 13.00 | 92 | 5 | 3 |

4.4 Fleet Mix

| Land Use | LDA | LDT1 | LDT2 | MDV | LHD1 | LHD2 | MHD | HHD | OBUS | UBUS | MCY | SBUS | MH |
|------------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| General Light Industry | 0.610498 | 0.036775 | 0.183084 | 0.106123 | 0.014413 | 0.005007 | 0.012610 | 0.021118 | 0.002144 | 0.001548 | 0.005312 | 0.000627 | 0.000740 |

5.0 Energy Detail

Historical Energy Use: N

6.2 Area by Subcategory
Unmitigated

| Subcategory | | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e | | | | | | | | |
|-----------------------|--|-----|-----|----|-----|---------------|--------------|------------|----------------|---------------|-------------|----------|-----------|-----------|-----|-----|------|---------------|--|--|--|--|--|--|--|
| tons/yr | | | | | | | | | | | | MT/yr | | | | | | | | | | | | | |
| Architectural Coating | | | | | | | | | | | | | | | | | | 0.0000 | | | | | | | |
| Consumer Products | | | | | | | | | | | | | | | | | | 0.0000 | | | | | | | |
| Landscaping | | | | | | | | | | | | | | | | | | 0.0104 | | | | | | | |
| Total | | | | | | | | | | | | | | | | | | 0.0104 | | | | | | | |

Mitigated

| Subcategory | | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e | | | | | | | |
|-----------------------|--|-----|-----|----|-----|---------------|--------------|------------|----------------|---------------|-------------|----------|-----------|-----------|-----|-----|------|---------------|--|--|--|--|--|--|
| tons/yr | | | | | | | | | | | | MT/yr | | | | | | | | | | | | |
| Architectural Coating | | | | | | | | | | | | | | | | | | 0.0000 | | | | | | |
| Consumer Products | | | | | | | | | | | | | | | | | | 0.0000 | | | | | | |
| Landscaping | | | | | | | | | | | | | | | | | | 0.0104 | | | | | | |
| Total | | | | | | | | | | | | | | | | | | 0.0104 | | | | | | |

7.0 Water Detail

GOSDC Mobile and Area Source Emissions - Santa Clara County, Annual

7.1 Mitigation Measures Water

| | Total CO2 | CH4 | N2O | CO2e |
|-------------|-----------|-----|-----|--------|
| Category | MT/yr | | | |
| Mitigated | | | | 2.0506 |
| Unmitigated | | | | 2.0506 |

7.2 Water by Land Use

Unmitigated

| | Indoor/Outdoor Use | Total CO2 | CH4 | N2O | CO2e |
|------------------------|--------------------|-----------|-----|-----|---------------|
| Land Use | Mgal | MT/yr | | | |
| General Light Industry | 1.09486 / 0 | | | | 2.0506 |
| Total | | | | | 2.0506 |

GOSDC Mobile and Area Source Emissions - Santa Clara County, Annual

7.2 Water by Land Use

Mitigated

| | Indoor/Outdoor Use | Total CO2 | CH4 | N2O | CO2e |
|------------------------|--------------------|-----------|-----|-----|---------------|
| Land Use | Mgal | MT/yr | | | |
| General Light Industry | 1.09486 / 0 | | | | 2.0506 |
| Total | | | | | 2.0506 |

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

| | Total CO2 | CH4 | N2O | CO2e |
|-------------|-----------|-----|-----|----------|
| | MT/yr | | | |
| Mitigated | | | | 341.1382 |
| Unmitigated | | | | 341.1382 |

8.2 Waste by Land Use
Unmitigated

| Waste Disposed | Total CO ₂ | CH ₄ | N ₂ O | CO ₂ e |
|------------------------|-----------------------|-----------------|------------------|-------------------|
| Land Use | tons | MT/yr | | |
| General Light Industry | 678.34 | | | 341.1382 |
| Total | | | | 341.1382 |

Mitigated

| Waste Disposed | Total CO ₂ | CH ₄ | N ₂ O | CO ₂ e |
|------------------------|-----------------------|-----------------|------------------|-------------------|
| Land Use | tons | MT/yr | | |
| General Light Industry | 678.34 | | | 341.1382 |
| Total | | | | 341.1382 |

9.0 Operational Offroad

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

GOSDC Mobile and Area Source Emissions - Santa Clara County, Annual

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

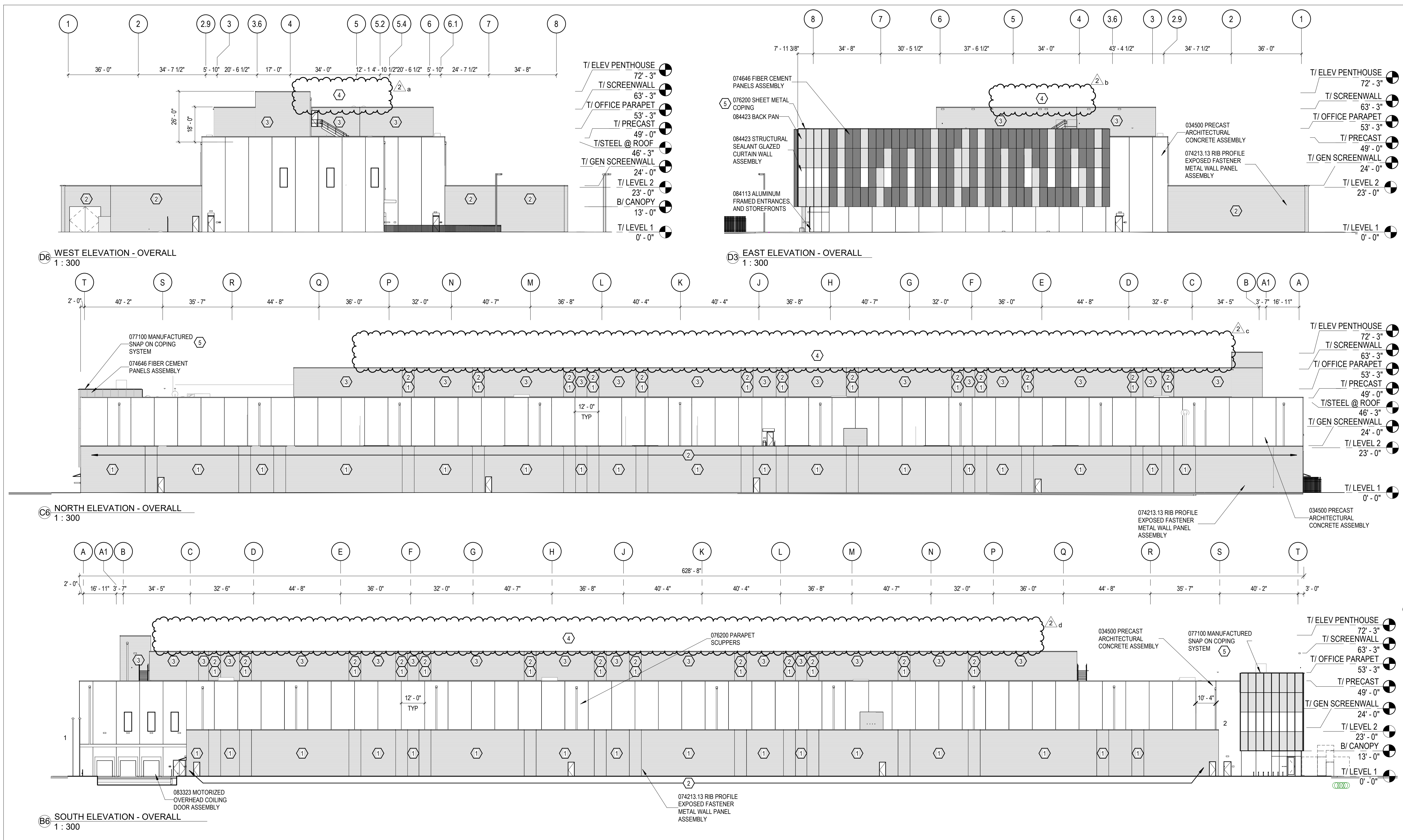
User Defined Equipment

| Equipment Type | Number |
|----------------|--------|
|----------------|--------|

11.0 Vegetation

ATTACHMENT LU DR-73

Revised Figure 2.3-1



GENERAL NOTES

SHEET NOTES

NOTE: NOT ALL SHEET NOTES BELOW MAY BE USED ON THIS SHEET

| | |
|---|--|
| 1 | RECESSED SCREEN WALL PANEL |
| 2 | MEDIUM DARK GRAY SCREEN WALL PANEL, TYP., U.N.O. |
| 3 | LIGHT GRAY SCREEN WALL PANEL (TO MATCH COOLING TOWERS ON ROOF) |
| 4 | AIR CHILLERS SCREENED - WILL NOT APPEAR IN DRAWINGS |
| 5 | TOP OF OFFICE PARAPET THE SAME HEIGHT AS TOP OF SHEET METAL COPING |

SHEET LEGEND

Revised Figure 2.3-1

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| NO | DESCRIPTION | DATE |
|----|--------------------------------|------------|
| 2 | SPECIAL USE PERMIT AMENDMENT 1 | 06/04/2020 |
| 1 | SPECIAL USE PERMIT AMENDMENT | 01/10/2020 |

DRAWING ISSUES

PROJECT:
SV12/SV18/SV19
SPA15-031-01

**GREAT OAKS BLVD
SAN JOSE, CA 95119**

DWG. TITLE
EXTERIOR ELEVATIONS

PROJECT NO: Project Number
DATE: 01/10/2020
SCALE:

DWG. NO:
A201.1

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