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Plume Volume Molar Ratio Method (PVMRM) in AERMOD, as described in U.S. EPA's *Guideline on Air Quality Models* (U.S. EPA 2017).

Meteorological Data. The applicant processed a five-year (2015-2019) record of hourly meteorological data collected at the Norman Y. Mineta San Jose International Airport surface station, approximately two miles east of the project site, and this sufficiently represents the meteorology at the project site for use in AERMOD. The concurrent daily upper air sounding data from the Oakland International Airport station were also included. The applicant's consultant processed the data with AERMET (version 19191), AERMOD's meteorological data preprocessor module, for direct use in AERMOD (DayZenLLC 2021b, pg. 9; TN 237381).

Modeling Assumptions. The applicant modeled the construction equipment and vehicle exhaust emissions from the project's on-site off-road equipment, as well as the exhaust emissions from the project's off-site on-road sources up to 2,000 feet from the project boundary (DayZenLLC 2021t, pg. 4). The applicant's dispersion modeling analysis divided the construction emissions into two construction phases. The applicant proposes to complete construction of the CA3DC building shell in its entirety in Phase I (during a 15-month period). Phase II would involve a much more limited scope of activity and emissions than Phase I and would consist of interior buildout and the placement of generators for the second half of the building (CEC 2022a). There would be a limited period (about seven months) in which half of the project operational activities could occur concurrently with Phase II construction activities. The applicant modeled the two separate phases of construction emissions as two different area polygons with an initial release height at five meters, which approximates equipment exhaust sources. Staff confirmed that the maximum impacts of construction would occur during the Phase I activities, because the rates of emissions during the limited duration of Phase II would be a fraction of those during Phase I (approximately one-quarter to less than one-tenth, depending on pollutant). Additionally, since the construction emissions in Phase II would be much less than those for Phase I, staff does not expect the impacts during the limited overlapping period of operational activities to be higher than the worst-case impacts modeled for Phase I construction or operation separately.

The applicant's construction modeling does not include fugitive dust emissions (DayZenLLC 2021t, pg. 4). Accordingly, staff independently evaluated PM10 and PM2.5 to determine the impacts of fugitive dust with the equipment and vehicle exhaust. Staff's analysis for PM10 and PM2.5 uses the same area polygons at an initial release height of one meter to approximate fugitive dust being released near the ground level. The area sources are shaped as polygons to cover the full site for Phase I and the eastern side of the site for Phase II. Applicant's and staff's dispersion modeling of construction activities both assume that exhaust emissions and fugitive dust could be released 11 hours per day, between 7:00 a.m. to 6:00 p.m. (DayZenLLC 2021t, pg. 5).

Table 4.3-7 shows the impacts of the project during the construction period. The project impact column shows the worst-case impacts of the project from modeling. The background column shows the highest concentrations, or the three-year averages of the

highest concentrations for 24-hour PM2.5 and federal 1-hour NO_2 and SO_2 standards according to the forms of these standards, from the prior three years (2018-2020) from the Jackson Street station. The background PM10 and PM2.5 concentrations are shown in **bold** because they already exceeded the corresponding limiting standards. The total impact column shows the sum of the existing background condition plus the maximum impact predicted by the modeling analysis for construction. The limiting standard column combines CAAQS and NAAQS, whichever is more stringent.

TABLE 4.3-7 MAXIMUM AMBIENT AIR QUALITY IMPACTS DURING CONSTRUCTION ($\mu g/m^3$)

Pollutant	Averaging Time	Project Impact	Background	Total Impact	Limiting Standard	Percent of Standard
PM10	24-hour	1.908	**137.1**	**139**	50	**278%**
	Annual	0.681	**24.8**	**25**	20	**127%**
PM2.5	24-hour	0.853	**73.4**	**74**	35	**212%**
	Annual	0.305	**12.9**	**13**	12	**110%**
CO	1-hour	329	2,857	3,186	23,000	14%
	8-hour	100	2,400	2,500	10,000	25%
NO_2 [a]	State 1-hour	86.3	162	248.8	339	73%
	Federal 1-hour	---	---	110.8	188	59%
	Annual	1.68	22.6	24	57	43%
SO_2	State 1-hour	0.570	37.9	38	655	6%
	Federal 1-hour	0.570	7.8	8	196	4%
	24-hour	0.055	3.9	4	105	4%

Notes: Concentrations in **bold** type are those that exceed the limiting ambient air quality standard.
[a] 1-hour NO_2 impacts are evaluated using the PVMRM setting with a default initial NO_2/NOx ratio of 0.5. The state 1-hour NO_2 total impacts include the maximum modeled project impact combined with maximum NO_2 background value. The federal 1-hour NO_2 total impacts include the combined seasonal hour of day 98th percentile daily maximum 1-hour background NO_2 with modeled NO_2 project impact.
Source: DayZenLLC 2021t (Tables 5-6 and 5-7), CEC 2022a, with independent staff analysis for PM10 and PM2.5.

Table 4.3-7 shows that the impacts from project construction would be below the limiting standards for CO, NO_2, and SO_2. **Table 4.3-7** also shows that the existing 24-hour and annual PM10 background concentrations are already above the CAAQS. The project would, therefore, contribute to existing exceedances of the 24-hour and annual PM10 CAAQS. The modeled 24-hour PM10 concentration of 1.908 $\mu g/m^3$ from project construction would not exceed the U.S. EPA PM10 SILs of 5 $\mu g/m^3$ for 24-hour impacts, and the maximum modeled annual PM10 concentration of 0.681 $\mu g/m^3$ would not exceed the PM10 SILs of 1 $\mu g/m^3$ for annual impacts. The results provided in **Table 4.3-7** are maximum impacts predicted to occur primarily due to fugitive dust at the project fence line. The impacts would decrease rapidly with distance from the fence line, and for any location south of the fence line, the 24-hour PM10 concentration would be below the U.S. EPA PM10 SILs of 5 $\mu g/m^3$. The maximum annual PM10 impacts at the nearest residential receptors would be lower than the maximum shown. In addition, construction is considered short term, and the impacts during construction would be reduced with the implementation of **AQ-1**. With mitigation, the PM10 impacts of the project during construction would be less than significant.

Similarly, **Table 4.3-7** also shows that the existing 24-hour and annual PM2.5 background concentrations are already above the limiting standards. The project would therefore contribute to existing exceedances of the 24-hour and annual PM2.5 standards. The maximum 24-hour PM2.5 impacts of 0.853 µg/m^3 would not exceed the 24-hour PM2.5 SILs of 1.2 µg/m^3. The maximum modeled 24-hour PM2.5 impact would occur at the project fence line and would decrease rapidly with distance from the fence line. At the project fence line, the annual average PM2.5 impact during construction of 0.305 µg/m^3 would be greater than the BAAQMD significance threshold of 0.3 µg/m^3 and greater than the annual PM2.5 SILs for annual impacts of 0.2 µg/m^3 (US EPA 2018a). For all receptors beyond 150 feet of the fence line, concentrations would be less than 0.2 µg/m^3 during construction.

Sensitive receptors include residents and a park directly south of the CA3 project site. Two daycare facilities, an elementary school, and a city park are within 1,000 feet of the project fence line (DayZenLLC 2021t, pg. 18; Response to Data Request 22). The nearest sensitive receptor (i.e., the nearest residential areas) is about 175 ft south of the fence line. The maximum modeled annual PM2.5 impacts at all sensitive receptors would be much lower than the BAAQMD CEQA Guidelines significance threshold of 0.3 µg/m^3 and U.S. EPA annual PM2.5 SILs level of 0.2 µg/m^3. The PM2.5 impacts of the project during construction would be less than significant.

Project construction would not expose sensitive receptors to substantial criteria pollutant concentrations, and this impact would be less than significant.

Operation

Less Than Significant Impact. The AQIA for project operation includes emissions from the project's diesel gensets during readiness testing and maintenance use to compare worst-case ground-level impacts with established state and federal AAQS. No other on-site stationary emission sources, such as natural gas combustion devices, are proposed. The applicant's modeling analysis is described in more detail below.

The applicant's AQIA compares worst-case ground-level impacts resulting from the project operation with established state and federal AAQS. Staff reviewed the applicant's dispersion modeling files, and staff agrees with the inputs used by the applicant and the outputs from the model for the AQIA.

Modeling Assumptions. Stack parameters (e.g., stack height, exit temperature, stack diameter, and stack exit velocity) were based on the parameters given by the engine manufacturer and the applicant. The 44 gensets include 40 gensets for the data center suites and four house gensets for supporting the administration building. All generators would be located along the northern edge of the data center building. The design includes redundancy so that eight data center generators are redundant, and two of the house generators are redundant (DayZenLLC 2021a, pg. 2-2). Each engine-generator set would emit from a point with a stack height of 10.09 meters and diameter of 0.559 meters (DayZenLLC 2021t, pg. 15).

All engines could be tested or used at any load condition. The applicant's analysis modeled all engines at five different load conditions representing 10, 25, 50, 75, and 100 percent load settings to determine the worst-case concentrations.

In the applicant's analysis, two readiness testing and maintenance scenarios were evaluated. The first scenario represents the applicant's proposed monthly generator testing. During these tests, up to four gensets will be operated concurrently at 0 percent load for up to 15 minutes; this is conservatively characterized with emissions at 10 percent load. The second scenario represents the applicant's proposed annual genset testing. These tests are conducted on individual gensets once per year at a series of stepped loads up to 100 percent load. All discrete load levels for which emissions data is available (i.e., 10 percent, 25 percent, 50 percent, 75 percent, and 100 percent) were analyzed to identify the potential worst-case ambient air quality impacts.

The applicant proposes to accept a permit condition from BAAQMD to limit testing to no more than one generator at a time for annual testing at any load and no more than four generators at a time for monthly testing under 10 percent load (DayZenLLC 2021t, Response to Data Request 8).

Additionally, the modeling also presumes that routine readiness testing would be limited to occur within certain hours of the day. The applicant proposes to accept a permit condition from BAAQMD for limiting readiness testing to only be allowed during a 10-hour period between 7:00 a.m. and 5:00 p.m. daily (DayZenLLC 2021t, Response to Data Request 10).

Refined Modeling Analyses. The modeling considers the use of the diesel-fired gensets in all proposed readiness testing and maintenance scenarios. The AQIA for project operation includes generator operating assumptions that vary depending on the averaging period of the applicable CAAQS or NAAQS. Refined modeling for all 1-hour averaging periods considers the possibility of any single generator operating at any of five different load conditions. The 1-hour scenarios also include 11 different four-engine groups for the monthly testing under 10 percent load. The AQIA for readiness testing and maintenance assumes that engines may startup for 1-hour runs; each hour consists of 15 minutes of uncontrolled emissions and 45 minutes of controlled emissions a given load (DayZenLLC 2021t, Table 7-5).

Modeling for comparison to the short-term NAAQS follows the applicable multi-year statistical forms (one-hour NO_2 and SO_2 and 24-hour PM2.5). Similarly, for the 1-hour NO_2 and SO_2 CAAQS impacts analyses, the applicant reported the highest 1-hour NO_2 and SO_2 modeled concentrations in a manner consistent with the forms of the CAAQS.

Modeled 1-hour NO_2 concentrations reflect an ambient equilibrium between NO and NO_2 computed using PVMRM for single-source runs and the Ozone Limiting Method (OLM) for groups of multiple sources. Both methods represent Tier 3 approaches for NO_2 analysis as defined in U.S. EPA's *Guideline on Air Quality Models* (U.S. EPA 2017). The applicant

used an NO_2/NOx in-stack ratio of 0.1 (10 percent), which is typical for large diesel engines.

For analysis relative to the state one-hour NO_2 standard, the modeled NO_2 results from PVMRM or OLM are added to the maximum 1-hour background NO_2 value from the Jackson Street monitoring site (2018-2020) to arrive at the total NO_2 impact for the 1-hour NO_2 CAAQS analysis (DayZenLLC 2021t, pg. 8 and Response to Data Request 18). For the NAAQS analysis, the modeled NO_2 results from PVMRM or OLM are added to the three-year average of the second-highest hourly background NO_2 value, consistent with U.S. EPA guidance for the NO_2 NAAQS (U.S. EPA 2011).

Staff's review for the state 1-hour NO_2 standard confirmed the applicant's PVMRM runs (using AERMOD version 19191) as being representative of worst-case NO_2 1-hour results. In confirming this, staff also used the earlier version of PVMRM and the current version of OLM, with staff's seasonal hour-by-day highest single hour background NO_2 values to test the sources likely to result in the highest NO_2 concentrations.

Modeling for comparison with the 24-hour PM10 and PM2.5 standards assumes that any single genset could operate at the maximum 1-hour rate during any given 24-hour period (DayZenLLC 2021t, Table 7-6).

Table 4.3-8 shows the maximum impacts from project operation, including readiness testing and maintenance. The project impact column shows the worst-case impacts of the project from modeling. The background column shows the highest (or three-year averages for the 24-hour PM2.5 and federal 1-hour SO_2 standards) of the background concentrations from the last three years of representative data (2018-2020) from the Jackson Street station. The background PM10 and PM2.5 concentrations are shown in **bold** because they already exceeded the corresponding limiting standards. Except for the 1-hour NO_2 total impacts, the total impact column shows the sum of the existing background condition plus the maximum impact predicted by the modeling analysis for readiness testing and maintenance. The limiting standard column combines CAAQS and NAAQS, whichever is more stringent.

Table 4.3-8 shows that the project's stationary sources would not cause exceedances of the CO, NO_2, or SO_2 standards. **Table 4.3-8** also shows that the existing PM10 and PM2.5 background concentrations are already above the limiting standards. The project would, therefore, contribute to existing exceedances of the PM10 and PM2.5 standards.

The modeled PM10 concentrations from the project's operation in **Table 4.3-8** are well below the U.S. EPA PM10 SILs of 5 $\mu g/m^3$ for 24-hour impacts and 1 $\mu g/m^3$ for annual impacts. Similarly, the maximum modeled PM2.5 concentrations from project operation would not exceed the U.S. EPA PM2.5 SILs of 1.2 $\mu g/m^3$ for 24-hour impacts at any location. **Table 4.3-8** also shows that the annual PM2.5 project impacts of 0.054 $\mu g/m^3$ would not exceed the U.S. EPA PM2.5 of 0.2 $\mu g/m^3$ for annual impacts (US EPA 2018a) or the project-level BAAQMD CEQA Guidelines threshold for annual-average PM2.5 of 0.3 $\mu g/m^3$, for risk and hazards.

TABLE 4.3-8 MAXIMUM AMBIENT AIR QUALITY IMPACTS DURING OPERATION (µg/m³)

Pollutant	Averaging Time	Project Impact	Background	Total Impact	Limiting Standard	Percent of Standard
PM10	24-hour	0.13	**137.1**	**137**	50	**274%**
	Annual	0.054	**24.8**	**25**	20	**124%**
PM2.5 [a]	24-hour	0.13	**73.4**	**74**	35	**210%**
	Annual	0.054	**12.9**	**13**	12	**108%**
CO	1-hour	172	2,857	3,029	23,000	13%
	8-hour	115	2,400	2,515	10,000	25%
NO_2 [b,c]	State 1-hour	---	---	327	339	96%
	Federal 1-hour	---	---	179	188	95%
	Annual	8.6	22.6	31	57	55%
SO_2 [c]	State 1-hour	0.84	37.9	39	655	6%
	Federal 1-hour	0.84	7.8	9	196	4%
	24-hour	0.76	3.9	5	105	4%

Notes: Concentrations in **bold** type are those that exceed the limiting ambient air quality standard.
[a] To compute the total impacts for the 24-hour PM2.5 NAAQS, staff conservatively combined the maximum modeled 24-hour PM2.5 impacts to the three-year average of 98th percentile PM2.5 background.
[b] The NO_2 impacts are evaluated using the U.S. EPA PVMRM for single source scenarios and OLM for multiple-source scenarios, with each source's NO_2/NOx in-stack ratio of 0.10.
[c] Impacts for the 1-hour NO_2 and SO_2 CAAQS are based on the maximum 1-hour modeled concentrations and maximum seasonal hour-of-day backgrounds since these CAAQS are "values that are not to be exceeded." Impacts for the 1-hour statistical-based NO_2 NAAQS use seasonal hour-of-day background concentrations adjusted to reflect the form of the standard.
Source: DayZen LLC 2021t (Tables 7-8 through 7-10).

Table 4.3-8 shows that use of the diesel-fired gensets in all proposed readiness testing and maintenance scenarios would not expose sensitive receptors to substantial pollutant concentrations, and this impact would be less than significant.

Localized CO Concentrations. Engine exhaust may elevate localized CO concentrations, resulting in "hot spots." Receptors exposed to these CO hot spots may have a greater likelihood of developing adverse health effects. CO hot spots are typically observed at heavily congested intersections where a substantial number of vehicles idle for prolonged durations throughout the day. BAAQMD screening guidance indicates that a project would not exceed the CO significance threshold if a project's traffic projections indicate traffic levels would not increase at any affected intersection to more than 44,000 vehicles per hour or at any affected intersections to more than 24,000 vehicles per hour where vertical and/or horizontal mixing is substantially limited (BAAQMD 2017b).

The proposed project would generate a small number of vehicle trips to the site. These trips would include workers and material and equipment deliveries. It is unlikely that the addition of vehicle trips from the project on any roadway in the vicinity of the project site would result in an exceedance of the BAAQMD screening threshold. As a result, the additional vehicle trips associated with the project would result in a negligible effect on CO concentrations in the vicinity of the project site.

Table 4.3-7 and **Table 4.3-8** show the CO concentrations resulting from the project's construction and operation and modeling results confirm that impacts would be well below the limiting standards and BAAQMD CEQA Guidelines significance thresholds of 20.0 ppm (23,000 µg/m^3) for 1-hour average concentrations and 9.0 ppm (10,000 µg/m^3) for 8-hour average concentrations.

Localized CO impacts during construction and operation, including readiness testing and maintenance, would not expose sensitive receptors to substantial pollutant concentrations, and this impact would be less than significant.

Emergency Operations Impacts for Criteria Pollutants

This section addresses the potential for emergency situations that could trigger the unplanned operation of the project's diesel-fired gensets. Emergency use of the gensets could occur in the event of a power outage or other disruption, upset, or instability that triggers a need for emergency backup power at CA3DC.

The air quality impacts of genset operation during emergencies are not quantified below because the impacts of emergency operations are typically not evaluated during facility permitting and local air districts do not normally conduct an air quality impact assessment of such impacts. CEC staff assessed the likelihood of emergency events but finds that modeling the air quality impacts of emergency operations would require a host of unvalidated, unverifiable, and speculative assumptions about when and under what circumstances such a hypothetical emergency would occur. Such a speculative analysis is not required under CEQA (CEQA Guidelines, CCR, Tit. 14, § 15064(d)(3) and § 15145), and, most importantly, would not provide meaningful information by which to determine project impacts.

Emissions that occur during the emergency use of the gensets would not occur on a regular or predictable basis (see **Appendix B** for more information). During the permitting process, BAAQMD policy requires facilities to presume that each of their generators will experience 100 hours per year of emergency operation when calculating their PTE for determining the applicability of certain permitting regulations (BAAQMD 2019).

Although normally excluded from ambient air quality impact analysis during permit review, BAAQMD comments on the NOP requested that this air quality analysis include various scenarios of backup power generation operations beyond routine testing and maintenance (BAAQMD 2021b). The comments from BAAQMD provided a review of data centers that initiated operation of diesel engines for "non-testing/non-maintenance" purposes, for the purpose of informing staff's consideration of scenarios of backup power generation operations beyond routine testing and maintenance (BAAQMD 2021b).

Staff reviewed the BAAQMD comments regarding the use of diesel engines for "non-testing/non-maintenance" purposes and confirmed that these types of events are infrequent, irregular, and unlikely and the resulting emissions are not easily predictable or quantifiable. The BAAQMD comments showed that extended durations of standby generator engines use occurred for "non-testing/non-maintenance" purposes, mostly due to extreme events within the 13-month record of the data. The 13-month period of BAAQMD's review (September 1, 2019, to September 30, 2020) included the implementation of Pacific Gas and Electric's Public Safety Power Shutoff (PSPS), severe wildfires, several California Independent System Operator (CAISO)-declared emergencies, and winter storms.

In staff's analysis of BAAQMD's review, without excluding the extreme events, 1,877 engine-hours of diesel engine use occurred at 20 data centers for "non-testing/non-maintenance" purposes (less than half of the 45 facilities included in the review, and less than a third of such facilities under BAAQMD's jurisdiction). BAAQMD's review covered 288 individual diesel engines that operated over a 13-month record. Because the backup generator engines were collectively available for over 2.74 million engine-hours during the 13-month period (288 engines * 9,504 hours in the 13-month record), and they were used for "non-testing/non-maintenance" purposes for 1,877 engine-hours, at those facilities where operation occurred, the engines entered into emergency operations during 0.07 percent of their available time (1,877 / 2.74 million). Staff's analysis of BAAQMD's information found that the average runtime for each diesel backup generator engine per event in BAAQMD's review was approximately 5.0 hours. Based on this data, staff determined that the emergency use of the standby generator engines was infrequent and of short duration.

Due to the number of factors that need to be considered, using an air quality model to evaluate ambient air quality impacts during emergency operations would require unnecessary speculation and would render the results of any such exercise too speculative to be meaningful. This remains especially true when neither the CEC nor any other agency has established or used in practice a threshold of significance by which to interpret air quality modeling results from emergency operations. Emergency operation would be very infrequent, and emergency operations would not occur routinely during the lifetime of the facility. Accordingly, the potential for any adverse impacts to ambient air quality concentrations would be a very-low probability event.

Thus, staff concludes that assessing the impacts of emergency operation of the gensets would be speculative due to the infrequent, irregular, and unplanned nature of emergency events. Emissions and impacts during emergency operation are not easily predictable or quantifiable.

Because of the infrequent nature of emergency conditions and the reliability of the grid as detailed in **Appendix B**, the project's emergency operation would be unlikely to expose sensitive receptors to substantial concentrations of criteria air pollutants.

Cumulative Impacts for Criteria Pollutants

Under environmental checklist criterion "b" above, staff concludes that the project emissions would not exceed the BAAQMD significance thresholds with the implementation of **AQ-1** during construction and NOx offsets for readiness testing and maintenance. Therefore, the project would not result in a cumulatively considerable net increase of any criteria pollutant, and these impacts would be less than significant with mitigation incorporated.

Health Risk Assessment for Toxic Air Contaminants

The HRA for the project was conducted separately for (1) the period of project's demolition, excavation, and construction, and (2) the period of operation, which consists of readiness testing and maintenance. A separate discussion summarizes the risk and hazards for the project in a cumulative HRA that includes the project's impact with the impacts of existing sources in the area.

The HRA estimated risks of cancer, non-cancer chronic exposure, and non-cancer acute exposure for residential, worker, and sensitive receptors, including the maximally exposed individual resident (MEIR), maximally exposed individual worker (MEIW), maximally exposed school receptor (MESR), maximally exposed daycare receptor (MEDR) and the maximally exposed recreational receptor (MERR) (DayZenLLC 2021b, pg. 16). As required by the 2015 OEHHA Guidance, sensitive receptor (including residential) cancer risks were estimated assuming exposure beginning in the third trimester of pregnancy and worker cancer risk was estimated assuming an 8-hour-per-day, 250 day-per-year exposure, beginning at the age of 16 (OEHHA 2015).

Some exposure assumptions (DayZenLLC 2021b, pg. 11-12):

- For construction, off-site residents were assumed to be present at one location for the entire duration of the construction period. For operation, off-site residents were assumed to be present at one location for a 30-year period, beginning with exposure in the third trimester.
- For off-site school and childcare receptors, the applicant selected exposure parameters using the conservative assumption that a child would be located at the daycare facility starting at age of six weeks until age six, and for the school receptor, a child would be at the school starting at age six until 18 years. For construction and operation, the child was assumed to be present at the location for eight hours a day, for five days a week.
- For off-site recreational receptors, exposure parameters were selected with the conservative assumption that a child would be present at the park starting at age zero for two hours a day and would be present for 30 years, 180 days per year.
- For off-site receptors, including fence line and all other public spaces adjacent sidewalk receptors, the applicant adopted the staff-requested methodology of assigning the exposure parameters of worker to those locations for assessment of health impacts. A 25-year exposure duration for workers is assumed based on the

OEHHA recommended exposure duration period and an exposure frequency of 250 days in a year is used in the analysis.

Construction HRA

Less Than Significant Impact. Project construction is expected to occur over two phases, with Phase I construction lasting for about 15 months, and Phase II construction lasting for 7 months (DayZenLLC 2021e, pg. 4-31; CEC 2022a). Emissions from the approximate 22-month construction period were estimated using CalEEMod (DayZenLLC 2021e, pg. 4-25; CEC 2022a). Construction emissions are a result of construction equipment, material movement, paving activities, and on- and off-site vehicle trips, such as material haul trucks, worker commutes, and delivery vehicles (DayZenLLC 2021e, pg. 4-25). Construction health risk impacts are based on the assumption that all construction off-road equipment meets Tier 4 final engine standards and that all exposed areas in the site would undergo watering twice a day. The risks and health impacts reported are for the entire duration of construction period (DayZenLLC 2021e, pg. 4-31). Only DPM emissions from off-road construction equipment and on-road vehicles are analyzed (DayZenLLC 2021e, Table 4.3-10).

Staff reviewed the applicant's modeling files and agrees with the inputs used by the applicant and the outputs from the model for carcinogenic and chronic health risks. There are no acute risks analyzed (DayZenLLC 2021e, Table 4.3-10) for construction HRA. Acute (non-cancer) health risks were not estimated because there is no acute inhalation REL for DPM, indicating that DPM is not known to result in acute health hazards. The results of the construction HRA are presented in **Table 4.3-9**. It shows that the maximum cancer risk impact, chronic HIs, and PM2.5 concentrations at the MEIR, MEIW, MEDR, MESR, and MERR during the construction of the project would be less than BAAQMD's significance thresholds. Therefore, staff concluded that the health risks of the project construction would be a less than significant impact.

Note that the risk values shown in **Table 4.3-9** are the highest of those modeled for each type of sensitive receptors. The risk values at other locations for each type of sensitive receptors would be lower than those shown in **Table 4.3-9**. Health risks at nearby worker/residential/sensitive receptors would all be below the significance thresholds. The health risks from project construction would be less than significant, and no mitigation would be necessary. The health risks from project construction would be less than significant with the implementation of **AQ-1**.

TABLE 4.3-9 CONSTRUCTION -- MODELED RECEPTOR MAXIMUM HEALTH RISK				
Receptor Type	**Cancer Risk Impact (in one million)**	**Chronic Non-Cancer Hazard Index (HI) (unitless)**	**Acute Non-Cancer Hazard Index (HI) (unitless)**	**PM2.5 Concentration (µg/m³)**
Residential-MEIR[1]	1.5	0.0017	N/A	0.09
Worker-MEIW[2]	0.45	0.005	N/A	0.27
Daycare-MEDR[3]	0.8	2.6E-04	N/A	0.014
School-MESR [4]	0.17	3.9E-04	N/A	0.021
Recreational-MERR [5]	0.1	8.2E-04	N/A	0.0044
BAAQMD Threshold	10	1	1	0.3

Notes:
[1] Maximally Exposed Individual Resident (MEIR). It is located about 175 ft south the project boundary (just across the street of the project).[2] Maximally Exposed Individual Worker (MEIW). It is located on the southeast of the project boundary. Risks at the worker receptors include a Worker Adjustment Factor of 4.2 (7/5*24/8) to account for the hours a worker is present at a site.
[3] Maximally Exposed Daycare Receptor (MEDR). It is located approximately 1750 ft southeast of the project boundary. Risks at the daycare and school receptors include a modeling adjustment factor of 4.2 (7/5*24/8) to account for the hours when a child is present at the site.
[4] Maximally Exposed School Receptor (MESR). It is the Bracher Elementary, approximately 650 feet south of the Project boundary. Risks at the daycare and school receptors include a modeling adjustment factor of 4.2 (7/5*24/8) to account for the hours when a child is present at the site.
[5] Maximally Exposed Recreational Receptor (MERR). It is the Bracher Park. Locating about 150 ft south of the project boundary (just across the street of the project).
Source: DayZenLLC 2021e, Table 4.3-10, DayZenLLC 2021b, pg. 2, and DayZenLLC 2021t, pg. 18 and Table 20-3.

Operation HRA

Less Than Significant Impact. Project operation emissions are a result of diesel fuel combustion from the gensets, off-site vehicle trips for worker commutes and material deliveries, and facility upkeep, such as architectural coatings, consumer product use, landscaping, water use, waste generation, natural gas use for comfort heating, and electricity use. They are categorized into two major sources: (1) stationary sources and (2) miscellaneous operation emissions (DayZenLLC 2021e, pg. 4-26 through 4-28).

(1) Stationary Sources: CA3BGF's 44 diesel gensets. Each of the 44 gensets for the data center suites would be powered by Caterpillar Model 3516E engines equipped with SCR equipment and DPF to comply with Tier 4 emissions standards. The DPFs are expected to control particulate matter by approximately 71 percent. All gensets would be tested routinely to ensure they would function during an emergency. TAC emissions resulting from diesel stationary combustion were assumed equal to PM10 emissions or estimated using speciated emission factors from CARB profile 818[5] (DayZenLLC 2021e, pg. 4-26).

[5] https://ww2.arb.ca.gov/speciation-profiles-used-carb-modeling

CARB's ATCM limits each engine to no more than 50 hours annually for reliability purposes (i.e., testing and maintenance). The applicant's health impacts are based on an annual maximum operating limit of 35 hours per year averaged over all engines for a total of 1,540 hours for readiness testing and maintenance operations (DayZenLLC 2021e, pg. 4-26 and pg. 4-32).

(2) Miscellaneous Operational Emissions: Miscellaneous emissions from operational activities such as worker travel, deliveries, energy and fuel use for facility electrical, heating and cooling needs, periodic use of architectural coatings, landscaping, etc. were evaluated by CalEEMod (DayZenLLC 2021e, pg. 4-28). However, these emissions were not included in the operation HRA. The health impacts are based on an annual maximum operating limit of 35 hours for readiness testing and maintenance operations (DayZenLLC 2021e, pg. 4-32).

All discrete loads levels for which emissions data is available (i.e., 10%, 25%, 50%, 75%, and 100%) were analyzed to identify the potential worst-case PM2.5 annual average concentrations which correspond to the worst-base health risk impacts. The applicant reported the second greatest impact at 25% load, where the greatest impact is at 100% load. Since it is impossible to run the generators at 100% load for the entire maximum run time, the HRA was run at 25% load for all engines for all hours. Even that is an overestimate of the impacts, as much of the run time will be at 0% load, which is characterized by the parameters for 10% load (DayZenLLC 2021t, pg. 16).

Table 4.3-10 shows that the cancer risks, chronic HIs, acute HIs, and PM2.5 concentrations at the MEIR, MEIW, MEDR, MESR, and MERR during the project's operation would be less than the BAAQMD's significance thresholds. Therefore, staff concluded that the health risks of the project operation would be a less-than-significant impact.

It should be noted that the risk values shown in **Table 4.3-10** are the highest of those modeled for each type of sensitive receptors. The risk values at other locations for each type of sensitive receptors would be lower than those shown in **Table 4.3-10**. Health risks at nearby worker/residential/sensitive receptors would all be below the significance thresholds. The health risks from the project's operation would be less than significant, and no mitigation would be necessary. The health risks from the project's construction would be less than significant with the implementation of **AQ-1**.

In conclusion, staff finds the health risks at sensitive receptor locations would be less than the BAAQMD CEQA Guidelines significance thresholds shown in **Table 4.3-1**. Staff concludes that the health risks from the project's construction and routine operation would be less than significant and would be further reduced with the implementation of **AQ-1**.

TABLE 4.3-10 OPERATION - MODELED RECEPTOR MAXIMUM HEALTH RISK				
Receptor Type	**Cancer Risk Impact [6] (in one million)**	**Chronic Non-Cancer Hazard Index (HI) [6] (unitless)**	**Acute Non-Cancer Hazard Index (HI) [7] (unitless)**	**PM2.5 Concentration [6] (µg/m³)**
Residential-MEIR[1]	8.73	0.0037	0.027	0.012
Worker-MEIW[2]	8.99	0.0108	0.053	0.035
Daycare-MEDR[3]	4.38	0.001	0.015	0.003
School-MESR [4]	1.35	0.0008	0.016	0.003
Recreational-MERR [5]	0.31	0.001	0.029	0.003
BAAQMD Threshold	10	1	1	0.3

Notes:
[1] Maximally Exposed Individual Resident (MEIR). It is located about 175 ft south the project boundary (just across the street of the project).
[2] Maximally Exposed Individual Worker (MEIW). It is located on the southeast of the project boundary. Risks at the worker receptors include a Worker Adjustment Factor of 4.2 (7/5*24/8) to account for the hours a worker is present at a site.
[3] Maximally Exposed Daycare Receptor (MEDR). It is located approximately 1750 ft southeast of the project boundary. Risks at the daycare and school receptors include a modeling adjustment factor of 4.2 (7/5*24/8) to account for the hours when a child is present at the site.
[4] Maximally Exposed School Receptor (MESR). It is the Bracher Elementary, approximately 650 feet south of the Project boundary. Risks at the daycare and school receptors include a modeling adjustment factor of 4.2 (7/5*24/8) to account for the hours when a child is present at the site.
[5] Maximally Exposed Recreational Receptor (MERR). It is the Bracher Park. Locating about 150 ft south of the project boundary (just across the street of the project).
[6] Load scenario: 25%.
[7] Value of the worst-case generator at 25% load.
Source: DayZenLLC 2021e, pg 4-32, and DayZenLLC 2021t, Table 20-2.

Emergency Operations HRA

Less Than Significant Impact. As discussed above and in **Appendix B**, any operation of this project for emergency purposes would be infrequent, irregular, and unlikely and the resulting emissions are not easily predictable or quantifiable. Nevertheless, because the Health Risk Assessment thresholds and modeling of TACs are less sensitive to minor adjustments in variable assumptions than is the case for criteria air pollutants, staff can generally extrapolate some of the modeling that is done for testing and routine maintenance to explore what emissions could look like under an emergency operation scenario. This is more true, however, for cancer and chronic impacts than it is for acute HI which, like some criteria pollutant modeling, relies on 1-hour modeling results to determine impact.

For this project, the HRA of acute TAC impacts, shown in **Table 4.3-10**, represents the acute HI of the generator of reasonable worst-case (25% load). In other words, the engines would result in greater impacts at 25% load than at any other load except for 100%. However, data provided about real-world operation of data center backup generating facilities during emergency situations show that they do not run at 100% load. Therefore, it is reasonable to use 25% as a reasonable worst-case scenario for purposes of modeling. Staff also concludes that modeling the project at 25% load results in an overestimation of reasonable worst-case conditions because much of the actual

operation would be at 0% load, which must be reflected in the model as 10% load. In other words, typical backup generating facilities for data centers do not run for an hour when operating during an emergency situation. Nevertheless, to estimate potential impacts for acute HI, the project must be modeled as if it is operating for the full hour. Since the value provided by the applicant is only for one engine, staff summed the acute HIs of all 44 diesel gensets, assuming they operated concurrently for one hour. The acute HIs of each receptor are shown in **Table 4.3-11** and most of them are all still below the significance threshold. As mentioned above, the design includes redundancy so that eight gensets are redundant, and two of the four house gensets are redundant (DayZenLLC 2021a, pg. 2-2). Therefore, it is very conservative to suppose 44 gensets operate concurrently. For some receptors (i.e., MEIR and MEIW) with acute HI higher than one (1), staff recalculated by excluding 10 redundant engines with the lowest HI, which brought the HIs down to less than the threshold of one (1). As discussed above, this represents one of the reasonable worst-case scenarios because the total available gensets exceed what would be operated.

This approach is typical of how air quality modeling is done. Certain worst-case assumptions are made to conduct the initial screening-level modeling. If the results show project impacts would fall below all applicable thresholds, then no further refinement is necessary. If, however, the results show the potential for predicted exceedances, then further refinements are necessary to ensure the model reflects likely real-world operation parameters.

While concurrently operating all gensets could approximate what might occur during an undefined emergency, the analysis of acute non-cancer hazards showed the acute health risks to be below the relevant significance thresholds. Therefore, staff concludes that the project is expected to have less than significant acute health risks from emergency operations.

TABLE 4.3-11 EMERGENCY OPERATION -- MODELED RECEPTOR MAXIMUM HEALTH RISK

Receptor Type	Acute[6] Non-Cancer Hazard Index (HI) (unitless)	Acute[7] Non-Cancer Hazard Index (HI) (unitless)
Residential-MEIR[1]	0.027	0.832 [8]
Worker-MEIW or PMI[2]	0.053	0.985 [9]
Daycare-MEDR[3]	0.015	0.504
School-MESR [4]	0.016	0.621
Recreational-MERR [5]	0.029	0.931
BAAQMD Threshold	1	1

Notes:
[1] Maximally Exposed Individual Resident (MEIR), Receptor # 2621. It is located about 175 ft south the project boundary (just across the street of the project).
[2] Maximally Exposed Individual Worker (MEIW) and Point of Maximum Impact (PMI), Receptor # 5082. It is located on the southeast of the project boundary. Risks at the worker receptors include a Worker Adjustment Factor of 4.2 (7/5*24/8) to account for the hours a worker is present at a site.
[3] Maximally Exposed Daycare Receptor (MEDR). It is located approximately 1750 ft southeast of the project boundary. Risks at the daycare and school receptors include a modeling adjustment factor of 4.2 (7/5*24/8) to account for the hours when a child is present at the site.
[4] Maximally Exposed School Receptor (MESR). It is the Bracher Elementary, approximately 650 feet south of the Project boundary. Risks at the daycare and school receptors include a modeling adjustment factor of 4.2 (7/5*24/8) to account for the hours when a child is present at the site.
[5] Maximally Exposed Recreational Receptor (MERR). It is the Bracher Park. Locating about 150 ft south of the project boundary (just across the street of the project).
[6] Value of the generator of the worst-case at 25% load.
[7] Assume all 44 generators operate concurrently for one hour.
[8] Receptor # 5080. HI was calculated by excluding 10 redundant engines with lowest HI.
[9] Receptor # 4137. HI was calculated by excluding 10 redundant engines with lowest HI.
Source: DayZenLLC 2021e, pg 4-32, DayZenLLC 2021t, Table 20-2., and CEC staff analysis.

Cumulative HRA

Less Than Significant Impact. This discussion addresses the impacts from cumulative sources in comparison to the BAAQMD significance thresholds for risk and hazards from cumulative sources (BAAQMD, 2017b). The cumulative HRA is an assessment of the project's impact summed with the impacts of existing sources within 1,000 feet of the project. The results of this cumulative HRA are compared to the BAAQMD CEQA cumulative thresholds of: no more than 100 cancer cases per million; a chronic HI of no more than 10.0; and PM2.5 concentrations of no more than 0.8 $\mu g/m^3$ annual average PM2.5 concentrations.

Per staff's request in Data Requests 25 and 26, the applicant provided a cumulative HRA and compared results with the BAAQMD threshold of significance for cumulative risk and hazards (DayZenLLC 2021t, pg. 19-20). The BAAQMD CEQA Guidelines for assessing cumulative health risk impacts recommend investigating all sources of TACs within 1,000 feet of a proposed project. The BAAQMD CEQA Guidelines also suggest that a lead agency enlarge this radius "on a case-by-case basis if an unusually large source or sources of risk or hazard emissions that may affect a proposed project is beyond the recommended

radius."[6] However, the BAAQMD CEQA Guidelines do not elaborate on what constitutes "an unusually large source or sources of risk or hazard emissions." The BAAQMD's *Recommended Methods for Screening and Modeling Local Risks and Hazards* potentially provides some insight on the topic wherein it also recommends a 1,000-foot radius for a cumulative analysis but states that for "large, complex sources" a larger radius may be appropriate, but the specifics should be determined on a case-by-case basis. The examples it then provides for complex sources include major ports, railyards, distribution centers and truck-related businesses, airports, oil refineries, power plants, metal melting facilities, and cement plants. Because of the nearby railroad (~~CalTrain~~Caltrain) and surrounding industrial stationary sources that could present elevated existing levels of TACs, staff requested information on TAC sources within 2,000 feet of the project fence-line (DayZenLLC 2021t, pg. 19). After thoroughly searching, there is no unusually large or major source (as explained above) beyond 1,000 feet; therefore, staff conducted the cumulative HRA within 1,000 feet of the project fence-line.

However, the applicant only conducted the cumulative HRA for the MEISR as part of the project (DayZenLLC 2021t, pg. 20), and not other sensitive receptors. It's important to note that the MEISR in the applicant's analysis is the same as the MEIR in the staff's analysis. The applicant's cumulative HRA ~~shows~~ showed that the maximum cumulative cancer risk at the MEISR would be 133 in a million, higher than the threshold of 100 in a million; the maximum cumulative HI would be 0.15, below the threshold of 10; and the maximum cumulative PM2.5 concentration would be 1.3 µg/m^3, higher than the threshold of 0.8 µg/m^3. ~~This~~ These exceedances ~~is~~were driven largely by the proximity of the MEISR to the nearby railroad (~~CalTrain~~Caltrain). The exceedances ~~is~~ were also impacted by the conservative nature of the cumulative analysis. BAAQMD CEQA Guidelines and tools were developed to analyze the impacts from all stationary sources within 1,000 feet of the project site, rather than the 2,000-foot distance requested by staff. As a result, the distance multipliers ~~do~~did not account for the incrementally decreasing risk and hazard impacts from sources that ~~are~~were ~~further~~farther than 1,000 feet from the MEISR/MEIR and ~~are~~were overestimates of the impact~~. Therefore, the total cumulative risk is overestimated~~ (DayZenLLC 2021t, pg. 20, Table 26-1).

In TN 243305, the applicant provided an updated analysis that included the following refinements:

1. The screening radius in the applicant's analysis of the MEISR was adjusted from 2,000 feet to 1,000 feet to portray the cumulative health risk impacts from stationary sources on that receptor in a manner consistent with the 1,000-foot recommendation of the BAAQMD CEQA Guidelines.
2. The cancer risk and annual DPM/PM2.5 contributions from the nearby railroad were adjusted to account for future electrification and substantially lower emissions of Caltrain passenger rail locomotives under the CalMod Program as a foreseeable future project that is under construction.

[6] BAAQMD CEQA Guidelines, p. 2-5.

3. The DPM/PM2.5 exposure assumptions for the staff's analysis of the MEIW were adjusted to reflect that a worker would only be exposed to the adjacent railroad/highways/major roadways for a fraction of the year because a worker would only be present at the location during working hours.

With the applicant's adjustments to the cumulative source radius of the MEISR/MEIR from 2,000 feet to 1,000 feet and other refinements above, the cumulative health risk impacts are substantially below the cumulative thresholds outlined in the BAAQMD CEQA Guidelines.

Staff also conducted an independent revised cumulative HRA, assessing the proposed project's impact summed with the impacts of existing sources within 1,000 feet[7] of the maximally exposed sensitive receptors, including MEIR, MEIW, MEDR, MESR, and MERR. Staff also considered the refinement of number 2 and number 3 proposed by the applicant. Staff used an 87 percent reduction to refine the risk of the railroad (explained in detail in a later paragraph) and 0.24 as the Worker Adjustment Factor (WAF)[8]. The results of staff's cumulative HRA are compared to the BAAQMD significance thresholds (BAAQMD 2017b) in **Table 4.3-12, Table 4.3-13**, and **Table 4.3-14**. Staff's cumulative HRA includes ~~four major~~ three categories of sources ~~of impacts~~: (1) existing stationary sources; (2) surrounding highways, main streets, and railways; and (3) the project. Staff has included the updated results from staff's revised analysis, and also the updated ones prepared by the applicant. The project would not cause a cumulatively considerable contribution along with existing and foreseeable projects to cancer risk, non-cancer HI, and PM2.5 concentrations. The updated analysis demonstrates that the cumulative impacts would be below the BAAQMD CEQA Guidelines cumulative thresholds.

1. Existing Stationary Sources

The cumulative cancer risk, non-cancer HI, and PM2.5 concentrations of existing stationary sources were first retrieved from BAAQMD'S Permitted Sources Risk and Hazards Map[9]. Then the risks were calculated using BAAQMD's Health Risk Calculator[10] to refine screen-level cancer risk, non-cancer health hazard index, and PM2.5 concentrations. The Health Risk Calculator incorporates factors such as risk associated with individual TACs emitted from an existing stationary source and how far a stationary

7 Per the BAAQMD CEQA Guidelines, the zone of influence for the cumulative threshold is 1,000 feet from the source or receptor.

8 The Worker Adjustment factor (WAF) = (5/7)X(8X24), accounting that off-site workers usually work 8 hours per day and 5 days per week.

9 The BAAQMD'S Permitted Sources Risk and Hazards Map can be accessed here: https://baaqmd.maps.arcgis.com/apps/webappviewer/index.html?id=2387ae674013413f987b1071715daa65

10The BAAQMD Health Risk Calculator Beta 4.0 can be downloaded here: https://www.baaqmd.gov/~/media/files/planning-and-research/ceqa/tools/baaqmd-health-risk-calculator-beta-4-0-xlsx.xlsx?la=en

source is from the project's maximally exposed sensitive receptor locations to calculate overall cancer risk, hazard index, and PM2.5 concentration from a stationary source.

Stationary sources contributing health risks and hazard impacts within a ~~2~~1,000-foot radius of the project site were determined using BAAQMD's updated CEQA Tool Permitted Stationary Sources Risk and Hazards Map, a GIS map that provides the locations of stationary sources permitted by BAAQMD. The applicant also submitted a subsequent stationary source data request to BAAQMD to ensure the most recent health risk and hazard data had been identified. ~~Appropriate d~~Distance multipliers provided by the BAAQMD CEQA Tool Health Risk Calculator with Distance Multipliers were applied to represent adjusted risk and hazard impacts that can be expected with farther distances from the sources of emissions (DayZenLLC 2021t, pg. 19).

Staff searched the risk data for existing stationary sources within 1,000 feet of MEIR, MEIW, MEDR, MESR, and MERR. There is no stationary source found within 1,000 feet of MESR.

2. Surrounding Highways, Main Streets, and Railways

Mobile impacts were determined using BAAQMD's raster tools, which provide impacts from major streets, highways, and railroads[11]. The tools developed by BAAQMD incorporate risk assessment procedures from the 2015 OEHHA Air Toxics Hot Spots Program Guidance (DayZenLLC 2021t, pg. 19). The cancer risk and PM2.5 concentration from surrounding highways, major streets and railways were determined using BAAQMD raster files that incorporate annual average daily traffic (AADT) per EMFAC 2014 data for fleet mix and includes OEHHA's 2015 Guidance Methods. The raster files encompass highways, major streets, and rails with greater than 30,000 AADT. Staff received the raster files directly from BAAQMD, and then extracted the risk numbers by ArcGIS for the surrounding highways, main streets, and railways.

Caltrain is in the process of electrifying a large portion of its fleet, with electric engines currently undergoing testing and rollout expected to be substantially completed by 2024. This project is reasonably foreseeable ~~and~~ ,therefore, it is reasonable to include the anticipated emissions reductions in an analysis of cumulative impacts for this project. The Caltrain project involves replacing the majority of diesel engines in the fleet with electric engines; these engines travel on tracks close to the CA3 project site and are currently a significant source of cumulative emissions in the vicinity of the CA3 proposed location. Taking the Caltrain electrification into account, the emissions from the railways would be substantially reduced. To reflect this quantitatively, staff conducted a refined cumulative HRA. The cancer risks and annual DPM/PM2.5 contributions from the nearby railroad were adjusted to account for future electrification and substantially lower emissions under the CalMod Program as a foreseeable future project that is under construction.

[11] https://www.baaqmd.gov/~/media/files/planning-and-research/ceqa/tools/2020_02_20-methodology-risk-and-hazards-screening-tool-pdf.pdf?la=en

In the Caltrain 2017 Sustainability Report, it is said that "the improved system will reduce criteria air pollutant emissions by up to 97 percent[12] (TN 243442)." In the Peninsula Corridor Electrification Project (PCEP) FEIR 2014[13] for the Caltrain electrification project, it says annual DPM emissions would be reduced by 87 percent in 2020[14] and 100 percent in 2040 (assuming 100 percent electrified service between San Jose and San Francisco). Because the two numbers differ, staff chose to use the 87 percent reduction as a more conservative approach to refine the health risks of railroad.

3. The Project

For the project, please see the result of the applicant's HRA for facility-wide operation of CA3 presented in **Table 4.3-10**.

Table 4.3-12, Table 4.3-13, and **Table 4.3-14** summarize the results of the staff cumulative HRA and compares them to the BAAQMD significance thresholds for cumulative risk and hazards. The cumulative cancer risk, HI, and PM2.5 concentration were conservatively calculated using the maximum value in relation to the maximally exposed sensitive receptors as well as at the nearest residences. **Table 4.3-12, Table 4.3-13**, and **Table 4.3-14** show that ~~most~~none of the project's health risks would ~~not~~ exceed the cumulative health risk thresholds when summed with the health risks of cumulative sources within 1,000 feet ~~(or 2,000 feet)~~ of each receptor.

~~**Table 4.3-12** shows that the proposed project's health risks (i.e., cancer risks) would exceed the cumulative health risk thresholds when summed with the health risks of cumulative sources within 2,000 feet of MEISR and 1,000 feet of MEIR. Also, **Table 4.3-14** shows that the proposed project's health risks (i.e., PM2.5 concentration) would exceed the cumulative health risk thresholds when summed with the health risks of cumulative sources within 2,000 feet of MEISR and 1,000 feet of MEIW.~~

~~However, as mentioned above, the cumulative impacts are the summation of each category (cancer risks, PM2.5 concentrations) from all the sources to each receptor, and the exceedances in cancer risk (**Table 4.3-12**) and PM2.5 concentration (**Table 4.3-14**) are because the background values (i.e., sources of surrounding highways, major streets, and railways) are already very high or even have already exceeded the thresholds. In other words, the exceedance is not due to the project itself.~~

[12] Caltrain 2017 Sustainability Report, https://www.caltrain.com/media/1625/download

[13] Peninsula Corridor Electrification Project (PCEP) Final Environmental Impact Report (FEIR), January 2015, 3.2 Air Quality. https://www.caltrain.com/projects/caltrain-modernization/calmod-document-library/pcep-feir-2014?fbclid=IwAR2HkVLQSjvIHQd1mT_6DUayCWy0-4fLDzeoshlKRx0k_l13b7RSxgeV9fM

[14] The project's timeline appears to have slipped somewhat since issuance of the FEIR and the 2020 reductions are now expected by 2024 (https://www.caltrain.com/news/caltrain-electrification-delayed-2024).

~~As set forth in **Table 4.3-12**, the modeled cancer risk at the receptor of MEISR is 9.9 in one million, meaning the project contributes 9.9 in one million to this total number of 133 in one million. Comparing 9.9 in one million to 133 in one million, the project contributes seven percent to the existing exceedances. Note the risk numbers for MEISR were overestimated because it is the summation of all sources within 2,000 feet. Also, the cumulative cancer risks are over the BAAQMD threshold primarily because of the proximity of receptors to the nearby railroad, which contributes a cancer risk of 72 in a million at the MEISR (DayZenLLC 2021t, Table 26-1). Potentially beneficial effects of the ongoing and probable future Caltrain Electrification Program were not considered. As for MEIR, its modeled incremental cancer risk is 8.73 in one million, meaning the project contributes 8.73 in one million to this total number of 111.73 in one million. Comparing 8.73 in one million to 111.73 in one million, the project contributes 7.8 percent to the existing exceedances. Also, the cumulative cancer risk total (111.73 in one million) for MEIR are over the BAAQMD threshold primarily because of the proximity of receptors to the surrounding highways, major streets, and railways, which contributes a cancer risk of 102.31 in one million at the MEIR. The cancer risk from the surrounding highways, major streets, and railways at MEIR is already above the threshold. Staff identifies the health risks from cumulative sources and the potential for a significant cumulative impact in the project area, primarily due to nearby highways, major streets, and railways, and other stationary sources. When the effects of the project are considered in this context, staff determined that the project's contribution to the cumulative impact is less than cumulatively considerable and, thus, is not significant. Therefore, staff concluded the project's contribution is not cumulatively considerable and the project does not cause cumulatively considerable impacts.~~

~~As set forth in **Table 4.3-14**, the modeled total PM 2.5 concentration at the receptor of MEISR is only 0.013 µg/m^3, meaning the project only contributes 0.013 µg/m^3 to this total number of 1.3 µg/m^3. Comparing 0.013 µg/m^3 to 1.3 µg/m^3, the project only contributes one percent to the existing exceedances and the contribution is, therefore, not cumulatively considerable. Also, the modeled cancer risk at the receptor of MEIW is only 0.035 µg/m^3, meaning the project only contributes 0.035 µg/m^3 to this total number of 1.3 µg/m^3. Comparing 0.035 µg/m^3 to 1.3 µg/m^3, the project only contributes two percent to the existing exceedances and the contribution is, therefore, not cumulatively considerable. Therefore, staff concluded the project's contribution is not cumulatively considerable and the project does not cause cumulatively considerable impacts.~~

In conclusion, staff finds that cumulative health risks at ~~most~~ all sensitive receptor locations would be less than the BAAQMD CEQA Guidelines significance thresholds shown in **Table 4.3-1**. Staff concludes that the project's contribution to the cumulative impact ~~effect~~ of ~~cumulative~~ TAC emissions would be less than significant.

TABLE 4.3-12 CANCER RISKS (PER MILLION) FROM CUMULATIVE SOURCES

Sources of Cumulative Impacts	Cancer Risk at MEISR[a]	Cancer Risk at MEIR[b]	Cancer Risk at MEIW[c]	Cancer Risk at MEDR[d]	Cancer Risk at MESR[e]	Cancer Risk at MERR[f]
Existing Stationary Sources	~~32~~ 0.69	0.69	3.92	0.05	0	0.46
Surrounding Highways, Major Streets, and Railways[g]	~~91~~ 20.79	~~102.31~~ 29.5	~~81.95~~ 6.57	~~52.11~~ 24.6	~~43.71~~ 21.16	~~90.04~~ 27.71
• Railways[g]		10.88	1.96	4.11	3.37	9.31
• Major Streets		13.45	3.35	15.38	13.03	13.34
• Highways		5.17	1.26	5.11	4.75	5.05
CA3	9.9~~hg~~	8.73	8.99	4.38	1.35	0.31
Total - Cumulative Sources	~~**133**~~ 31.38	~~**111.73**~~ 38.91	~~94.86~~ 19.48	~~56.54~~ 29.03	~~45.06~~ 22.51	~~90.80~~ 28.47
Significance Threshold	100	100	100	100	100	100
Potential Significant Impact?	~~**Yes**~~No	~~**Yes**~~No	No	No	No	No

Notes:

[a] Maximally Exposed Individual Sensitive Receptor (MEISR). The cumulative health risk impact of the proposed project was calculated including the stationary and mobile sources within ~~2~~1,000 ft of the project boundary. Staff used the data provided by the applicant in TN243305.

[b] Maximally Exposed Individual Resident (MEIR). The cumulative health risk impact of the proposed project was calculated including the stationary and mobile sources within 1,000 ft of this receptor. Staff used the data provided by BAAQMD.

[c] Maximally Exposed Individual Worker (MEIW). The cumulative health risk impact of the proposed project was calculated including the stationary and mobile sources within 1,000 ft of this receptor. Staff used the data provided by BAAQMD~~.~~, and refined the mobile source impacts by using the Worker Adjustment Factor (WAF) of 0.24 to reflect that the worker receptor would only be present at the location for a portion of the day/week.

[d] Maximally Exposed Daycare Receptor (MEDR). The cumulative health risk impact of the proposed project was calculated including the stationary and mobile sources within 1,000 ft of this receptor. Staff used the data provided by BAAQMD.

[e] Maximally Exposed School Receptor (MESR). The cumulative health risk impact of the proposed project was calculated including the stationary and mobile sources within 1,000 ft of this receptor. Staff used the data provided by BAAQMD.

[f] Maximally Exposed Recreational Receptor (MERR). The cumulative health risk impact of the proposed project was calculated including the stationary and mobile sources within 1,000 ft of this receptor. Staff used the data provided by BAAQMD.

[g] Staff assumed railway impacts would be reduced by 87% to reflect the effects of Caltrain Modernization Program (The applicant used 97% off for MEISR).

~~g~~ [h] Load scenario: 100% load.

Sources: CEC staff analysis of data from BAAQMD, and DayZenLLC 2021t, pg. 19-20, Table 26-1

TABLE 4.3-13 CHRONIC HAZARD INDICES FROM CUMULATIVE SOURCES

	Chronic Hazard Index					
Sources of Cumulative Impacts	**MEISR[a]**	**MEIR[b]**	**MEIW[c]**	**MEDR[d]**	**MESR[e]**	**MERR[f]**
Existing Stationary Sources	~~0.15~~ 0	0	0	0.0015	0	0.0004
Surrounding Highways, Major Streets, and Railways	No Data Available[g]	No Data Available[g]	No Data Available[g]	No Data Available[g]	No Data Available[g]	No Data Available[g]
CA3	0.0037[h]	0.0037	0.0108	0.001	0.0008	0.001
Total - Cumulative Sources	~~0.1537~~ 0.0037	0.0037	0.0108	0.0025	0.0008	0.0014
Significance Threshold	10	10	10	10	10	10
Potential Significant Impact?	No	No	No	No	No	No

Notes:
[a] Maximally Exposed Individual Sensitive Receptor (MEISR). The cumulative health risk impact of the proposed project was calculated including the stationary and mobile sources within ~~2~~1,000 ft of the project boundary. Staff used the data provided by the applicant.
[b] Maximally Exposed Individual Resident (MEIR). The cumulative health risk impact of the proposed project was calculated including the stationary and mobile sources within 1,000 ft of this receptor. Staff used the data provided by BAAQMD.
[c] Maximally Exposed Individual Worker (MEIW). The cumulative health risk impact of the proposed project was calculated including the stationary and mobile sources within 1,000 ft of this receptor. Staff used the data provided by BAAQMD.
[d] Maximally Exposed Daycare Receptor (MEDR). The cumulative health risk impact of the proposed project was calculated including the stationary and mobile sources within 1,000 ft of this receptor. Staff used the data provided by BAAQMD.
[e] Maximally Exposed School Receptor (MESR). The cumulative health risk impact of the proposed project was calculated including the stationary and mobile sources within 1,000 ft of this receptor. Staff used the data provided by BAAQMD.
[f] Maximally Exposed Recreational Receptor (MERR). The cumulative health risk impact of the proposed project was calculated including the stationary and mobile sources within 1,000 ft of this receptor. Staff used the data provided by BAAQMD.
[g] No data available — BAAQMD staff did not provide data for these sources.
[h] Load scenario: 100% load.
Sources: CEC staff analysis of data from BAAQMD, and DayZenLLC 2021t, pg. 19-20, Table 26-1

TABLE 4.3-14 ANNUAL PARTICULATE MATTER (PM2.5) CONCENTRATIONS (µg/m³) FROM CUMULATIVE SOURCES

	Annual DPM/PM2.5 Concentration					
Sources of Cumulative Impacts	**MEISR[a]**	**MEIR[b]**	**MEIW[c]**	**MEDR[d]**	**MESR[e]**	**MERR[f]**
Existing Stationary Sources	~~0.73~~ 0	0	0.433	0.004	0	0
Surrounding Highways, Major Streets, and Railways[g]	~~0.57~~ 0.414	~~0.569~~ 0.43	~~0.542~~ 0.105	~~0.207~~ [i] 0.455	~~0.139~~ [i] 0.396	~~0.541~~ 0.422
• Railways[g]		0.021	0.004	0.008	0.006	0.018
• Major Streets		0.289	0.072	0.331	0.28	0.287
• Highways		0.12	0.029	0.117	0.109	0.117
CA3	0.013[hg]	0.012	0.035	0.003	0.003	0.003
Total - Cumulative Sources	~~**1.3**~~ 0.427	~~0.581~~ 0.442	~~**1.010**~~ 0.573	~~0.214~~ [i] 0.462	~~0.142~~ [i] 0.399	~~0.544~~ 0.425
Significance Threshold	0.8	0.8	0.8	0.8	0.8	0.8
Potential Significant Impact?	~~**Yes**~~No	No	~~**Yes**~~No	No	No	No

Notes:

[a] Maximally Exposed Individual Sensitive Receptor (MEISR). The cumulative health risk impact of the proposed project was calculated including the stationary and mobile sources within ~~2~~1,000 ft of the project boundary. Staff used the data provided by the applicant in TN243305.

[b] Maximally Exposed Individual Resident (MEIR). The cumulative health risk impact of the proposed project was calculated including the stationary and mobile sources within 1,000 ft of this receptor. Staff used the data provided by BAAQMD.

[c] Maximally Exposed Individual Worker (MEIW). The cumulative health risk impact of the proposed project was calculated including the stationary and mobile sources within 1,000 ft of this receptor. Staff used the data provided by BAAQMD, and refined the mobile source impacts by using the Worker Adjustment Factor (WAF) of 0.24 to reflect that the worker receptor would only be present at the location for a portion of the day/week.

[d] Maximally Exposed Daycare Receptor (MEDR). The cumulative health risk impact of the proposed project was calculated including the stationary and mobile sources within 1,000 ft of this receptor. Staff used the data provided by BAAQMD.

[e] Maximally Exposed School Receptor (MESR). The cumulative health risk impact of the proposed project was calculated including the stationary and mobile sources within 1,000 ft of this receptor. Staff used the data provided by BAAQMD.

[f] Maximally Exposed Recreational Receptor (MERR). The cumulative health risk impact of the proposed project was calculated including the stationary and mobile sources within 1,000 ft of this receptor. Staff used the data provided by BAAQMD.

[g] Staff assumed railway impacts would be reduced by 87% to reflect the effects of Caltrain Modernization Program (The applicant used 97% off for MEISR).

[gh] Load scenario: 100% load.

[i] Staff noticed some typographical errors in the FEIR. The PM2.5 concentrations at MEDR and MESR for surrounding highways, major streets, and railways should be 0.507 µg/m³ and 0.439 µg/m³ respectively, instead of 0.207 µg/m³ and 0.139 µg/m³. The cumulative PM2.5 concentrations at MEDR and MESR should be 0.514 µg/m³ and 0.442 µg/m³ respectively, instead of 0.214 µg/m³ and 0.142 µg/m³. In staff's revised cumulative HRA, staff made refinements based on the corrected values.

Sources: CEC staff analysis of data from BAAQMD, and DayZenLLC 2021t, pg. 19-20, Table 26-1

d. Would the project result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?

This section considers impacts that may arise from emissions other than criteria air pollutants and TACs, such as emissions that may lead to odors.

BAAQMD states that, while offensive odors rarely cause direct health impacts or any physical harm, they still can be very unpleasant and lead to considerable distress among the public, often generating citizen complaints to local governments and BAAQMD (BAAQMD 2017b). Any project with the potential to frequently expose members of the public to objectionable odors would be deemed to have a significant impact. Odor impacts on residential areas and other sensitive receptors warrant the closest scrutiny, but consideration should also be given to other land uses where people may congregate, such as recreational facilities, worksites, and commercial areas.

BAAQMD CEQA Guidelines recommend a two-step process for determining the significance of potential odor impacts. First, determine whether the project would result in an odor source affecting receptors within the distances indicated in **Table 4.3-15**. Second, if the proposed project would result in an odor source and receptors within the screening level distances indicated in **Table 4.3-15**, a more detailed analysis should be conducted (BAAQMD 2017b).

TABLE 4.3-15 PROJECT SCREENING TRIGGER LEVELS FOR POTENTIAL ODOR SOURCES

Land Use/Type of Operation	Project Screening Distance
Wastewater Treatment Plant	2 miles
Wastewater Pumping Facilities	1 mile
Sanitary Landfill	2 miles
Transfer Station	1 mile
Composting Facility	1 mile
Petroleum Refinery	2 miles
Asphalt Batch Plant	2 miles
Chemical Manufacturing	2 miles
Fiberglass Manufacturing	1 mile
Painting/Coating Operations	1 mile
Rendering Plant	2 miles
Coffee Roaster	1 mile
Food Processing Facility	1 mile
Confined Animal Facility/Feed Lot/Dairy	1 mile
Green Waste and Recycling Operations	1 mile
Metal Smelting Plants	2 miles

Source: BAAQMD 2017b, Table 3-3.

The project is not a type of operation that is classified as a typical odor source by BAAQMD, as shown in **Table 4.3-15**. The diesel engine generators would not be stationary sources of a type that are typically known to cause significant odor impacts.

Construction

Less Than Significant Impact. Minor odor sources during construction activities include diesel exhaust from heavy-duty equipment. Odors from construction activities near existing receptors would be temporary in nature and dissipate as a function of distance. Accordingly, the construction of the project is not expected to result in substantial emissions that may lead to odor impacts or impacts of emissions other than those of criteria pollutants and TACs identified elsewhere in this analysis.

Fugitive dust emissions can also create a nuisance that can cause adverse effects. The project is proposing to comply with the BAAQMD construction fugitive dust control BMPs and so should not have substantial fugitive dust emissions during construction that could adversely affect a substantial number of people.

Therefore, the construction of the project would not result in other emissions, such as those leading to odors, that could adversely affect a substantial number of people and would have less than significant impacts.

Operation

Less Than Significant Impact. Potential odor sources from the project's readiness testing and maintenance along with emergency operation would include diesel exhaust from genset readiness testing and maintenance, trash pick-up and other heavy-duty delivery vehicles, and the occasional use of architectural coatings during routine maintenance. When compared to existing odor sources near the project site, which include heavy and light industrial uses, odor impacts from project readiness testing and maintenance along with emergency operations would be similar.

Once built and operating, the project would have no notable emissions other than those of criteria pollutants and TACs identified elsewhere in this analysis. Therefore, nuisance impacts would not be likely to occur during operation, including readiness testing and maintenance or emergency operation. During readiness testing and maintenance and during emergency operation, the project would not result in odors or other emissions that could adversely affect a substantial number of people and would have a less than significant impact related to odors. In conclusion, staff finds that the project would not likely create objectionable odors affecting a substantial number of people.

4.3.4 Mitigation Measures

To ensure that fugitive dust impacts are less than significant, the project will implement BAAQMD's recommended BMPs during the construction phase. On September 13, 2021, the applicant provided a revised mitigation measure **AQ-1**, as shown below, to ensure it reflects the assumptions used as the bases for construction equipment emissions estimates and modeling (DayZenLLC 2021w).

AQ-1: To ensure that fugitive dust impacts are less than significant, the project will implement the Bay Area Air Quality Management District (BAAQMD) recommended Best Management Practices (BMPs) during the construction phase, the project owner shall implement a construction emissions control plan that has been reviewed and approved by the Director or Director's designee of the City of Santa Clara Community Development Department prior to the issuance of any grading or building permits, whichever occurs earliest. These BMPs are incorporated into the design of the project and will include:

- Water all exposed areas (e.g., parking areas, graded areas, unpaved access roads) twice a day.
- Maintain a minimum soil moisture of 12% in exposed areas by maintaining proper watering frequency.
- Cover all haul trucks carrying sand, soil, or other loose material.
- Suspend excavation, grading, and/or demolition activities when average wind speed exceeds 20 miles per hour.
- Pave all roadways, driveways, and sidewalks as soon as possible. Lay building pads as soon as grading is completed, unless seeding or soil binders are used.
- Install wind breaks (e.g., trees, fences) on the windward side(s) of actively disturbed areas of construction with a maximum 50 percent air porosity.
- Use a power vacuum to sweep and remove any mud or dirt-track next to public streets if visible soil material is carried onto the streets.
- Limit vehicle speeds on unpaved roads to 15 miles per hour (mph).
- Minimize idling time for all engines by shutting engines when not in use or limiting idling time to a maximum of five minutes. Provide clear signage for construction workers at all access points.
- Properly tune and maintain construction equipment in accordance with manufacturer's specifications. Check all equipment against a certified visible emissions calculator.
- Post a publicly visible sign with the telephone number and person to contact at the Lead Agency and the on-site job superintendent regarding dust complaints.
- Install vegetative ground cover in disturbed areas as soon as possible and water appropriately until vegetation is established.
- Limit simultaneous occurrence of excavation, grading, and ground-disturbing construction activities.
- Install water washers to wash all trucks and equipment prior to leaving site.
- Treat site access to a distance of 100 feet from the paved road with a 6- to 12-inch compacted layer of wood chip, mulch, or gravel.
- Install sandbag or other erosion control measures to prevent silt runoff to public roadways from sites with a slope greater than one percent.

- Minimize idling time of diesel-powered construction vehicles to two minutes.
- All off-road equipment greater than 25 horsepower (hp) shall have engines that meet or exceed Tier 4 final off-road emission standards. Use of zero-emission and hybrid-powered equipment is encouraged.
- All on-road trucks used for material delivery or hauling shall have engines that meet or exceed 2014 CARB emissions standards.
- Where grid power is available, portable diesel engines should be prohibited.
- Use low VOC (i.e., ROG) coatings beyond the local requirements (i.e., Regulation 8, Rule 3: Architectural Coatings).
- All construction equipment, diesel trucks, and generators be equipped with Best Available Control Technology for emission reductions of NOx and PM.
- All contractors use equipment that meets CARB's most recent certification standard for off-road heavy-duty diesel engines.

4.3.5 References

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APPENDIX C

July 25, 2022

CULTURAL AND TRIBAL CULTURAL RESOURCES UPDATE TO THE FINAL EIR

4.5 Cultural and Tribal Cultural Resources

This section describes the environmental setting and regulatory background and discusses the impacts associated with the construction and operation of the project with respect to cultural and tribal cultural resources.

CULTURAL RESOURCES **Would the project:**	**Potentially Significant Impact**	**Less Than Significant with Mitigation Incorporated**	**Less Than Significant Impact**	**No Impact**
a. Cause a substantial adverse change in the significance of a historical resource pursuant to §15064.5?	☐	☒	☐	☐
b. Cause a substantial adverse change in the significance of a unique archaeological resource pursuant to §15064.5?	☐	☒	☐	☐
c. Disturb any human remains, including those interred outside of dedicated cemeteries?	☐	☒	☐	☐

TRIBAL CULTURAL RESOURCES Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:	**Potentially Significant Impact**	**Less Than Significant with Mitigation Incorporated**	**Less Than Significant Impact**	**No Impact**
a. Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k), or	☐	☐	☐	☒
b. A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.	☐	☒	☐	☐

Environmental checklist established by CEQA Guidelines, Appendix G.

4.5.1 Environmental Setting

This section considers four broad classes of cultural resources: prehistoric, ethnographic, historic-period, and tribal cultural resources. The next four paragraphs briefly describe these classes of resources. Afterward, the Cultural and Tribal Cultural Resources section presents the environmental setting pertinent to these resources:

- *Prehistoric, ethnographic, and historic contexts*—generally describes who lived in the project vicinity, the timing of their occupation, and what uses they made of the area
- *Methods of analysis*—establishes what kinds of physical traces (cultural and tribal cultural resources) past peoples might have left in the project area, given the project vicinity's prehistoric, ethnographic, and historic contexts
- *Results* ensuing from those methods—identifies the specific resources present or expectable in the project area
- *Regulatory setting*—presents the criteria for identifying *significant* cultural and tribal cultural resources under the California Environmental Quality Act (CEQA) and other applicable authorities, as well as the criteria for identifying significant impacts on these resources
- *Impacts*—identifies any impacts on cultural and tribal cultural resources, along with the severity of any such impacts
- *Mitigation measures*—proposes measures to avoid, minimize, rectify, reduce, or eliminate, or compensate for, any identified, significant impacts

Prehistoric archaeological resources are those materials relating to Native American occupation and the use of a particular environment. These resources may include sites and deposits, structures, artifacts, rock art, trails, and other traces of Native American activity. In California, the prehistoric period began more than 12,000 years ago and extended through the 18th century until A.D. 1769, when Europeans first settled in California.

Ethnographic resources are those materials important to the heritage of a particular ethnic or cultural group, such as Native Americans or African, European, or Asian immigrants. They may include traditional resource-collecting areas, ceremonial sites, topographic features, value-imbued landscapes, cemeteries, shrines, or neighborhoods and structures. Ethnographic resources are variations of natural resources and standard cultural resources types. They are subsistence and ceremonial locales and sites, structures, objects, and rural and urban landscapes assigned cultural significance by traditional users. The decision to call resources "ethnographic" depends on whether associated peoples perceive them as traditionally meaningful to their identity as a group and the survival of their lifeways.

Historic-period resources are those materials, archaeological and architectural, usually but not necessarily associated with Euro-American exploration and settlement of an area and the beginning of a written historical record. They may include archaeological deposits, sites, structures, trail and road corridors, artifacts, or other evidence of historic human activity. Under federal and state requirements, historic period cultural resources must be 50 years or older to be considered of potential historic importance. A resource less than 50 years of age may be historically significant if the resource is of exceptional importance. The Office of Historic Preservation (OHP 1995, page 2) endorses recording

and evaluating resources 45 years or older to accommodate a five-year lag in the planning process.

Tribal cultural resources are a category of historical resources recently introduced into CEQA by Assembly Bill 52 (Chapter 532, Stats. 2014). Tribal cultural resources are resources that are any of the following: sites, features, places, cultural landscapes, sacred places, or objects that are included in or determined eligible to the California Register of Historical Resources (CRHR) or are included on a local register of historical resources, as defined in Public Resources Code, section 5020.1(k). Tribal cultural resources can be prehistoric, ethnographic, or historic.

Prehistoric Context

The archaeological record in the Santa Clara Valley began about 9,000 years before present (B.P., or before 1950) with the Metcalf Creek Aspect, the local expression of the Millingstone cultural pattern. Archaeological deposits dating to this time contain milling slabs and handstones, and large wide-stemmed and leaf-shaped projectile points. Native people during this period were mobile foragers and burials were typically flexed and placed beneath millingstone cairns. (Milliken et al. 2007, page 114.)

This Early Holocene culture extended until the beginning of the Early Period (circa 5500 B.P.), which exhibits developments in groundstone technology (i.e., replacing millingstones with the mortar and pestle), less movement of entire communities, regional symbolic integration between cultural groups, and increased trade. Also referred to locally as the Sandhill Bluff Aspect, this cultural pattern lasted until circa (ca.) 2500 B.P., when the Lower Middle Period began with a "major disruption in symbolic integration systems." (Milliken et al. 2007, page 115.) Archaeological assemblages from the Lower Middle Period include more olive snail-shell saucer beads and circular abalone-shell ornaments (and the disappearance of the rectangular shell beads), as well as bone tools and whistles.

The Upper Middle Period began ca. 1520 B.P. with a disruption of the olive snail-shell bead trade network, abandonment of some village sites, and changes in shell bead manufacture. Some South Bay burials from this period were extended rather than flexed burials, and grave goods were lacking. (Milliken et al. 2007, page 116.)

The Late Period began ca. 900 B.P. with groups increasingly intensifying the creation of wealth objects, as seen in burials. Smaller projectile points for use in the bow and arrow emerged during this period and some of the mortuary evidence suggests the introduction of cremation, at least among the wealthiest of individuals. (Milliken et al. 2007, page 117.)

Archaeological research in the project vicinity reveals a rich and lengthy archaeological record. Archaeologists have found numerous buried Native American sites throughout the lower Santa Clara Valley. Rapid development of the valley covered numerous archaeological sites in pavement or with structures (Busby et al. 1996a, pages 2–4; Hylkema 1994, page 252; Parsons and KEMCO 1983, pages 18 and 35). Below even the

archaeological sites capped by the veneer of recent building, the Guadalupe River and smaller streams (Saratoga and San Tomas Aquino creeks) buried generations of Native American sites under layers of silt and clay. As a result, the surface archaeological record of Santa Clara Valley represents only the last 2,000 years of human occupation. The remaining 7,000 years of native history lay anywhere from near surface up to 30 feet below the modern ground surface. (Busby et al. 1996a, pages 2–4; Busby et al. 1996b, page 2; Jones et al. 2007, page 130; Parsons and KEMCO 1983, pages 16, 25–26, 33; Ruby et al. 1992:9, 12, 17–19.)

Ethnographic Context

The Costanoans are the Native Americans who inhabited the Bay Area since time immemorial. The Costanoan designation refers to those who spoke one of eight separate but related languages (Shipley 1978, pages 84, 89). The Costanoan languages are similar to Miwok and are part of the Yok-Utian language family of the Penutian stock (Golla 2007, pages 75–76). Tamyen (Santa Clara Costanoan) was spoken around the southern end of San Francisco Bay and the lower Santa Clara Valley (and was spoken by Costanoans in the project vicinity). (Milliken et al. 2007, Figure 8.1; Shipley 1978, pages 84 and 89.)

Each village was a separate and politically autonomous tribelet, with about 200 people living within each. Tribelets were the basic unit of political organization, with chiefs, either women or men, descended from their patrilineal relative. In the late 1700s, there were two tribelets near the proposed project (project site), San José Cupertino and Santa Clara; both are presumably Tamyen speakers. (Levy 1978, Figure 1.) Kroeber (1976, Figure 42) indicates that two settlements were located within a few miles of the project site on the Guadalupe River, Tamie-n near Santa Clara, and Ulis-tak farther north near the San Francisco Bay.

Like most other Native Americans in California, acorns were the staple food of the Costanoan people in the Santa Clara region. Other nuts, such as buckeye, California laurel, and hazelnuts, were also eaten. The Costanoans set controlled fires to promote the growth of the nuts and seeds upon which they relied. The primary mammals taken by the Costanoan included the black-tailed deer, elk, antelope, grizzly bear, mountain lion, sea lion, and whale. Waterfowl, salmon, steelhead, and lampreys were also important components of the Costanoan diet. (Levy 1978, page 491.)

Thatched, domed houses were the most common type of structure for the Costanoans. Sweathouses along the banks of rivers were also constructed, in addition to dance enclosures and assembly houses. (Levy 1978, page 492.)

Bodies were either buried or cremated on the day of death. The community either buried the deceased's property with the body or destroyed their property. (Kroeber 1976, page 469; Levy 1978, page 490.)

Trade was important for the Costanoan groups, and their primary partners in trade were the Plains Miwok, Sierra Miwok, and Yokuts. The Costanoan provided coastal resources, such as mussels, abalone shell, dried abalone, and salt, to the Yokuts in exchange for piñon pine nuts. The Miwok obtained olive snail shells from the Costanoans. Warfare occurred between Costanoan tribelets as well as the Esselen, Salinan, and Northern Valley Yokuts. (Davis 1961, page 19; Levy 1978, page 488.)

A common archaeological manifestation of a Costanoan village site is the shellmound deposit (Kroeber 1976, page 466). Mussels are the primary shells that constitute these mounds, in addition to other household wastes.

The Spanish established seven missions in Costanoan territory between 1770 and 1797. By 1810, the mission system subsumed the last Costanoan village. Missions in the Bay Area mixed together various language and cultural groups, including the Esselen, Foothill Yokuts, Plains Miwok, Saclan Miwok, Lake Miwok, Coast Miwok, and Patwin. The mission closest to the proposed project area was Santa Clara de Asís, built in 1777. The mission is no longer extant, but the area is still rich in archaeological manifestations from the mission period and before. (Levy 1978, page 486.)

Historic Context

To inform an understanding of the potential significance of built environment resources near the project, a review of the major historical timeline markers for the project area provides context. This subsection offers a brief look at those events and trends in the history of the Santa Clara Valley region that provide that context, especially for the project site:

- Spanish Mission Period
- Mexican Period
- American Period
    - Transportation and Railroads
    - Agriculture and Fruit Industry
    - Post-World War II (WWII) and Silicon Valley
    - San Tomas Aquino Creek
    - Project Site History

Spanish/Mission Period (1769 to 1821)

The Spanish Period hosted several important developments, such as the establishment of Spanish colonial military outposts (presidios), pueblos, and 21 missions throughout Alta California. Nearest to the location of the proposed project were the Santa Clara de Asís Mission (1777), El Pueblo de San José de Guadalupe (1777) and associated Mission (1797), and Santa Cruz Mission (1791). The Spanish government also awarded land grants to soldiers and others and thus began the tradition of large land grants used for

agriculture and livestock. Little remains of the cultural landscape that existed during this time aside from some roads that follow the same early transportation routes (Santa Clara County 2012, pages 22–26).

Mexican Period (1821 to 1848)

Following Mexican independence from Spain in 1821, Mexican Governor Pío Pico granted lands to Mexican settlers, including the former mission lands, whose connection to the government was lost in the Decree of Secularization in 1834. The Mexican governor granted 43 ranchos in the Santa Clara Valley between 1802 and 1845. Local planning agencies lack detailed information on the location and integrity of these early California sites (Santa Clara County 2012, pages 30–32). The project site appears to be within the boundaries of the Rancho Ulistác (USGS 1899). Governor Pío Pico granted the land in 1845 to two Santa Clara Mission Indians: Marcelo Pio and Cristóbal. After the Mexican War (1846–1848), Jacob D. Hoppe obtained title to the rancho. Following Hoppe's death, his heirs divided and sold the land (Oosterhous et al. 2002, page 6). Santa Clara's historic context statement laments that most traces of original haciendas, adobes, and other rancho structures are not discernible in the landscape today and few records exist (Santa Clara County 2012, page 32).

American Period (1848 to Present)

California became the thirty-first state in the Union in 1850. In 1851, Santa Clara College, now Santa Clara University, was founded on the site of the Santa Clara de Asís Mission. The incorporation of the city of Santa Clara followed in 1852. In 1866, the city officially established a gridded street system to accommodate anticipated growth. Today, this area is known as the Old Quad neighborhood. Early industries in the city included wheat production and flour milling, seed and fruit packing, and manufacturing. Leather tanning and wood products were two key industries of the city well into the 20th century. Similarly, seed growing and fruit farming and packing (especially pears, cherries, apricots, and prunes) were mainstays, contributing to the city's exports. (Santa Clara 2010, page 3-2.)

Transportation and Railroads

Railroads played a significant part in the development of the Santa Clara Valley. In 1869, the Western Pacific Railroad completed a rail line from Niles, California, to San Jose, California, effectively connecting San Jose with the Transcontinental Railroad. This opened new markets for the agricultural and manufactured products of the entire Santa Clara Valley. Senator James Fair, a multi-millionaire, envisioned a route from the east side of the San Francisco Bay, south to San Jose, then on to Los Gatos and through the mountains to Felton, ultimately connecting to Santa Cruz. Senator Fair incorporated the South Pacific Coast Railroad in 1876 and immediately began building the segment from Dumbarton in the East Bay to Los Gatos, by way of Santa Clara and San Jose. Following that segment, the rail line passed through the Santa Cruz Mountains to connect with the narrow-gauge railroad at Felton. The Southern Pacific Railroad (SPRR) acquired these rail

lines in 1887 and eventually converted the narrow-gauge lines to standard gauge (Lehmann 2000, pages 31–33).

The SPRR Monterey Division segment from San Francisco to San Jose was originally constructed in 1864 by the San Francisco and San Jose Railroad Company (SFSJRR) and purchased by SPRR in 1869. The SPRR extended the tracks to Gilroy in 1869, then to Hollister in 1871 and Tres Pinos in 1873 (JRP 2002, pages 10–12). This railroad line provided freight and passenger access from San Francisco to the South Bay, San Jose, South County regions and beyond. A 1915 U.S. Geological Survey (USGS) topographic map shows the entire route of the SPRR Santa Cruz and Monterey Divisions from central San Jose through the Santa Cruz Mountains to Santa Cruz and Monterey, respectively, and indicating an ultimate connection to Los Angeles (USGS 1915). The Monterey Division passed adjacent to the project site where the alignment is currently used by Caltrain. The California Department of Transportation (Caltrans) assumed operation of the railroad right-of-way (ROW) from SPRR in 1979, and hence the name "Caltrain" in use today. The Peninsula Corridor Joint Powers Board purchased the ROW from San Francisco to San Jose and obtained trackage rights in the southern section in 1991 (JRP 2002, page 34).

Santa Clara Valley Agriculture and Fruit Industry

Fruit orchards and vegetable farms dominated the Santa Clara Valley from the 1890s to the 1940s. Wheat and flour milling were the first major agricultural activities. In support of the fruit and vegetable industry, canning operations flourished in the northeastern portion of the county. Fruit packing companies were common in the Santa Clara Valley in the first third of the 20th century. Nearly half of the world's supply of fresh, dried, and canned fruit through the end of WWII originated from the valley. The agricultural-based economy and its support operations were gradually displaced by expanding suburban development, light industrial, and high-tech research and development operations by the 1970s (Fike 2016, page 2).

Post WWII and Silicon Valley

The Santa Clara Valley's current commercial and industrial operations are indicative of the shift that took place after WWII from agricultural-based businesses to light industrial and ultimately high-tech research and development facilities. The Owens-Corning plant was one of the first new industrial businesses in the Santa Clara Valley and represents the shift toward industrial business in the valley after WWII. A 1949 aerial photograph shows the brand-new plant along Lafayette Street with agricultural uses surrounding it (Draper 1949). The plant remains in that location today. Throughout the valley, residential home developments slowly replaced orchards and agricultural fields. Due to the increased pressure from housing, the city of Santa Clara grew from 6,500 residents in 1940 to 86,000 by 1970 (Fike 2016, page 2). The landscape was forever transformed.

From 1960 to 1980, much of the industrial growth was in the electronics research and manufacturing sectors. The city of Santa Clara is home to Intel, Applied Materials, Sun Microsystems, Nvidia, National Semiconductor, and other high technology companies (Santa Clara 2010, pages 3-3 through 3-6). More recently, Santa Clara has become home to numerous data centers supporting the operations of the high technology companies of the Silicon Valley. This represents yet another contextual shift in the history of the Santa Clara/Silicon Valley.

Project Site

The project site is in the city of Santa Clara, Santa Clara County, California. The site encompasses approximately 6.69 acres and is located at 2590 Walsh Avenue in Santa Clara, California, Assessor's Parcel Number (APN) 216-28-112. The project site is located within Township 6S, Range 1W, Section 33 of the *San Jose West*, *California* USGS 7.5-minute Topographic Quadrangle Map (Ngo and DePietro 2021, page 3). It is located 3.54 miles south of the San Francisco Bay (TRC 2020, page 5).

The parcel is irregularly shaped and is generally bound to the northwest by a microelectronics testing facility, to the northeast by a software research and development facility, to the south by a railroad line operated by Caltrain, to the east by Walsh Avenue, and to the west by a Silicon Valley Power (SVP) substation. The Vantage Santa Clara Data Center Campus CA1 is located to the east of the site across Walsh Avenue. The closest residential uses are to the south across the railroad ROW (Ngo and DePietro 2021, page 3). The current building on site dates to ca. 1980 to 1982 (Smart Permit 2021; TRC 2020, page 4).

The project site served as farmland from at least 1897 to the 1970s (Ngo and DePietro 2021, pages 17–18). Maps and aerial images indicate that from 1939 to 1968 there existed private residences, agricultural structures, and orchards. A creek historically bisected the project site. The 1953 USGS topographic map labels the creek bisecting the property as Saratoga Creek. Saratoga Creek has had a few names over the years: Campbell's Creek, Sanjon Creek, and Quito Creek. The name was changed to Saratoga Creek sometime after the conclusion of WWII and by 1951 (Hickman 1974, page 11). South of the project site, the creek may have been diverted to join the San Tomas Aquino Creek to the east in the 1950s (Hickman 1974, page 12). Historical aerial images show remnants of the creek still bisecting the project property sometime between 1974 and 1982 (TRC 2020). Both creeks' origins are in the foothills of the South Coast Ranges. Throughout the early 19th century, most creeks originating in the foothills did not maintain a defined channel from the hills to the San Francisco Bay, including San Tomas Aquino Creek and Saratoga Creek (SFEI 2010, pages 13–14). Portions of Saratoga Creek were straightened as early as 1897, especially in the project site area. San Tomas Aquino Creek also appears to have been straightened by 1897 (USGS 1897). Today, a bicycle trail traverses the west side of the channel on a levee. The San Tomas Aquino Creek and bicycle trail are approximately 0.25 mile east of the project site.

Suburban residential development appears southwest of the project site as early as the 1950s. That development continued in the 1960s and 1970s (TRC 2020). By 1974, the property had been cleared of all residences and agricultural uses. The parcel was developed as an industrial property in 1982. Maps and aerial images indicate similar histories on some of the adjacent properties. The existing Caltrain rail alignment to the south dates to 1864 (JRP 2002, page 10), and is identified as the SPRR Monterey Line on topographic maps (TRC 2020, pages 13–16, and 1130 of 1213).

The adjacent parcels are listed in Table 4.5-1 below.

Table 4.5-1 Parcels Adjacent to the Project Site

Address	APN	Description	Year Constructed
2590 Walsh Ave	216-28-112	Project Site, Industrial	ca. 1980–1982
2550 Walsh Ave	216-28-113	Commercial/Office	1980
2565 Walsh Ave/2820 Northwestern Parkway	216-28-132	Commercial/Industrial	unknown
2630 Walsh Ave	216-28-106	Commercial/Office	1977
2705 Bowers Ave	216-28-062	Uranium Substation	1976
N/A	216-28-121	Railroad tracks (SPRR, Caltrain)	1864

Abbreviations: APN = Assessor's Parcel Number; Ave = Avenue; N/A = not applicable; SPRR = Southern Pacific Railroad

The pedestrian survey completed on March 18, 2021, by the applicant's consultants (First Carbon Solutions) did not identify any adjacent properties 45 years or older (DayZenLLC 2021e, page 4-46). However, city of Santa Clara building permit records indicate that the Uranium Substation was issued a permit to construct in 1974 and was finished in 1976, making it at least 45 years old (Smart Permit 2021). The route of the SPRR Monterey Line dates to 1864, when it was initially constructed as the San Francisco & San Jose Railroad. The applicant's consultant prepared a supplemental report at CEC staff's request to investigate properties within one parcel distance from the project site. Both the Uranium Substation and the railroad tracks were determined to be 45 years or older and were evaluated for their eligibility for the National Register of Historic Places (NRHP), CRHR, and the local city of Santa Clara register (Murray 2021). Methods and results are below.

Methods

Project Area of Analysis

The project area of analysis (PAA) defines the geographic area in which the proposed project has the potential to affect cultural or tribal cultural resources. Effects may be immediate, further removed in time, or cumulative. They may be physical, visual, audible, or olfactory in character. The PAA may or may not be one uninterrupted expanse. It could include the site of the project site, the routes of requisite transmission lines and water and natural gas pipelines, and other offsite ancillary facilities, in addition to one or several discontiguous areas where the project could arguably affect cultural or tribal cultural resources.

CEC staff defines the PAA as comprising the proposed project site, immediately adjacent parcels, and all appurtenant, proposed improvements. The PAA has archaeological, ethnographic, and historic built environment components, as described in the following paragraphs.

CEC staff defines the archaeological component of the PAA as all areas in which the applicant proposes ground disturbance to construct, operate, and decommission the proposed project. This includes building demolition, the proposed building sites, areas slated for concrete and hardscape removal, areas to be filled and graded, staging and laydown areas, installation of underground utilities, subsurface drainage, and installation of two transmission line poles. The applicant proposes demolition and excavation to variable depths. Trench excavations would extend up to 15-feet below grade. Foundation piles for the data center buildings would be augered to depths more than 30-feet below grade. (DayZenLLC 2021e, page 4-67.) Transmission line poles would be installed via truck-mounted auger to a depth of 20–30 feet.

For ethnographic resources, the PAA considers sacred sites, tribal cultural resources, traditional cultural properties (places), and larger areas, such as ethnographic landscapes that can be vast and encompassing, including view sheds that contribute to the historical significance of such resources. The Native American Heritage Commission (NAHC) assists project-specific cultural resources consultants and agency staff in identifying these resources, and consultation with Native Americans and other ethnic or community groups may contribute to defining the PAA. In the case of the proposed project, the immediate environs consist largely of commercial and light industrial buildings, offices, a park, residential areas, and an electrical substation. Staff, therefore, treats the ethnographic component of the PAA as coterminous with the archaeological component.

The project site consists primarily of a pre-existing industrial one-story building, pavement, hardscape, and modest landscape elements, much of which dates to 1980 to 1982. The historic built environment PAA for this project includes the project site and properties within a one-parcel boundary of the project site. This includes all properties directly across Walsh Avenue from the project site.

Literature Review

The literature review for this analysis consisted of a records search at the California Historical Resources Information System (CHRIS), a review of the application for small power plant exemption (SPPE), and an examination of pertinent literature concerning cultural resources in the northern Santa Clara Valley.

The applicant conducted the records search at the Northwest Information Center (NWIC) of the CHRIS on May 5, 2021 (Ngo and DePietro 2021, page 1). The NWIC is the State of California's official repository of cultural resources records, previous cultural resources studies, and historical information concerning cultural resources for 16 counties, including Santa Clara County. The records search area included the project site and a 0.5-mile buffer around it (Ngo and DePietro 2021, page 1).

CEC staff also examined historic maps and aerial photographs of the PAA and vicinity to identify cultural resources (EDR 2017a, 2017b; Edward Denny & Co. 1913; GLO 1866; TRC 2020; USGS 1897, 1899). These sources depict the historic appearance of the PAA each decade from 1857 through 1980 (excepting the 1870s, 1880s, 1900s, and 1920s). The historic maps studied date to 1897, 1899, 1953, 1961, 1968 1973, 1980, and 2012, and include the following USGS quadrangles: Palo Alto, San Jose (15-minute series), Cupertino, Milpitas, Mountain View, and San Jose West (7.5-minute series). The historic aerial images studied are: 1939, 1948, 1950, 1956, 1963, 1968, 1974, 1982, 1993, 1998, 2006, 2009, 2012, and 2016.

In addition, CEC staff consulted:

- City of Santa Clara's General Plan 2010–2035 (General Plan), including its Historic Preservation and Resource Inventory (Santa Clara 2010)
- County of Santa Clara Historic Context Statement (Santa Clara County 2012)
- City of Santa Clara's Map Santa Clara tool (Santa Clara 2021).

CEC staff also consulted the NRHP, CRHR, Historic American Building Survey, Historic American Engineering Record, Historic American Landscape Survey, and other repositories of documentation of historical resources.

Tribal Consultation

Applicant's Correspondence

The applicant contacted the NAHC on February 23, and May 5, 2021, to request a list of tribes that might be interested in the project and a search of the Sacred Lands File. The NAHC responded on March 9, and May 21, 2021, providing contact information for 10 representatives of California Native American tribes. These individuals represent:

1. Muwekma Ohlone Indian Tribe of the San Francisco Bay Area
2. North Valley Yokuts Tribe
3. The Ohlone Indian Tribe
4. Amah Mutsun Tribal Band
5. Indian Canyon Mutsun Band of Costanoan
6. Amah Mutsun Tribal Band of Mission San Juan Bautista
7. Wuksache Indian Tribe/Eshom Valley Band
8. Rumsen Am:a Tur:ataj Ohlone
9. Tamien Nation

The applicant sent letters to these tribes on March 10, and May 21, 2021. (Ngo and DePietro 2021, page 21; DayZenLLC 2021e, page 4-46.)

CEC Consultation

CEQA requires lead agencies to consult with all California Native American tribes that have traditional and cultural affiliation with the geographic area of a project and that have previously requested consultation. To invoke an agency's requirement to consult under CEQA, a tribe must first send the lead agency a written request for formal notification of any projects within the geographic area with which they traditionally and culturally affiliate. (Pub. Resources Code, § 21080.3.1(b).) The CEC has a request for formal notification on file from the Wuksache Indian Tribe/Eshom Valley Band, a California Native American tribe that has traditional and cultural affiliation with the geographic area of the proposed project (Woodrow 2016). Accordingly, the CEC's Tribal Liaison mailed a letter (dated July 1, 2021) to the Wuksache Indian Tribe/Eshom Valley Band's chairperson inviting consultation pursuant to Public Resources Code, section 21080.3.1, and providing general information concerning the proposed project. The letter included four figures illustrating the proposed project and its location. (CEC and NAHC 2021, PDF pages 48–55.)

Consistent with the CEC's tribal consultation policy (CEC 2017), CEC staff contacted the NAHC on April 14, 2021, to request a search of the Sacred Lands File and a list of California Native American tribes that might be interested in the proposed project. The NAHC responded on April 28, 2021, and provided a list of nine California Native American tribes to contact (CEC and NAHC 2021, PDF pages 2–3); the listed tribes were the same tribes that the applicant's consultant contacted in March 2021. CEC staff mailed initial consultation letters to these tribes on July 1, 2021 (See CEC and NAHC 2021, PDF pages 4–47). See the following subsection, "Results," for tribal responses and lead agency follow-up.

The CEC also initiated consultation under Public Resources Code, section 21080.3.1, with the Tamien Nation after receiving the tribe's request for formal consultation on September 17, 2021 (see the discussion under "Results").

Archaeological Survey

An archaeologist and a historian from FirstCarbon Solutions conducted an archaeological survey of the project site on March 18, 2021. Where obstructions did not hinder traversing the project site, FirstCarbon Solutions surveyed by walking transects at 5-meter (16-foot) intervals and making observations concerning the ground surface. The surveyors examined all available soil exposures in the project site. (DayZenLLC 2021e, page 4-45.)

Historic Architectural Survey

CEC cultural resources staff conducted an architectural investigation inclusive of the project site and a one-parcel buffer from the proposed project boundaries. Buildings or structures 45 years or older, or considered significant, were identified as part of this effort. Any building or facility constructed in 1976 or earlier, or potentially eligible for the CRHR or local register, was surveyed and evaluated by the applicant's consultant for potential significance (Murray 2021).

Results

Literature Review Results

The NWIC records search identified six previous cultural resources studies conducted within the project site (BioSystems 1989; Carrico et al. 2000; Holson et al. 2002; Jurich and Grady 2011; Nelson et al. 2000; SWCA 2006). Eleven previous cultural resources studies have been conducted within 0.5 mile of the proposed project (Anastasio and Garaventa 1988; Baker 1998; Basin 2009a, 2009b; Busby 1999; Flynn 1979; Hammerle 2015; Hickman 1974; Jones & Stokes 2001; JRP 2002; Nelson et al. 2002). The city of Santa Clara's Planning website documents additional cultural resources impact analyses within 0.5 mile of the proposed project (Akmenkalns 2020; Guldenbrein 2017; Psota 2016).

The NWIC has no records of previously recorded cultural resources within 0.5 mile of the project site (Ngo and DePietro 2021, page 19). However, the adjacent railroad line (P-43-000928) has been surveyed for infrastructure for the entire Caltrain corridor on the San Francisco Peninsula (Murray 2021, page 9). Staff identified one additional cultural resource that has been previously investigated, the San Tomas Aquino Creek, located approximately 0.25 mile from the project site (Baker 1998). These cultural resources are listed in **Table 4.5-2**.

TABLE 4.5-2. CULTURAL RESOURCES IDENTIFIED IN THE LITERATURE REVIEW

No.	Resource Name	APN	Description, Year Built	Eligibility Status
1.	San Tomas Aquino Creek		Channelized water conveyance structure, 1897	Ineligible
2.	Caltrain/SPRR Tracks (P-43-000928)	216-28-121	1864	Ineligible

Notes: APN = Assessor's Parcel Number; SPRR = Southern Pacific Railroad

Tribal Consultation Results

The April 28, 2021, search of the Sacred Lands File did not identify Native American cultural resources in the search area (CEC and NAHC 2021, PDF pages 2–3). The applicant did not receive any responses to letters sent to these tribes.

The Wuksache Indian Tribe/Eshom Valley Band has not responded to the CEC's invitation to consult under Public Resources Code, Section 21080.3.1.

In response to the CEC Tribal Liaison's letters inviting consultation with California Native American tribes, the Tamien Nation responded by letter on August 6, 2021, specifically requesting consultation about the following topics.

- Recommended mitigation measures
- Significant effects of the project

- Type of environmental review necessary
- Significance of tribal cultural resources, including any regulations, policies, or standards used by the CEC to determine significance of tribal cultural resources
- Significance of the project's impacts on tribal cultural resources
- Project alternatives and/or appropriate measures for preservation or mitigation that we may recommend, including, but not limited to:
    - Avoidance and preservation of the resources in place, pursuant to Public Resources Code section 21084.3, including, but not limited to, planning and construction to avoid the resources and protect the cultural and natural context, or planning greenspace, parks, or other open space, to incorporate the resources with culturally appropriate protection and management criteria;
    - Treating the resources with culturally appropriate dignity considering the tribal cultural values and meaning of the resources, including, but not limited to, the following:
        - Protecting the cultural character and integrity of the resource;
        - Protecting the traditional use of the resource; and
        - Protecting the confidentiality of the resource.
    - Permanent conservation easements or other interests in real property, with culturally appropriate management criteria for the purposes of preserving or utilizing the resources or places.
    - Protecting the resource.

Tamien Nation also requested any cultural resources assessments or other assessments that have been completed on all or part of the PAA. ~~Consultation between the CEC and Tamien Nation is ongoing as of the time of this writing; CEC staff will update this results discussion in the final environmental impact report after the consultation concludes~~During the consultation, CEC staff provided Tamien Nation with a Word version of the DEIR's Cultural and Tribal Cultural Resources section. On December 27, 2021, Tamien Nation provided comments and suggested edits to the DEIR section to CEC staff. Tamien Nation's comments solely concerned Mitigation Measure CUL-1. Tamien Nation's comments concerned:

- Identifying Tamien Nation as the Native American monitor for ground-disturbing activities
- Clarifying the scope of monitoring by archaeological and Native American monitors
- Requiring a letter of commitment from the project applicant to deploy archaeological and Native American monitors during construction
- Terminological preferences, such as "Aboriginal ties" instead of "Traditional ties"

- Clarifying and expanding the Native American monitor(s)' role in construction monitoring (to include collaboration on the treatment plan, choice of analytical methods, and determining the disposition of archaeological materials found during construction)
- Protecting confidential cultural resources information provided to the City of Santa Clara
- Requiring Tribal Cultural Resources Sensitivity Training to construction personnel in conjunction with the Workers Environmental Awareness Program.

CEC staff incorporated Tamien Nation's input into Mitigation Measure CUL-1, with the exception of identifying Tamien Nation as the Native American monitor. The CEC is considering whether to exempt the proposed CA3 project from its jurisdiction. Since the City of Santa Clara would ultimately issue the permit for CA3, CEC staff concludes that the choice of monitors should reside with Santa Clara. CEC staff has not successfully solicited further input from Tamien Nation and considers consultation to be concluded.

Archaeological Survey Results

FirstCarbon Solutions found the archaeological PAA to be almost completely covered in pavement, hardscape, buildings, and landscaping. Landscaping offered minimal opportunity to see the ground surface in the archaeological PAA. The surveyors did not identify any archaeological resources in the archaeological PAA.

Historic Architectural Survey Results

The built environment PAA used for this project includes properties within a one-parcel boundary of the project site. The study area was established to analyze the project's potential for impacts to built-environment historical resources. The initial built environment survey and archival search conducted by the applicant did not identify any properties containing buildings or structures 45 years or older within the PAA. CEC staff identified two historic-era resources 45 years or older within the PAA. A subsequent investigation by the applicant's consultant concurred with staff's conclusion (Murray 2021). The two resources 45 years or older are the Caltrain Railroad Tracks (historic SPRR Monterey Line) and the SVP Uranium Substation. Both resources have been surveyed and evaluated by the applicant's consultant (Murray 2021).

Caltrain Railroad Tracks (Historic SPRR Monterey Line, P-43-000928)

The railroad predates the commercial and industrial operations in the area. The Caltrain electrification project has produced numerous studies over time of the Caltrain rail corridor and associated infrastructure. Most of these studies have been prepared by JRP Historical Consulting (JRP) (for example, JRP 2002). Generally, JRP and others have found modern railroad segments do not retain their integrity to the period of significance. Integrity has seven aspects: design, setting, materials, workmanship, feeling, association, and location. While the location of the railroad line has not changed, most railroads undergo maintenance and upgrades of facilities that generally change the design,

materials, and workmanship over time. This railroad does not appear to retain sufficient integrity to its setting, feeling, and association during the period of significance, 1860 to 1873, when SFSJRR and SPRR first operated the passenger and freight line. For the segment adjacent to the project site, the addition of a second track in the early 1900s, replacement of the original rails in the late 1950s, the grade separation at Bowers Avenue, and the addition of electrification equipment in the last decade (Murray 2021, Attachment A) degrade the integrity of the resource. The railroad has changed from its initial use as a passenger and freight line from San Francisco to Monterey and Los Angeles to strictly passenger commuter service on the San Francisco Peninsula, from San Francisco to Gilroy. The lack of integrity to the period of significance makes it ineligible for listing under the NRHP, CRHR, or city of Santa Clara's significance criteria. Thus, the resource does not qualify as a historical resource under CEQA.

Uranium Substation

The SVP Uranium Substation was constructed between 1974 and 1976. Like the neighboring properties, the substation is located on what was farmland until the 1970s. Sited on an irregularly shaped parcel at 2705 Bowers Avenue in the city of Santa Clara, the substation is comprised of utilitarian buildings and structures typical of these kinds of facilities. Clues to its origins in the mid-1970s include the concrete-block utility building with a shed roof and wood-panel fascia evoking the shed style popular in the 1970s, and the north concrete-block entry wall bearing the substation's name in metal lettering. The substation was constructed to support ongoing population and industry growth within the context of a larger electrical system (Murray 2021, Attachment A). While it is associated with the rapid growth of the Santa Clara Valley and the rise of the tech industry in Santa Clara, it is not directly associated with any significant events in the development of the SVP electrical infrastructure (Murray 2021, Attachment A). The Uranium Substation has no significant historical or architectural associations (Murray 2021, page 11). This lack of historical or architectural significance makes it ineligible for listing under the NRHP, CRHR, or city of Santa Clara's significance criteria. Thus, the resource does not qualify as a historical resource under CEQA.

2590 Walsh Avenue

The building located at 2590 Walsh Avenue dates to the early 1980s. It is best described as a single-story office and warehouse structure, designed with a nod to the Spanish Eclectic style of architecture. This is found in the clay tile roof and the predominant arched windows. There is a nearly identical building next door at 2630 Walsh Avenue. The project site is completely developed, consisting of the large office warehouse building bordering Walsh Avenue to the north and parking lots, associated infrastructure, and landscape elements. None of the structures or elements on the project site are 45 years or older in age, and thus, are ineligible for inclusion on the CRHR or the city of Santa Clara's register and do not warrant further consideration as potential historic resources under CEQA.

Archaeological Sensitivity

The application and staff's literature review indicate that the potential for buried archaeological resources to occur in the project vicinity mirrors the high frequency of buried archaeological deposits throughout the Santa Clara Valley (Byrd et al. 2017, page 4-2; Mission College 2019, pages 92–93; Hylkema 1998, page 20). Researchers have identified at least 16 buried prehistoric archaeological sites in the Santa Clara Valley (Rehor and Kubal 2014, page 4-1, Table 4-1). Archaeologists working independently of the present analysis have estimated the PAA's likelihood to contain buried, prehistoric, archaeological resources as moderate (Byrd et al. 2017, Figure 27). The PAA is situated in an area that historically lay near J. Kiefer's barn and house, orchards, natural and channelized forms of present-day Saratoga Creek, roads, and encompassed a residence and part of an adjoining orchard since the middle of the 1800s to about 1968 or 1974. Therefore, buried historic archaeological resources are also expectable in the PAA, below modern construction. (DayZenLLC 2021c; GLO 1866; USGS 1899.)

Regulatory Background

Federal

No federal regulations related to cultural or tribal cultural resources apply to the project.

State

California Environmental Quality Act. Various laws apply to the evaluation and treatment of cultural resources. CEQA requires lead agencies to evaluate cultural resources by determining whether they meet several sets of specified criteria that make such resources eligible to the CRHR. Those cultural resources eligible to the CRHR are historical resources. The evaluation then influences the analysis of potential impacts to such historical resources and the mitigation that may be required to ameliorate any such impacts.

CEQA and the CEQA Guidelines define significant cultural resources under two regulatory definitions: historical resources and unique archaeological resources. A historical resource is defined as a "resource listed in, or determined to be eligible by the State Historical Resources Commission, for listing in the California Register of Historical Resources," or "a resource included in a local register of historical resources, as defined in section 5020.1(k) of the Public Resources Code or identified as significant in an historical resource survey meeting the requirements of Section 5024.1(g) of the Public Resources Code," or "any object, building, structure, site, area, place, record, or manuscript which a lead agency determines to be historically significant or significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural annals of California, provided the agency's determination is supported by substantial evidence in light of the whole record." (Cal. Code Regs., tit. 14, § 15064.5(a).) Historical resources that are automatically listed in the CRHR include California historical resources listed in or formally determined eligible for the NRHP and California Registered Historical Landmarks from No. 770 onward (Pub. Resources Code, § 5024.1(d)).

CEQA generally considers a resource historically significant if it meets the criteria for listing in the CRHR. In addition to being at least 45 years old, a resource must meet one or more of the following four criteria (Pub. Resources Code, § 5024.1):

- Criterion 1, is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage;
- Criterion 2, is associated with the lives of persons important in our past;
- Criterion 3, embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values; or
- Criterion 4, has yielded, or may be likely to yield, information important in prehistory or history.

In addition, historical resources must also possess integrity of location, design, setting, materials, workmanship, feeling, and association (Cal. Code Regs., tit. 14, § 4852(c)).

Even if a resource is not listed or determined to be eligible for listing in the CRHR, CEQA requires the lead agency to determine whether the resource is a historical resource as defined in Public Resources Code, sections 5020.1(j) or 5024.1.

In addition to historical resources, archaeological artifacts, objects, or sites can meet CEQA's definition of a unique archaeological resource even if the resource does not qualify as a historical resource (Cal. Code Regs., tit. 14, § 15064.5(c)(3)). Archaeological artifacts, objects, or sites qualify as unique archaeological resources if it is clearly demonstrable that, without merely adding to the current body of knowledge, there is a high probability that the resource meets any of the following criteria:

1. Contains information needed to answer important scientific research questions and that there is a demonstrable public interest in that information
1. Has a special and particular quality such as being the oldest of its type or the best available example of its type
2. Is directly associated with a scientifically recognized important prehistoric or historic event or person (Pub. Resources Code, § 21083.2(g).)

To determine whether a proposed project may have a significant effect on the environment, staff analyzes the project's potential to cause a substantial adverse change in the significance of historical or unique archaeological resources. The magnitude of an impact depends on:

- the historical resource(s) affected;
- the specific historic significance of any potentially impacted historical resource(s);
- how the historical resource(s) significance is manifested physically and perceptually;

- appraisals of those aspects of any historical resource's integrity that figure importantly in the manifestation of the resource's historical significance; and
- how much the impact will change historical resource integrity appraisals.

Title 14, California Code of Regulations, section 15064.5(b) defines a "substantial adverse change" as the "physical demolition, destruction, relocation, or alteration of the resource or its immediate surroundings such that the significance of an historical resource would be materially impaired."

California Native American Tribes, Lead Agency Tribal Consultation Responsibilities, and Tribal Cultural Resources. CEQA provides definitions for California Native American tribes, lead agency responsibilities to consult with California Native American tribes, and tribal cultural resources. A "California Native American tribe" is a "Native American tribe located in California that is on the contact list maintained by the Native American Heritage Commission for the purposes of Chapter 905 of the Statutes of 2004" (Pub. Resources Code, § 21073). Lead agencies implementing CEQA are responsible to consult with California Native American tribes about tribal cultural resources within specific timeframes. If tribal cultural resources could be impacted by a CEQA project, lead agencies are to exhaust the consultation to points of agreement or termination.

Tribal cultural resources are either of the following:

1. Sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American tribe that are either of the following:
   a. Included or determined to be eligible for inclusion in the CRHR
   b. Included in a local register of historical resources as defined in the Public Resources Code, section 5020.1(k).

2. A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in the Public Resources Code, section 5024.1(c). In applying these criteria, the lead agency shall consider the significance of the resource to a California Native American tribe. (Pub. Resources Code, § 21074(a).)

A cultural landscape that meets the criteria of Public Resources Code, section 21074(a), is a tribal cultural resource to the extent that the landscape is geographically defined in terms of its size and scope (Pub. Resources Code, § 21074(b)). Historical resources, unique archaeological resources, and non-unique archaeological resources, as defined at Public Resources Code, sections 21084.1, 21083.2(g), and 21083.2(h), respectively, may also be tribal cultural resources if they conform to the criteria of Public Resources Code, section 21074(a).

CEQA also states that a project with an impact that may cause a substantial adverse change in the significance of a tribal cultural resource is a project that may have a significant effect on the environment (Pub. Resources Code, § 21084.2).

Local

City of Santa Clara General Plan. Section 5.6.3 of the city of the General Plan outlines the goals and policies related to archaeological and cultural resources. The applicable goals in this section of the General Plan encourage the protection and preservation of cultural resources, including archaeological and paleontological sites, and encourage appropriate mitigation in the event of discovery during construction.

Relevant policies require protecting historic resources through the avoidance or reduction of potential impacts, using the Secretary of the Interior's Standards for the Treatment of Historic Properties, and using the city's established historic preservation program for ensuring resource evaluation, protection, and integrity (Santa Clara 2010).

Appendix 8.9 of the General Plan, the Historic Preservation and Resource Inventory, established criteria for local significance and included a list of recorded historic properties (Santa Clara 2010). In addition, the city has embedded in its City Code a section on Historic Preservation (Title 18 Zoning, Chapter 18.106, Historic Preservation). The purpose of Chapter 18.106 is "to promote the identification, protection, enhancement and perpetuation of buildings, structures and properties within the City that reflect special elements of the City's social, economical, historical, architectural, engineering, archaeological, cultural, natural, or aesthetic heritage" (Santa Clara 2018). The chapter requires the maintenance of a Historic Resource Inventory.

Appendix 8.9 of the General Plan also identifies significance criteria for local listings. The city of Santa Clara's City Council adopted the Criteria for Local Significance on April 20, 2004 and incorporated the criteria into the General Plan Appendix 8.9. Any building, site, or property in the city that is 50 years old or older and meets certain criteria of architectural, cultural, historical, geographical, or archaeological significance is potentially eligible. The Criteria for Local Significance established in General Plan Appendix 8.9 (Santa Clara 2010) are as follows:

Criterion for Historical or Cultural Significance - To be historically or culturally significant, a property must meet at least one of the following criteria:

1. The site, building or property has character, interest, integrity and reflects the heritage and cultural development of the city, region, state, or nation.

2. The property is associated with a historical event.

3. The property is associated with an important individual or group who contributed in a significant way to the political, social and/or cultural life of the community.

4. The property is associated with a significant industrial, institutional, commercial, agricultural, or transportation activity.

5. A building's direct association with broad patterns of local area history, including development and settlement patterns, early or important transportation routes or social, political, or economic trends and activities. Included is the recognition of urban street pattern and infrastructure.

6. A notable historical relationship between a site, building, or property's site and its immediate environment, including original native trees, topographical features, outbuildings, or agricultural setting.

Criterion for Architectural Significance - To be architecturally significant, a property must meet at least one of the following criteria:

1. The property characterizes an architectural style associated with a particular era and/or ethnic group.

2. The property is identified with a particular architect, master builder, or craftsman.

3. The property is architecturally unique or innovative.

4. The property has a strong or unique relationship to other areas potentially eligible for preservation because of architectural significance.

5. The property has a visual symbolic meaning or appeal for the community.

6. A building's unique or uncommon building materials or its historically early or innovative method of construction or assembly.

7. A building's notable or special attributes of an aesthetic or functional nature. These may include massing, proportion, materials, details, fenestration, ornamentation, artwork, or functional layout.

Criterion for Geographic Significance - To be geographically significant, a property must meet at least one of the following criteria:

1. A neighborhood, group, or unique area directly associated with broad patterns of local area history.

2. A building's continuity and compatibility with adjacent buildings and/or visual contribution to a group of similar buildings.

3. An intact, historical landscape or landscape features associated with an existing building.

4. A notable use of landscaping design in conjunction with an existing building.

Criterion for Archaeological Significance - For the purposes of CEQA, an "important archaeological resource" is one which:

5. Is associated with an event or person of
   a. Recognized significance in California or American history, or
   b. Recognized scientific importance in prehistory.
6. Can provide information, which is both of demonstrable public interest, and useful in addressing scientifically consequential and reasonable or archaeological research questions;
7. Has a special or particular quality such as oldest, best example, largest, or last surviving example of its kind;
8. Is at least 100 years old and possesses substantial stratigraphic integrity; or
9. Involves important research questions that historical research has shown can be answered only with archaeological methods.

4.5.2 Environmental Impacts

Cultural Resources CEQA Checklist Questions

a. Would the project cause a substantial adverse change in the significance of a historical resource as defined in §15064.5?

Construction

Less Than Significant Impact with Mitigation Incorporated. No historic built environment resources meeting CEQA's criteria for historical resources are located on site or within the PAA. No archaeological or ethnographic resources meeting CEQA's criteria for historical resources occupy the surface of the PAA. Previous studies in the project vicinity, however, indicate that the PAA could harbor buried archaeological or ethnographic resources. The PAA is located between two waterways (Saratoga and San Tomas Aquino creeks) on the former grounds of historic farms. Archaeologists working independently of the present analysis have estimated the PAA's likelihood to contain buried, prehistoric archaeological resources as moderate (Byrd et al. 2017, Figure 27).

The ground disturbance required to build the proposed project would extend into native soils more than 30 feet below grade. Known buried archaeological sites in the Santa Clara Valley are located at depths of 1.0–10.5 feet below grade (Rehor and Kubal 2014, Table 4-1). If such resources were to be damaged during construction, it would be considered a significant impact, particularly since virtually all archaeological sites 5,000 years or older occur only in buried contexts.

This EIR, however, proposes a mitigation measure, **CUL-1**, to reduce the significance of any such impacts on historical resources. **CUL-1** requires qualified professionals to survey the exposed ground surface for cultural resources once the demolition of existing structures is complete. It also requires test excavation to determine the presence or absence of buried cultural resources and describes criteria for avoidance measures and construction monitoring (see **Section 4.5.3: Mitigation Measures**). This measure would reduce impacts to any discovered historical resources to a less-than-significant level.

Operation

No Impact. Ground-disturbing activities are not part of the operational or maintenance profile of the proposed project. Therefore, there would be no impact to historical resources, as described in CEQA Guidelines Section 15064.5.

b. Would the project cause a substantial adverse change in the significance of a unique archaeological resource pursuant to §15064.5?

Construction

Less Than Significant Impact with Mitigation Incorporated. As discussed in the potential construction impacts for CEQA Checklist Question "a" above, mitigation measure **CUL-1** would reduce impacts to unique archaeological resources to a less-than-significant level.

Operation

No Impact. Ground-disturbing activities are not part of the operational or maintenance profile of the proposed project. The operation and maintenance of the proposed project would not require excavation or other ground-disturbance. Therefore, there would be no impact to unique archaeological resources, as described in CEQA Guidelines Section 15064.5.

c. Would the project disturb any human remains, including those interred outside of formal cemeteries?

Construction

Less Than Significant Impact with Mitigation Incorporated. See staff's response to CEQA Checklist Questions "a" and "b" above for construction. In addition to mitigation measure **CUL-1**, mitigation measure **CUL-2** describes a protocol to minimize or avoid impacts on inadvertently discovered human remains. Combined, mitigation measures **CUL-1** and **CUL-2** would reduce the impacts to human remains to a less-than-significant level.

Operation

No Impact. Ground-disturbing activities are not part of the operational or maintenance profile of the proposed project. Therefore, there would be no impact to human remains during the operation and maintenance of the proposed project.

Tribal Cultural Resources CEQA Checklist Questions

Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code, section 21074, as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:

a. Listed or eligible for listing in the California Register of Historical Resources or in a local register of historical resources, as defined in Public Resources Code, section 5020.1(k)?

Construction

No Impact. There are no tribal cultural resources listed or eligible for listing in the CRHR or other state registers, NRHP, or local register of historical resources in the PAA, and, therefore, no impacts would occur during construction.

Operation

No Impact. Ground-disturbing activities are not part of the operational or maintenance profile of the proposed project. Impacts on tribal cultural resources listed or eligible for listing in the CRHR or other state registers, NRHP, or local register of historical resources would, therefore, not occur during operation or maintenance.

b. A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in Public Resources Code, section 5024.1 (c). In applying the criteria set forth in Public Resources Code, section 5024.1 (c), the lead agency shall consider the significance of the resource to a California Native American tribe?

Construction

Less Than Significant Impact with Mitigation Incorporated. Although there are no known tribal cultural resources on or directly adjacent to the proposed site, ground-disturbance associated with the proposed project could result in the exposure and destruction of buried, as-yet-unknown prehistoric archaeological resources that could qualify as tribal cultural resources. If these resources were to be exposed or destroyed, it would be a significant impact. Implementation of **CUL-1** and **CUL-2**

would reduce the impacts on buried, tribal cultural resources to a less than significant level (see Cultural Resources CEQA Checklist Questions "a" and "b" above).

Operation

No Impact. Ground-disturbing activities are not part of the operational or maintenance profile of the proposed project. Impacts on tribal cultural resources listed or eligible for listing in the CRHR or other state registers, NRHP, or local registers of historical resources would, therefore, not occur during operation and maintenance.

4.5.3 Mitigation Measures

CUL-1: The following project-specific measures would be implemented during construction to avoid significant impacts to unknown subsurface cultural resources:

- A Secretary of the Interior-qualified archaeologist and a Native American cultural resources monitor shall be on site to monitor all ground-disturbing activity, including the removal of foundations and landscaping, on the project site. The project applicant shall submit the name and qualifications of the selected archaeologist and Native American monitor, along with a signed letter of commitment or agreement to monitor, to the City's Director of Community Development prior to the issuance of a grading permit. Preference in selecting Native American monitors shall be given to Native Americans with:
  - Aboriginal, culturally affiliated ties to the area being monitored.
  - Knowledge of local historic and prehistoric Native American village sites.
  - Knowledge and understanding of Health and Safety Code, section 7050.5, and Public Resources Code, section 5097.9 et seq.
  - Ability to effectively communicate the requirements of Health and Safety Code, section 7050.5, and Public Resources Code, section 5097.9 et seq.
  - Ability to work with law enforcement officials and the Native American Heritage Commission to ensure the return of all associated grave goods taken from a Native American grave during excavation.
  - Ability to travel to project sites within traditional tribal territory.
  - Knowledge and understanding of California Code of Regulations, title 14, section 15064.5.
  - Ability to advocate for the preservation in place of Native American cultural features through knowledge and understanding of CEQA mitigation provisions.
  - Ability to read a topographical map and be able to locate site and reburial locations for future inclusions in the Native American Heritage Commission's Sacred Lands Inventory.
  - Knowledge and understanding of archaeological practices, including the phases of archaeological investigation.

After the removal of pavement and prior to grading, the archaeologist shall conduct a pedestrian survey over the exposed soils to determine if any surface archaeological manifestations are present.

- After the demolition of the existing building and paved parking lot on the site, a qualified archaeologist with a Native American monitor present shall complete mechanical presence/absence testing for archaeological deposits and cultural materials. In the event any prehistoric site indicators are discovered, additional backhoe testing will be conducted to map the aerial extent and depth below the surface of the deposits. In the event prehistoric or historic archaeological deposits are found during presence/absence testing, the significance of the find will be determined. If deemed significant, a treatment plan will be prepared and provided to the city's Director of Community Development. Where Native American cultural materials are identified, the archaeological monitor will prepare a treatment plan in collaboration with the monitoring California Native American tribe. The key elements of a treatment plan shall include the following:
    - Identify the scope of work and range of subsurface effects (include location map and development plan),
    - Describe the environmental setting (past and present) and the historic/prehistoric background of the parcel (potential range of what might be found),
    - Develop research questions and goals to be addressed by the investigation (what is significant vs. what is redundant information),
    - Detail the field strategy used to record, recover, or avoid the finds (photos, drawings, written records, provenience data maps, soil profiles, excavation techniques, standard archaeological methods) and address research goals.
    - Analytical methods (radiocarbon dating, obsidian studies, bone studies, historic artifacts studies [list categories and methods], packaging methods for artifacts, etc.); the monitoring California Native American tribe shall determine the appropriateness of analytical methods proposed for Native American cultural materials,
    - Report structure, including a technical and layperson's report and an outline of document contents in one year of completion of development (provide a draft for review before a final report),
    - Disposition of the artifacts (the monitoring California Native American tribe will determine the disposition of California Native American cultural materials),
    - Appendices: site records, update site records, correspondence, consultation with Native Americans, etc.

The archaeologist and California Native American monitor will monitor full-time all grading and ground disturbing activities associated with the construction of the proposed project. If the archaeologist and Native American monitor believe that a reduction in monitoring activities is prudent, then a letter report detailing the rationale for making such a

reduction and summarizing the monitoring results shall be provided to the city's Director of Community Development. Department of Recreation 523 forms shall be submitted along with the report for any cultural resources encountered over 50 years old.

- If prehistoric or historic resources are encountered during on-site construction activities, all activity within a 50-foot radius of the find shall be stopped, the city's Director of Community Development shall be notified, and a Secretary of the Interior-qualified archaeologist shall examine the find and record the site, including field notes, measurements, and photography for a Department of Parks and Recreation 523 Primary Record form. The archaeologist shall make a recommendation in collaboration with the monitoring California Native American tribe regarding eligibility for the California Register of Historical Resources, data recovery, curation, or other appropriate mitigation. Ground-disturbance within the 50-foot radius can resume once these steps are taken and the city's Director of Community Development has concurred with the recommendations. Within 30 days of the completion of the construction or cultural resources monitoring, whichever comes first, a report of findings documenting any cultural resource finds, recommendations, data recovery efforts, and other pertinent information gleaned during cultural resources monitoring shall then be submitted to the city's Director of Community Development under confidential cover, along with a report that redacts the location(s) of all cultural resources. Once finalized, this report shall be submitted to the Northwest Information Center at Sonoma State University.
- Prior to and for the duration of ground-disturbance, the project owner shall provide Worker Environmental Awareness Program training to all existing and any new employees. This training should include: a discussion of the applicable laws and penalties under the laws; samples or visual aids of the artifacts that could be encountered in the project vicinity, including what those artifacts may look like partially buried, or wholly buried and freshly exposed; and instructions to halt work in the vicinity of any potential cultural resource discovery, and notify the city-approved archaeologist and Native American cultural resources monitor. The Native American monitor shall provide a Tribal Cultural Resources Sensitivity Training in conjunction with the Worker Environmental Awareness Program.

CUL-2: The project proposes to implement the following measure to ensure the project's impacts to human remains are less than significant:

- If human remains are discovered during the presence/absence testing or excavation and/or grading of the site, all activity within a 50-foot radius of the find will be stopped. The Santa Clara County Coroner will be notified and shall determine whether the remains are of Native American origin or whether an investigation into the cause of death is required. If the remains are determined to be Native American, the coroner will notify the NAHC immediately. Once NAHC identifies the most likely descendants, the descendants will make recommendations regarding proper burial, which will be implemented in accordance with the California Code of Regulations, ~~Title~~ title 14,

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DECLARATION OF
Gabriel Roark

I, Gabriel Roark, declare as follows:

1. I am employed by the California Energy Commission as an Energy Resources Specialist III (Supervisory).

2. A copy of my professional qualifications and experience is attached hereto and incorporated by reference herein.

3. I prepared the staff testimony titled **Update to Section 4.5 Cultural and Tribal Cultural Resources (Archaeology and Ethnography)** for the **CA3 BACKUP GENERATING FACILITY,** attached to this declaration, based on my independent analysis of the Application for Small Power Plant Exemption and supplements thereto, data from reliable documents and sources, and my professional experience and knowledge.

4. It is my professional opinion that the prepared testimony is valid and accurate with respect to the issues addressed therein.

5. I am personally familiar with the facts and conclusions related in the testimony and, if called as a witness, could testify competently thereto.

   I declare under penalty of perjury that the foregoing is true and correct to the best of my knowledge and belief.

Dated: 07/21/2022 Signed: Gabriel Roark

At: Sacramento, California

APPENDIX D

MITIGATION MONITORING AND REPORTING PROGRAM

MITIGATION MONITORING AND REPORTING PROGRAM

CA3 Backup Generating Facility
21-SPPE-01
March 2022

PREFACE

Public Resources Code section 21081.6 of the California Environmental Quality Act (CEQA) requires a Lead Agency to adopt a Mitigation Monitoring and Reporting Program (MMRP) whenever it approves a project for which measures have been required to mitigate or avoid significant effects on the environment. The purpose of the monitoring and reporting program is to ensure compliance with the mitigation measures during project implementation.

The Final Environmental Impact Report prepared for the CA3 Backup Generating Facility project concluded that the implementation of the project would not result in significant effects on the environment with the incorporation of mitigation measures. This MMRP addresses those measures in terms of how and when they will be implemented.

This document does *not* discuss those subjects for which the Final Environmental Impact Report concluded that the impacts from the implementation of the project would be less than significant.

I, _____, the applicant, on the behalf of _____, hereby agree to fully implement the Mitigation Measures described below, which have been developed in conjunction with the preparation of an EIR for my proposed project. I understand that these mitigation measures or substantially similar measures will be adopted as conditions of approval with my development permit request to avoid or significantly reduce potential environmental impacts to a less than significant level.

Project Applicant's Signature _____

Date_____

MITIGATIONS	MONITORING AND REPORTING PROGRAM				
	Documentation of Compliance [Project Applicant/Proponent Responsibility]		Documentation of Compliance [Lead Agency Responsibility]		
	Method of Compliance Or Mitigation Action	Timing of Compliance	Oversight Responsibility	Actions/Reports	Monitoring Timing or Schedule
AIR QUALITY					
Impact 4.3-b Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is nonattainment under an applicable federal or state ambient air quality standard?					
AQ-1: To ensure that fugitive dust impacts are less than significant, the project will implement the Bay Area Air Quality Management District (BAAQMD) recommended Best Management Practices (BMPs) during the construction phase, the project owner shall implement a construction emissions control plan that has been reviewed and approved by the Director or Director's designee of the City of Santa Clara Community Development prior to the issuance of any grading or building permits, whichever occurs earliest. These BMPs are incorporated into the design of the project and will include: • Water all exposed areas (e.g. parking areas, graded areas, unpaved access roads) twice a day. • Maintain a minimum soil moisture of 12% in exposed areas by maintaining proper watering frequency. • Cover all haul trucks carrying sand, soil, or other loose material. • Suspend excavation, grading, and/or demolition activities when average wind speed exceeds 20 miles per hour. • Pave all roadways, driveways, and sidewalks as soon as possible. Lay building	Implement the BAAQMD's recommended BMPs to control fugitive dust and additional measures to control exhaust emissions	During construction phase	Director of Community Development or director's designee of the City of Santa Clara	Receive and approve the fugitive dust control measures and exhaust control measures during construction	Prior to the issuance of any demolition, grading, and/or building permits (whichever occurs earliest)

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pads as soon as grading is completed, unless seeding or soil binders are used. • Install wind breaks (e.g., trees, fences) on the windward side(s) of actively disturbed areas of construction with a maximum 50 percent air porosity. • Use a power vacuum to sweep and remove any mud or dirt-track next to public streets if visible soil material is carried onto the streets. • Limit vehicle speeds on unpaved roads to 15 miles per hour (mph). • Minimize idling time for all engines by shutting engines when not in use or limiting idling time to a maximum of five minutes. Provide clear signage for construction workers at all access points. • Properly tune and maintain construction equipment in accordance with manufacturer's specifications. Check all equipment against a certified visible emissions calculator. • Post a publicly visible sign with the telephone number and person to contact at the Lead Agency and the on-site job superintendent regarding dust complaints. • Install vegetative ground cover in disturbed areas as soon as possible and water appropriately until vegetation is established.					

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• Limit simultaneous occurrence of excavation, grading, and ground-disturbing construction activities. • Install water washers to wash all trucks and equipment prior to leaving site. • Treat site access to 100-feet from the paved road with a 6- to 12-inch compacted layer of wood chip, mulch, or gravel. • Install sandbag or other erosion control measures to prevent silt runoff to public roadways from sites with a slope greater than one percent. • Minimize idling time of diesel-powered construction vehicles to two minutes. • All off-road equipment greater than 25 horsepower (hp) shall have engines that meet or exceed Tier 4 final off-road emission standards. Use of zero-emission and hybrid-powered equipment is encouraged. • All on-road trucks used for material delivery or hauling shall have engines that meet or exceed 2014 CARB emissions standards. • Where grid power is available, portable diesel engines should be prohibited. • Use low VOC (i.e., ROG) coatings beyond the local requirements (i.e., Regulation 8, Rule 3: Architectural Coatings).					

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• All construction equipment, diesel trucks, and generators be equipped with Best Available Control Technology for emission reductions of NOx and PM. • All contractors use equipment that meets CARB's most recent certification standard for off-road, heavy-duty diesel engines.					
BIOLOGICAL RESOURCES					
Impact 4.4-a Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?					
BIO-1, Avoid and Minimize Impacts to Protected Bird Species • If possible, demolition and construction activities, including removal of trees and vegetation clearing, shall take place between September and January. If demolition or construction activities, including removal of the trees on –site, would take place between January and September, a pre-construction survey for nesting raptors and other protected native or migratory birds shall be conducted by a qualified ornithologist, approved by the City of Santa Clara, to identify active nests that may be disturbed during project implementation. Pre-construction surveys shall be conducted no more than 14 days prior to the initiation of demolition or construction activities or tree	Avoidance of construction activities during nesting season. If construction activities occur between January and September, a pre-construction nesting bird survey shall be conducted by a qualified ornithologist in consultation with the California Department of Fish and Wildlife, and a construction-free buffer zone shall be designed around any discovered nest	Prior to issuance of any permits for tree removal, demolition, or grading activities	Director of Community Development or director's designee of the City of Santa Clara (Director of Community Development)	Confirm that construction activities are scheduled outside of the nesting season	Prior to issuance of any permits for tree removal, demolition, or grading activity

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relocation or removal. Surveys shall be repeated if project activities are suspended or delayed for more than 14 days during the nesting season. The surveying ornithologist shall inspect all trees in and immediately adjacent to the construction area to be disturbed by these activities, and the ornithologist shall, in consultation with the California Department of Fish and Wildlife (CDFW), designate a construction-free buffer zone (typically 250 feet for non-raptors to 500 feet for raptors) around the nest until the end of the nesting activity. Any changes to a buffer zone must be approved by the City of Santa Clara, in consultation with CDFW. The nests and buffers will be field checked weekly by the approved ornithologist. The approved buffer zone will be marked in the field with exclusion fencing, within which no construction, tree removal, or vegetation clearing shall commence until the ornithologist verifies that the nest(s) are no longer active. If an active bird nest is discovered during demolition or construction, then a buffer zone shall be established under the guidelines specified. • The applicant shall submit a report indicating the results of the survey and any designated buffer zones to the satisfaction of the City of Santa Clara's Director of Community Development prior to the issuance of permits for tree removal, demolition, or grading. The report(s) shall contain maps showing the location of all	The ornithologist shall submit a report indicating the results of the survey and any designated buffer zones to the Director of Community Development or director's designee of the City of Santa Clara	Prior to issuance of any tree removal permit by the city arborist	Director of Community Development	The ornithologist shall inspect all potentially affected trees and designate a buffer-free zone around nest until the end of the nesting activity	Prior to issuance of any permits for tree removal, demolition, or grading

MITIGATIONS	MONITORING AND REPORTING PROGRAM				
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nests, species nesting, status of the nest (e.g. incubation of eggs, feeding of young, near fledging), and the buffer size around each nest (including reasoning behind any alterations to the initial buffer size). The report shall be provided within 10 days of completing a pre-construction nest survey.					
BIO-2: Avoid and Minimize Impacts to Bat Species If suitable roosting habitat for special-status bats will be affected by project construction (e.g., removal of buildings, removal of trees), a qualified wildlife biologist shall conduct surveys for special-status bats during the appropriate time of day to maximize detectability to determine if bat species are roosting near the work area no less than 7 days and no more than 14 days prior to beginning tree removal and/or demolition ground disturbance. Survey methodology may include visual surveys of bats (e.g., observation of bats during foraging period), inspection for suitable habitat, bat sign (e.g., guano), or use of ultrasonic detectors (e.g., Anabat, etc.). Visual surveys shall include trees within 0.25 mile of construction activities. The type of survey will depend on the condition of the potential roosting habitat. If no bat roosts are found, then no further study is required.	A qualified wildlife biologist shall conduct surveys during the appropriate time of day to determine if bats are roosting	No less than 7 days and no more than 14 days prior to beginning tree removal and/or demolition ground disturbance	Director of Community Development to California Department of Fish and Wildlife standards	A tally of the number and species of bats using the roost shall be documented. Depending on the presence of bats, exclusion methods and bat houses may be specified for use depending on the circumstances A Bat Mitigation and Monitoring Plan shall be prepared and implemented for habitat loss, if necessary	Prior to issuance of any tree removal, grading, demolition, and/or building permit or activities

• If evidence of bat use is observed, the number and species of bats using the roost shall be determined. Bat detectors may be used to supplement survey efforts. • If roosts are determined to be present and must be removed, the bats shall be excluded from the roosting site before the tree or structure is removed. Exclusion methods may include use of one-way doors at roost entrances (bats may leave, but not reenter) or sealing roost entrances when the site can be confirmed to contain no bats. Exclusion efforts may be restricted during periods of sensitive activity (e.g., during hibernation or while females in maternity colonies are nursing young). • If roosts cannot be avoided or it is determined that construction activities may cause roost abandonment, such activities shall not commence until permanent, elevated bat houses have been installed outside of, but near, the construction area. Placement and height will be determined by a qualified wildlife biologist, but the height of bat house shall be at least 15 feet. Bat houses shall be multi-chambered and be purchased or constructed in accordance with CDFW standards. The number of bat houses required shall be dependent upon the size and number of colonies found, but at least one bat house shall be installed for each pair of bats (if occurring individually) or of a sufficient number to accommodate each colony of bats to be relocated. • If bat roosts are detected, then a Bat Mitigation and Monitoring Plan (Plan) shall be prepared and implemented to mitigate for the loss of roosting habitat. The Plan shall include information pertaining to the species of bat and location of the roost, exclusion methods and roost removal procedures, compensatory					

MITIGATIONS	MONITORING AND REPORTING PROGRAM				
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	Method of Compliance Or Mitigation Action	**Timing of Compliance**	**Oversight Responsibility**	**Actions/Reports**	**Monitoring Timing or Schedule**
mitigation for permanent impacts (including specific mitigation ratios and location of proposed mitigation as described in above bullet) and monitoring to assess bat use of mitigation areas. This Plan shall be submitted to CDFW for review.					
Impact 4.4-e Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?					
BIO-3, Tree Removal The project applicant shall obtain approval by the City's Department of Community Development for all trees to be removed. Acquisition of this permit shall include details of the final mitigation numbers. The City of Santa Clara's Tree Ordinance (SCCC 12.35.090(C)(7) mandates a replacement ratio and size of tree species for planting. Depending on the species and size of the tree, additional mitigation may be required by the City of Santa Clara. The project proposes to mitigate for the loss of 66 trees through a combination of 24-inch box size and 36-inch box size.	Obtain tree removal permits from the City's department of Community Development	Prior to the removal of any trees	Director of Community Development	Approved permits, including tabulation of final tree mitigation numbers	Prior to tree removal work

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BIO-4, Trees to Remain: Avoidance and Minimization of Impacts The project applicant shall follow the tree protection measures for trees that are to remain in place, as included as specific conditions by the City of Santa Clara as part of Architectural Review approval and included on the approved landscape plans for the project	Follow the tree protection measures outlined by the City Arborist or other arborist retained by the city for trees that are to remain in place	To coincide with demolition activities	Director of Community Development	Retain final tally of trees retained and indicate said trees on final landscape plans	At the conclusion of construction
CULTURAL RESOURCES					
Impact 4.5-a Cause a substantial adverse change in the significance of a historical resource pursuant to California Code of Regulations, title 14, §15064.5? Impact 4.5-b Cause a substantial adverse change in the significance of a unique archaeological resources pursuant to California Code of Regulations, title 14, §15064.5?					
CUL-1: The following project-specific measures would be implemented during construction to avoid significant impacts to unknown subsurface cultural resources: • A Secretary of the Interior-qualified archaeologist and a Native American cultural	Submit the name and qualifications of the selected archaeologist and Native American monitor with a signed letter of commitment or agreement to monitor	Before a grading permit is issued	Director of Community Development or director's designee of the City of Santa Clara (Director	Review and approve the archaeologist and Native American monitor's qualifications	Before issuance of permits for any ground disturbing activities (trenching,

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resources monitor shall be on site to monitor all ground-disturbing activity, including the removal of foundations and landscaping, on the project site. The project applicant shall submit the name and qualifications of the selected archaeologist and Native American monitor, along with a signed letter of commitment or agreement to monitor, to the City of Santa Clara's Director of Community Development prior to the issuance of a grading permit. Preference in selecting Native American monitors shall be given to members of the Tamien Nation and Native Americans with: o Aboriginal, culturally affiliated ties to the area being monitored. o Knowledge of local historic and prehistoric Native American village sites. o Knowledge and understanding of Health and Safety Code section 7050.5 and Public Resources Code section 5097.9 et seq. o Ability to effectively communicate the requirements of Health and Safety Code section 7050.5 and Public Resources Code section 5097.9 et seq. o Ability to work with law enforcement officials and the Native American Heritage Commission to ensure the return of all associated grave goods taken from a Native American grave during excavation.			of Community Development)		grading, excavation)

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	Documentation of Compliance [Project Applicant/Proponent Responsibility]		Documentation of Compliance [Lead Agency Responsibility]		
	Method of Compliance Or Mitigation Action	**Timing of Compliance**	**Oversight Responsibility**	**Actions/Reports**	**Monitoring Timing or Schedule**
○ Ability to travel to project sites within traditional tribal territory. ○ Knowledge and understanding of California Code of Regulations, title 14, section 15064.5. ○ Ability to advocate for the preservation in place of Native American cultural features through knowledge and understanding of CEQA mitigation provisions. ○ Ability to read a topographical map and to locate site and reburial locations for future inclusions in the Native American Heritage Commission's Sacred Lands Inventory. ○ Knowledge and understanding of archaeological practices, including the phases of archaeological investigation. After the removal of pavement and prior to grading, the archaeologist shall conduct a pedestrian survey over the exposed soils to determine if any surface archaeological manifestations are present. • After the demolition of the existing building and paved parking lot on the site, a qualified archaeologist with a Native American monitor present shall complete mechanical presence/absence testing for archaeological deposits and cultural materials. In the event any prehistoric site indicators are discovered, additional backhoe testing will be conducted to map the aerial extent and depth below the surface of the deposits. In the event prehistoric	The archaeologist is to perform survey and presence/absence testing with a Native American monitor present	After the demolition of the existing building and pavement and prior to grading	Director of Community Development	Review the results and approve next steps	Prior to issuance of permits for any ground disturbing activities (trenching, grading, excavation)

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or historic archaeological deposits are found during presence/absence testing, the significance of the find will be determined. If deemed significant, a treatment plan will be prepared and provided to the City of Santa Clara's Director of Community Development. Where Native American cultural materials are identified, the archaeological monitor will prepare a treatment plan in collaboration with the monitoring California Native American tribe. The key elements of a treatment plan shall include the following: o Identify the scope of work and range of subsurface effects (include location map and development plan), o Describe the environmental setting (past and present) and the historic/prehistoric background of the parcel (potential range of what might be found), o Develop research questions and goals to be addressed by the investigation (what is significant vs. what is redundant information), o Detail the field strategy used to record, recover, or avoid the finds (photos, drawings, written records, provenience data maps, soil profiles, excavation techniques, standard archaeological methods), and address research goals. o Analytical methods (radiocarbon dating, obsidian studies, bone studies, historic	If testing determines that cultural resources are present and significant, a treatment plan shall be prepared. If Native American cultural materials are present, the treatment plan shall be prepared in collaboration with the Native American monitor	Prior to issuance of permits for any ground disturbing activities (trenching, grading, excavation)	Director of Community Development	Review and approve the treatment plan	Prior to issuance of permits for any ground disturbing activities (trenching, grading, excavation)

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artifacts studies [list categories and methods], packaging methods for artifacts, etc.); the monitoring California Native American tribe shall determine the appropriateness of analytical methods proposed for Native American cultural materials, o Report structure, including a technical and layperson's report and an outline of document contents in one year of completion of development (provide a draft for review before a final report), o Disposition of the artifacts (the monitoring California Native American tribe will determine the disposition of California Native American cultural materials), o Appendices: site records, update site records, correspondence, consultation with Native Americans, etc. The archaeologist and California Native American monitor will monitor full-time all grading and ground disturbing activities associated with the construction of the proposed project. If the archaeologist and Native American monitor believe that a reduction in monitoring activities is prudent, then a letter report detailing the rationale for making such a reduction and summarizing the monitoring results shall be provided to the City of Santa Clara's Director of Community Development. Department of Parks and Recreation 523 forms shall be submitted	The archaeologist and California Native American monitor will monitor full-time all grading and ground disturbing activities and maintain a daily monitoring log	During grading and ground disturbing activities During ground disturbing activities	Director of Community Development	Review monitoring logs as needed	

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along with the report for any cultural resources encountered over 50 years old. • If prehistoric or historic resources are encountered during on-site construction activities, all activity within a 50-foot radius of the find shall be stopped, the City's Director of Community Development shall be notified, and a Secretary of the Interior-qualified archaeologist shall examine the find and record the site, including field notes, measurements, and photography for a Department of Parks and Recreation 523 Primary Record form. The archaeologist shall make a recommendation in collaboration with the monitoring California Native American tribe regarding eligibility for the California Register of Historical Resources, data recovery, curation, or other appropriate mitigation. Ground-disturbance within the 50-foot radius can resume once these steps are taken and the City of Santa Clara's Director of Community Development has concurred with the recommendations. Within 30 days of the completion of the construction or cultural resources monitoring, whichever comes first, a report of findings documenting any cultural resource finds, recommendations, data recovery efforts, and other pertinent information gleaned during cultural resources monitoring shall then be submitted to the City of Santa Clara's Director of Community Development under confidential cover, along with a report that redacts the location(s) of all cultural resources. Once finalized, this report	Request for reduction in monitoring based on results Work shall be stopped if cultural resources are encountered within a 50' radius Examination of the find and recordation on DPR 523 forms along with a determination of eligibility and recommendation for data recovery or curation A final report shall summarize the findings documenting any cultural resources found during construction Submittal of the final report to the NWIC	During ground disturbing activities While ground disturbing activities are halted and prior to returning to work Within 30 days of completion of construction or cultural resources monitoring Upon finalization of the report Prior to and during ground	Director of Community Development Director of Community Development; Secretary of the Interior-qualified archaeologist Secretary of the Interior-qualified archaeologist Director of Community Development; 	Review and approve request to reduce monitoring Review and approve work stoppage Record on DPR forms with eligibility and curation recommendations Review and approve final report Obtain proof of submittal to NWIC	During grading and ground disturbing activities During grading and ground disturbing activities During grading and ground disturbing activities During grading and ground disturbing activities During grading and ground disturbing activities Within 30 days of completion of

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shall be submitted to the Northwest Information Center at Sonoma State University. • Prior to and for the duration of ground-disturbance, the project owner shall provide Worker Environmental Awareness Program training to all existing and any new employees. This training should include: a discussion of the applicable laws and penalties under the laws; samples or visual aids of the artifacts that could be encountered in the project vicinity, including what those artifacts may look like partially buried, or wholly buried and freshly exposed; and instructions to halt work in the vicinity of any potential cultural resource discovery, and notify the city-approved archaeologist and Native American cultural resources monitor. The Native American monitor shall provide a Tribal Cultural Resources Sensitivity Training in conjunction with the Worker Environmental Awareness Program.	WEAP training shall be provided for all existing and new employees	disturbing activities	Secretary of the Interior-qualified archaeologist Director of Community Development Director of Community Development	Review and approve WEAP submitted by archaeologist and Native American monitor	construction or cultural resources monitoring Upon finalization of the report Prior to and during ground disturbing activities
Impact 4.5-c, Disturb any human remains, including those interred outside of dedicated cemeteries. Impact 4.5-b, (Tribal), A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.					

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CUL-2: The project proposes to implement the following measure to ensure the project's impacts to human remains are less than significant: • If human remains are discovered during the presence/absence testing or excavation and/or grading of the site, all activity within a 50-foot radius of the find will be stopped. The Santa Clara County Coroner will be notified and shall determine whether the remains are of Native American origin or whether an investigation into the cause of death is required. If the remains are determined to be Native American, the coroner will notify the Native American Heritage Commission (NAHC) immediately. Once NAHC identifies the most likely descendants, the descendants will make recommendations regarding proper burial, which will be implemented in accordance with the California Code of Regulations, title 14, section 15064.5(e) of the CEQA Guidelines. All actions taken under this mitigation measure shall comply with the Health and Safety Code section 7050.5(b)	The contractor shall stop work within a 50-foot radius of the find and notify the Santa Clara County Coroner and the Director of Planning or director's designee of the City of Santa Clara Community Development Department (Director of Community Development)	Immediately upon discovery of human remains	Director of Community Development	The coroner shall contact the NAHC if human remains are found and are believed to be Native American	Upon discovery of human remains
GEOLOGY AND SOILS (PALEONTOLOGY)					
Impact 4.7-a.ii., Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving strong seismic ground shaking? Impact 4.7-a.iii., Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving seismic-related ground failure, including liquefaction?					

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Impact 4.7-c.-Be located on geologic units or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on-or-off-site landslide, lateral spreading, subsidence, liquefaction, or collapse?					
GEO-1: The project proposes to implement the following measures to ensure impacts to paleontological resources are reduced to less than significant. • Prior to the start of any subsurface excavations that would extend beyond previously disturbed soils, all construction forepersons and field supervisors shall receive training by a qualified professional paleontologist, as defined by the Society of Vertebrate Paleontology, who is experienced in teaching non-specialists, to ensure they can recognize fossil materials and shall follow proper notification procedures in the event any are uncovered during construction. Procedures to be conveyed to workers include halting construction within 50 feet of any potential fossil find and notifying a qualified paleontologist, who shall evaluate its significance. • If a fossil is found and determined by the qualified paleontologist to be significant and avoidance is not feasible, the paleontologist shall develop and implement an excavation and salvage plan in accordance with Society of Vertebrate Paleontology standards. Construction work in these areas shall be halted or diverted to allow preparation of the plan and	The contractor shall require training in recognition of fossils/artifacts. The contractor shall stop work within a 50-foot radius of the find and notify the Santa Clara County Coroner and the Director of Community Development or director's designee of the City of Santa Clara	Prior to any subsurface excavations	Director of Community Development or director's designee of the City of Santa Clara	Receive copy of excavation and salvage plan AND final paleontological mitigation plan/report Review and approve final plans/reports and ensure the findings of the report are integrated into the final recommendations	First, if and when fossils are discovered AND second, following completion of construction

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recovery of fossil remains in a timely manner. Fossil remains collected during the monitoring and salvage portion of the mitigation program shall be cleaned, repaired, sorted, and cataloged. Prepared fossils, along with copies of all pertinent field notes, photos, and maps, shall then be deposited in a scientific institution with paleontological collections. A final Paleontological Mitigation Plan Report that outlines the results of the mitigation program shall be prepared and submitted to the Director or Director's designee with the City of Santa Clara Community Development Department at the conclusion of construction. The Director or Director's Designee with the Santa Clara Community Development shall be responsible for ensuring that the paleontologist's recommendations regarding treatment and reporting are implemented.					
GREENHOUSE GAS EMISSIONS					
Impact 4.8-a Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment? Impact 4.8-b Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?					
GHG-1: If the Bay Area Air Quality Management District (BAAQMD) has adopted a new threshold of significance for stationary sources on or before CA3 receives its Authority to Construct permit, the project shall reduce the time the engines operate for readiness testing and maintenance on an	Time engines are run during operation for readiness testing and maintenance shall ensure emissions in accordance with the BAAQMD's	Prior to receiving an Authority to Construct permit from the BAAQMD	Director of Community Development or director's designee of the City of Santa Clara (Director	Provide a report describing how the owner will plan to comply with the limit. Thereafter, the owner shall submit a report	Prior to the start of operation and annually thereafter

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annual basis to ensure the project complies with the new limit. Prior to the start of operation, the project owner shall provide a report to the Director, or director's designee, of the City of Santa Clara Community Development describing how the project intends to comply with the limit, including a proposed schedule of readiness testing and maintenance operations for the year. The project owner shall provide an annual report thereafter to the Director, or director's designee, of the City of Santa Clara Community Development describing all operations of the facility that occurred for readiness testing and maintenance and calculating the attendant GHG emissions that resulted for the year.	thresholds for stationary sources		of Community Development)	annually describing all readiness, testing, and maintenance operations and the GHG emissions	

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GHG-2: The project owner shall use renewable diesel as the primary fuel for the emergency backup generators to the maximum extent feasible, and only use ultra-low sulfur diesel (ULSD) as a secondary fuel in the event of supply challenges or disruption in obtaining renewable diesel. If testing confirms that use of this fuel will not result in emissions that would cause the project to exceed applicable thresholds after any available mitigation for such emissions has been applied, the project owner shall ensure that renewable fuels are used for a minimum of at least 44 percent of total energy use by the emergency backup generators by December 31, 2024; 52 percent by December 31, 2027; and 60 percent by December 31, 2030. Renewable fuels shall be used for 100 percent of total energy use by the emergency backup generators by December 31, 2045. The project owner shall provide an annual report of the status of procuring and using renewable diesel to the Director, or director's designee, of the City of Santa Clara Electric Utility Department demonstrating compliance with the mitigation measure.	Use renewable diesel as the primary fuel and ULSD as a secondary fuel in accordance with the implementation schedule outlined in the mitigation measure	During project operation	Director of Electric Utility Department	The project owner shall provide an annual report of the status of procuring and using renewable diesel	Annually
GHG-3: The project owner shall ensure that 100 percent of the electricity purchased to power the project is covered by carbon-free resources using one of the following options: (1) participate in Silicon Valley Power (SVP) Large Customer Renewable Energy (LCRE) Program or other renewable energy program	Ensure that 100 percent of the renewable electricity purchased is covered by carbon-free resources	Prior to local approval of project entitlements and during the operational phase	Director of Electric Utility Department	The project owner shall provide proof of enrollment in SVP's LCRE or other acceptable instrument and annual report,	Annual or other proof of recurring enrollment

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that accomplishes the same objective as SVP's LCRE Program for 100 percent carbon-free electricity, or (2) purchase ~~carbon offsets~~ renewable energy credits or similar instruments that accomplish the same goals of 100 percent carbon-free electricity. The project owner shall provide documentation to the director, or director's designee, of the City of Santa Clara Electric Utility Department of enrollment and annual reporting of continued participation in SVP's LCRE Program with 100 percent carbon-free electricity coverage. If not enrolled in SVP's LCRE Program, the project owner shall provide documentation and annual reporting to the Director, or director's designee, of the City of Santa Clara Electric Utility Department that confirms that alternative measures achieve the same 100 percent carbon free electricity as SVP's LCRE Program, with verification by a qualified third-party auditor specializing in greenhouse gas emissions.				with verification by a qualified third-party auditor specializing in greenhouse gas emissions	
Hazards and Hazardous Materials					
Impact 4.9-c, Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school? Impact 4.9-d, Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?					
HAZ-1: The project will implement the following measures to reduce potentially significant soil and or groundwater impacts to construction workers to a less than significant level.	The project owner shall 1) take soil samples in accordance with an approved soil sampling plan, 2) document the results of the sampling,	Prior to the issuance of grading permits	Santa Clara Fire Department Fire Prevention and Hazardous Materials Division	Report findings of soil studies to Santa Clara Fire Department Fire Prevention and	Prior to the issuance of grading permits

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• Prior to the issuance of grading permits, shallow soil samples shall be taken in areas where soil disturbance is anticipated to determine if contaminated soils with concentrations above established construction/trench worker thresholds may be present due to historical agricultural use and from historical leaks and spills. The soil sampling plan must be reviewed and approved by the Santa Clara Fire Department Fire Prevention and Hazardous Materials Division prior to initiation of work. Once the soil sampling analysis is complete, a report of the findings will be provided to the Santa Clara Fire Department Fire Prevention and Hazardous Materials Division and other applicable city staff for review. • Documentation of the results of the soil sampling shall be submitted to and reviewed by the City of Santa Clara prior to the issuance of a grading permit. Any soil with concentrations above applicable environmental screening levels or hazardous waste limits would be characterized, removed, and disposed of off-site at an appropriate landfill according to all state and federal requirements. • A Site Management Plan (SMP) will be prepared to establish management practices for handling impacted groundwater and/or soil material that may	and 3) develop a Site Management Plan to establish handling and management practices			Hazardous Materials Division	

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be encountered during site development and soil-disturbing activities. Components of the SMP will include: • A detailed discussion of the site background. • A summary of the analytical results. • Preparation of a Health and Safety Plan by an industrial hygienist. • Protocols for conducting earthwork activities in areas where impacted soil and/or groundwater are present or suspected. • Worker training requirements, health and safety measures and soil handing procedures shall be described. • Protocols shall be prepared to characterize/profile soil suspected of being contaminated so that appropriate mitigation, disposal, or reuse alternatives, if necessary, can be implemented. • Notification procedures if previously undiscovered significantly impacted soil or groundwater is encountered during construction.					

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• Notification procedures if previously unidentified hazardous materials, hazardous waste, and/or underground storage tanks are encountered during construction. • On-site soil reuse guidelines. • Sampling and laboratory analyses of excess soil requiring disposal at an appropriate off-site waste disposal facility. • Soil stockpiling protocols; and • Protocols to manage groundwater that may be encountered during trenching and/or subsurface excavation activities. Prior to issuance of grading permits, a copy of the SMP must be approved by the Santa Clara County Environmental Health Department and the Santa Clara Fire Department Fire Prevention and Hazardous Materials Division. Prior to issuance of grading permits, a copy of the SMP must be approved by the Santa Clara County Environmental Health Department, and the Santa Clara Planning Division.					

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If contaminated soils are found in concentrations above risk-based thresholds pursuant to the terms of the SMP, remedial actions and/or mitigation measures will be taken to reduce concentrations of contaminants to levels deemed appropriate by the selected regulatory oversight agency for ongoing site uses. Any contaminated soils found in concentrations above thresholds to be determined in coordination with regulatory agencies shall be either 1) managed or treated in place, if deemed appropriate by the oversight agency or 2) removed and disposed of at an appropriate disposal facility according to California Hazardous Waste Regulations (CCR, tit. 22, div. 4.5) and applicable local, state, and federal laws.					
NOISE					
Impact 4.13-a Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?					
NOI-1: The project shall implement the following measures to reduce temporary construction noise to less than significant levels. • Construction is not permitted during the hours of 6 p.m. to 7 a.m. Monday through Friday between 6 p.m. to 9 a.m. on Saturday, and prohibited on Sundays and holidays. • Prior to the start of construction, identify a noise control disturbance coordinator. The disturbance coordinator shall be responsible for responding to any local complaints about	Implement the City's municipal code and measures to reduce noise levels. Use best available noise control technologies. Notify all adjacent business and other noise-sensitive land uses of the	During the construction phase Prior to the start of demolition and	Director of Community Development or director's designee of the City of Santa Clara (Director of Community Development)	Confirm the code and measures have been implemented Review and approve the schedule of "noisy" construction activities	During the construction phase Prior to the start of demolition and construction activities

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construction noise. The disturbance coordinator shall determine the cause of any noise complaint received (e.g. starting too early, bad muffler, etc.) and shall ensure that reasonable measures warranted to correct the problem are implemented as soon as possible. • Prior to the start of construction, establish a telephone number for the disturbance coordinator, and post it in a conspicuous location on the construction site. • Prior to the start of construction, notify, in writing, the residents within 800 feet from the center of the project to the south across the rail line and industrial buildings to the north, east, and west of the project site of the construction schedule and provide a written schedule of "noisy" construction activities to the adjacent land uses. • Include the telephone number for the disturbance coordinator construction site in the above notice regarding the construction schedule sent to residences south across the rail line and industrial buildings to the north, east, and west of the project site. • The project owner shall orient construction equipment and locate construction staging areas within the project site away from the nearest residences to the south, to the extent feasible.	construction schedule, in writing, and provide a written schedule of "noisy" construction activities to the adjacent land uses and to the City's Community Development Department	construction activities			

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• Equip all construction-related internal combustion engine-driven equipment with the best available noise control equipment (including mufflers, intake silencers, ducts, engine enclosures, and acoustically attenuating shields or shrouds) and use best noise control practices to minimize noise levels from construction activities.					
TRANSPORTATION					
Impact 4.17-b Conflict or be inconsistent with CEQA Guidelines [California Code of Regulations, title 14,] section 15064.3, subdivision (b)?					
TRANS-1: The project shall implement a Transportation Demand Management (TDM) program sufficient to demonstrate that vehicle miles travelled (VMT) associated with the project would be reduced to 14.14 or less per employee. The TDM program shall include, but is not limited to, the following measure, which has been determined to be a feasible method for achieving the required VMT reduction: • The operations workforce at the project shall work a 4-40 work schedule (40 hours in 4 days). Prior to the issuance of an occupancy permit, the TDM program shall be submitted and approved by the Director of Community Development and shall be monitored annually to gauge its effectiveness in meeting the required VMT reduction. The TDM program shall establish an appropriate estimate of initial vehicle trips generated by the occupant of the proposed project and shall include the	Adopt a transportation demand management program to reduce project-related vehicle miles traveled to 14.14 or less per employee	Prior to the issuance an occupancy permit	Director of Community Development or director's designee of the City of Santa Clara	Receive approval of the TDM program based on traffic counts; the program shall be updated as necessary based on new traffic counts	Annually by the Director of Planning

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conducting of driveway traffic counts annually to measure peak-hour entering and exiting vehicle volumes. The volumes shall be compared to trip thresholds established in the TDM program to determine whether the required reduction in vehicle trips is being met. The results of annual vehicle counts shall be reported in writing to the Director of Community Development. If TDM program monitoring results show that the trip reduction targets are not being met, the TDM program shall be updated to identify replacement and/or additional feasible TDM measures to be implemented. The updated TDM program shall be subject to the same approvals and monitoring requirements listed above.					
MANDATORY FINDINGS OF SIGNIFICANCE					
Impact 4.20-a Does the project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal, or eliminate important examples of the major periods of California history or prehistory?					
BIO-1, **BIO-2, CUL-1**, **CUL-2**, **GEO-1** See impact 4.4-a, 4.5-a, 4.5-b, 4.5-c, 4.7-a.ii, 4.7-a.iii, and 4.7-c					
Impact 4.20-b Does the project have impacts that are individually limited but cumulatively considerable? ("Cumulatively considerable" means the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.)					

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AQ-1, **BIO-1, BIO-2, BIO-3, BIO-4, CUL-1**, **CUL-2, GEO-1, GHG-1, GHG-2, GHG-3**, **HAZ-1**, **NOI-1, TRANS-1**. See impact 4.3-b, 4.3-c, 4.4-a, 4.4-e, 4.5-a, 4.5-b, 4.5-c, 4.7-a.ii, 4.7-a.iii, 4.7-c, 4.8-a, 4.8-b, 4.9-c, 4.9-d, 4.13-a., and 4.17-b					
4.20-c Does the project have environmental effects which will cause substantial adverse effects on human beings either directly or indirectly?					
AQ-1, **GEO-1, HAZ-1, NOI-1** See impact 4.3-b, 4.3-c, 4.7-a.ii, 4.7-a.iii, 4.7-c, 4.9-c, 4.9-d, and 4.13-a					

Source: California Energy Commission. Final Environmental Impact Report for CA3 Backup Generating Facility. March 2022.

APPENDIX E

EXHIBIT LIST

Exhibit List

Docket: 21-SPPE-01
Project Title: CA3 Backup Generating Facility-Vantage
Generated On: 7/29/2022 3:13:31 PM

Exhibit Number	Document Title and Description	Disposition
1	TN # 237380 **VDC CA3BGF SPPE Application Part I**	Offered by Applicant Representative (Scott Galati); Admitted on 5/27/2022.
2	TN # 237423 **VDC CA3BGF SPPE Application Part II**	Offered by Applicant Representative (Scott Galati); Admitted on 5/27/2022.
3	TN # 237381 **VDC CA3BGF SPPE Application Part III**	Offered by Applicant Representative (Scott Galati); Admitted on 5/27/2022.
4	TN # 237382 **VDC CA3BGF SPPE Appllication Part IV**	Offered by Applicant Representative (Scott Galati); Admitted on 5/27/2022.
5	TN # 237383 **VDC CA3BGF SPPE Application Part V**	Offered by Applicant Representative (Scott Galati); Admitted on 5/27/2022.
6	TN # 237521 **CA3BGF Application for Confidential Designation for Phase I Cultural Resources Assessment** Contains sensitive Cultural Resources Assessment information. ***This Application for Confidentiality requests Confidentiality Indefinitely***	Offered by Applicant Representative (Scott Galati); Admitted on 5/27/2022.
7	TN # 237825 **Revised SPPE Application Cover Page - Corrected Docket Number** Corrected Docket Number for SPPE Application Cover Page	Offered by Applicant Representative (Scott Galati); Admitted on 5/27/2022.
8	TN # 242673 **Affidavit of Simon Casey - VDC CA3BGF**	Offered by Applicant Representative (Scott Galati); Admitted on 5/27/2022.
9	TN # 238029 **CA3BGF Landscape Plan**	Offered by Applicant Representative (Scott Galati); Admitted on 5/27/2022.
10	TN # 238030 **CA3BGF Revised General Arrangement and Site Layout Plan**	Offered by Applicant Representative (Scott Galati); Admitted on 5/27/2022.
11	TN # 238031 **CA3BGF Request For Confidentiality - Revised Phase I Cultural Resources Assessment** The confidential data contains sensitive cultural resources.	Offered by Applicant Representative (Scott Galati); Admitted on 5/27/2022.
12	TN # 238215 **VDC CA3BGF Responses to CEC Data Requests Set 1 - Part I**	Offered by Applicant Representative (Scott Galati); Admitted on 5/27/2022.
13	TN # 238216 **VDC CA3BGF Responses to CEC Data Requests Set 1 - Part II**	Offered by Applicant Representative (Scott Galati); Admitted on 5/27/2022.
14	TN # 238416 **VDC Supplemental Responses to Data Requests 15-20 - CA3BGF**	Offered by Applicant Representative (Scott Galati); Admitted on 5/27/2022.

Exhibit Number	Document Title and Description	Disposition
15	TN # 238970 **VDC Initial Responses to CEC Data Request Set 2 - CA3BGF**	Offered by Applicant Representative (Scott Galati); Admitted on 5/27/2022.
16	TN # 239147 **VDC CA3BGF Supplemental Response to Data Request Set 1 DR 22 VMT**	Offered by Applicant Representative (Scott Galati); Admitted on 5/27/2022.
17	TN # 239148 **VDC Tree Disposition Plan - CA3BGF**	Offered by Applicant Representative (Scott Galati); Admitted on 5/27/2022.
18	TN # 239224 **Presentation - VDC Status Conference - CA3BGF** CEC Committee Informational Hearing	Offered by Applicant Representative (Scott Galati); Admitted on 5/27/2022.
19	TN # 239235 **VDC Response to Staff IIR**	Offered by Applicant Representative (Scott Galati); Admitted on 5/27/2022.
20	TN # 239238 **Attachment to VDC Response to Staff IIR - CA3BGF** Letter	Offered by Applicant Representative (Scott Galati); Admitted on 5/27/2022.
21	TN # 239260 **Supplemental Response to DR Set 1 DR 7 - Historic Evaluation - CA3BGF**	Offered by Applicant Representative (Scott Galati); Admitted on 5/27/2022.
22	TN # 239367 **Vantage Data Center's Repeated Request For Confidentiality - Revised Cultural Report CA3BGF**	Offered by Applicant Representative (Scott Galati); Admitted on 5/27/2022.
23	TN # 239390 **VDC Supplemental Responses to CEC Data Request Set 2 Air Quality - CA3BGF**	Offered by Applicant Representative (Scott Galati); Admitted on 5/27/2022.
24	TN # 239483 **VDC Supplemenatl Responses to Data Requests Set 1 (3-7) - CA3BGF**	Offered by Applicant Representative (Scott Galati); Admitted on 5/27/2022.
25	TN # 239485 **VDC Responses to CEC Data Request Set 3 - CA3BGF**	Offered by Applicant Representative (Scott Galati); Admitted on 5/27/2022.
26	TN # 239678 **Updated Ammonia Slip Emissions Calculations**	Offered by Applicant Representative (Scott Galati); Admitted on 5/27/2022.
27	TN # 239687 **VDC's Revised PD AQ-1 - CA3BGF**	Offered by Applicant Representative (Scott Galati); Admitted on 5/27/2022.
28	TN # 240159 **CA3DC Revised Project Description - PCC Revisions**	Offered by Applicant Representative (Scott Galati); Admitted on 5/27/2022.
29	TN # 240158 **CA3DC PCC Drawing Set Rev3 - Part I**	Offered by Applicant Representative (Scott Galati); Admitted on 5/27/2022.
30	TN # 240157 **CA3DC PCC Drawing Set Rev3 - Part II**	Offered by Applicant Representative (Scott Galati); Admitted on 5/27/2022.
31	TN # 240160 **CA3DC PCC Drawing Set Rev3 - Part III**	Offered by Applicant Representative (Scott Galati); Admitted on 5/27/2022.
32	TN # 240166 **CA3DC Repeated Request For Confidentiality - Second Revised CRA**	Offered by Applicant Representative (Scott Galati); Admitted on 5/27/2022.
33	TN # 240169 **VDC Responses to CEC Data Request Set 4 - CA3BGF**	Offered by Applicant Representative (Scott Galati); Admitted on 5/27/2022.
34	TN # 240595 **Ramboll Noise Memorandum - CA3BGF**	Offered by Applicant Representative (Scott Galati); Admitted on 5/27/2022.
35	TN # 240596 **Ramboll Air Quality Memorandum - CA3BGF**	Offered by Applicant Representative (Scott Galati); Admitted on 5/27/2022.
36	TN # 240597 **Summary of Parking Changes Due to City PCC Comments - CA3BGF**	Offered by Applicant Representative (Scott Galati); Admitted on 5/27/2022.

Exhibit Number	Document Title and Description	Disposition
37	TN # 241159 **Revised Phased Construction Emissions Analysis Update - CA3BGF**	Offered by Applicant Representative (Scott Galati); Admitted on 5/27/2022.
38	TN # 242216 **VDC's Comments on the DEIR - CA3BGF**	Offered by Applicant Representative (Scott Galati); Admitted on 5/27/2022.
39	TN # 242672 **VDC's Opening Testimony Package**	Offered by Applicant Representative (Scott Galati); Admitted on 5/27/2022.
40	TN # 242753 **CalTrain Electrification Segment 3 Construction Schedule**	Offered by Applicant Representative (Scott Galati); Admitted on 5/27/2022.
41	TN # 242754 **CalTrain Electrification Santa Clara and San Jose Presentation**	Offered by Applicant Representative (Scott Galati); Admitted on 5/27/2022.
42	TN # 242755 **VDC's Rebuttal Testimony - CA3BGF**	Offered by Applicant Representative (Scott Galati); Admitted on 5/27/2022.
43	TN # 243305 **VDC's Supplemental Testimony - CA3BGF**	Offered by Applicant Representative (Scott Galati); Admitted on 5/27/2022.
200	TN # 242451 **Final Environmental Impact Report, Part 1, March 2022**	Offered by Commission Staff (Jennifer Baldwin); Admitted on 5/27/2022.
201	TN # 242452 **Final Environmental Impact Report, Part 2, March 2022**	Offered by Commission Staff (Jennifer Baldwin); Admitted on 5/27/2022.
202	TN # 242453 **Final Environmental Impact Report, Part 3, March 2022**	Offered by Commission Staff (Jennifer Baldwin); Admitted on 5/27/2022.
203	TN # 242454 **Final Environmental Impact Report, Part 4, March 2022**	Offered by Commission Staff (Jennifer Baldwin); Admitted on 5/27/2022.
204	TN # 242674 **Staff's Opening Testimony with Declarations and Resumes, dated April 14, 2022**	Offered by Commission Staff (Jennifer Baldwin); Admitted on 5/27/2022.
205	TN # 242884 **City of Santa Clara - Acceptance of MMRP and Mitigation Compliance** Letter	Offered by Commission Staff (Jennifer Baldwin); Admitted on 5/27/2022.
206	TN # 242803 **Rebuttal Testimony** Response to Committee Question	Offered by Commission Staff (Jennifer Baldwin); Admitted on 5/27/2022.
207	TN # 243672 **Memorandum, Update to Air Quality Section of the FEIR, dated June 22, 2022**	Offered by Commission Staff (Lisa DeCarlo); Admitted on 7/21/2022.
208	TN # 243635 **Peninsula Corridor Electrification Project, Final Environmental Impact Report, Part 1, January 2015** Volume I: Revised Draft EIR, Part 1	Offered by Commission Staff (Lisa DeCarlo); Admitted on 7/21/2022.
209	TN # 243636 **Peninsula Corridor Electrification Project, Final Environmental Impact Report, Part 2, January 2015** Volume I: Revised Draft EIR	Offered by Commission Staff (Lisa DeCarlo); Admitted on 7/21/2022.
210	TN # 243442 **CalTrain Sustainability Report**	Offered by Commission Staff (Lisa DeCarlo); Admitted on 7/21/2022.
211	TN # 244192 **Declarations of Steven Kerr and Joseph Hughes** Declarations for CA3 Backup Generating Facility from Steven Kerr and Joseph Hughes	Offered by Commission Staff (Lisa DeCarlo); Admitted on 7/28/2022.
212	TN # 242985 **Supplemental Testimony (Response to Second Committee Question)**	Offered by Commission Staff (Lisa DeCarlo); Admitted on 7/28/2022.

Exhibit Number	Document Title and Description	Disposition
213	TN # 244193 **Update to the FEIR** Cultural and Tribal Cultural Resources Update to the FEIR and Declaration of Gabriel Roark	Offered by Commission Staff (Lisa DeCarlo); Admitted on 7/28/2022.
500	TN # 244199 **Justification Report** CEQA Thresholds for Evaluating the Significance of Climate Impacts From Land Use Projects and Plans	Offered by Committee (Susan Cochran); Admitted on 7/28/2022.

APPENDIX F

PROOF OF SERVICE LIST

Proof of Service List

Docket: 21-SPPE-01
Project Title: CA3 Backup Generating Facility-Vantage
Generated On: 7/28/2022 11:18:50 AM

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