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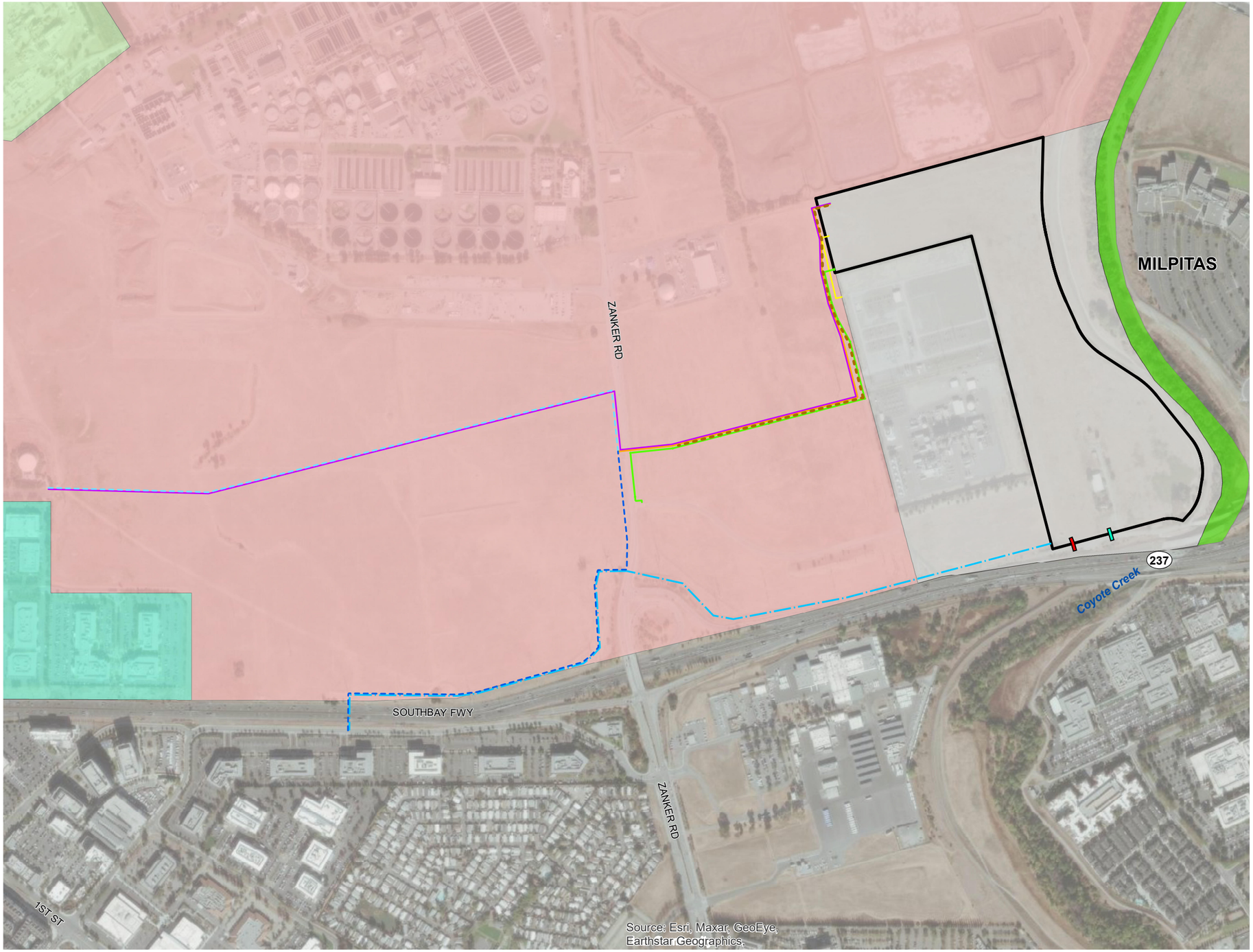

LEGEND

Alviso Master Plan

- Light Industrial
- Industrial Park with Mixed Industrial Overlay
- Private Open Space
- Public Parks and Open Space
- Public/Quasi-Public
- Project Site
- Proposed Storm Drain
- Proposed Gas Line #1
- Proposed Gas Line #2
- Proposed Sanitary Sewer
- Proposed Reclaimed Water
- Proposed Water Line Route #1
- Proposed Water Line Route #2
- Proposed Water Line Route #3
- Proposed Shared Water Line
- Proposed Electrical Supply Line

N

0 750 1,500

Approximate scale in feet

Figure 3.11-2R
Alviso Master Plan Land Use Designations
San José Data Center (SJC02)
San José, California

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On November 6, 2001, the City Council adopted a General Plan text amendment to the Alviso Master Plan to allow maximum building heights of 100 feet for a 140-acre site north of State Route 237 and approximately 2,000 feet east of Zanker Road (File No. GP01-T-05). This allowed an increase in maximum building height from 50 feet to 100 feet. The project site is located within this area.

~~3.11.1.5~~3.11.1.6 Applicable Plans, Policies, and Regulations

Goals and policies to guide land use development within the City are established by the *Envision San José 2040 General Plan* (City of San José 2011a). The City's applicable General Plan policies are presented in Table 3.11-2, along with a discussion of project consistency.

Municipal Code Section 20.50.100 describes allowed uses and permit requirements in the Light Industrial zone. This code section identifies data centers as a use that requires a SUP within the Light Industrial zone. The project site was the subject of the City of San José 237 Industrial Center Project, for which a Final EIR was certified in September 2017.[4] In October 2017, the City approved an SUP (SP16-053) and a rezoning of the project site from A(PD) to LI Light Industrial, consistent with the General Plan land use designation of the site (Figure 3.11-3).

Concurrent with the Small Power Plant Exemption (SPPE) Application, the project owner is pursuing an amendment to the existing SUP and anticipates that the City will serve as a responsible agency ~~prepare an Addendum to the City of San José 237 Industrial Center Project EIR~~ for purposes of CEQA compliance with the City's discretionary entitlement process. However, the SPPE issued by the California Energy Commission is required before the City can consider and approve ~~a CEQA action or issue~~ a new/amended SUP or other discretionary entitlements with respect to the project.

3.11.2 Environmental Impacts and Mitigation Measures

a) Would the project physically divide an established community?

No Impact. The project will not change the project boundaries or involve construction of new offsite elements that could divide the community; therefore, no impact will occur.

b) Would the project cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?

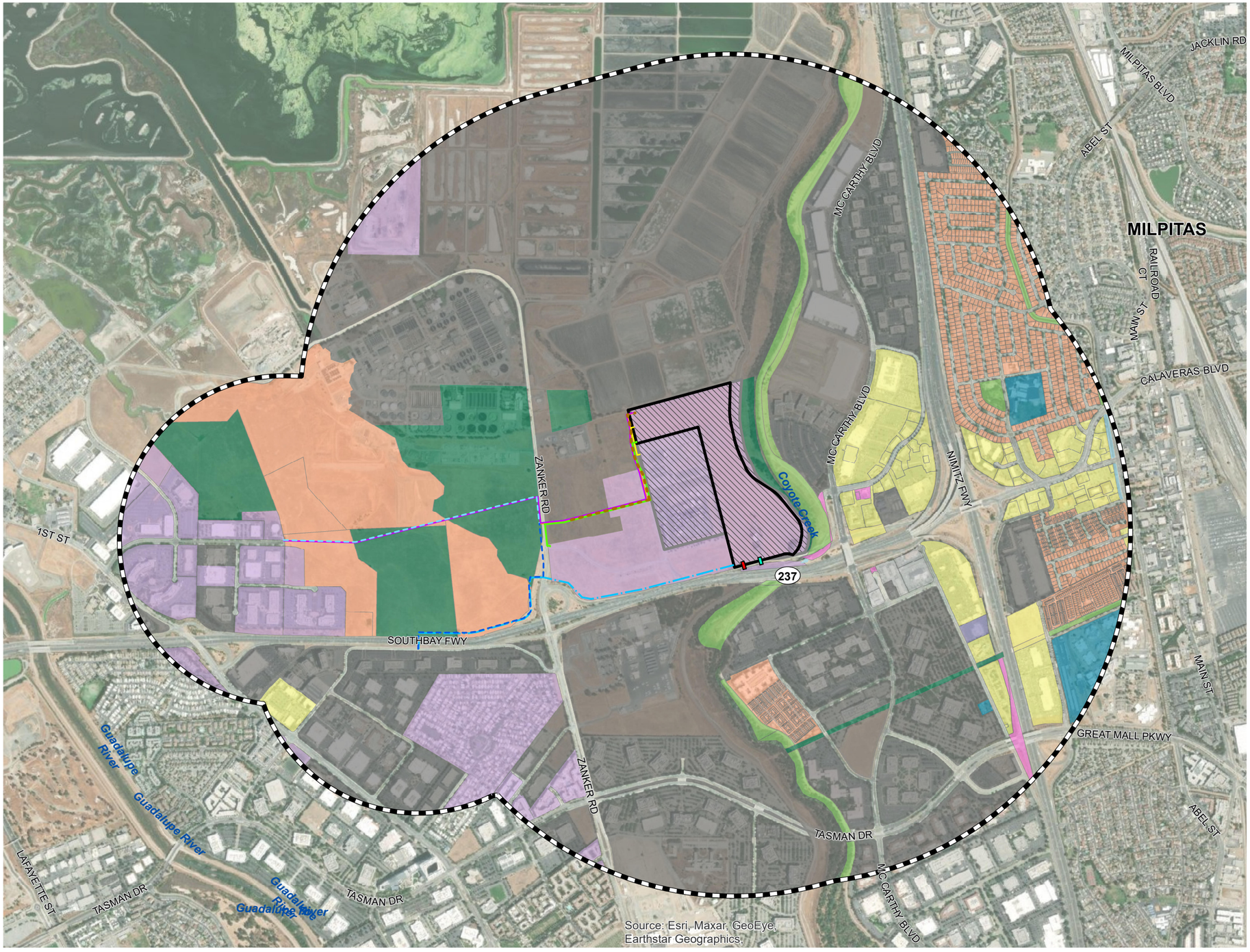
Less than Significant Impact. The project does not conflict with any land use plan, policy, or regulation established by the City that was adopted for the purpose of avoiding or mitigating an environmental effect.

The maximum height in the LI Light Industrial Zoning District, as stated in Table 20-120 of the San José Municipal Code, is 50 feet, unless a different maximum is established as specified in Section 20.85.010(C)(2) (Specific Height Restrictions) of the San José Municipal Code. This section provides that the governing height restriction for properties that are located within specific plan areas are set by the height restrictions within that specific plan document. The project site is located in the Alviso Master Plan, which allows heights for this site up to 100 feet. The project is proposing a maximum height of approximately 31 feet[5] and therefore complies with the height requirement.

The project will be required to comply with the lighting guidelines established for the Light Industrial zone including, among other things, by installing LED lighting throughout the project site, as required by City Council Policy 4-3 Outdoor Lighting on Private Developments. The project would also use pole-mounted lighting that does not exceed 25-feet tall and which is directed downwards and away from riparian areas.

[4] https://www.sanjoseca.gov/index.aspx?NID=6072

[5] The proposed data center buildings will be approximately 27 feet tall, with some mechanical equipment extending to a max height of 31 feet.



- Proposed Storm Drain
- Proposed Gas Line #1
- Proposed Gas Line #2
- Proposed Sanitary Sewer
- Proposed Reclaimed Water
- Proposed Water Line Route #1
- Proposed Water Line Route #2
- Proposed Water Line Route #3
- Proposed Shared Water Line
- Proposed Electrical Supply Line
- Project Buffer (1-mile Site, 1/2-mile Linears)
- Project Site

Zoning Type

- Light Industrial *
- Agriculture
- Commercial
- Highway Services
- Industrial
- Institutional
- Mixed Use
- Park Open Space
- Planned Development
- Residential
- Waterways
- Other

Notes:

* = In October 2017, the City Council of the City of San José rezoned the project site to LI - Light Industrial Zoning District. Original source data does not reflect this.

Source:

City of Milpitas and City of San José

N

0 2,000 4,000

Approximate scale in feet

Figure 3.11-3R
Zoning Map
San José Data Center (SJC02)
San José, California

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The project will be required to comply with the landscape guidelines established for the Light Industrial zone and additionally will be required to comply with the City's Riparian Corridor Policy Study which requires 100-foot setbacks from nearby waterways and precludes buildings, outdoor storage, parking and other paved areas, and ornamental landscaping within the setback zone, as shown in the site plan.

Section 20.90.060 (Number of Parking Spaces Required) of the San José Municipal Code sets forth the vehicle parking requirements (City of San José 2019). Section 20.100.1300(8)(1)(d) of the San José Municipal Code allows for a Development Exception Permit to be utilized for exceptions to the off-street parking and loading requirements and regulations of Title 20 (Zoning Ordinance). The parking study used for the 237 Industrial Center Project SUP showed that data centers do not generate substantial trips due to the very low number of employees required to operate a data center. The Applicant may apply for a Development Exception Permit with the City under Section 20.100.1300(8)(1)(d), if necessary, and will provide the number of parking spaces required by the City.

Table 20-190 in Section 20.90.060 of the Municipal Code requires one bicycle parking space per 5,000 square feet of office/meeting/technician work space, plus one parking space for each 50,000 square feet of floor area, or a fraction thereof devoted to computer equipment space (City of San José 2019). Based on the square footage of office/meeting/technician work space area, as well as computer equipment spaces, the project will be required to provide 15 bicycle parking spaces. The project will ~~be required to~~ comply with the bicycle parking requirement by providing 35 bicycle parking spaces, as shown in the site plan.

Section 17.845.030 of the Municipal Code prohibits natural gas infrastructure within newly constructed buildings and natural gas infrastructure extending into any system or device within a building for which an equivalent all-electric system or design is available. However, Section 17.845.040(B) provides an exception to the prohibition of natural gas infrastructure for facilities with a distributed energy resource that protects public health, safety, or economic welfare in the event of an electric grid outage, until December 31, 2024~~3~~. The project would include 224 ~~standby~~ natural gas-fired generators[6], which will operate ~~both~~ for load shedding, demand response and behind ~~the~~ meter RA~~RA~~ in support of ~~to~~ the electric grid as well as provide emergency power to the Project. Therefore, the project meets the ~~are~~ necessary operational requirements for the protection of public health, safety, and economic welfare in the event of an electric grid outage. With concurrence from the City of San José, the project would be eligible for the exception provided under Section 17.845.040(B) of the Municipal Code. Further, the Applicant may apply for the Limited Exemption for Manufacturing and Industrial Facilities or the Hardship Exemption provided under Sections 17.845.045 and 17.845.050 of the Municipal Code, respectively.

Project consistency with *Envision San José 2040 General Plan* Land Use Policies (City of San José 2011a) is shown in Table 3.11-2.

Table 3.11-2. Project Consistency with the City of San José 2040 General Plan Land Use Policies

Land Use Policy	Project Consistency
Land Use	
Policy CD-1.1: Require the highest standards of architectural and site design, and apply strong design controls for all development projects, both public and private, for the enhancement and development of community character and for the proper transition between areas with different types of land uses.	Consistent. The project would be designed in accordance with applicable architectural and site design standards.

[6] While the majority of natural gas use would be for the generators a small percentage will also be used for comfort heating of the facility. However, while Section 17.845.020 of the San Jose Municipal Code does not define "facilities", the implication is that all aspects of the facility, both the Distributed Energy Resource as well as the actual building which may use natural gas for comfort heating will qualify for the limited exemption under Section 17.845.040.

Table 3.11-2. Project Consistency with the City of San José 2040 General Plan Land Use Policies

Land Use Policy	Project Consistency
Policy CD-4.9: For development subject to design review, ensure the design of new or remodeled structures is consistent or complementary with the surrounding neighborhood fabric (including but not limited to prevalent building scale, building materials, and orientation of structures to the street).	Consistent. The project would be designed in accordance with applicable design standards, including taking into consideration land use and design compatibility considerations with surrounding uses.
Policy ER-2.1: Ensure that new public and private development adjacent to riparian corridors in San José are consistent with the provisions of the City's Riparian Corridor Policy Study and any adopted Santa Clara Valley Habitat Conservation Plan/Natural Communities Conservation Plan (HCP/NCCP).	Consistent. The project has been designed to comply with the City's Riparian Corridor Policy Study. The project is considered a covered project under the SCVHP and will be required to comply with the conditions and pay applicable fees of the SCVHP, to be determined during the Amended Special Use Permit process.
Policy ER-2.2: Ensure that a 100-foot setback from riparian habitat is the standard to be achieved in all but a limited number of instances, only where no significant impacts would occur.	Consistent. Site design for the Project includes a 100-foot setback from Coyote Creek, in compliance with the City's Riparian Corridor Policy Study.
Policy ER-2.3: Design new development to protect adjacent riparian corridors from encroachment of lighting, exotic landscaping, noise and toxic substances into the riparian zone.	Consistent. The project includes shielded lighting and lighting directed away from the adjacent riparian corridor. No ornamental plants will be planted within the setback from the riparian corridor, and the setback and riparian zone will be protected from toxic substances by the installation of stormwater controls and other best management practices. During operations, noise impacts are anticipated to increase in the riparian corridor beyond existing levels
Air Quality	
Policy MS-10.1: Assess projected air emissions from new development in conformance with the BAAQMD CEQA Guidelines and relative to state and federal standards. Identify and implement air emissions reduction measures.	Consistent. The project's air quality impacts have been assessed in conformance with the BAAQMD CEQA Guidelines and relative to state and federal standards; the air quality analysis includes best management practices and anticipated permit conditions that will be imposed on and/or incorporated into the project to verify that emissions impacts are less than significant.
Policy MS-13.1: Include dust, particulate matter, and construction equipment exhaust control measures as conditions of approval for subdivision maps, site development and planned development permits, grading permits, and demolition permits. At minimum, conditions shall conform to construction mitigation measures recommended in the current BAAQMD CEQA Guidelines for the relevant project size and type.	Consistent. The analysis contained in Section 3.3, Air Quality, has been conducted consistent with Policy MS-13.1 and includes best management practices and permit conditions to reduce and/or avoid significant emissions impacts.
Policy MS-13.2: Construction and/or demolition projects that have the potential to disturb asbestos (from soil or building material) shall comply with all the requirements of the California Air Resources Board's air toxic control measures (ATCMs) for Construction, Grading, Quarrying, and Surface Mining Operations.	Consistent. The analysis contained in Section 3.9, Hazards and Hazardous Materials, identifies best management practices to be put in place to survey, and if necessary, abate asbestos and lead-based paint from existing structures that will be demolished as part of the project.
Policy TR-6.4: Plan industrial and commercial development so that truck access through residential areas is avoided. Minimize truck travel on streets designated in this General Plan as Residential Streets.	Consistent. The project does not require truck travel on streets designated in the General Plan as Residential Streets.
Policy TR-7.1: Require large employers to develop TDM programs to reduce the vehicle trips generated by their employees.	Consistent. The project would incorporate TDM measure during construction and operation, as discussed in Section 3.17 Transportation.

Table 3.11-2. Project Consistency with the City of San José 2040 General Plan Land Use Policies

Land Use Policy	Project Consistency
Energy	
CD-5.6: Design lighting locations and levels to enhance the public realm, promote safety and comfort, and create engaging public spaces. Seek to balance minimum energy use of outdoor lighting with goal of providing safe and pleasing well-lit spaces. Consider the City's outdoor lighting policies in development review processes.	Consistent. The project would be designed in accordance with applicable design standards, including those that address outdoor lighting.
Water	
Policy MS-3.2: Promote use of green building technology or techniques that can help reduce the depletion of the City's potable water supply, as building codes permit. For example, promote the use of captured rainwater, graywater, or recycled water as the preferred source for non-potable water needs such as irrigation and building cooling, consistent with Building Codes or other regulations.	Consistent. The project would be built in accordance with the applicable City's Green Building Measures, including. among other things, incorporation of water efficient fixtures and landscaping, use of recycled water, and recycling of solid waste.
Policy MS-3.3: Promote the use of drought tolerant plants and landscaping materials for non-residential and residential uses.	Consistent. The project landscaping will be required to comply with the City's applicable planting/landscaping requirements by planting native, drought tolerant plants, with the use of recycled water for irrigation while plantings are being established.
Noise	
Policy EC-1.1: Locate new development in areas where noise levels are appropriate for the proposed uses. Consider federal, state and City noise standards and guidelines as a part of new development review.	Consistent. The project is not considered a noise sensitive land use. Furthermore, there are no noise sensitive land uses in proximity to the project site, and the project will be required to comply with all applicable noise standards and requirements. Furthermore, the facility has been designed such that operational noise impacts are not expected to increase noise levels in the riparian corridor beyond existing levels
Policy EC-1.2: Minimize the noise impacts of new development on land uses sensitive to increased noise levels (Categories 1, 2, 3 and 6) by limiting noise generation and by requiring use of noise attenuation measures such as acoustical enclosures and sound barriers, where feasible. The City considers significant noise impacts to occur if a project would: • Cause the DNL at noise sensitive receptors to increase by five dBA DNL or more where the noise levels would remain "Normally Acceptable"; or • Cause the DNL at noise sensitive receptors to increase by three dBA DNL or more where noise levels would equal or exceed the "Normally Acceptable" level.	
Policy EC-1.3: Mitigate noise generation of new non-residential land uses to 55 dBA DNL at the property line when located adjacent to existing or planned noise sensitive residential and public/quasi-public land uses.	
Policy EC-1.6: Regulate the effects of operational noise from existing and new industrial and commercial development on adjacent uses through noise standards in the City's Municipal Code.	
Policy EC-2.3: Require new development to minimize vibration impacts to adjacent uses during demolition and construction. For sensitive historic structures, a vibration limit of 0.08 in/sec PPV will be used to minimize the potential for cosmetic damage to a building. A vibration limit of 0.20 inches per second PPV will be used to minimize the potential for cosmetic damage at buildings of normal conventional construction.	

Notes:

BAAQMD = Bay Area Air Quality Management District
CEQA = California Environmental Quality Act
DNL = Day/Night Average Sound Level

PPV = Peak Particle Velocity
SCVHP = Santa Clara Valley Habitat Conservation Plan
TDM = Transportation Demand Management

Proposed Mitigation Measures: None.

3.11.3 References

City of San José. 1994. *Riparian Corridor Policy Study*. May.

City of San José. 1998. *Alviso Master Plan: A Specific Plan for the Alviso Community*. December.

City of San José. 2011a. *Envision San José 2040 General Plan*. November.

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City of San José. 2017a. *First Amendment to Draft EIR – Response to EIR Comments and Text Edits (Final EIR), 237 Industrial Center Project*. September. Accessed October 22, 2019. http://www.sanjose.ca.gov/index.aspx?nid=6072.

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Santa Clara Valley (SCV). 2016. *C.3 Stormwater Handbook.* June. Accessed November 12, 2019. http://scvurppp-w2k.com/pdfs/1516/c3_handbook_2016/SCVURPPP_C.3_Technical_Guidance_Handbook_2016_Chapters.pdf.

3.13 Noise

Would the project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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?	☐	☐	☒	☐
b) Generation of excessive groundborne vibration or groundborne noise levels?	☐	☐	☒	☐
c) For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☐	☒

Environmental checklist established by CEQA Guidelines, Appendix G.

3.13.1 Setting

The San José Data Center (SJC) will be located within the City of San José on an approximately 64.5-acre site and will consist of two data center buildings totaling over approximately 396,914 square feet of space. The project will include 224 0.45-megawatt (MW) natural gas-fired generators to provide electrical power to support the electrical load of the data center buildings during utility outages or certain onsite electrical equipment interruptions or failures. Additionally, the use of the natural gas generators will enable the SJC to provide grid support through load shedding, demand response, and behind-the-meter Resource Adequacy (RA) ancillary services. In addition to these generators, the project will include two administrative Tier IV diesel-powered generators, rated at 1.25 MW and 0.5 MW, to support administrative functions during an interruption in the normal delivery of electrical power from the utility.

The project site has been used historically for farming since the early 1920s but is not currently in agricultural use and no dwellings or structures exist onsite[1]. To the north of the project site are the San José/Santa Clara Regional Wastewater Treatment Plant sludge drying beds, to the south is Highway 237, to the west is the Los Esteros Critical Energy Facility (LECEF), a PG&E substation, and to the east is Coyote Creek. The project is anticipated to begin construction in the 4th quarter of 2022, with operations beginning in the 1st quarter of 2024.

~~The San José Data Center (SJC02) will be located within the City of San José on an approximately 64.5-acre site and will consist of two data center buildings totaling over approximately 396,914 square feet of space. The project will include 224 0.5-megawatt (MW) standby natural gas-fired generators to provide electrical power to support the demand load of the data center information technology (IT) load during utility outages or certain onsite electrical equipment interruptions or failures, and to participate in PG&E's Resource Adequacy (RA) program and for load shedding, demand response and behind -the - meter resource adequacy (RA) ancillary services. In addition to these standby generators, the project will include two administrative diesel-powered generators, rated at 1.25 MW and 0.5 MW, to support administrative functions during an interruption in the normal delivery of electrical power from the utility. The facility design will not require more than approximately 99 MW of electrical power, which will be used~~

[1] There were 2 vacant residences and a storage shed/warehouse onsite, which were demolished in 2021 after a fire significantly affected the safety of one of the dwellings.

only for backup power for onsite data center operations in the event of an electrical outage by Pacific Gas & Electric (PG&E) and to participate in PG&E's RA program.

The landproject site has been used historically for farming since the early 1920s but is not currently in agricultural use and no dwellings or structures exist onsite[2]. To the north of the project site are the San José/Santa Clara Regional Wastewater Treatment Plant sludge drying beds, to the south is Highway 237, to the west is the Los Esteros Critical Energy Facility (LECEF), a PG&E substation, and to the east is Coyote Creek. The project is anticipated to begin construction in the 4th quarter of 2022, with operations beginning in the 1st quarter of 2024.

The project site is zoned as LI (Light Industrial) and designated as Light Industrial in the *Envision San José General Plan* 2040 (General Plan; City of San José 2011) and the Alviso Master Plan. The nearest sensitive receptor (residence) is located over 1,600 feet to the south, on the opposite side of Highway 237 and behind several large office buildings. The intervening parcels include commercial developments and a hotel. The Norman Y. Mineta San José International Airport is located approximately 3.4 miles to the southwest.

Prominent existing noise sources near the project site include automobile traffic along Highway 237 (approximately 100 feet to the south), the LECEF power plant to the west, industrial and commercial land uses to the north and east, and Interstate 880 to the east.

3.13.2 Technical Background

This section provides background information on noise and vibration, particularly how each is characterized and measured.

3.13.2.1 Noise Background

Acoustics is the study of sound, and noise is defined as unwanted sound. Airborne sound is a rapid fluctuation or oscillation of air pressure above and below atmospheric pressure creating a sound wave. Acoustical terms used in this report are summarized in Table 3.13-1.

Table 3.13-1. Definitions of Acoustical Terms

Term	Definition
Ambient Noise Level	The composite of noise from all sources near and far. The normal or existing level of environmental noise or sound at a given location. The ambient level is typically defined by the energy averaged Leq level.
Background Noise Level	The underlying ever-present lower level noise that remains in the absence of intrusive or intermittent sounds. Distant sources, such as traffic, typically make up the background. The background level is generally defined by the L90 percentile noise level.
Intrusive	Noise that intrudes over and above the existing ambient noise at a given location. The relative intrusiveness of a sound depends upon its amplitude, duration, frequency, time of occurrence, tonal content, the prevailing ambient noise level as well as the sensitivity of the receiver. The intrusive level is generally defined by the L10 percentile noise level.
Hertz (Hz)	The number of complete pressure fluctuations per second above and below atmospheric pressure. Hertz is a measure of the pitch of the sound. Middle C of a piano has a frequency of 262 Hz while the lowest C on an 88 key piano has a frequency of 33 Hz and the highest C has a frequency of 4186 Hz.
Pure Tone	A pure tone as used by the California Energy Commission (CEC) exists if the one-third octave band sound pressure level in the band with the tone exceeds the arithmetic average of the two contiguous bands by 5 decibels (dB) for center frequencies of 500 Hz and above, or by 8 dB for center frequencies between 160 Hz and 400 Hz, or by 15 dB for center frequencies less than or equal to 125 Hz.

[2] In the summer of 2021 all aboveground structures were removed due to health and safety concerns. [MAKE CONSISTENT WITH PD]

Table 3.13-1. Definitions of Acoustical Terms

Term	Definition
Sound Pressure Level Decibel (dB)	A unit describing the amplitude of sound, equal to 20 times the logarithm to the base 10 of the ratio of the pressure of the sound measured to the reference pressure, which is 20 micropascals (20 micronewtons per square meter).
A-Weighted Sound Pressure Level (dBA)	The sound level in decibels as measured on a sound level meter using the A-weighted filter network. The A-weighted filter de-emphasizes the very low and very high frequency components of the sound in a manner similar to the frequency response of the human ear. All sound levels in this report are A-weighted unless stated otherwise.
Equivalent Sound Level (Leq)	The average sound level, on an equal energy basis, during the measurement period.
Percentile Level (Ln)	The sound level exceeded during "n" percent of the measurement period, where "n" is a number between 0 and 100 (for example, L90)
Day-Night Noise Level (Ldn or DNL)	The energy averaged A-weighted sound level during a 24-hour day, obtained after addition of 10 decibels penalty for the hours between 10:00 p.m. to 7:00 a.m.

The most common metric is the overall A-weighted sound level measurement that has been adopted by regulatory bodies worldwide. The A-weighting network measures sound similar to the way in which a person perceives or hears sound. There is consensus that A-weighting is appropriate for estimation of the hazard of noise-induced hearing loss. With respect to other effects, such as annoyance, A-weighting is acceptable if there is largely middle and high frequency noise present, but if the noise is unusually high at low frequencies, or contains prominent low-frequency tones, the A-weighting may not give the most appropriate measure. Compared with other noise sources, solar and battery storage facilities are not typically substantial sources of unusual low-frequency noise and are broad band or do not generate strong low-frequency tones. Therefore, A-weighting provides the most appropriate measure for evaluating acceptable and unacceptable sound levels for projects such as this project.

A-weighted sound levels are typically measured or presented as equivalent noise level (L_{eq}), which is defined as the average noise level, on an equal energy basis for a stated period of time and is commonly used to measure steady-state sound or noise that is usually dominant. Statistical methods are used to capture the dynamics of a changing acoustical environment. Statistical measurements are typically denoted by $L_{xx,}$ where xx represents the percentile of time the sound level is exceeded. The L_{90} is a measurement that represents the noise level that is exceeded during 90 percent of the measurement period. Similarly, the L_{10} represents the noise level exceeded for 10 percent of the measurement period.

Some metrics used in determining the impact of environmental noise consider the differences in response that people have to daytime and nighttime noise levels. During the nighttime, exterior background noises are generally lower than those of daytime levels. However, most household noise also decreases at night, and exterior noise becomes more noticeable. Furthermore, most people sleep at night and are sensitive to intrusive noises. To account for human sensitivity to nighttime noise levels, the day-night sound level (L_{dn} or DNL) was developed. L_{dn} is a noise index that accounts for the greater annoyance of noise during the nighttime hours.

L_{dn} values are calculated by averaging hourly L_{eq} sound levels for a 24-hour period and applying a weighting factor to nighttime L_{eq} values. The weighting factor, which reflects the increased sensitivity to noise during nighttime hours, is added to each hourly L_{eq} sound level before the 24-hour L_{dn} is calculated. For the purposes of assessing noise, the 24-hour day is divided into two time periods, with the following weightings:

- Daytime: 7:00 a.m. to 10:00 p.m. (15 hours) weighting factor of 0 decibels (dB)
- Nighttime: 10:00 p.m. to 7:00 a.m. (9 hours) weighting factor of 10 dB

The two time periods are then averaged to compute the overall L_{dn} value. For a continuous noise source, the L_{dn} value is easily computed by adding 6.4 dB to the overall 24-hour noise level (L_{eq}). For example, if the expected continuous noise level from the power plant was 60.0 decibels (A-weighted scale) (dBA), the resulting L_{dn} from the plant would be 66.4 dBA.

The effects of noise on people can be listed in three general categories:

1) Subjective effects of annoyance, nuisance, and dissatisfaction
2) Interference with activities such as speech, sleep, and learning
3) Physiological effects such as startling and hearing loss

In most cases, environmental noise produces effects in the first two categories only. However, workers in industrial plants may experience noise effects in the third category. No completely satisfactory way exists to measure the subjective effects of noise, or to measure the corresponding reactions of annoyance and dissatisfaction. This lack of a common standard results from the wide variation in individual thresholds of annoyance and habituation to noise. Thus, an important way of determining a person's subjective reaction to a new noise is by comparing it to the existing or 'ambient' environment to which that person has adapted. In general, the more the level or the tonal (frequency) variations of a noise exceed the previously existing ambient noise level or tonal quality, the less acceptable the new noise will be, as judged by the exposed individual.

Table 3.13-2 shows the relative A-weighted noise levels of common sounds measured in the environment and in industry for various sound levels.

Table 3.13-2. Typical Sound Levels Measured in the Environment and Industry

Noise Source at a Given Distance	A-Weighted Sound Level (decibels)	Noise Environments	Subjective Impression
Shotgun (at shooter's ear)	140	Carrier flight deck	Painfully loud
Civil defense siren (at 100 feet)	130		
Jet takeoff (at 200 feet)	120		Threshold of pain
Loud rock music	110	Rock music concert	
Pile driver (at 50 feet)	100		Very loud
Ambulance siren (at 100 feet)	90	Boiler room	
Pneumatic drill (at 50 feet)	80	Noisy restaurant	
Busy traffic; hair dryer	70		Moderately loud
Normal conversation (at 5 feet)	60	Data processing center	
Light traffic (at 100 feet); rainfall	50	Private business office	
Bird calls (distant)	40	Average living room, library	Quiet
Soft whisper (at 5 feet); rustling leaves	30	Quiet bedroom	
	20	Recording studio	
Normal breathing	10		Threshold of hearing

Source: Beranek 1998.

3.13.2.2 Vibration Background

Most agencies typically reference the Federal Transit Administration (FTA) guidance manual criteria for vibration damage (2018). In addition to the FTA guidance manual, the Federal Railroad Administration (FRA 2005, 2012) provides thresholds for various land uses. Both the FTA and FRA provide a methodology for the assessment for potential vibration resulting from rail operations, in addition to potential vibrations from construction activities. Caltrans has also published the *Transportation and*

Construction Vibration Guidance Manual (2013). Caltrans has not established a standard for vibration but rather presents a range of potential criteria. For continuous vibration from traffic, a peak particle velocity (PPV) of 0.2 inches per second is indicated in the Caltrans guidance to be “Annoying” but not “Unpleasant” and a level of 0.1 inch per second is indicated as “Begins to Annoy.”

The criteria for damage from construction activities was established by FTA and is reproduced in Table 3.13-3.

Table 3.13-3. FTA Construction Vibration Damage Criteria

Building Category	PPV (inches per second)	Approximate L_v[a]
I. Reinforced concrete, steel, or timber (no plaster)	0.5	102
II. Engineered concrete and masonry (no plaster)	0.3	98
III. Non-engineered timber and masonry buildings	0.2	94
IV. Buildings extremely susceptible to vibration damage	0.12	90

Source: FTA 2018

[a] RMS vibration velocity level in VdB relative to 1 micro-inch/second.

Notes:

RMS = root-mean-square

VdB = vibration decibels

The vibration from various construction equipment was established by FTA and is reproduced as Table 3.13-4.

Table 3.13-4. FTA Vibration Source Levels for Construction Equipment[a]

Equipment	PPV at 25 f33t (inches per second)	Approximate L_v at 25 feet
Vibratory roller	0.210	94
Hoe ram	0.089	87
Large bulldozer	0.089	87
Calsson drilling	0.089	87
Loaded trucks	0.076	86
Jackhammer	0.035	79
Small bulldozer	0.003	58

Source: FTA 2018

[a] RMS velocity in decibels (VdB) relative to 1 micro-inch/second.

Pile driving is the construction activity with the greatest likelihood to create perceptible offsite vibrations, but is not anticipated for the project. Only a vibratory roller is indicated in Table 3.13-4 to slightly exceed the 0.2 inches per second guideline when operated within 25 feet of a Type III-structure and would rapidly dissipate to below this guideline at 50 feet. Regardless of the criteria used, the potential for damage from construction is limited to areas very close (i.e., onsite) to the activity.

3.13.3 Regulatory Background

This section outlines the regulatory framework regarding noise and vibration that is relevant for the purposes of this analysis.

3.13.3.1 Envision San José General Plan 2040

The *Envision San José General Plan 2040* (City of San José 2011) describes the levels of exterior noise that are considered compatible for various land uses to guide land use planning decisions which are duplicated in Table 3.13-5. Table 3.13-6 shows the acceptable and unacceptable noise levels by land use category from the State of California Guidelines for the preparation and content of Noise Elements of General Plans.

Table 3.13-5. Land Use Compatibility Guidelines for Community Noise in San José

LAND USE CATEGORY	COMMUNITY NOISE EXP. LDN OR CNEL DB 55 60 65 70 75 80
1. Residential, Hotels and Motels, Hospitals and Residential Care[a]	
2. Outdoor Sports and Recreation, Neighborhood Parks and Playgrounds	
3. Schools, Libraries, Museums, Meeting Halls, Churches	
4. Office Buildings, Business Commercial, and Professional Offices	
5. Sports Arena, Outdoor Spectator Sports	
6. Public and Quasi-Public Auditoriums, Concert Halls, Amphitheaters	

[a] Noise mitigation to reduce interior noise levels pursuant to Policy EC-1.1 is required.

Normally Acceptable

- Specific land use is satisfactory, based upon the assumption than any buildings involved are of normal conventional construction, without any special noise requirements.

Conditionally Acceptable

- Specified land use may be permitted only after detailed analysis of the noise reduction requirements and needed noise insulation features included in the design.

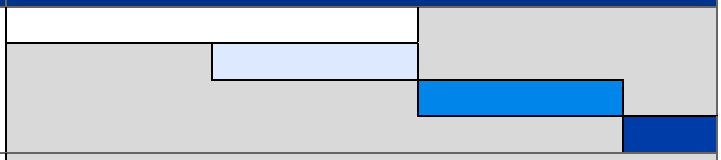
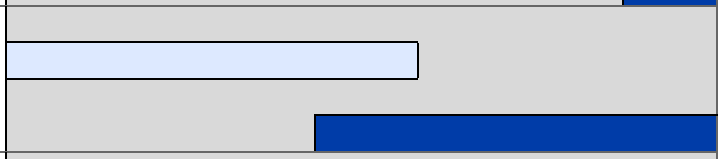
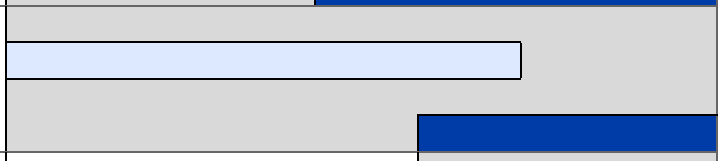
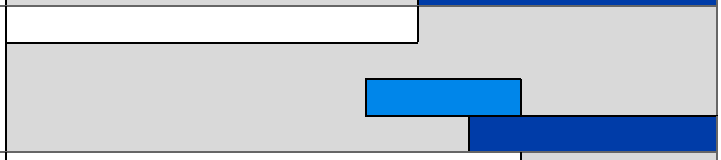
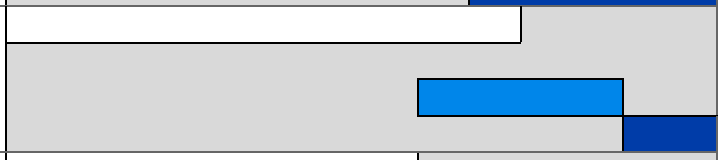
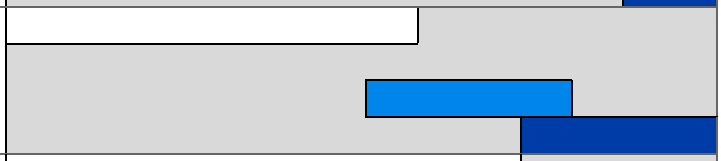
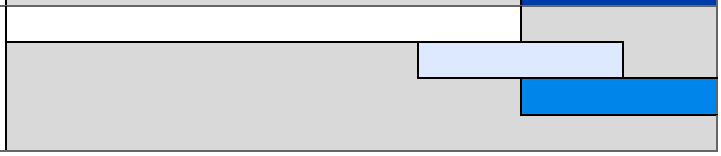
Unacceptable

- New construction or development should generally not be undertaken because mitigation is usually not feasible to comply with noise element policy

Table 3.13-6. State Guidelines for Preparation and Content of General Plan Noise Elements

LAND USE CATEGORY	COMMUNITY NOISE EXP. LDN OR CNEL DB 55 60 65 70 75 80
1. Residential low-density single family, duplex, mobile homes	
2. Residential multi-family	
3. Transient lodging—motels, hotels	

Table 3.13-6. State Guidelines for Preparation and Content of General Plan Noise Elements

LAND USE CATEGORY	COMMUNITY NOISE EXP. LDN OR CNEL DB 55 60 65 70 75 80
4. Schools, libraries, churches, hospitals, nursing homes	
5. Auditoriums, concert halls, amphitheaters	
6. Sports arena, outdoor spectator sports	
7. Playgrounds, neighborhood parks	
8. Golf courses, riding stables, water recreation, cemeteries	
9. Office buildings, business commercial and professional	
10. Industrial, manufacturing utilities, agriculture	

Source: Guidelines for the preparation and content of Noise Elements of General Plan. Prepared by the California State Office of Noise Control.

Interpretation:

Normally Acceptable

- Specific land use is satisfactory, based upon the assumption than any buildings involved are of normal conventional construction, without any special noise requirements.

Conditionally Acceptable

- New construction or development should be undertaken only after a detailed analysis of the noise reduction requirements has been made and needed noise insulation features have been included in the design. Conventional construction, but with closed windows and fresh air supply systems or air conditioning will normally suffice.

Normally Unacceptable

- New construction or development should generally be discouraged. If new construction or development does proceed, a detailed analysis of the noise reduction requirements must be made and needed noise insulation features must be included in the design.

Clearly Unacceptable

- New construction or development should generally not be undertaken.

NA

General Plan Goal EC-1.2 states that the City should "Minimize the noise impacts of new development on land uses sensitive to increased noise levels (Categories 1, 2, 3 and 6) by limiting noise generation and by requiring use of noise attenuation measures such as acoustical enclosures and sound barriers, where feasible. The City considers significant noise impacts to occur if a project would cause either of the following:

- Cause the DNL at noise sensitive receptors to increase by five dBA DNL or more where the noise levels would remain "Normally Acceptable".
- Cause the DNL at noise sensitive receptors to increase by three dBA DNL or more where noise levels would equal or exceed the "Normally Acceptable" level. (City of San José 2011)

General Plan policy EC-2.3 states that "A continuous vibration limit of 0.20 in/sec PPV will be used to minimize the potential for cosmetic damage at buildings of normal conventional construction. Equipment or activities typical of generating continuous vibration include but are not limited to: excavation equipment; static compaction equipment; vibratory pile drivers; pile-extraction equipment; and vibratory compaction equipment. Avoid use of impact pile drivers within 125 feet of any buildings, and within 300 feet of historical buildings or buildings in poor condition." (City of San José 2011)

3.13.3.2 City of San José Municipal Code

Chapters 20.40 and 20.50 of the City of San José (City) Municipal Code regulates noise and vibration for the project (City of San José 2017). The noise ordinance is intended to protect the public welfare from unnecessary, excessive, and unreasonable noise and vibration from fixed sources in the community. Table 3.13-7 outlines the applicable City Municipal Code sections, as related to noise and vibration, for the project. The City may permit a project to exceed Municipal Code noise limits through the issuance of a Conditional or Special Use Permit.

Table 3.13-7. Noise and Vibration Standards Within the City of San José

General Plan Policies	
Policy EC-1.1	Locate new development in areas where noise levels are appropriate for the proposed uses. Consider federal, state and City noise standards and guidelines as a part of new development review.
Policy EC-1.2:	Minimize the noise impacts of new development on land uses sensitive to increased noise levels (Categories 1, 2, 3 and 6) by limiting noise generation and by requiring use of noise attenuation measures such as acoustical enclosures and sound barriers, where feasible. The City considers significant noise impacts to occur if a project would: • Cause the DNL at noise sensitive receptors to increase by five dBA DNL or more where the noise levels would remain "Normally Acceptable"; or • Cause the DNL at noise sensitive receptors to increase by three dBA DNL or more where noise levels would equal or exceed the "Normally Acceptable" level.
Policy EC-1.6:	Regulate the effects of operational noise from existing and new industrial and commercial development on adjacent uses through noise standards in the City's Municipal Code.
Policy EC-2.3	Require new development to minimize vibration impacts to adjacent uses during demolition and construction. A vibration limit of 0.20 in/sec PPV will be used to minimize the potential for cosmetic damage at buildings of normal conventional construction. Avoid use of impact pile drivers within 125 feet of any buildings, and within 300 feet of historical buildings, or buildings in poor condition

Table 3.13-7. Noise and Vibration Standards Within the City of San José

General Plan Policies	
Municipal Code	
20.50.300 - Performance standards.	A. In the IP, LI, HI, CIC, and the TEC zoning districts no primary, secondary, incidental or conditional use or activity related thereto shall be conducted or permitted: 1. In a manner that causes or results in the harmful discharge of any waste materials into or upon the ground, into or within any sanitary or storm sewer system, into or within any water system or water, or into the atmosphere; or 2. In a manner that constitutes a menace to persons or property or in a manner that is dangerous, obnoxious, or offensive by reason of the creation of a fire, explosion, or other physical hazard, or by reason of air pollution, odor, smoke, noise, dust vibration, radiation, or fumes; or 3. In a manner that creates a public or private nuisance. B. Without limiting the generality of the preceding subsection, the following specific standards shall apply in the industrial zoning districts: 1. Incineration. There shall be no incineration on any site of any waste material. 2. Vibration. There shall be no activity on any site that causes ground vibration which is perceptible without instruments at the property line of the site. 3. Air pollution. Total emissions from any use or combination of uses on a site shall not exceed the emissions and health risk thresholds as established by the director of planning. 4. Noise. a. The sound pressure level generated by any use or combination of uses shall not exceed the decibel level at any property line as shown in Table 20-135, except upon issuance and in compliance with a special use permit as provided in Chapter 20.100.

Table 20-135 - Noise Standards

	Maximum Noise Level in Decibels at Property Line
Industrial use adjacent to a property used or zoned for residential purposes	55
Industrial use adjacent to a property used or zoned for commercial purposes	60
Industrial use adjacent to a property used or zoned for industrial or use other than commercial or residential purposes	70

3.13.3.3 Santa Clara County Comprehensive Land Use Plan for Norman Y. Mineta San José International Airport

The Santa Clara County Airport Land Use Commission has an adopted Comprehensive Land Use Plan (CLUP) for the Norman Y. Mineta San José International Airport (Windus 2011). The project site is located outside of the Airport Influence Area and Noise Restriction Areas identified within the CLUP. Since the Project site lies outside of the Norman Y. Mineta San José International Airport Influence Area, the CLUP standards do not apply.

3.13.4 Thresholds of Significance

The CEQA Guidelines state that a project would normally be considered to have a significant impact if noise levels conflict with adopted environmental standards or plans, or if noise levels generated by the project would substantially increase existing noise levels at noise-sensitive receivers on a permanent or temporary basis. CEQA does not define what noise level increase would be substantial.

General Plan Goal EC-1.2 states that the City should "Minimize the noise impacts of new development on land uses sensitive to increased noise levels (Categories 1, 2, 3 and 6 in Table 3.13-5) by limiting noise generation and by requiring use of noise attenuation measures such as acoustical enclosures and sound barriers, where feasible. In addition to the City's noise level compatibility standards, the City considers significant noise impacts to occur if a project would cause result in either of the following:

- Cause the DNL at noise sensitive receptors to increase by five dBA DNL or more where the noise levels would remain "Normally Acceptable"
- Cause the DNL at noise sensitive receptors to increase by three dBA DNL or more where noise levels would equal or exceed the "Normally Acceptable" level (City of San José 2011)

Goal EC 2.3 states "A continuous vibration limit of 0.20 in/sec PPV will be used to minimize the potential for cosmetic damage at buildings of normal conventional construction. Equipment or activities typical of generating continuous vibration include but are not limited to: excavation equipment; static compaction equipment; vibratory pile drivers; pile-extraction equipment; and vibratory compaction equipment. Avoid use of impact pile drivers within 125 feet of any buildings, and within 300 feet of historical buildings, or buildings in poor condition." (City of San José 2011)

3.13.5 Environmental Impacts and Mitigation Measures

a) Would the project result in 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?

Less Than Significant Impact

~~Demolition,~~ Excavation, and Construction

The General Plan identifies that "City considers significant construction noise impacts to occur if a project located within 500 feet of residential uses or 200 feet of commercial or office uses would: Involve substantial noise generating activities (such as building demolition, grading, excavation, pile driving, use of impact equipment, or building framing) continuing for more than 12 months" (City of San José 2011). The closest residence is over 1,600 feet away, the nearest LECEF building is over 200 feet from the boundary, and the closest commercial or office buildings are over 650 feet to the east, past Coyote Creek in the City of Milpitas. Therefore, demolition and construction of the project will comply with the City's General Plan noise requirements.

The San José Municipal Code 20.100.450 states that if the project is within 500 feet of a residential unit, construction is limited to the hours of 7:00 AM through 7:00 PM, Monday through Friday, with no weekend construction allowed, unless expressly allowed in a Development Permit or other planning approval. While the nearest residence is located further than 500 feet from the project boundary and these construction hour limits would not apply to the project accordingly, demolition, excavation, and construction are anticipated to occur during these established times. However, there may be occasional work on weekends and late evenings as needed.

The San José Municipal Code does not establish noise limits for demolition or construction activities occurring within the City limits; therefore, for purposes of this analysis, there is no quantitative construction-related noise threshold that must be used in determining the project's impacts. Accordingly, given the distance of the adjacent residential, office and commercial uses, and the lack of any construction-related noise standards, construction-related impacts of the project would be less than significant. For informational purposes, it is noted that construction of the SJC~~02~~ project is expected to use equipment similar to other commercial projects that typically varies between 75 and 95 dBA at 50 feet. The sound level from individual pieces of construction equipment decreases at a rate of 6 dB per doubling of distance. Pile driving, typically the loudest construction activity, is not anticipated; however, one or a combination of vibro replacement using stone columns, drilled displacement columns, grouting, or vibro-compaction methods may be employed during

construction. Additionally, construction equipment will be properly maintained to manufacturer specifications and will include exhaust mufflers to reduce engine noise.

Operations

The project will be required to adhere to the applicable noise limits summarized herein. Noise sources associated with normal operations are primarily associated with mechanical heating, ventilation, and air conditioning equipment, ~~and short duration~~ routine testing of the emergency generators, and operation of the natural gas generators for ~~resource adequacy operation of the generators~~ load shedding, demand response and behind–the–meter RA operations. Generator readiness testing is limited to the hours of 7:00 am to 7:00 pm for each of the ~~42~~226 ~~standby~~ generators (224 natural gas generators and 2 administrative diesel generators).

Emergency use of generators are required to be in compliance with noise standards within the City (Sections 20.80.2030 ~~and 20.200.1190~~), and infrequent testing is subject to the City's noise limits. The generator specifications will confirm sufficient exhaust silencing and other design measures, if required, such that the project is in compliance with the City sound limit. This results in compliant noise levels adjacent to IP – Industrial Park and LI – Light Industrial zoning.

While generator testing is of limited duration and full-load emergency operation of the generators is anticipated to be a very rare event, the project will be required to comply with the applicable Cal/OSHA requirements.

During ~~resource adequacy operation~~ load shedding, demand response and behind–the–meter resource adequacy (RA) operations, the project is required to comply with the noise limits presented in Table 3.13-7, specifically the 70 dBA level at the property line. During detailed design, the noise-producing project equipment (comfort cooling system and the natural gas and diesel generators) will be specified to ensure project noise levels at the property line will comply with the noise limit based on the equipment sound levels shown in Table 3.13-8a and 3.13-8b.

Table 3-13-8a SJC Noise-Producing Equipment Sound Pressure Levels

Noise-Producing Equipment	Sound Pressure Levels (dBA)	Distance (meters)
Transformers	66	0.3
Administrative Generator Transformers	63	0.3
Natural Gas Generators	68	0.3
Administrative Generators	68	15.2
Load Bank (for periodic testing and maintenance	88	3.0

Table 3-13-8b SJC Fluid Cooler Sound Power Levels

Frequency (Hz)	Sound Power Level at 50 Feet (dBA)
63	76
125	87
250	93
500	98
1000	101
2000	102

Table 3-13-8b SJC Fluid Cooler Sound Power Levels

Frequency (Hz)	Sound Power Level at 50 Feet (dBA)
4000	96
8000	89
SWL	106

b) Would the project result in generation of excessive groundborne vibration or groundborne noise levels?

Less Than Significant Impact.

~~**Demolition,** ~~**Excavation, and Construction**

As indicated in Section 3.13.2, pile driving—the construction activity typically associated with the highest vibration levels—is not anticipated. However, one or a combination of vibro replacement using stone columns (densification), drilled displacement columns (densification), grouting (shear reinforcement) or vibro-compaction (densification) methods will be employed during construction. Construction equipment and activities are typical to those used at other similar industrial projects and are not anticipated to result in offsite excessive groundborne vibration or groundborne noise levels. The adjacent LECEF facility has a few small structures, but all are more than 200 feet from the SJC~~02~~ property line; thus, they are outside of the 125-foot requirement for adjacent structures and would not be impacted by construction related noise or vibration. Furthermore, the existing onsite structures were demolished in 2021 due to fire damage, and ~~the existing onsite structures will be demolished prior to commencement of construction;~~ therefore, there are no structures of historical or cultural significance within 300 feet of the project site that would be impacted by construction related noise or vibration.

Operations

The equipment that would be used in the project is well balanced and is designed to produce very low vibration levels throughout the life of the project. Any imbalance, which is not expected, could contribute to ground vibration levels in the vicinity of the equipment and would be corrected by the mechanical system used to secure the equipment to the foundation.

Therefore, the project would not result in the generation of excessive groundborne vibration or noise levels during demolition, construction, or operations.

c) For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?

No Impact

The project site is located outside of the CLUP Noise Restriction Area and the Airport Area of Influence, and is located approximately 3.4 miles from the closest public airport. Moreover, as noted herein, the project will be consistent with the noise compatibility policies set forth in the CLUP. For the following reasons, the project would have no impact in this regard and would not expose people working in the project area to excessive noise levels.

Previously Identified Mitigation Measures: None.

New Proposed Mitigation Measures: None.

3.13.6 References

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Windus, Walter B. 2011. *Comprehensive Land Use Plan, Santa Clara County – Norman Y. Mineta San Jose International Airport*. Saratoga, California. Amended November 16, 2016. Accessed February 5, 2019. https://www.sccgov.org/sites/dpd/DocsForms/Documents/ALUC_SJC_CLUP.pdf.

3.16 Recreation

Would the project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	☐	☐	☒	☐
b) Does the project include recreational facilities or require the construction or expansion of recreational facilities, which might have an adverse physical effect on the environment?	☐	☐	☒	☐

Environmental checklist established by CEQA Guidelines, Appendix G.

3.16.1 Setting

The San José Data Center (SJC) will be located within the City of San José on an approximately 64.5-acre site and will consist of two data center buildings totaling over approximately 396,914 square feet of space. The project will include 224 0.45-megawatt (MW) natural gas-fired generators to provide electrical power to support the electrical load of the data center buildings during utility outages or certain onsite electrical equipment interruptions or failures. Additionally, the use of the natural gas generators will enable the SJC to provide grid support through load shedding, demand response, and behind-the-meter Resource Adequacy (RA) ancillary services. In addition to these generators, the project will include two administrative Tier IV diesel-powered generators, rated at 1.25 MW and 0.5 MW, to support administrative functions during an interruption in the normal delivery of electrical power from the utility.

The project site has been used historically for farming since the early 1920s but is not currently in agricultural use and no dwellings or structures exist onsite[1]. To the north of the project site are the San José/Santa Clara Regional Wastewater Treatment Plant sludge drying beds, to the south is Highway 237, to the west is the Los Esteros Critical Energy Facility (LECEF), a PG&E substation, and to the east is Coyote Creek. The project is anticipated to begin construction in the 4th quarter of 2022, with operations beginning in the 1st quarter of 2024.

~~The San José Data Center (SJC02) will be located within the City of San José on an approximately 64.5-acre site and will consist of two data center buildings totaling over approximately 396,914 square feet of space. The project will include 224 0.5-megawatt (MW) standby natural gas-fired generators to provide electrical power to support the demand of the data center information technology (IT) load during utility outages or certain onsite electrical equipment interruptions or failures, and to participate in PG&E's Resource Adequacy (RA) program for load shedding, demand response and behind -the -meter resource adequacy (RA) ancillary services. In addition to these standby generators, the project will include two administrative diesel-powered generators, rated at 1.25 MW and 0.5 MW, to support administrative functions during an interruption in the normal delivery of electrical power from the utility. The facility design will not require more than approximately 99 MW of electrical power, which will be used only for backup power for onsite data center operations in the event of an electrical outage by Pacific Gas & Electric (PG&E) and to participate in PG&E's RA program.~~

~~The project siteland has been used historically for farming since the early 1920s but is not currently in agricultural use and no dwellings or structures exist onsite[2]. To the north of the project site are the San~~

[1] There were 2 vacant residences and a storage shed/warehouse onsite, which were demolished in 2021 after a fire significantly affected the safety of one of the dwellings.

[2] ~~In the summer of 2021 all aboveground structures were removed due to health and safety concerns. [MAKE CONSISTENT WITH PD]~~

~~José/Santa Clara Regional Wastewater Treatment Plant sludge drying beds, to the south is Highway 237, to the west is the Los Esteros Critical Energy Facility (LECEF), a PG&E substation, and to the east is Coyote Creek. The project is anticipated to begin construction in the 4th quarter of 2022, with operations beginning in the 1st quarter of 2024.~~

The study area for recreation-related project impacts is the City of San José and the City of Milpitas (as the project is located within San José city limits, in proximity to the border of city of Milpitas). The City of San José has 181 parks, 5 tot (toddler) lots, 49 community centers, 5 aquatics centers, 2 community parks, 17 community gardens, and 1 regional trail (City of San José 2019). The closest parks to the project site, within San José city limits, are Moitozo Park (located approximately 1.2 miles southwest of the project site), and Northwood Park (located approximately 2.8 miles southeast of the project site). The City of Milpitas has 38 parks, trails, athletic and community centers (See California 2019). The closest City of Milpitas parks to the project site are Starlite Park (located approx. 0.7 mile east of the project site), and Pinewood Park (located approx. 1.3 miles south of the project site) (Google Earth Pro 2019).

The project site is also surrounded by several existing pedestrian and bike trails, shown on Figure 3.16-1. According to the Santa Clara County Trails Master Plan, the Northern Recreation Retracement Bike Route is located to the east of the project site and is part of the Juan Bautista de Anza National Historic Trail; the Coyote Creek Trail is located to the east of the project site (Santa Clara County Parks 2015); and the proposed extension of the San Francisco Bay Trail is located on the western side of the project site along Zanker Road (Santa Clara County Parks 2015)[3]. The Coyote Creek Trail was designated as a national recreational trail in 2009 (American Trails 2009).

~~The project site is not located within a designated scenic area or corridor based on the City of San José General Plan. In addition, the project site is not located along or visible from a state-designated scenic highway. There are no scenic views within the project area. While views of the surrounding hillsides are visible, the area is relatively flat: prominent viewpoints, other than the adjacent LECEF facility, SR 237, and the levee, are limited. There are no City-, County-, or state-designated scenic vistas, highways, or other scenic resources within the project area (City of San José 2017~~

3.16.1.1 Environmental Impacts and Mitigation Measures

a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?

Less Than Significant Impact. The project will have a peak of approximately 100 employees (during shift change) to operate the facility (see Section 3.14, Population and Housing). These workers are expected to be drawn from the South Bay area. The approximately 100 operational workers are not expected to move closer to the project site. While a certain number of these workers may, on occasion, utilize existing neighborhood and regional parks or other recreational facilities, this nominal usage is not expected to increase the use of existing parks or recreational facilities to the extent that substantial physical deterioration of the park or facility will occur.

b) Does the project include recreational facilities or require the construction or expansion of recreational facilities, which might have an adverse physical effect on the environment?

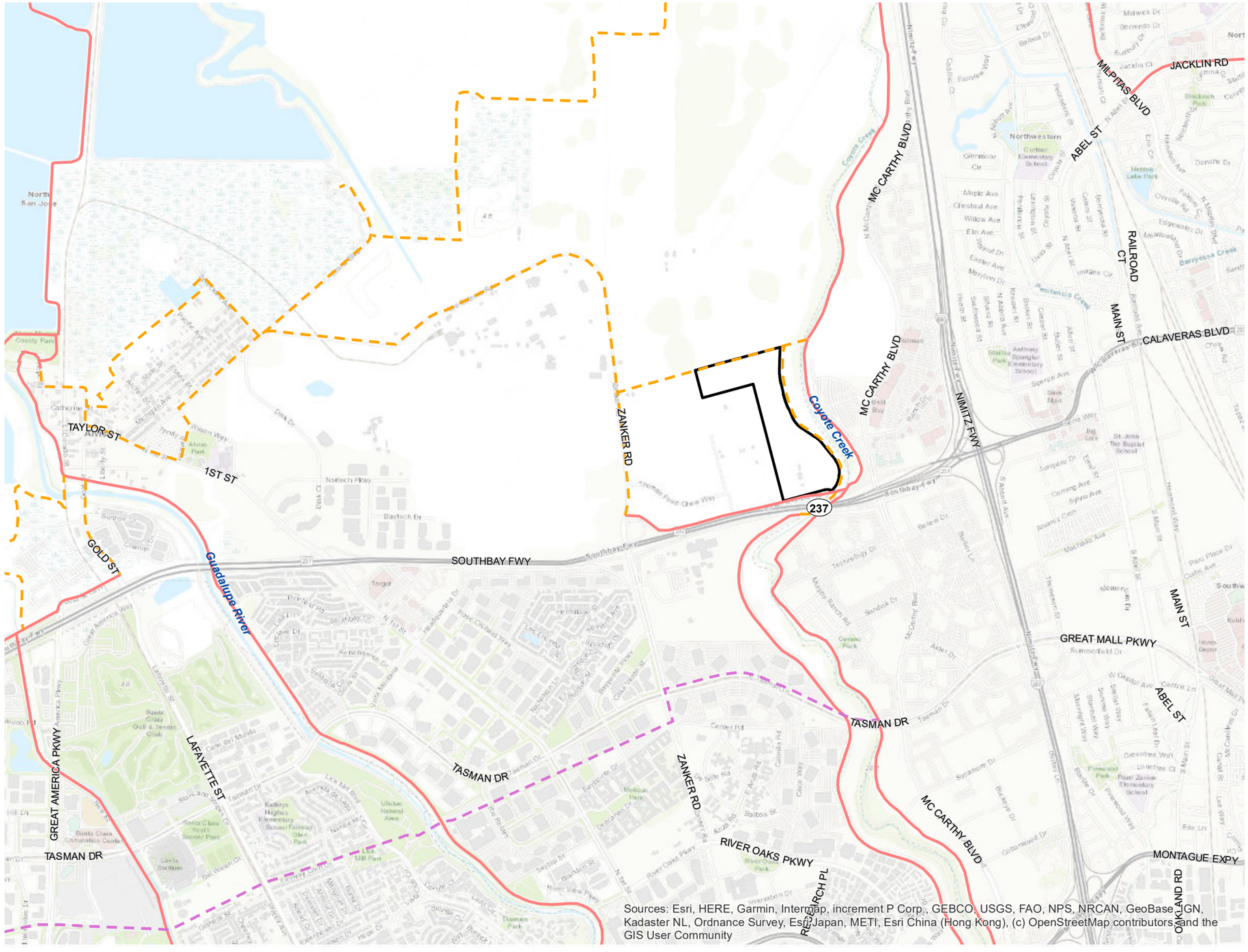
Less Than Significant Impact. As noted herein, the project is not anticipated to increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated. ~~Nevertheless, as an additional community benefit, t~~The proposed project includes the ~~extension~~ construction of approximately 800 feet of Class I ~~improved~~ bike trail ~~from Ranch Drive along the southern boundary of the site to the end of the existing bike trail~~along the eastern side of Zanker Road, north of the State Route 237 offramp to the south side of the Nortech Parkway extension (shown on Figure 3.16-2R) in order to provide a trail

[3] The proposed extension of the San Francisco Bay Trail does not yet exist.

connection to the Coyote Creek Trail. The potential impacts of installing ~~these~~ this trail improvement ~~s~~ are evaluated throughout this document in the applicable environmental topic areas; to the extent that any significant impacts would result, feasible mitigation measures also have been identified in the relevant environmental topic section. In addition, while not required under CEQA but as a courtesy to trail users, during the construction of the trail, signs will be posted notifying trail users of construction schedule and hours. If required, construction traffic will be redirected, to the extent feasible, and reroutes will be posted.

Previously Identified Mitigation Measures: None.

Proposed Mitigation Measures: None.



Source:
Santa Clara County Master Plan Trails, 2014

N

0 2,000 4,000

Approximate scale in feet

Figure 3.16-1
Recreational Trails
in the Vicinity of the Project
San José Data Center (SJC02)
San José, California

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LEGEND

- Bike Path
- Project Site

N

0 600 1,200

Approximate scale in feet

Figure 3.16-2R
Bike Trail
San José Data Center (SJC02)
San José, California

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\\DC1VS01\GISPROJ\L\LIGHTSPEED\SJDC\MAPS\REPORT\2021\FIG3_16-2R_TRAIL.MXD 8/10/2021 12:06:07 PM

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3.17 Transportation

This section describes existing conditions and potential impacts on transportation as a result of construction and operation of the project. The project's potential effects on transportation were evaluated using the significance criteria set forth in Appendix G of the California Environmental Quality Act (CEQA) Guidelines. The analysis concludes that, although existing traffic conditions will be temporarily affected by project construction, project-related impacts on transportation will be less than significant. The project design includes the development of a Construction Traffic Control Plan. The conclusions are summarized in the CEQA Environmental Checklist and discussed in more detail in this section.

Would the project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Conflict with a program plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities?	☐	☐	☒	☐
b) Would the project conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?	☐	~~☒~~	~~☐~~☒	☐
c) Substantially increase hazards due to a geometric design feature e.g., sharp curves or dangerous intersections or incompatible uses e.g., farm equipment?	☐	☐	☒	☐
d) Result in inadequate emergency access?	☐	☐	☒	☐

Environmental checklist established by CEQA Guidelines, Appendix G.

3.17.1 Setting

The San José Data Center (SJC) will be located within the City of San José on an approximately 64.5-acre site and will consist of two data center buildings totaling over approximately 396,914 square feet of space. The project will include 224 0.45-megawatt (MW) natural gas-fired generators to provide electrical power to support the electrical load of the data center buildings during utility outages or certain onsite electrical equipment interruptions or failures. Additionally, the use of the natural gas generators will enable the SJC to provide grid support through load shedding, demand response, and behind-the-meter Resource Adequacy (RA) ancillary services. In addition to these generators, the project will include two administrative Tier IV diesel-powered generators, rated at 1.25 MW and 0.5 MW, to support administrative functions during an interruption in the normal delivery of electrical power from the utility.

The project site has been used historically for farming since the early 1920s but is not currently in agricultural use and no dwellings or structures exist onsite[1]. To the north of the project site are the San José/Santa Clara Regional Wastewater Treatment Plant sludge drying beds, to the south is Highway 237, to the west is the Los Esteros Critical Energy Facility (LECEF), a PG&E substation, and to the east is Coyote Creek. The project is anticipated to begin construction in the 4th quarter of 2022, with operations beginning in the 1st quarter of 2024.

~~The San José Data Center (SJC02) will be located within the City of San José on an approximately 64.5-acre site and will consist of two data center buildings totaling over approximately 479,000 square feet of space. The project will include 40 3.0-megawatt (MW) standby diesel generators (20 per building) to provide electrical power to support the~~ data center demand ~~information technology (IT) load during utility outages or certain onsite electrical equipment interruptions or failures,~~ and for load shedding, ~~demand response and behind-the-meter resource adequacy (RA) ancillary services.~~ ~~as well as the installation of 20 3-MW emergency diesel generators at each building. In addition to the 40 backup~~

[1] There were 2 vacant residences and a storage shed/warehouse onsite, which were demolished in 2021 after a fire significantly affected the safety of one of the dwellings.

~~generators, the~~ The project will ~~also include two administrative diesel-powered generators, rated at 1.25 MW and 0.5 MW, to support administrative functions during an interruption in the normal delivery of electrical power from the utility. The facility design will not require more than approximately 99 MW of electrical power, which will be used only for backup power for onsite data center operations in the event of an electrical outage by Pacific Gas & Electric (PG&E), although the estimated load is 92 MW.~~

~~The land~~ project site ~~has been used historically for farming since the early 1920s but is not currently in agricultural use. There are two residences, a mobile home, and a storage shed/warehouse currently onsite, which will be demolished as part of the SJC02 project. To the north of the project site are the San José/Santa Clara Regional Wastewater Treatment Plant sludge drying beds, to the south is Highway 237, to the west is the Los Esteros Critical Energy Facility (LECEF), a PG&E substation, and to the east is Coyote Creek. The project is anticipated to begin construction in the 3rd~~ 4th quarter of 20202, ~~with operations beginning in the 1st quarter of 2022.~~

Section 3.17.1.1 describes the existing regional and local road network, bicycle and pedestrian facilities, and transit service in the project study area.

3.17.1.1 Existing Road Network

The regional road network is shown on Figure 3.17-1. Regional access to the site will be provided by freeways near the project site, including US Highway 101 (US 101); Interstate (I-)680 and I-880; State Route (SR) 237; and local roadways Zanker Road, North McCarthy Boulevard, Thomas Foon Chew Way, and North 1st Street. Direct regional access is provided via the SR 237/North McCarthy Boulevard interchange, with local access via Alviso Milpitas Road. Other major roadways within the vicinity of the project include Tasman Drive and Montague Expressway. Details of the road network are provided in the subsequent paragraphs.

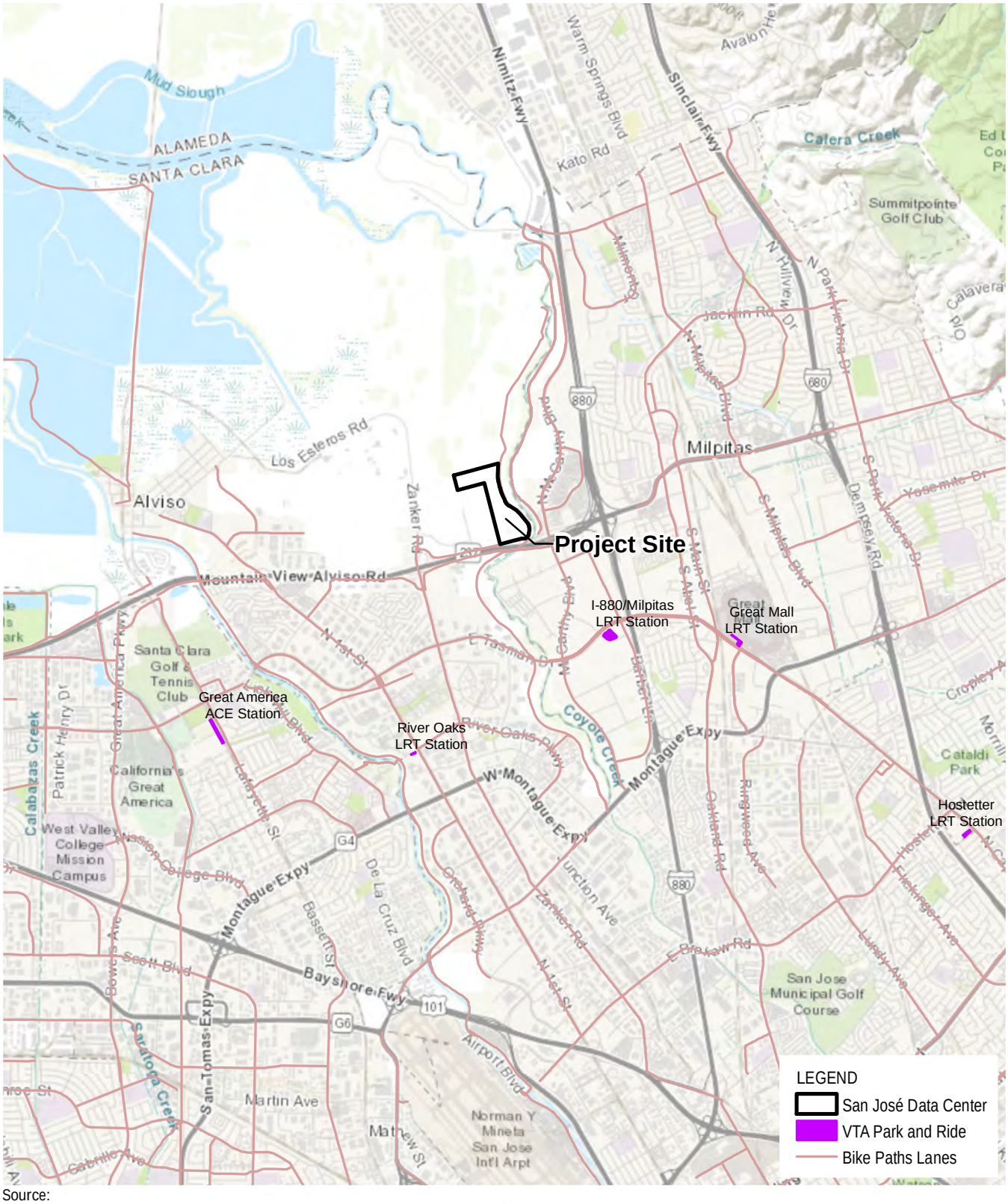
Freeways and Expressways

SR 237 is a six-lane highway that runs from east-west from SR 82 (El Camino Real) in Mountain View to I-680 in Milpitas, connecting the East Bay to the San Francisco Peninsula. SR 237 provides direct regional roadway access to and from the site to I-880, I-680, and US 101. Access to the site is provided via the SR 237/Zanker Road interchange. Average daily traffic (ADT) volumes are 72,500 vehicles per day and peak hour volumes are 5,700 vehicles per hour (both directions) near the SR 237/North McCarthy Boulevard interchange (Caltrans 2018).

US 101 provides north-south regional access between San Francisco to the north and San José to the south. US 101 has 8 to 10 lanes and serves as a major commuter route in Silicon Valley. US 101 connects to SR 237 west of the site, and I-880 south of the site, to provide regional access. US 101 has an ADT of 202,000 vehicles per day and peak hour volumes are 11,900 vehicles per hour (both directions) near the US 101/SR 237 interchange (Caltrans 2018). Other nearby interchanges are at Lawrence Expressway and Bowers Avenue/Great America Parkway.

I-680 provides north-south regional access between Fairfield to the north and San José to the south. I-680 has 10 lanes in the vicinity of the project. The nearest access to and from the ~~SJC02~~SJC project site via I-680 is at the East Calaveras Boulevard interchange to the east. I-680 has an ADT of 153,300 vehicles per day and peak hour volumes of 10,200 vehicles per hour (both directions) near the East Calaveras Boulevard interchange (Caltrans 2018).

I-880 is a north-south freeway that extends north to Oakland and south to I-280 in San José, before becoming SR 17 to Santa Cruz. I-880 has six lanes in the vicinity of the project. Access to the site is provided via the SR 237/I-880 interchange to the east. I-880 has an ADT of 234,000 vehicles per day and peak hour volumes of 16,100 vehicles per hour (both directions) near the I-880/SR 237 interchange (Caltrans 2018).



Source:
ESRI Service Layer, City of Santa Clara, Santa Clara County, VTA

N

0 1 2

Approximate scale in miles

Figure 3.17-1
Local Transportation Network
San José Data Center (SJC02)
San José, California

JACOBS

\\BROOKSIDEFILES\GIS_SHARE\ENBG\00_PROJ\L\LIGHTSPEED\MAPS\REPORT\FIG3_17-1_TRANSPORTATION_LOCAL_3MILES.MXD 8/13/2019 10:56:08 AM

Montague Expressway is an eight-lane, generally east-west, divided expressway that connects with US 101 on the west and I-680 to the east. West of US 101, the Montague Expressway becomes San Tomas Expressway. Montague Expressway provides direct access to US 101. Montague Expressway has an ADT of 83,210 vehicles per day between Mission College Boulevard and US 101 (City of Santa Clara 2010).

Local Roadways

Zanker Road is a two- to six-lane arterial that runs north/south from Los Esteros Road to Old Bayshore Highway with connections to SR 237, Montague Expressway, and US 101. Freeway access from the project site is provided via the Zanker Road interchange with SR 237. No recent data are available from the City of San José's online traffic count geographic information system (GIS) database (https://www.arcgis.com/home/webmap/viewer.html?webmap=723f618a25944d2b91bb382b61a84d2c), but the reported 2005 ADT on Zanker Road north of River Oaks Parkway was 12,461 vehicles per day.

North 1st Street is a four- to six-lane principal arterial which extends north south through San José to Alviso. North First Street is six lanes between SR 237 and Tasman Drive. South of Tasman Drive, North First Street has four lanes. The Santa Clara County Light Rail Transit (LRT) system operates in the median of the roadway between Downtown San José and Tasman Drive.[2] The 2016 ADT on North 1st Street, south of Cursor Road, was 11,722 vehicles per day, per the City's traffic count GIS database.

Tasman Drive is an east-west arterial that extends from Lawrence Expressway to I-880. The roadway is generally four lanes in the North San José area and widens to six lanes east of North McCarthy Boulevard. East of I-880, the roadway transitions to Great Mall Parkway into Milpitas. The Santa Clara County LRT system operates in the median of the roadway between Sunnyvale and Milpitas. The 2015 ADT on Tasman Drive, east of Baypoint Road, was 14,491 vehicles per day, per the City's traffic count GIS database.

North McCarthy Boulevard is a four-lane roadway running north-south in Milpitas, to the east of the project site. North McCarthy Boulevard provides connections from Landing Road in the north, to SR 237, East Tasman Drive and Montague Expressway.

Alviso Milpitas Road is a two-lane roadway which provides access to and from Ranch Drive and the Coyote Creek Trail trailhead from Thomas Foon Chew Way.

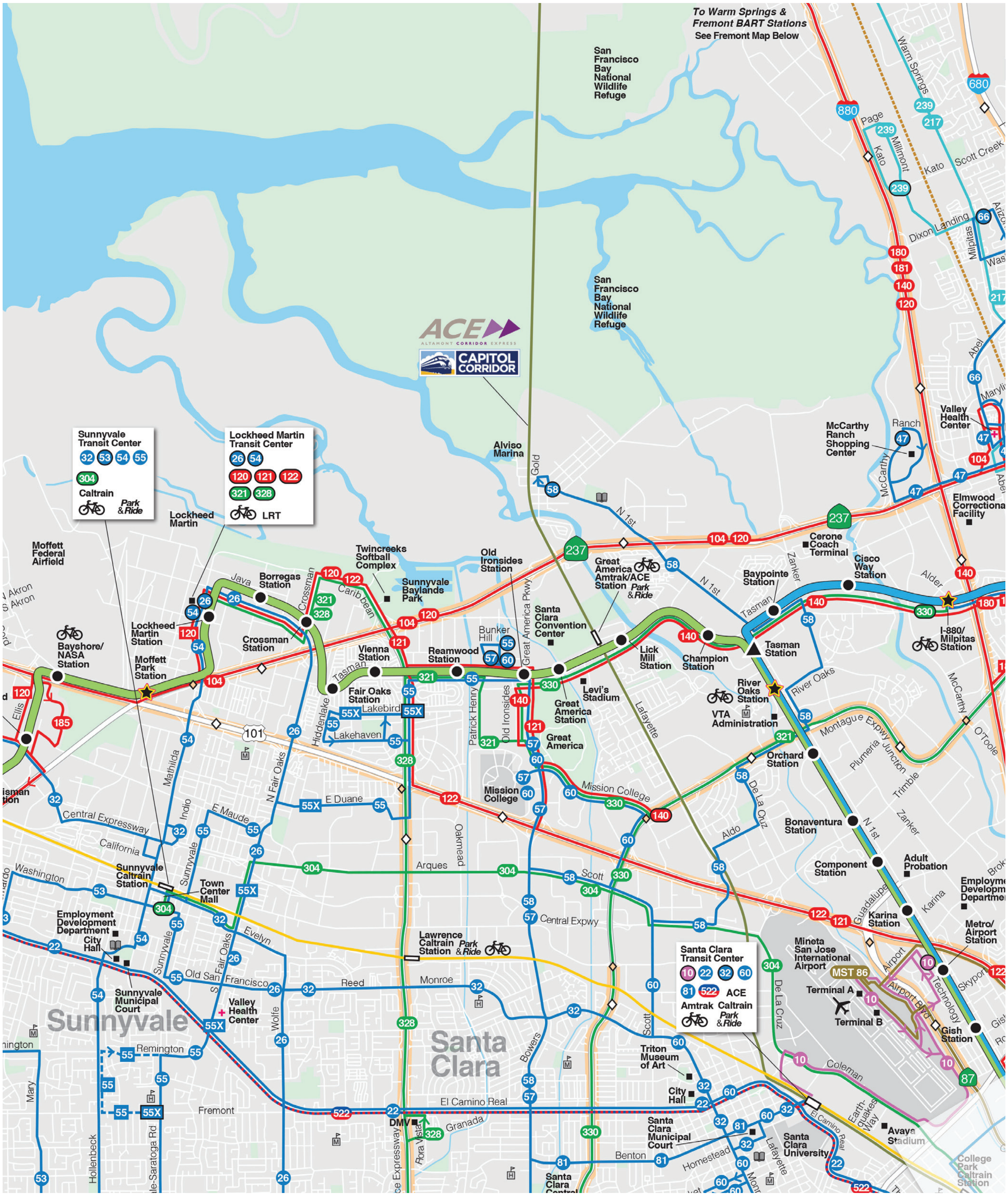
Thomas Foon Chew Way is a two-lane private access road which provides direct access to and from LECEF, located directly east of the project site.

Ranch Drive is a two-lane roadway with a left/right turn pocket lane, serving commercial businesses in Milpitas, to the west of the project site.

3.17.1.2 Transit

The greater San Francisco Bay Area is served by an extensive public transit network of rail, buses, and ferries. The transit network in the study area is shown on Figure 3.17-2. Existing public transit service within the City of San José is primarily provided by the Santa Clara Valley Transportation Authority (VTA) and consists of bus, light rail transit, and paratransit services. Commuter rail lines stopping at the Santa Clara Transit Station include Caltrain, operated by the Peninsula Joint Powers Board, and Altamont Commuter Express, operated by the San Joaquin Regional Rail Commission. In addition to the Altamont Commuter Express Train, the Capitol Corridor commuter rail line, operated by the Capitol Corridor Joint Powers Authority, stops at the Great America Station, providing services from Sacramento to San José through the city of Santa Clara.

[2] 237 Industrial Project Draft EIR, City of San José 2017, 191.



Source: Valley Transportation Authority, Bus & Rail Map, January 2019.

Figure 3-17.2
Transit Network
San José Data Center (SJC02)
San José, California

JACOBS

EC0821191740SAC Fig 3.17-2_Transit Map

Bus services in the project area include local bus route 47 on North McCarthy Boulevard and Ranch Drive; local bus route 58 on North 1st Street; express bus routes 104 and 120 on SR 237; and express bus routes 180, 181, 140, and 120 on I-880.

3.17.1.3 Bicycle and Pedestrian Network

The City of San José Bike Plan 2020 (2020 San José Bike Plan) includes a network of existing and proposed bicycle and pedestrian Class I paths and trails (i.e., separated, off-street, multi-use paths), Class II bike lanes (i.e., on-street striped/signed bike lanes) and Class III bike routes (i.e., on-street, signed-only routes).

The project site is also surrounded by several pedestrian and bike trails. According to the Santa Clara County Trails Master Plan, the Northern Recreation Retracement Bike Route is located on the east of the project site and is part of the Juan Bautista de Anza National Historic Trail; the Coyote Creek Trail is located south of the project site (Santa Clara County Parks 2015); and the proposed extension of the San Francisco Bay Trail is located on the western side of the project site (Santa Clara County Parks 2015). The Coyote Creek Trail was designated as a national recreational trail in 2009 (American Trails 2009).

Existing and planned bicycle, pedestrian, and trail facilities within the project vicinity include the following:

- **SR 237 –** Existing paved off-street Class I trails are located on the southern side of SR 237.
- **Zanker Road** – Zanker Road is an "on-street primary bicycle facility". Class II on-street bikeways begin at the intersection of Zanker Road and SR 237. Class I off-street trails are planned as part of the 2020 San José Bike Plan to connect to the existing Class II bikeway and continue north along Zanker Road. The trails will be part of the San Francisco Bay Trail system.
- **North McCarthy Boulevard –** The Metropolitan Transportation Commission (MTC) classifies North McCarthy Boulevard as a Class II regional bike facility.
- **Coyote Creek Trail –** Coyote Trail is a Class I trail that runs north-south, to the eastern side of the project site and parallel to Coyote Creek. The trail is part of the San Francisco Bay Trail system.
- **Alviso Milpitas Road –** An unpaved Class I trail is located on Alviso Milpitas Road, south of the project site.
- **Other Class I Trails –** Other Class I trails are planned along McCarthy Lane, north of the project site.

Pedestrian facilities in the immediate project vicinity are limited. There are sidewalks on both sides of Zanker Road south of the SR 237 eastbound ramps. There are no sidewalks on Zanker Road north of the SR 237 westbound ramps. There are also no sidewalks on Ranch Drive between the project site and North McCarthy Boulevard. The Coyote Creek Trail is located on the eastern side of the creek, east of the project site. Access to the trail is currently provided on Alviso-Milpitas Road along the southern border of the site.[3]

Figures 3.17-3 through 3.17-5 detail the City of San José trails and bikeways within the vicinity of the project study area, per the 2020 San José Bike Plan and the San Francisco Bay Trail[4].

[3] City of San José, 237 Industrial Center Project, 2017, 192.
[4] San Francisco Bay Trail, http://baytrail.org/baytrailmap.html.

Source: City of San José, San José Bike Plan 2020, November 2009.

Legend

Trails (Off-Street: Class I Bikeway)

- Existing (Paved)
- Existing (Unpaved)
- Planned
- Existing Trail Access
- Planned Trail Access

Bike Lanes (On-Street: Class II Bikeway)

- Existing (Basic)
- Planned

Bike Routes (On-Street: Class III Bikeway)

- Existing (Basic)
- Planned

Bike Bridges (Pedestrian Over Crossing)

- Existing
- Planned

Figure 3-17.3
Primary Bikeway Network
San José Data Center (SJC02)
San José, California

JACOBS

Source: City of San José, San José Bike Plan 2020, November 2009.

Legend

Trails (Off-Street: Class I Bikeway)

- Existing (Paved)
- Existing (Unpaved)
- Planned
- Existing Trail Access
- Planned Trail Access

Bike Lanes (On-Street: Class II Bikeway)

- Existing (Basic)
- Planned

Bike Routes (On-Street: Class III Bikeway)

- Existing (Basic)
- Planned

Bike Bridges (Pedestrian Over Crossing)

- Existing
- Planned

Figure 3-17.4
Bikeway Network
San José Data Center (SJC02)
San José, California

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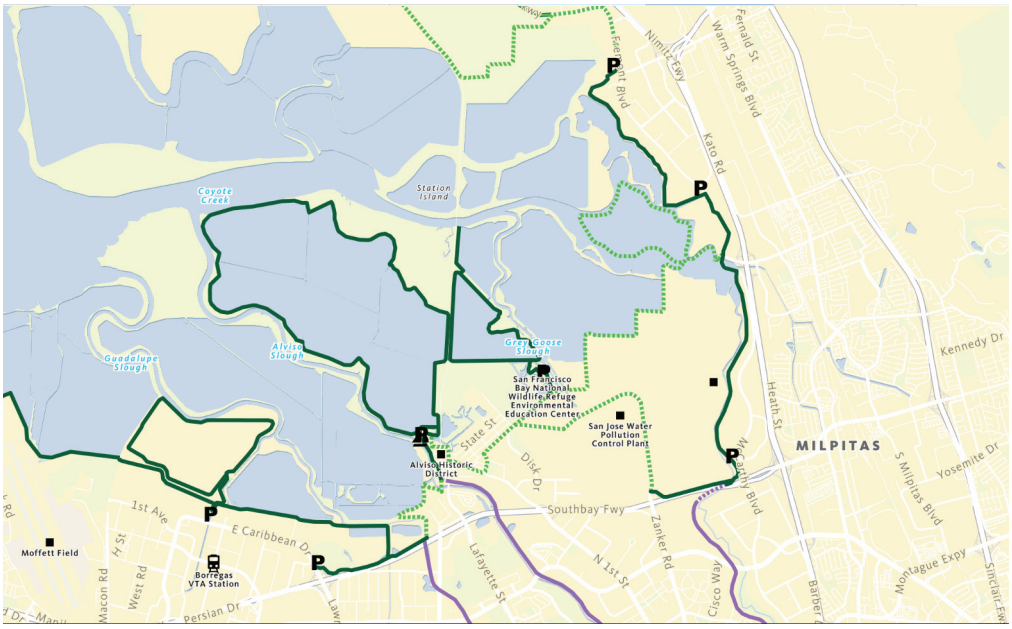
EC0821191740SAC Fig 3.17-4_BikewayNetwork



Source: San Fransisco Bay Trail Navigational Map, 2019.

Bay Trail
- Paved (off street)
- Dirt/Gravel
- On Street
- Planned

Other Trail
- Existing
- Planned

Figure 3-17.5
San Francisco Bay Trail Network
San José Data Center (SJC02)
San José, California

JACOBS

3.17.2 Regulatory Background

3.17.2.1 State of California

Senate Bill (SB) 743 (2013) addresses the limitations of measuring impacts using level of service (LOS) analysis and provides an alternative to using LOS in the environmental review process. The focus is on assessing project-related changes in vehicle-miles traveled (VMT), but the comprehensive guidance found at the Office of Planning and Research website at http://opr.ca.gov/ceqa/updates/sb-743/, which implements SB 743 changes to CEQA transportation analysis is project-dependent. Also, the revisions to the CEQA Guidelines are not required for implementation by affected jurisdictions until July 1, 2020, although as noted herein, the City of San José has already adopted the VMT methodology for purposes of assessing transportation impacts under CEQA.[5]

3.17.2.2 Santa Clara Valley Transportation Authority

VTA is both the regional transportation agency and Congestion Management Authority Agency for Santa Clara County (CMA 2017). VTA uses LOS to assess transportation impacts. Traffic is assessed via the regional Congestion Management Program (CMP), where LOS E is identified as the standard for Santa Clara County. LOS data have been collected for the CMP network since 1991 and serve as the baseline condition. Freeway segments and CMP intersections that operated at LOS F when monitoring began in 1991 are exempt from meeting the LOS E standard.

3.17.2.3 City of San José

Transportation Analysis Policy (2018)

On February 27, 2018, San José become the fourth city in California to adopt the VMT metric when the San José City Council adopted City Council Policy 5-1, entitled *Transportation Analysis Policy*. Council Policy 5-1 aligns the City of San José's transportation analysis with State law, and the major strategies, goals, and policies of the Envision San José 2040 General Plan (City of San José 2011).

The new policy establishes VMT as the City's metric for CEQA transportation analysis and officially removes transportation LOS as an impact to be measured for the purposes of CEQA.[6] The shift from LOS to VMT was further established by a new reference for all VMT-related analysis at the *City of San José CEQA Transition to Vehicle Miles Traveled Metric* website found at http://www.sanjoseca.gov/index.aspx?NID=5571(City of San José 2018).

Transportation Impact Analysis Handbook (2018)

This revised Transportation Impact Analysis Handbook serves as a guideline for VMT based analysis and implements the City's new Council Policy 5-1. The 2018 Handbook replaces and updates the Traffic Impact Analysis Handbook Volumes I and II (2009 and 2011) and its LOS requirement to align with the and Envision San José 2040 General Plan (2011) and Council Policy 5-1.

3.17.3 Methodology

Consistent with City of San José Council Policy 5-1, a VMT analysis has been applied to assess potential CEQA impacts of the project, and is provided as Appendix 3.17A Revised, *San Jose Data Center (SJC02) Draft Transportation Analysis*.

[5] http://opr.ca.gov/docs/20190122-743_Technical_Advisory.pdf.
[6] Envision San José 2040, San José General Plan, http://www.sanJoséca.gov/DocumentCenter/View/474, 43.

VMT is a measure of the total amount of vehicle travel on the roadway network and can be used to assess the relative amount of travel a project is expected to generate.[7] Potential VMT impacts were analyzed using the San José VMT Evaluation Tool.

The City of San José calculates VMT using the Origin-Destination VMT method, which measures the full distance of personal motorized vehicle-trips with one ending within the subject project. When assessing an office or industrial project, the subject project's VMT is divided by the number of employees expected to occupy the project to determine the VMT per employee of the project.[8] Even though the ~~SJC02~~SJC project is a relatively small project from a trip perspective when using a traditional measure of traffic impacts (there will only be approximately 150 trips per day during operation), the City's guidance requires analysis on a per capita (i.e., per employee) basis.

Per the 2018 City of San José Transportation Impact Handbook, "when a project does not meet the screening criteria to be excluded from a detailed CEQA transportation analysis, a detailed CEQA transportation analysis will be required to evaluate a project's VMT generation against the appropriate thresholds of significance".[9] The screening criteria is intended for projects that are expected to result in less-than-significant VMT impacts based on project description, characteristics, or location, or a combination thereof, such as infill projects and local-serving retail and public facilities. Based on this initial screening criteria, the project does not qualify for exception from VMT analysis; therefore, a VMT analysis is required.

Potential VMT impacts can be analyzed using the San José VMT Evaluation Tool for the operational phase. (There is no guidance for evaluation VMT for temporary construction activities.) The San José VMT Evaluation Tool is an Excel-based tool that evaluates whether proposed land use projects in the City of San José would generate VMT impacts. The starting point for each land use project is the per capita/ per employee VMT for the 0.5-mile radius surrounding the project site, as calculated using the City's travel demand model and adjusted to the parcel level. This initial VMT estimate is compared to impact thresholds as outlined in San José's VMT impacts policy City Council Policy 5-1. Projects that would trigger a VMT impact can evaluate a variety of strategies to reduce those impacts. The strategies and VMT reductions applied in the tool are derived from research literature and case studies.[10]

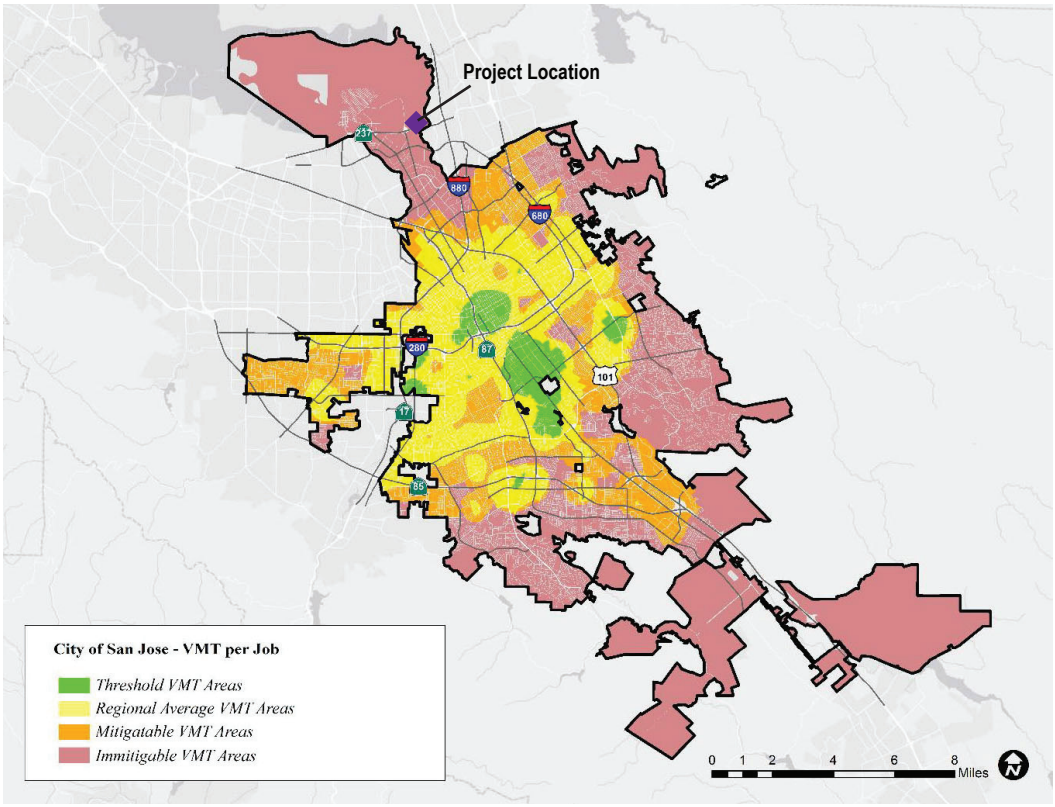
The ~~SJC02~~SJC project qualifies as an industrial employment project because it is not a commercial development with public access. Further, the administration area of the warehouse accounts for approximately 6% of the total square footage of the SJC project which further qualifies the project as industrial and requires an analysis of the VMT impact using wholly the industrial land use.. Defined thresholds and significance criteria for industrial employment uses are shown in Table 3.17-1. Per the City's VMT Evaluation Tool, the existing Area VMT for employment uses is 17.30 VMT per employee, which is above the existing regional average threshold of 14.37 VMT per employee. According to the Transportation Analysis Handbook, projects located in areas where the existing VMT is above the established threshold (such as the study area) are referred to as being in "high-VMT areas", and projects in high-VMT areas are required to include VMT reduction measures that would reduce the project VMT to the extent possible.~~For Industrial Employment Projects within the City of San José, the current VMT level is 14.37 VMT per employee, and, the VMT threshold of significance is set at that value.~~

Table 3.17-1. City of San José Thresholds of Significance for Development Projects

Project Types	Significance Criteria	Current Level	Threshold
Industrial Employment Uses	Project VMT per employee exceeds existing regional average VMT per employee	14.37 VMT per employee (regional average)	14.37 VMT per employee

[7] City of San José, 2018 Transportation Analysis Handbook, http://sanjoseca.gov/DocumentCenter/View/76537, 9.
[8] City of San José, 2018 Transportation Analysis Handbook, http://sanjoseca.gov/DocumentCenter/View/76537, 9.
[9] City of San José, 2018 Transportation Analysis Handbook, http://sanjoseca.gov/DocumentCenter/View/76537, 16.
[10] City of San José, San José VMT Evaluation Tool: User Guide, http://sanjoseca.gov/DocumentCenter/View/75865, 2.

~~However, as shown on Figure 3.17-6, the project site (shown as a purple diamond) is located within the City's designated "Immitigable VMT Area" for workers (Figure 13 in the Transportation Analysis Handbook). These are areas where the VMT per employee is higher than the regional average. The City's guidance does not define the analysis required for projects in these immitigable areas (see Appendix 3.17A).~~



Source: City of San José, Transportation Analysis Handbook, April 2018.

Figure 3-17.6
Project Location per the City of San José's VMT Heat Map
San José Data Center (SJC02)
San José, California

JACOBS

3.17.4 Construction and Operational Transportation Impacts

Historically, traffic operations have been assessed using LOS, a sliding scale from A through F, where LOS A represents best traffic flow and LOS F represents significant traffic delay. LOS criteria for local roadways and freeways are shown in Table 3.17-2.

Table 3.17-2. LOS Criteria for Freeways

LOS	Density (passenger cars/mile/lane)	Travel speed (MPH)	Description
A	≤ 11	≥67	Free Flow
B	11 < density ≤ 18	65 ≤ spend < 67	Reasonably Free Flow
C	18 < density ≤ 26	67 ≤ speed < 65	Stable Flow
D	26 < density ≤ 46	42 ≤ speed < 62	Unstable Flow
E	46<density ≤ 58	30 ≤ speed < 42	Capacity Flow
F	>58	<30	Forced Flow

Source: VTA CMP 2017

Notes:

> = greater than
< = less than
≤ = less than or equal to

Per the 2014 VTA CMP, the City of San José's minimum LOS standard is LOS D.

LOS data were obtained from the CMP Monitoring and Conformance Report (VTA 2017) and the CMP Program Document (VTA 2017). Figures 3.17-7 and 3.17-8 and Table 3.17-3 summarize the baseline (2016) peak hour LOS for freeway segments near the project site.

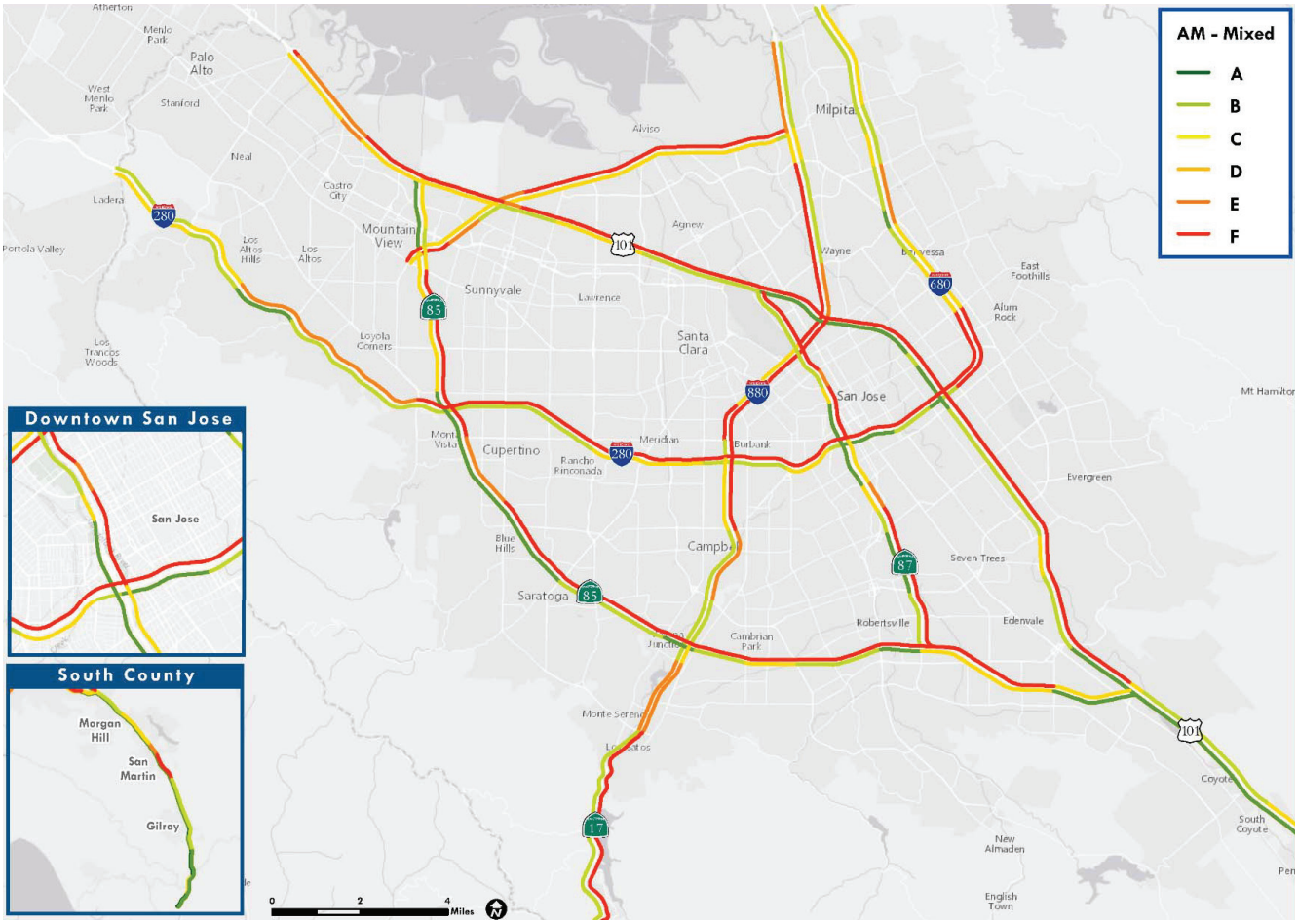
As shown in Table 3.17-3, significant congestion (LOS F) occurs on WB SR SB 237, I-880, NB US 101, and during the AM peak hour and on WB SR 237, SB I-880, SB US 101, and NB 101 during the PM peak hour

Table 3.17-3. Freeway LOS for AM and PM Peak Periods (2016)

Segment	AM Peak[a]	PM Peak[a]
EB SR 237 (US 101 to I-680)	D	D
WB SR 237 (US 101 to I-680)	F	F
SB I-880 (Scott Creek Road to SR 237)	E	C
SB I-880 (SR 237 to US 101)	F	F
NB I-880 (Scott Creek Road to SR 237)	B	C
NB I-880 (SR 237 to US 101)	B	C
SB US 101 (SR 237 to I-880)	B	F
NB US 101 (SR 237 to I-880)	F	C
SB US 101 (SR 237 to Embarcadero Road)	D	F
NB US 101 (SR 237 to Embarcadero Road)	F	F

Source

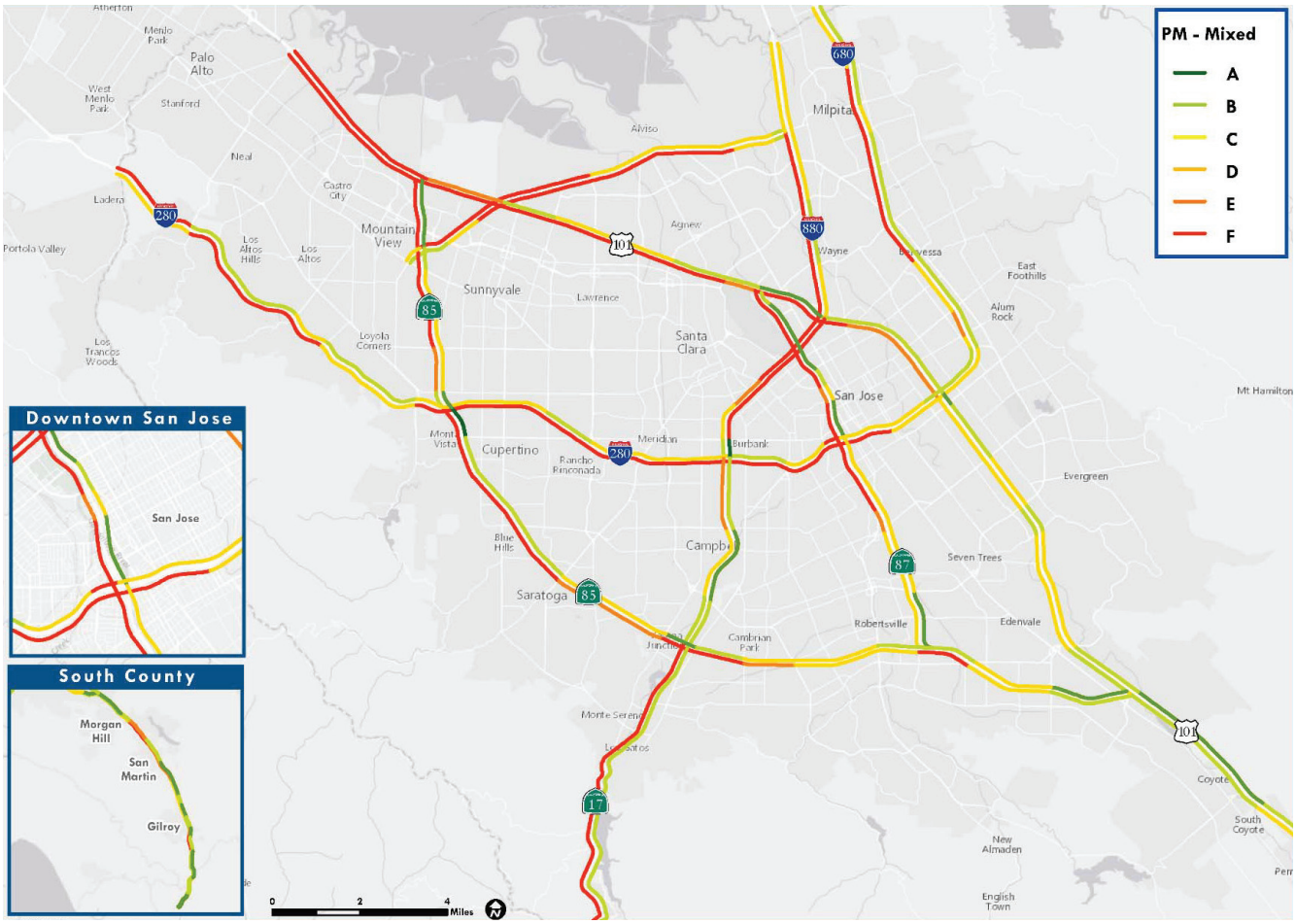
[a] VTA CMP 2017



Source: Congestion Management Agency for Santa Clara County, 2017 Congestion Management Program Document.

Figure 3-17.7
Freeway LOS for AM Mixed Flow
San José Data Center (SJC02)
San José, California

JACOBS



Source: Congestion Management Agency for Santa Clara County, 2017 Congestion Management Program Document.

Figure 3-17.8
Freeway LOS for PM Mixed Flow
San José Data Center (SJC02)
San José, California

JACOBS

3.17.4.1 Construction Impacts

Construction of the project is anticipated to take approximately 17 months and will result in a temporary short-term increase in local traffic resulting from construction-related workforce traffic, and equipment and material deliveries.

Traffic-generating construction activities related to the project will consist of the daily arrival and departure of construction workers to the site, and trucks hauling equipment and materials to the work site. All the construction activities will occur onsite and within the off-site infrastructure alignment areas. The majority of the project's construction-related trips (vehicle and truck trips) will occur on the roadways identified in Section 3.17-1.

As a conservative estimate assumed that there will be up to a maximum ~~305~~ 300 AM peak hour trips and ~~305~~ 300 PM peak hour trips, for a total of ~~610~~ 600 daily construction worker trips. Many of the construction worker trips will be expected to occur prior to the AM and PM peak hours, in accordance with typical construction schedules. To the extent feasible, it is anticipated that truck trips will occur throughout the day and will be scheduled for off-peak hours. Further haul trips will occur primarily during the first month or two of construction when the number of onsite/offsite workers is at a minimum. However, to be conservative, they were assumed to all occur in the peak hours, as reported in Table 3.17-4R.

Table 3.17-4R. Construction Trip Generation

Trip Type	AM Peak Hour			PM Peak Hour		
	In	Out	Total	In	Out	Total
Delivery/Haul Trucks	~~30~~150	~~30~~150	~~60~~300	~~30~~150	~~30~~150	~~60~~300
~~Delivery/Haul Trucks PCE (1.5)~~Offsite Workers (Maximum/Average)	72/48		~~90~~72/48		72/48	~~90~~72/48
~~Workers~~Onsite Workers (Maximum/Average)	~~215~~215/108	0	~~215~~215/108	0	~~215~~215/108	~~215~~215/108
Total Construction Traffic ~~in PCE~~	--	--	~~305~~587/456	--	--	~~305~~587/456

Notes:
-- = not applicable
PCE = passenger car equivalent

Table revised in Data Response Set 1 Docketed January 28, 2020 (TN # 231774)

The ~~305~~ 300 trips in the peak hour will be distributed on the regional freeway system, including SR 237, I-880, and US 101. Existing average annual daily traffic (AADT) volumes and peak hour volumes (Caltrans 2018) are shown in Table 3.17-5.

Table 3.17-5. Existing Traffic Volumes (2017)

Route	Interchange	Peak Hour AADT (Back)	Peak Hour AADT (Ahead)	Back AADT	Ahead AADT
US 101	SR 237	11,900	13,900	170,100	197,400
SR 237	US 101	5,700	7,800	71,400	98,700
SR 237	Great America Parkway	12,200	12,400	130,200	140,700
SR 237	North 1st Street / Taylor Street	12,400	11,100	140,700	140,700
SR 237	Zanker Road	11,100	11,400	140,700	146,000
SR 237	EB SR 237/ North McCarthy Boulevard	5,700	5,700	72,500	72,500
SR 237	WB SR 237/ North McCarthy Boulevard	5,800	5,300	73,500	66,000
SR 237	I-880	11,600	4,800	148,100	67, 200
I-880	SR 237	16,100	20,100	180,000	225,000

Construction activities will generate increases in traffic on the regional and local road network, but the effects will be short-term and typical of construction projects in the vicinity and throughout the City. Additional traffic volumes would be minimal (less than 1 percent of peak hour traffic and less than 0.1 percent of daily traffic) relative to existing volumes.

Truck traffic is anticipated to be routed along Alviso Milpitas Road to the SR 237/North McCarthy Boulevard interchange, where direct regional access is available to I-880 and or US 101 and would not significantly affect off-street trails along North McCarthy Boulevard or SR 237, which are separated from the roadway. Similarly, truck traffic would not be anticipated to be distributed along local bus lines along North McCarthy Boulevard interchange and Ranch Drive, given that direct access is available at the SR 237/North McCarthy Boulevard interchange.

The project site is not directly served by transit. However, there are many nearby transit services, including local bus service along North McCarthy Boulevard and Ranch Drive, and express bus service on SR 237. Construction of the project will occur onsite (and also in the offsite infrastructure alignment areas) and will not physically obstruct any transit facilities. Construction of the project could slightly increase the demand for transit if construction workers, employees, or visitors, or a combination thereof, used nearby rail or bus service to commute to the site. However, the temporary increase in demand will not significantly delay or overburden these facilities.

Project construction will also not significantly obstruct any of the pedestrian or bicycle facilities in the area or interfere with any future pedestrian or bike plans for the area, as all construction will occur onsite. Traffic increases generated by the project will be less than significant and will not have significant impacts on pedestrians or bicyclists.

VMT evaluations were not conducted for construction impacts.

3.17.4.2 Operational Impacts

It is estimated that project operations will require a total of approximately 100 onsite employees over three shifts, which is expected to generate up to 54 AM peak hour (inbound) trips and 54 PM peak hour (outbound) trips. An average of five deliveries (ten delivery truck trips)~~s~~ are anticipated during the AM and PM peak hours, with a maximum of 15 deliveries (30 AM and 30 PM peak hour truck trips). The project trips are summarized in Table 3.17-6.

Table 3.17-6. Operations Trip Generation

Trip Type	AM Peak Hour			PM Peak Hour		
	In	Out	Total	In	Out	Total
Maximum Delivery Trucks	15	15	30	15	15	30
Average Delivery Trucks	5	5	10	5	5	10
Workers	54	-	54	-	54	54

~~Traffic volumes during the operations phase are lower than the construction phase, so traffic impacts will be further reduced.~~ Operations of the project will occur entirely on-site and will have a minimal effect on transit or bicycle facilities, and with construction of a Class I Bikeway Trail extension along the east side of Zanker Road will actually enhance existing facilities. Truck traffic is anticipated to be routed similar to the construction traffic.

Potential VMT impacts ~~were analyzed using the San José VMT Evaluation Tool, as shown in Appendix 3.17A. Based on the VMT calculation estimate, the project (operations) would generate an estimated 16.84 VMT per employee, above the San José industrial VMT threshold for industrial employment uses of 14.37 VMT per employee, but less than the area average of 17.30 VMT per employee.~~ and shown in Appendix 3.17A, *San Jose Data Center (SJC02) Draft Transportation Analysis.* The project will generate new trips during the operations phase that will have a lower-than-average VMT (17.24), on a per-employee basis, than the surrounding area (17.30).

However, the estimated VMT per employee is above the San José industrial VMT threshold for industrial employment uses of 14.37 VMT per employee.

3.17.5 Environmental Impacts and Mitigation Measures

a) Would the project conflict with program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities?

Less than Significant Impact.

Based on the analysis in Section 3.17.4.2, the project will have less than significant impacts to programs, ordinances, or policies regarding the multimodal circulation system.

For the roadway system, the City of San José Council Policy 5-1 focuses impact evaluation on VMT (evaluated in 3.17.5 (b)), so any potential LOS impacts within the City (e.g., at intersections) would not be a conflict with the programs, plans, ordinances, or policies within the City. VTA uses LOS E as the standard for the regional system, but the analysis conducted in Section 3.17.4 indicates that the impacts on the regional system will be minimal. Furthermore, the project represents an infill development adjacent to major transit/transportation corridors needed to facilitate alternative commute modes. Similarly, there will be only minimal effects to other modes (transit, bicycle, and pedestrian). The project's operational traffic impacts are expected to conform to applicable City programs, plans, ordinances and policies. Construction traffic impacts are expected to be temporary and finite.

b) Would the project conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?

Less than Significant Impact With Mitigation.

~~As shown in Appendix 3.17A, *San Jose Data Center (SJC02) Draft Transportation Analysis*, the~~ ~~The~~ project will generate new trips during the operations phase that will have a lower-than-average VMT (~~16.84~~17.24), on a per-employee basis, than the surrounding area (17.30).

However, tThe estimated VMT per employee is above the San José industrial VMT threshold for industrial employment uses of 14.37 VMT per employee. Based on the City's VMT Evaluation Tool, implementing Mitigation Measures (MM) TRANS-1 through TRANS-6 (Increase Roadway Network Connectivity, Traffic Calming Measures, Pedestrian Network Improvements, Bike Access Improvements, Limit Parking Supply, and Commute Trip Reduction Marketing and Education) would lower the project VMT to 14.12 per employee (a reduction of about 18%), which would reduce the project impact to a less-than-significant level (below the threshold of 14.37 VMT per employee) ~~However, the project is in a defined "immitigable" area for worker VMT. The City of San José's Transportation Analysis Handbook provides tools for reducing Project VMT when it exceeds the threshold(s) of significance (City of San José 2019). Four categories of VMT reduction mitigation measures are as follows:[11]~~

~~**Project Characteristics** – Changes in project characteristics such as increase in project density or increase in project land use mix~~

~~**Multimodal Network Improvements** – Multimodal network improvement measures such as bicycle and pedestrian improvements and first mile/last mile connections~~

~~**Parking Measures** – Parking measures such as limiting the supply of vehicular parking and increasing bicycle parking~~

~~**Transportation Demand Management (TDM)** – TDM measures such as ridesharing programs, discounted transit programs, telecommuting and alternative work schedule programs, employee parking "cash outs" for on-site parking, or commute trip reduction programs~~

~~None of these measures can be applied to reduce VMT below the regional average value for this project. Given the nature and location of the site, only very limited TDM measures (e.g., ridesharing incentives) could feasibly affect VMT, and none would affect VMT per employee. Any TDM measures would only reduce the number of vehicle trips, not the average VMT for each trip. Since the City's definition of the project area is immitigable, the basis for VMT comparison was the surrounding area VMT. The Project VMT per employee is lower; therefore, the determination is that the VMT impacts are less-than-significant.~~

~~Also, the assessment is based on average VMT, but the City's technical procedures do not consider the number of trips in determining an impact. The small number of trips (100 daily employees and 10 to 30 truck trips) reinforces the conclusion that the VMT impacts will be less than significant.~~

c) Would the project substantially increase hazards due to a geometric design feature or incompatible uses?

Less than Significant Impact.

Project construction or operations will not permanently alter any public roadways or intersections, nor will it introduce a design feature or incompatible uses to the project area. Project construction and operation will occur entirely on-site and within the offsite infrastructure alignment areas. Therefore, the project will not increase hazards due to geometric design features of roadways or incompatible use, because construction traffic and impacts will be temporary and finite with impacted public roadways repaired to pre-construction conditions. Impacts will be less than significant. The traffic signal at the Zanker Road and Nortech Extension will enhance traffic safety.

For aviation, the Norman Y. Mineta San José International Airport is located approximately 3.4 miles southwest of the site. The Federal Aviation Administration (FAA) establishes a maximum structure height of 212 feet above mean sea level (amsl) at the project site (Santa Clara County ALUC 2016). The highest point of the proposed Project Site, the top of the rooftop chiller unit, is approximately 31 feet above ground level. The SJDC will not exceed the FAA's height limit of 212 amsl. The project also does not meet the 200-foot threshold for FAA notification and review per Title 14, Part 77, Section 77.9 of the Code of Federal Regulations. Because the height of the project will not exceed

[11] ~~City of San José, 2018 Transportation Analysis Handbook, http://sanjoseca.gov/DocumentCenter/View/76537, 25.~~

the FAA's height limitation of 212 feet or require FAA review, project structures will not be expected to pose an obstruction hazard to aircraft.

The project's ~~emergency standby generators~~RA~~natural gas and administrative generators~~ will discharge thermal plumes (i.e., high-velocity columns of hot air) during operation. Thermal plume velocities will be greatest at the discharge points, with plume velocities decreasing with increasing altitude. Plume velocities will also be highest during certain weather conditions, such as cool temperatures and calm winds. High-velocity thermal plumes have the potential to affect aviation safety, and the FAA has amended the *Aeronautical Information Manual* to establish thermal plumes as potential flight hazards (FAA 2014). Aircraft flying through thermal plumes may experience significant air disturbances, such as turbulence and vertical shear. The FAA manual advises that, when able, a pilot should fly upwind of smokestacks and cooling towers to avoid encountering thermal plumes.

A peak vertical plume velocity of 10.6 meters per second (5.3 meters per second average plume velocity) is used as a screening threshold for potential impacts to aviation. Based on the SPPE of a comparable local data center in the neighboring City of Santa Clara, this velocity generally defines the point at which aircraft begin to experience severe turbulence.[12]

Based on the thermal plume modeling methodology used in the CEC's previous data center cases, an assessment of the thermal plume velocities for the project was prepared. Appendix 3.17B presents the thermal plume calculations based on the *Aviation Safety and Buoyant Plumes*, prepared by Peter Best, et. al. (~~year~~2003).

The Project's thermal plume velocity assessment show that the air cooler exhaust velocity is less than the 10.6 meters per second peak rate at 46.6 feet above grade, or 16 feet above the air cooler fan outlet. Aircraft will not be operating 16 feet above the air cooler fan outlet. Furthermore, project calculations of the thermal plume velocities show that the air cooler exhaust velocity is less than the 5.3 meters per second average rate at 88.6 feet above grade, or 58 feet above the air cooler fan outlet. The project's ~~RA~~natural gas ~~generators~~ and 1.25-MW and 0.5-MW administrative ~~standby~~ generators are expected to result in the following similar or smaller thermal plume velocities ~~(69 feet for merged plumes above the ground to a 5.3 meter per second plume velocity)~~ as the air cooler fan outlets,

- 25 feet for merged plumes above the ground, or 12 feet above the ~~RA~~natural gas generator outlet, relative to a 5.3 meter per second average plume velocity
- 71 feet above grade, or 51 feet above the 1.25-MW administrative generator outlet, relative to a 5.3 meter per second average plume velocity
- 50 feet above grade, or 30 feet above the 0.5-MW administrative generator outlet, relative to a 5.3 meter per second average plume velocity

These generator plumes ~~which~~ are not expected to result in increased safety hazards as aircraft are not expected to operate within ~~58~~ 51 feet above the project ~~site~~structures, consistent with the above conclusions for the air cooler (at 58 feet above the air cooler fan).

The project will not increase any other hazards. Construction will not result in any hazards to motorists, bicyclists, or pedestrians. Impacts will be less than significant.

d) Result in inadequate emergency access?

Less than Significant Impact.

During both construction and operations, the ~~The~~ project will not physically block any access roads or result in traffic congestion that could significantly compromise timely access to this facility or any other location. The project, ~~because the project~~ site is located away from public roadways and the underground linear features ~~will~~ would not impede emergency vehicle access. Emergency access to

[12] Laurelwood Data Center (LDC) Small Power Plant Exemption Application, Approved February 2020~~19~~.

the site will continue to be provided from the existing driveways on Alviso Milpitas Road. Therefore, the impact will be less than significant.

Previously Identified Mitigation Measures: None.

New Proposed Mitigation Measures: ~~None~~

As described in Appendix 3.17A, *San Jose Data Center (SJC02) Draft Transportation Analysis*, the following multi-modal infrastruct~~ion~~ure improvements, parking reduction measure and Transportation Demand Mana~~m~~gement (TDM) mitigation measures will be implemented to mitigate the VMT impacts to Less than Significant.

MM TRANS-1: **Increase Roadway Network Connectivity** – The project would construct a new street (an extension of Nortech Parkway) that would extend east from Zanker Road and provide access to the project site. The new intersection created at Zanker Road/Nortech Parkway would be signalized and would be located approximately 400 feet north of the Zanker Road/Thomas Foon Chew Way intersection. Currently, Nortech Parkway is an east-west local public roadway that terminates approximately 0.8 miles west of Zanker Road near Fortran Drive. The City of San Jose has plans to extend Nortech Parkway east to Zanker Road, where the new traffic signal would be constructed by the project. Note that the project would not be responsible for constructing or contributing toward the construction of the segment of the Nortech Parkway extension west of Zanker Road. Building new street connections/intersections improves vehicular, pedestrian, and bicycle access. Furthermore, increasing the roadway network connectivity shortens vehicle trips, enhances walkability, and provides more opportunities for bicyclists. Accordingly, this multi-modal infrastructure improvement would reduce VMT.

MM TRANS-2: **Traffic Calming Measures** – The project would construct a raised median island along Zanker Road between the new Nortech Parkway extension and the SR 237 westbound off-ramp. The raised median is part of the City's Plan Line design for Zanker Road. Raised median islands help to reduce vehicular speeds by narrowing the roadway, as well as provide a physical barrier for vehicles and a refuge for pedestrians. Providing traffic calming measures creates a safer environment and promotes walking and biking as alternatives to driving. Accordingly, this multi-modal infrastructure improvement would reduce drive-alone commute trips and thus VMT.

MM TRANS-3: Pedestrian Network Improvements – The project would construct a Class I Bikeway Trail extension along the east side of Zanker Road, connecting the existing Coyote Creek Trail segment with the new Nortech Parkway extension. The future location of the trail falls within the City's right-of-way (ROW). This multi-modal infrastructure improvement would promote walking, thereby reducing drive-alone commute trips and VMT.

MM TRANS-4: Bike Access Improvements – The project would construct a Class I Bikeway Trail extension along the east side of Zanker Road (within the City's ROW), connecting the existing trail segment with the new Nortech Parkway extension. This multi-modal infrastructure improvement would promote bicycling, thus reducing drive-alone commute trips. Providing new bicycle facilities that close gaps in the existing bike network improves overall bike access and circulation and promotes bicycling as an alternative to driving, thereby reducing VMT.

MM TRANS-5: Limit Parking Supply – The project would provide 116 vehicle parking spaces, which is 66 fewer spaces than what the City of San Jose Municipal Code requires. The project would request a parking exception in order to qualify for the parking reduction. Decreasing a project's parking supply encourages employees to choose an alternative transportation mode for their commutes, thereby reducing VMT.

MM TRANS-6: Commute Trip Reduction Marketing and Education – The project should implement a marketing campaign targeting all employees that encourages the use of shared rides and active modes of transportation. Marketing strategies may include new employee orientation on alternative commute options, event promotions, and publications. The project should provide information and encouragement to use transit, shared ride modes, and active modes to reduce drive-alone commute trips and, thus, VMT.

It is assumed that 100% of the employees would be subject to the commute trip reduction education program.

3.17.6 References

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Congestion Management Agency for Santa Clara County. 2017. *2017 Congestion Management Program (CMP)*. Accessed November 5, 2019. http://vtaorgcontent.s3-us-west-1.amazonaws.com/Site_Content/2017_CMP_Document.pdf.

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Santa Clara Valley Transportation Authority (VTA). 2017. *2017 CMP Monitoring and Conformance Report*. Accessed January 2019. http://vtaorgcontent.s3-us-west-1.amazonaws.com/Site_Content/CMP_2017_Monitoring_Report.pdf.

3.19 Utilities and Service Systems

Would the project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Utilities and Service Systems				
a) Require or result in the relocation or construction of new or expanded water, wastewater treatment or stormwater drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?	☐	☐	☒	☐
b) Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry, and multiple dry years?	☐	☐	☒	☐
c) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	☐	☐	☒	☐
d) Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?	☐	☐	☒	☐
e) Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?	☐	☐	☒	☐

Environmental checklist established by CEQA Guidelines, Appendix G.

3.19.1 Setting

The San José Data Center (SJC) will be located within the City of San José on an approximately 64.5-acre site and will consist of two data center buildings totaling over approximately 396,914 square feet of space. The project will include 224 0.45-megawatt (MW) natural gas-fired generators to provide electrical power to support the electrical load of the data center buildings during utility outages or certain onsite electrical equipment interruptions or failures. Additionally, the use of the natural gas generators will enable the SJC to provide grid support through load shedding, demand response, and behind-the-meter Resource Adequacy (RA) ancillary services. In addition to these generators, the project will include two administrative Tier IV diesel-powered generators, rated at 1.25 MW and 0.5 MW, to support administrative functions during an interruption in the normal delivery of electrical power from the utility.

The project site has been used historically for farming since the early 1920s but is not currently in agricultural use and no dwellings or structures exist onsite[1]. To the north of the project site are the San José/Santa Clara Regional Wastewater Treatment Plant sludge drying beds, to the south is Highway 237, to the west is the Los Esteros Critical Energy Facility (LECEF), a PG&E substation, and to the east is Coyote Creek. The project is anticipated to begin construction in the 4th quarter of 2022, with operations beginning in the 1st quarter of 2024.

~~The San José Data Center (SJC02) will be located within the City of San José on an approximately 64.5-acre site and will consist of two data center buildings totaling over approximately 396,914 square feet of space. The project will include 224 0.5-megawatt (MW) standby natural gas-fired generators to provide electrical power to support the demand of the data center information technology (IT) load during~~

[1] There were 2 vacant residences and a storage shed/warehouse onsite, which were demolished in 2021 after a fire significantly affected the safety of one of the dwellings.

~~utility outages or certain onsite electrical equipment interruptions or failures, and to participate in PG&E's Resource Adequacy (RA) program and for load shedding, demand response and behind-the-meter resource adequacy (RA) ancillary services. In addition to these standby generators, the project will include two administrative diesel-powered generators, rated at 1.25 MW and 0.5 MW, to support administrative functions during an interruption in the normal delivery of electrical power from the utility. The facility design will not require more than approximately 99 MW of electrical power, which will be used only for backup power for onsite data center operations in the event of an electrical outage by Pacific Gas & Electric (PG&E) and to participate in PG&E's RA program.~~

~~The land project site has been used historically for farming since the early 1920s but is not currently in agricultural use and no dwellings or structures exist onsite[2]. To the north of the project site are the San José/Santa Clara Regional Wastewater Treatment Plant sludge drying beds, to the south is Highway 237, to the west is the Los Esteros Critical Energy Facility (LECEF), a PG&E substation, and to the east is Coyote Creek. The project is anticipated to begin construction in the 4th quarter of 2022, with operations beginning in the 1st quarter of 2024. The San José Data Center (SJC02) will be located within the City of San José on an approximately 64.5-acre site and will consist of two data center buildings totaling over approximately 479,000 square feet of space. The project will include 40 3.0-megawatt (MW) standby diesel generators (20 per building) to provide electrical power to support the information technology (IT) load during utility outages or certain onsite electrical equipment interruptions or failures, as well as the installation of 20 3-MW emergency diesel generators at each building. In addition to the 40 backup generators, the project will include two administrative generators, rated at 1.25 MW and 0.5 MW, to support administrative functions during an interruption in the normal delivery of electrical power from the utility. The facility design will not require more than approximately 99 MW of electrical power, which will be used only for backup power for onsite data center operations in the event of an electrical outage by Pacific Gas & Electric (PG&E), although the estimated load is 92 MW.~~

~~The land has been used historically for farming since the early 1920s but is not currently in agricultural use. There are two vacant residences, a mobile home, and a storage shed/warehouse currently onsite, which will be demolished as part of the SJC02 project. To the north of the project site are the San José/Santa Clara Regional Wastewater Treatment Plant sludge drying beds, to the south is Highway 237, to the west is the Los Esteros Critical Energy Facility (LECEF), a PG&E substation, and to the east is Coyote Creek. The project is anticipated to begin construction in the 3rd quarter of 2020, with operations beginning in the 1st quarter of 2022.~~

3.19.1.1 Potable Water Supply

San José Municipal Water System (SJMWS) currently has three sources of potable water supply:

1) Water purchased wholesale from the San Francisco Public Utilities Commission (SFPUC)
2) Groundwater
3) Water purchased wholesale from Santa Clara Valley Water District (SCVWD)

The SCVWD system does not serve the North San José service area (City of San José 2017).

For redundancy purposes, the project will have three proposed potable water lines. As shown on Figure 1-2, Water Line Route #1 and Water Line Route #2 begin in the northwestern corner of the project. Both routes travel south to the proposed entrance road, Nortech Extension. From there, they both turn west to Zanker Road. At Zanker Road, Water Line Route #1 heads north briefly and then west, ultimately connecting to the Nortech valve. Water Line Route #1 is approximately 1.5 miles (7,900 feet) long. At Zanker Road, Water Line Route #2 turns south before turning west alongside Highway 237, and eventually turning south to go under Highway 237 to connect to the new Holger valve. Water Line Route #2 is approximately 1.3 miles (7,100 feet) long. Water Line Route #3 begins at the southwestern corner of the project, and heads generally east to Zanker Road, where it will parallel Water Line Route #2 connecting to the new Holger valve. Water Line Route #3 is approximately 1.4 miles (7,500 feet) long. The water will come from the San José Municipal Water System to the project.

~~[2] In the summer of 2021 all aboveground structures were removed due to health and safety concerns. [MAKE CONSISTENT WITH PD]~~

3.19.1.2 Recycled and Reclaimed Water Supply

Recycled water is produced at South Bay Water Recycling (SBWR), a system operated by the San José-Santa Clara Regional Wastewater Facility (RWF). Located less than 1 mile to the northeast of the project site, the RWF is responsible for collecting and treating the sewage and other wastewater from six surrounding South Bay jurisdictions: SJMWS, San José Water Company, California Water Service, Great Oaks Water Company, and the Cities of Santa Clara and Milpitas (City of San José 2019d).

As shown on Figure 1-2, reclaimed water will be used at the site for landscaping and cooling purposes. The reclaimed water line will start at the northwestern corner of the project site and proceed south to the proposed entrance road, Nortech Extension. From there the line turns west and ends at an existing reclaimed water line that is oriented generally north to south. The reclaimed water line will be approximately 0.5 mile (2,900 feet) long. The reclaimed water will flow from SBWR to the project.

3.19.1.3 Wastewater Service

The City's Water and Sewer Utility is responsible for the wastewater system. Wastewater is conveyed from the City's sewer systems to the RWF, which is jointly owned by the cities of San José and Santa Clara, but operated by the San José Environmental Services Department. The RWF treats an average of 110 million gallons per day (mgd) of wastewater, with a capacity of up to 167 mgd (City of San José 2019).

As shown on Figure 1-2, a sanitary sewer line will begin at the northwestern corner of the project site, and head south to the proposed entrance road, where the line turns to the west. At Zanker Road, the line turns south and will connect to the existing sanitary sewer force main/pump station at the corner of Zanker Road and Thomas Foon Chew Way. The sewer line is approximately 0.6 mile (3,300 feet) long. Wastewater will flow from the project to the RWF.

3.19.1.4 Storm Sewer Service

The City owns and operates a municipal storm drainage system that provides service to the project site. The City's storm drains flow directly to a creek and then to the South San Francisco Bay.

As shown on Figure 1-2, the stormwater line for the project will begin in the northwestern corner of the project site, paralleling the water line route, terminating at Nortech Parkway extension off of Zanker Road where it will tie into the City of San José's stormwater system in the vicinity of Nortech Parkway. The stormwater line to Zanker Road is approximately 0.55 mile (3,000 feet) long. Stormwater will flow from the project to the municipal storm drainage system.

3.19.1.5 Solid Waste

Republic Services has an agreement with the City of San José to collect garbage, recyclables, and organics from all businesses (City of San José 2019c). Republic Services collects waste using a Wet/Dry system. San José businesses receive "Wet" collection service for organics, such as food waste, and "Dry" collection service for recyclables and everything else. All waste is sorted locally at the Newby Island Resource Recovery Park (NIRRP). After sorting, recyclable materials are captured for reuse, diverting them from landfill and organic material is taken to a Zero Waste Energy Development facility, where it is put through an anaerobic digestion process, ultimately producing electricity and compost. The Zero Waste Energy Development facility process up to 90,000 tons per year of organic waste generating approximately 1.6 MW of renewable power. The Newby Island Landfill is capable of processing up to 110 tons of municipal solid waste per hour and would service all the commercial waste produced by businesses in the City of San José (Republic Services 2019).

3.19.1.6 Electrical Services

Electrical services for the City are provided through the San José Clean Energy. San José Clean Energy (SJCE) is known as a community choice energy program. SJCE will generate the electricity, but it will be

transmitted and distributed in San José through PG&E. PG&E is responsible for maintaining power lines. SJCE is governed by San José City Council, with input from a Community Advisory Commission (San José Clean Energy 2019).

As shown on Figure 1-2, the onsite substation will be located in the northwestern corner of the project site and will interconnect to the PG&E substation via two, 0.2-mile-long distribution lines. The approximately 1,000-foot-long electrical supply lines will be located along the fenceline of the project site, between the project site and the LECEF.

3.19.1.7 Telecommunication

The Applicant is in early discussions with fiber optics providers to provide fiber-based telecommunications services. The Applicant anticipates fiber being provided to the facility via established rights-of-way, as is the industry common practice. The Applicant anticipates working with private commercial fiber providers in the area. In general, these companies have significant infrastructure in place along roadways; therefore, it is anticipated that any such infrastructure will be located in the adjacent roadway (Zanker Road) for interconnection of telecommunication services.

3.19.1.8 Natural Gas

The project will include two separate natural gas supply lines at the southern border of the project site, which uniquely provides redundancy in the natural gas supply for both the generators as well as comfort heating. Each line will run directly south from the project boundary to PG&E's existing gas lines located within Ranch Drive. One natural gas supply line will interconnect with Line 109 and the other with Line 101. Each gas supply line will be approximately 75 feet in length.~~No natural gas will be used at the site.~~

3.19.1.9 Existing Water Consumption

According to California's Water Conservation Board, the overall water consumption in San José during the month of August 2017 was 2,306 million gallons. Water consumption in the City of San José decreased 6.10 percent compared to August 2016. Overall, consumption in August of ____ has decreased 26.14 percent when compared to August 2013. The average industrial use in city of San José was 700-acre feet per year (AF/yr) (Southern California Public Radio 2016). ~~[Any updated figures here?]~~

3.19.1.10 Water Supply Assessment

In May 2017, a Water Supply Assessment (WSA) (provided as Appendix 3.19A) was prepared by the City of San José pursuant to the requirements of Senate Bill 610 for the 237 Industrial Center EIR (2017 EIR) (an earlier version of the ~~SJC02~~SJC Project that was approved after the City Council certified the 2017 EIR) (City of San José 2017). The purpose of the WSA was to evaluate whether "the total projected water supplies, determined to be available for the project during normal, single dry, and multiple dry water years during a 20-year projection, will meet the projected water demand associated with the proposed project, in addition to existing and planned future uses, including agricultural and manufacturing uses.

The WSA determined that sufficient water supply was available for the 237 Industrial Center project, which assumes up to 129.5 AF/yr of potable water use. As the ~~SJC02~~SJC project is expected to use up to ~~29.1~~535 AF/yr of recycled water ~~(including both potable and recycled water)~~and up to 1 AF/yr of potable water, the previous water supply assessment ~~appears to~~ shows that a sufficient water supply exists.

As discussed at length in the WSA, SJMWS has the ability to meet increased demand in a variety of ways, such as purchasing additional water from SFPUC when available, relying more heavily on local groundwater resources, or encouraging conservation and recycled water use among its existing customers to reduce existing potable water demands. The potable demands of the proposed project, similar to the demands of the 237 Industrial Center project, fall easily within growth forecasts for industrial water use put forth in SJMWS's ~~2015~~ 2020 Urban Water Management Plan.

The project expects to have a peak operational recycled water demand of ~~292~~ 364 gallons per minute (gpm), with a daily average use of ~~267~~ 333 gpm (~~25~~479,~~981~~ 312 gallons). The expected annual use is ~~9,483,211~~174.9 million gallons of recycled water or ~~29.1~~535 AF/yr.

3.19.1.11 Wastewater Discharge

Project wastewater will primarily be generated from the chillers used in the comfort cooling system. The project's expected ~~peak~~ wastewater discharge rate is ~~91~~ 88.7 gpm~~., with an average discharge rate of 66 gpm.~~ The ~~average~~ maximum daily wastewater discharge is expected to be approximately ~~6,454~~127,670 gallons, with a maximum~~n annual expected~~ wastewater discharge of approximately ~~2,355,751~~46,500,000 gallons.

3.19.1.12 Regulatory Background

Federal Clean Water Act

The State Water Resources Control Board, and its nine Regional Water Quality Control Boards (RWQCB), are responsible for the regulation and enforcement of the water quality protection requirements of the federal Clean Water Act (CWA) and the state's Porter-Cologne Water Quality Control Act (Porter-Cologne). The National Pollutant Discharge Elimination System (NPDES) is the permitting program that allows point source dischargers to comply with the CWA and Porter-Cologne laws. This regulatory framework protects the beneficial uses of the state's surface and groundwater resources for public benefit and environmental protection. Protection of water quality will be achieved by the project by complying with applicable NPDES permits from the State Water Resources Control Board or the San Francisco Bay RWQCB.

California Water Code, Sections 10910-10915

California Water Code, Sections 10910-10915 (California Public Law 2016), requires water service providers to evaluate stresses to the water supply service system caused by project developments. The code sections require public water systems to prepare water supply assessments for certain defined development projects subject to the California Environmental Quality Act. As discussed in Section 3.19.1.11, a WSA was prepared by the City of San José in May 2017, which remains adequate for purposes of evaluating the project in this document.

California Energy Efficiency Standards for Residential and Nonresidential Buildings—Green Building Code (2011), Title 24 Update (CEC 2015)

The California Green Buildings Standards Code applies to planning, design, operation, construction, use, and occupancy of newly constructed buildings and requires installation of energy- and water- efficient indoor infrastructure. The related waste management plan is required to allow for diversion of 50 percent of the generated waste away from the landfill.

The City of San José's Construction & Demolition Diversion (CDD) Program is in line with the Green Building Code and confirms that at least 75 percent of this waste is recovered and diverted from landfills (City of San José 2019a).

City of Santa José General Plan

The Envision San José 2040 General Plan (City of San José 2019b), adopted in 2011 and amended in 2018, includes numerous policies related to utilities and service systems. With respect to waste, the City's Recycling / Zero Waste strategy aims to maximize diversion from landfills and reduce generation of waste; provide environmental leadership and quality waste management service delivery; and confirm that the City's zero waste programs are fiscally sustainable.

3.19.2 Environmental Impacts and Mitigation Measures

a) Would the project require, or result in the relocation or construction of new or expanded water, wastewater treatment, or stormwater drainage, electric power, natural gas, or telecommunications facilities the construction or relocation of which could cause significant environmental effects?

Less than Significant Impact.

Water/Wastewater Treatment: The project's operational workforce is estimated to be a maximum of 100 employees onsite with daily water usage for sanitary, landscaping, and process uses of approximately ~~267~~ 333 gpm on an average basis. The project is expected to generate a maximum daily discharge rate of up to ~~91~~ 88.7 gpm of wastewater. The maximum daily wastewater discharge is expected to be approximately 127,670 gallons, with a maximum wastewater discharge of approximately 46,500,000 gallons~~and an annual average of approximately 2.4 million gallons per year~~. Project operations will not require expanding City of San José water services or wastewater treatment beyond the capacity of the existing facilities, and the impact to water services and wastewater treatment facilities would be less than significant. The 237 Industrial Center EIR concluded that a wastewater discharge of over 400 gpm would not impact the wastewater conveyance and treatment system. Therefore, impacts on City of San José wastewater conveyance and treatment system from the project's substantially lower wastewater discharge of ~~91~~ 88.7 gpm are expected to be comparable or less than those analyzed in the EIR. As such, impacts to wastewater systems will be less than significant.

Stormwater Drainage: The project will include multiple design features to reduce stormwater runoff including landscaping and collection of stormwater to a bioretention area. Furthermore, a 100-foot buffer zone from the toe of the Coyote Creek levee will be established along the eastern boundary of the site to minimize any stormwater impacts to the existing levee and to control the discharge of stormwater. The stormwater design will comply with both the City's and RWQCB's requirements, and there is sufficient capacity in the City's existing storm drainage system to accommodate the project. Therefore, the impacts will be less than significant.

Electric Power: Using a maximum demand of 99 MW, the projected demand for the project would be approximately The ~~project will use~~projected maximum demand for the project at approximately ~~788~~674,~~400~~520867,240,000 kilowatt-hours of electricity annually (~~907~~799,000 kW * 8,760 hours/year).However it is anticipated that demand will be closer to 77MW which would be approximately 674,520,000 killowatt-hours of electricity annually (77,000 kW * 8,760 hours/yr). Even with the maximum demand of 99 MW, e~~E~~lectrical demand during project operations would not be substantial on a regional or statewide scale and would not significantly affect existing users. Based on the California Independent System Operation's 2020 Local Capacity Technical Study[3], there were no local capacity requirement deficiencies identified in the Greater Bay area in either 2020 or 2024. A deficiency would indicate a need for additional electrical capacity, in the form of either transmission upgrades, new generation, or some combination, in the area. The project would not require new or expanded electric power utilities; therefore, potential impacts are less than significant.

Natural Gas: ~~[Add Summary here]~~The project will use approximately 2,818 MMbtu per unit at a maximum operation of 509 hours. Natural gas will be supplied by Pacific Gas and Electric (PG&E), and demand during operations would not be substantial on a regional or statewide scale. The project would not require new or expanded natural gas infrastructure, therefore potential impacts are less than significant.

[3] http://www.caiso.com/Documents/Final2020LocalCapacityTechnicalReport.pdf

b) Would the project have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry, and multiple dry years?

Less than Significant Impact. The project is expected to use about ~~29.1~~535 AF/yr of ~~combined~~ recycled water and approximately 1 AF/yr of potable water. The use of recycled and potable water will not impact local water supplies and sufficient water supplies are available to support the project. The City determined previously that sufficient water supplies exist during multiple dry years to serve a project with significantly higher annual water use requirements the proposed site. The impacts from the project on water supplies will be less than significant.

c) Would the project result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?

Less than Significant Impact. The City determined previously that a project with substantially higher wastewater discharge would not result in a significant impact to wastewater conveyance or treatment systems. The project will not result in a significant wastewater discharge, and impacts from the project on the City's wastewater system capacity will be less than significant.

d) Would the project generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?

Less than Significant Impact. The Newby Island Landfill in San José would provide adequate disposal space for the solid waste associated with the project's demolition, construction, and operations through 2024. During operations, the project is expected to generate approximately 130 pounds per day (or 0.07 ton per day) of solid waste, an insignificant increase of waste. The maximum daily amount of solid waste allowed at the Newby Island Landfill is 3,260 tons per day (Republic Services 2019).

The City's Construction & Demolition Diversion (CDD) Program ensures that at least 75 percent of this waste is recovered and diverted from landfills (City of San José 2019a). Utilizing the "Wet/ Dry" garbage collection system the project will help sort, recyclable materials for reuse, and thus diverting them from landfill. The impact resulting from the project on landfill capacity would be less than significant. Furthermore, the project will be required to comply with the CDD program in order to receive a Certificate of Final Occupancy.

e) Would the project comply with federal, state, and local management and reduction statutes and regulations related to solid waste?

Less than Significant Impact. The project's solid wastes would be disposed of in accordance with the federal CWA and with the state of California's and the City's requirements for safe waste handling and disposal. Impacts will be less than significant.

Proposed Mitigation Measures: None.

3.19.3 References

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