Public Draft

DOWNTOWN WEST MIXED-USE PLAN

Draft Environmental Impact Report

(File Nos.: GP19-009, PDC19-039, and PD19-029)
SCH #2019080493

Prepared for
City of San José

October 2020

Public Draft

DOWNTOWN WEST MIXED-USE PLAN

Draft Environmental Impact Report

(File Nos.: GP19-009, PDC19-039, and PD19-029)
SCH #2019080493

Prepared for
City of San José

October 2020

787 The Alameda
Suite 250
San José, CA 95126
408.660.4000
esassoc.com

ESA

Bend	Orlando	San José
Camarillo	Pasadena	Santa Monica
Delray Beach	Petaluma	Sarasota
Destin	Portland	Seattle
Irvine	Sacramento	Tampa
Los Angeles	San Diego	
Oakland	San Francisco	

D190583

OUR COMMITMENT TO SUSTAINABILITY | ESA helps a variety of public and private sector clients plan and prepare for climate change and emerging regulations that limit GHG emissions. ESA is a registered assessor with the California Climate Action Registry, a Climate Leader, and founding reporter for the Climate Registry. ESA is also a corporate member of the U.S. Green Building Council and the Business Council on Climate Change (BC3). Internally, ESA has adopted a Sustainability Vision and Policy Statement and a plan to reduce waste and energy within our operations. This document was produced using recycled paper.

TABLE OF CONTENTS

Downtown West Mixed-Use Plan Draft EIR

List of Appendices (included on a flash drive inside the back cover of printed EIRs)

List of Figures

List of Tables

ABBREVIATIONS AND ACRONYMS

Downtown West Mixed-Use Plan Draft EIR

Abbreviation/Acronym	Definition
2017 Scoping Plan Update	2017 Climate Change Scoping Plan Update
°F	degrees Fahrenheit
µg/m^3	micrograms per cubic meter
A&A	Archives & Architecture
A/C	Authority to Construct
AB	Assembly Bill
ABAG	Association of Bay Area Governments
ACC	Advanced Clean Cars Initiative
ACE	Altamont Corridor Express
ACM	asbestos-containing material
AEP	Association of Environmental Professionals
AERMOD	American Meteorological Society/EPA Regulatory Air Dispersion Model
AF	acre-feet
AFY	acre-feet per year
AGR	Agricultural Water Supply
AIA	airport influence area
ALUC	airport land use commission
ALUCP	airport land use compatibility plan
AMA	Arena Management Agreement
APN	assessor's parcel number
AQMP	air quality management plan
ARG	Architectural Resources Group
ASCE	American Society of Civil Engineers
ASHRAE	American Society of Heating, Refrigerating and Air-Conditioning Engineers
AST	aboveground storage tank
ATCM	airborne toxic control measure
BAAQMD	Bay Area Air Quality Management District
BACT	Best Available Control Technology
BART	Bay Area Rapid Transit
basin plan	regional water quality control plan
Basin Plan	*Water Quality Control Plan for the San Francisco Bay Basin*
BAU	business-as-usual
BenMAP-CE	Environmental Benefits Mapping and Analysis Program–Community Edition

Abbreviation/Acronym	Definition
bgs	below ground surface
BMP	best management practice
BRT	Bus Rapid Transit
BTEX	benzene, toluene, ethylbenzene, and xylene
Btu	British thermal unit
C&D	construction and demolition
ca.	circa
CAA	federal Clean Air Act
CAAQS	California ambient air quality standards
CAFE	Corporate Average Fuel Economy
CAISO	California Independent System Operator
CAL FIRE	California Department of Forestry and Fire Protection
Cal/EPA	California Environmental Protection Agency
Cal/OSHA	California Division of Occupational Safety and Health
CalARP	California Accidental Release Prevention
CalEEMod	California Emissions Estimator Model
CALGreen	California Green Building Standards
CalMod	Caltrain Modernization
CalRecycle	California Department of Resources Recycling and Recovery
Caltrain	Peninsula Corridor Joint Powers Board
Caltrans	California Department of Transportation
CAMx	Comprehensive Air Quality Model with extensions
CARB	California Air Resources Board
CARE	Community Air Risk Evaluation
CAS	Climate Adaptation Strategy
CBC	California Building Code
CC&Rs	Covenants, Conditions, and Restrictions
CCC	Central California Coast
CCR	California Code of Regulations
CDFW	California Department of Fish and Wildlife
CDPH	California Department of Public Health
CEC	California Energy Commission
CEQA	California Environmental Quality Act
CESA	California Endangered Species Act
CFC	chlorofluorocarbon compound
CFGC	California Fish and Game Code
CFR	Code of Federal Regulations
CGS	California Geological Survey
CHP	California Highway Patrol
CIC	Combined Industrial/Commercial Zoning District
CLUP	comprehensive land use plan

Abbreviation/Acronym	Definition
CMP	congestion management program
CN	Commercial Neighborhood Zoning District
CNDDB	California Natural Diversity Database
CNEL	community noise equivalent level
CNPS	California Native Plant Society
CNRA	California Natural Resources Agency
CO	carbon monoxide
CO_2	carbon dioxide
COLD	Cold Freshwater Habitat
COMM	Sport and Commercial Fishing
Construction General Permit	NPDES *General Permit for Stormwater Discharges Associated with Construction and Land Disturbance Activities*
COPD	chronic obstructive pulmonary disease
County	Santa Clara County
County EMS	Santa Clara County Emergency Medical Services Agency
COVID-19	novel coronavirus 2019 disease
CPTED	Crime Prevention through Environmental Design
CPUC	California Public Utilities Commission
C-R	concentration-response
CR	California Register of Historic Resources
CRPR	California Rare Plant Rank
CUPA	Certified Unified Program Agency
CWA	Clean Water Act
DADCS	Downtown Airspace Development Capacity Study
dB	decibel
dBA	A-weighted decibel
dbh	diameter at breast height
DDT	dichlorodiphenyltrichloroethane
DISC	Diridon Integrated Station Concept
DMV	California Department of Motor Vehicles
DNL	day-night average noise level
DOT	U.S. Department of Transportation
DPF	diesel particulate filter
DPH	Santa Clara County Department of Public Health
DPM	diesel particulate matter
DPS	distinct population segment
DSAP	Diridon Station Area Plan
DTSC	California Department of Toxic Substances Control
DTSC-SLs	DTSC-Modified Screening Levels
DWDSG	*Downtown West Design Standards and Guidelines*
EFH	essential fish habitat

Abbreviation/Acronym	Definition
EFHELS	engineered fish habitat enhancement log structures
EIR	environmental impact report
EIS	environmental impact statement
EMFAC	California Air Resources Board's EMission FACtor model
Emissions Plan	Construction Emissions Minimization Plan
EMS	emergency medical services
EOC	Emergency Operations Center
EPA	U.S. Environmental Protection Agency
ER	emergency room
ESD	Environmental Services Department
ESL	environmental screening level
EST	Estuarine Habitat
EV	electric vehicle
EVSE	electric vehicle supply equipment
FAA	Federal Aviation Administration
FAR	Federal Aviation Regulations
FAR	floor area ratio
FEMA	Federal Emergency Management Agency
FESA	federal Endangered Species Act
FICON	Federal Interagency Committee on Noise
FIRM	Flood Insurance Rate Map
FR	*Federal Register*
Friant Ranch	*Sierra Club v. County of Fresno*, 6 Cal.5th 502
FRSH	Freshwater Replenishment
FTA	Federal Transit Administration
General Plan	*Envision San José 2040 General Plan*
GHG	greenhouse gas
gpd	gallons per day
GPS	global positioning system
gsf	gross square feet
GSI	green stormwater infrastructure
GSP	groundwater sustainability plan
GWP	global warming potential
GWR	Groundwater Recharge
H_2S	hydrogen sulfide
HAP	hazardous air pollutant
HCP/NCCP	habitat conservation plan/natural communities conservation plan
HDD	beta-hydroxydecanoyl-ACP dehydrase
HHRA	human health risk assessment
HI	Hazard Index
HI	Heavy Industrial Zoning District

Abbreviation/Acronym	Definition
HIA	health impacts assessment
HMMP	hazardous materials management plan
HOV	high-occupancy vehicle
HP permit	Historic Preservation Permit
HRA	health risk assessment
HRE	historic resource evaluation
HRI	Historic Resources Inventory
HSP	health and safety plan
HSR	high-speed rail
HVAC	heating, ventilation, and air conditioning
Hz	hertz
I-	Interstate
IARC	International Agency for Research on Cancer
in/sec	inches per second
IND	Industrial Water Service Supply
Infrastructure Analysis	*Diridon Station Area Infrastructure Analysis*
IP	Industrial Park Zoning District
IPCC	Intergovernmental Panel on Climate Change
ISA	integrated science assessment
IUCN	International Union for Conservation of Nature
kV	kilovolt
kW	kilowatt
kWh	kilowatt-hour
Law Foundation	Law Foundation of Silicon Valley
LBP	lead-based paint
LCFS	Low Carbon Fuel Standard
L_{dn}	average A-weighted noise level during a 24-hour day; also referred to as “DNL”
LDT	light-duty truck
LED	light-emitting diode
LEED	Leadership in Energy and Environmental Design
LEED ND	Leadership in Energy and Environmental Design for Neighborhood Development
L_{eq}	equivalent-continuous sound level
LI	Light Industrial Zoning District
L_{max}	maximum, instantaneous noise level experienced during a given period of time
L_{min}	minimum, instantaneous noise level experienced during a given period of time
LOS	level of service
LRT	light-rail transit
LT	long-term
LTA	local transportation analysis
LTS	less than significant
LTSM	less than significant after mitigation

Abbreviation/Acronym	Definition
LUC	land use covenant
MBR	membrane bioreactor
MBTA	Migratory Bird Treaty Act
MCL	maximum contaminant level
MEIR	maximally exposed individual receptor
MEK	butanone (also known as methyl ethyl ketone)
MERV	Minimum Efficiency Reporting Value
MIGR	Migratory
MLD	most likely descendant
MMBtu	million British thermal units
MMT	million metric tons
$MMTCO_2e$	million metric tons of carbon dioxide equivalent
MOU	memorandum of understanding
mpg	miles per gallon
mph	miles per hour
MPO	Metropolitan Planning Organization
MRB	membrane bioreactor
MRDS	Mineral Resources Data System
MRF	material recovery facilities
MRP	Municipal Regional Permit
MS4	municipal separate storm sewer system
MSA	Metropolitan Statistical Area
MT	metric ton
MTBE	methyl tertiary butyl ether
MTC	Metropolitan Transportation Commission
$MTCO_2e$	metric tons of carbon dioxide equivalent
$MTCO_2e$/year/SP	metric tons of carbon dioxide equivalent per year per service population
MUN	Municipal and Domestic Water Supply
M_w	Moment Magnitude
MW	megawatt
MWh	megawatt-hour
N/A	not applicable
NAAQS	national ambient air quality standards
NAHC	Native American Heritage Commission
ND	negative declaration
NECPA	National Energy Conservation Policy Act
NESHAP	National Emission Standards for Hazardous Air Pollutant
NFHL	National Flood Hazard Layer
NFIP	National Flood Insurance Program
NFPA	National Fire Protection Association
NHTSA	National Highway Traffic Safety Administration

Abbreviation/Acronym	Definition
NI	no impact
NMFS	National Marine Fisheries Service
NO	nitric oxide
NO_2	nitrogen dioxide
NOA	notice of availability
NOP	notice of preparation
NO_X	oxides of nitrogen
NPDES	National Pollutant Discharge Elimination System
NR	National Register of Historic Places
NWIC	Northwest Information Center
OEHHA	California Office of Environmental Health Hazard Assessment
OFFROAD	CARB off-road vehicle model
OPR	California Governor's Office of Planning and Research
OSH	Orchard Supply Hardware
OSHA	Occupational Safety and Health Administration
P/O	permit to operate
PAH	polynuclear aromatic hydrocarbon
PBCE	Planning, Building, and Code Enforcement
PCB	polychlorinated biphenyl
PD	Planned Development Zoning District
PDA	Priority Development Area
PDO	San José's Parkland Dedication Ordinance
PFAs	per- and polyfluoroalkyl substances
PG&E	Pacific Gas and Electric Company
PIO	San José's Parkland Impact Ordinance
PM_{10}	particulate matter 10 microns or less in diameter
$PM_{2.5}$	particulate matter 2.5 microns or less in diameter
Porter-Cologne Act	Porter-Cologne Water Quality Control Act
ppb	parts per billion
ppm	parts per million
PPV	peak particle velocity
PQP	Public/Quasi-Public Zoning District
PRC	Public Resources Code
PRMMP	Paleontological Resources Monitoring and Mitigation Plan
PRNS	San José Parks, Recreation, and Neighborhood Services Department
PROC	Industrial Process Water Supply
PV	photovoltaic
PVC	polyvinyl chloride
RARE	Preservation of Rare and Endangered Species
RCRA	Resource Conservation and Recovery Act
REC-1	Water Contact Recreation

Abbreviation/Acronym	Definition
REC-2	Noncontact Water Recreation
REL	Reference Exposure Level
RMS	root mean square
ROG	reactive organic gas
ROW	right-of-way
RPS	Renewable Portfolio Standard
RTP	regional transportation plan
RTTCP	recommended temporary traffic control plan
RWF	regional wastewater facility
S	significant
SAAG	Diridon Station Area Advisory Group
SAFE	Safer Affordable Fuel-Efficient
SB	Senate Bill
SCA	standard condition of approval
SCBWMI	Santa Clara Basin Watershed Management Initiative
SCCDEH	Santa Clara County Department of Environmental Health
SCIA	sewer capacity impact analysis
Scoping Plan	Climate Change Scoping Plan
SCR	selective catalytic reduction
SCRAM	Support Center for Regulatory Atmospheric Modeling
SCS	Sustainable Communities Strategies
SCVURPPP	Santa Clara Valley Urban Runoff Pollution Prevention Program
SENL	single-event noise level
sf	square feet
SFBAAB	San Francisco Bay Area Air Basin
SGMA	Sustainable Groundwater Management Act
SIL	Significant Impact Level
SJCE	San José Clean Energy
SJFD	San José Fire Department
SJPD	San José Police Department
SJPL	San José Public Library
SJUSD	San José Unified School District
SJW	San Jose Waterworks
SLCP	short-lived climate pollutant
SMP	site management plan
SO_2	sulfur dioxide
SOV	single occupancy vehicle
SPRR	Southern Pacific Railroad
SPWN	Fish Spawning
SR	State Route
SSO	sanitary sewer overflow

Abbreviation/Acronym	Definition
STEM	science, technology, engineering, and mathematics
SU	significant and unavoidable adverse impact, no feasible mitigation
SUM	significant and unavoidable adverse impact, after mitigation
SVP	Society of Vertebrate Paleontology
SWPPP	storm water pollution prevention plan
TA	transportation analysis
TAC	toxic air contaminant
TCE	trichloroethene
TDM	transportation demand management
TERPS	Terminal Instrument Procedures
TMDL	total maximum daily load
TNC	transportation network company
TOB	top-of-bank
TOD	transit-oriented district
TOG	total organic gas
TPA	Transit Priority Area
TPH	total petroleum hydrocarbon
TRU	transportation refrigeration unit
UCERF3	Third Uniform California Earthquake Rupture Forecast
UCMP	University of California Museum of Paleontology
UPRR	Union Pacific Railroad
USACE	U.S. Army Corps of Engineers
USC	U.S. Code
USDOT	U.S. Department of Transportation
USFWS	U.S. Fish and Wildlife Service
USGBC	U.S. Green Building Council
USGS	U.S. Geological Survey
USPS	U.S. Postal Service
UST	underground storage tank
UWMP	urban water management plan
V/C	volume-to-capacity
VdB	vibration decibels
VDECS	Verified Diesel Emissions Control Strategies
VFA	volatile fatty acid
VMT	vehicle miles traveled
VOC	volatile organic compound
VTA	Santa Clara Valley Transportation Authority
VTP	Valley Transportation Plan
W	watt
WBWG	Western Bat Working Group
WDR	waste discharge requirement

Abbreviation/Acronym	Definition
WGCEP	Working Group on California Earthquake Probabilities
WILD	Wildlife Habitat
WRF	water reuse facility
WSA	water supply assessment
WWTP	wastewater treatment plant
XSIC	Xerces Society for Invertebrate Conservation
ZEV	zero-emission vehicle
ZWED	Zero Waste Energy Development Company

CHAPTER S
Summary

This environmental impact report (EIR) has been prepared by the City of San José (City) to evaluate the potential environmental effects of the development of the Downtown West Mixed-Use Plan (proposed project), in compliance with the California Environmental Quality Act (CEQA), the CEQA Guidelines, and Title 21 of the San José Municipal Code. This summary chapter is intended to provide an overview of the environmental analysis as required by CEQA Guidelines Section 15123.

S.1 Project Summary

Google LLC, the project applicant, is proposing the project as part of the company's expansion of its workforce and business operations in the Bay Area. To accommodate workforce growth and create more efficient transportation linkages between Google workplaces and employees' homes, the proposed project is located largely in the area included in the City of San José's Diridon Station Area Plan (DSAP), which envisions a new high-density job center anchored by public transportation. The proposed project would include a mix of uses generally consistent with the DSAP, providing for a mixed-use Downtown neighborhood.

The project site is located in the western portion of Downtown San José, mostly in the DSAP area, although the site also includes the former San Jose Water Company site at 374 W. Santa Clara Street, which is not part of the existing DSAP (refer to Figure 2-1, *Project Location Map*, in Chapter 2, *Project Description*). The proposed project includes an amendment to the DSAP to bring the 374 W. Santa Clara Street site within the DSAP boundary. The project site is generally bounded by Lenzen Avenue and the Union Pacific Railroad tracks to the north; North Montgomery Street, Los Gatos Creek, the Guadalupe River, South Autumn Street, and Royal Avenue to the east; Auzerais Avenue to the south; and Diridon Station and the Caltrain rail tracks to the west. Cahill Street fronts Diridon Station and runs generally parallel to the rail tracks in the project's central area.

The proposed project consists of the demolition of most existing buildings on the project site and phased development of new buildings on approximately 81 acres on the west side of Downtown San José. The proposed project would require amendments to the General Plan and DSAP, Planned Development Rezoning, a Planned Development Permit, including adoption of the Downtown West Design Standards and Guidelines; Vesting Tentative Map(s)/Tentative Map(s)/Final Map(s); and related entitlements from the City including, but not limited to, a Development Agreement and permits related to tree removal, demolition, grading, building,

encroachment, solid waste, and historic preservation. The proposed project would include the following uses:

- A maximum of 7.3 million gross square feet (gsf) of commercial office space
- A maximum of 5,900 residential units
- A maximum of 500,000 gsf of active uses (commercial retail/restaurant, arts, cultural, live entertainment, community center, institutional, childcare and education, maker spaces, non-profit, and small-format office space, as well as one or more live entertainment venues)
- A maximum of 300 hotel rooms
- A maximum of 800 rooms of limited-term corporate accommodations (lodging of company workforce for not more than 60 consecutive days and not open to the public; considered a non-residential use)
- A maximum of 100,000 gsf of event and conference space
- On- and off-street public/commercial and residential parking
- A district-systems approach to on-site utilities delivery,[1] including designated infrastructure zones with centralized utility plants totaling approximately 130,000 gsf.
- One or more on-site logistics centers to serve the commercial on-site uses that would occupy a total of about 100,000 gsf
- A total of approximately 15 acres of parks, plazas, and open space, including areas for outdoor seating and commercial activity (such as retail, cafes, and restaurants), green spaces, landscaping, mid-block passages, riparian setbacks, and trails
- Various improvements to the public realm to improve transit access and pedestrian and bicycle circulation and facilitate connectivity, both within the site and to and from surrounding neighborhoods

The project would also include the adoption of Design Standards and Guidelines, an enforceable series of design-focused standards, along with advisory guidelines, that would govern development on the project site and that would be approved as part of the Planned Development Permit. The complete Downtown West Design Standards and Guidelines document is provided as Appendix M. Finally, the project may include further land assembly by the project applicant.[2]

[1] A "district" utility system essentially entails creating an on-site utility network separate from, though sometimes linked to, the citywide or regional networks. District systems are most commonly used for building space heating and cooling, but may also be employed to generate and/or distribute electricity, collect and treat wastewater and stormwater, and the like. A small mutual water system serving a rural area is another common example of a district utility system. District systems shift infrastructure from individual building systems such as chillers and cooling towers to centralized facilities such as thermal central utility plants serving multiple buildings to enable more efficient operations.

[2] The project site, as defined herein, includes certain parcels not currently under the control of the applicant. Specifically, the project site includes parcels owned by the City of San José (parking lots adjacent to the SAP Center), as well as the Santa Clara County Valley Transportation Authority (southeast corner of West Santa Clara and Cahill Streets). These landowners have granted the applicant the authority to include their parcels in the project description for analysis in this EIR, and the applicant may purchase or lease one or more of these parcels in the future. The applicant is also seeking various access easements that would be added to the project site if obtained.

S.2 Assembly Bill 900

In summer 2019, the project applicant, Google LLC, filed an application for the Governor's certification of the project under the Jobs and Economic Improvement through Leadership Act of 2011 (Assembly Bill [AB] 900 as amended by Senate Bill 734 and AB 246). The application was subject to public review from September 3, 2019, through October 3, 2019.[3] On December 30, 2019, Governor Gavin Newsom certified the project.

AB 900, as amended, provides judicial streamlining benefits under CEQA for certified environmental leadership development projects, which must:

1. Result in a minimum investment of $100 million in California upon completion of construction;
2. Create high-wage, highly skilled jobs that pay prevailing wages and living wages and provide construction jobs and permanent jobs for Californians, and help reduce unemployment;
3. Not result in any net additional greenhouse gas (GHG) emissions;
4. Comply with state requirements for commercial and organic waste recycling;
5. Have a binding agreement with the lead agency committing to implement and monitor mitigation measures required to comply with AB 900, as amended; and
6. Agree to pay appellate court costs if applicable and the cost of preparing the administrative record of proceedings.[4]

As required by Public Resources Code Section 21185, the Judicial Council adopted rules of court establishing procedures that apply to actions or proceedings brought to attack, review, set aside, void, or annul the certification of the EIR for an environmental leadership development project (certified by the Governor pursuant to AB 900) or the granting of any project approvals. The procedures require that the actions or proceedings, including any potential appeals, be resolved to the extent feasible within 270 days of the day that the certified record of proceedings was filed with the court. This creates an accelerated time frame for CEQA litigation. The procedures can be found in California Rules of Court Rules 3.2220 to 3.2231.

S.3 Summary of Environmental Impacts

Table S-1 provides an overview of the analysis in Chapter 3, *Environmental Setting, Impacts, and Mitigation*. Impacts are categorized by the type of impact as follows:

- *No Impact.* The scenario in which no adverse physical changes to (or impacts on) the environment are expected.
- *Less-than-Significant Impact.* An impact that does not exceed the defined significance criteria or would be eliminated or reduced to a less-than-significant level through compliance with existing federal, state, and local laws and regulations.

[3] Governor's Office of Planning and Research, *California Jobs (AB 900): Submitted Applications, 2019080493, Downtown West Mixed-Use Project.* Available at http://opr.ca.gov/ceqa/california-jobs.html, accessed November 2, 2019.
[4] California Public Resources Code Section 21183.

- *Less-than-Significant Impact with Mitigation.* An impact that would be reduced to a less-than-significant level through implementation of the identified mitigation measure(s).
- *Significant and Unavoidable Impact.* An adverse effect that meets the significance criteria, but there appears to be no feasible mitigation available to reduce the impact to a less-than-significant level. In some cases, mitigation may be available to lessen a given impact, but the residual effects of that impact would continue to be significant even after implementation of the mitigation measure(s).

As indicated in Table S-1, with mitigation measures incorporated, the proposed project would result in significant and unavoidable impacts related to air quality, cultural resources, and noise and vibration, and would make a cumulatively considerable contribution to a significant and unavoidable cumulative impact to population and housing.

S.4 Summary of Alternatives to the Proposed Project

CEQA requires that an EIR identify alternatives to the project as proposed and evaluate their comparative merits. CEQA Guidelines Section 15126.6 states that an EIR must describe a "reasonable range of potentially feasible alternatives," focusing on those that "would feasibly attain most of the basic objectives of the project, but would avoid or substantially lessen any of the significant environmental effects of the project." Based on the requirements of CEQA and the summary of environmental impacts presented above, this EIR describes and analyzes four alternatives to the project. A summary of project alternatives follows. A full analysis of project alternatives is provided in Chapter 5, *Alternatives,* along with a description of other alternatives considered by the City that were not selected for in-depth analysis.

S.4.1 No Project/DSAP Development Alternative

Under the No Project/DSAP Development Alternative, the project applicant's Downtown West Mixed-Use Plan would not move forward, and development on the site would continue to occur over time based on market demand and consistent with the existing DSAP. Lots A, B, and C would remain as surface parking for the foreseeable future, and Block E (the former San Jose Water Company site) would remain outside the DSAP boundary, where a previously approved development project would proceed unchanged, resulting in construction of approximately 1.04 million gsf of office and retail space and 325 residential units on Block E (included in the program for this alternative). Overall, under this alternative development on the project site would be less than under the proposed project, yielding up to an estimated 4.9 million gsf of office uses, 419 hotel rooms, 625 dwelling units, and 380,000 square feet of retail/restaurant uses in the 81-acre planning area. The overall intensity of development within the project site, measured by building floor area, would be reduced by approximately 56 percent compared to the proposed project. Given the reduced development program, this alternative would likely preserve one or more historical resources that would be adversely affected under the proposed project.

The No Project/DSAP Development Alternative would not result in as much new housing or office space as the proposed project, and would generally have reduced impacts compared to the project because of the lesser intensity of uses proposed. However, most of the project's

significant and unavoidable impacts would still occur related to air quality, cultural resources, land use, noise and vibration, and population and housing, even with mitigation measures identified in the EIR. The No Project/DSAP Development Alternative would not address the stated objectives of either the project applicant or the City for the project, which are outlined in Chapter 2, *Project Description*.

S.4.2 Historic Preservation Alternative

This alternative would retain, adaptively reuse, and avoid adverse effects all nine of the historical resources identified on the project site. This alternative would also reduce the sizes of buildings proposed near historic resources, setting them back from historical resources. Overall, the Historic Preservation Alternative would include less development than the proposed project. Specifically, the number of residential dwelling units would be approximately up to 5,665 units (235 fewer than under the proposed project); the number of limited-term corporate accommodation units would be reduced by about 460, to a maximum of 340; and the maximum amount of office space would be reduced by about 1,610,000 gsf, to a maximum of 5,690,000 gsf. The floor area of active uses (e.g., commercial retail/restaurant, cultural, institutional, child care, and education) and infrastructure-related buildings would also be reduced approximately in proportion to the decrease in office uses. The number of hotel rooms would be unchanged from the proposed project, event/conference space would be reduced by half, to 50,000 gsf. The overall intensity of development, measured by building floor area, would be reduced by approximately 17 percent as compared to the proposed project. This alternative would not include all of the project's proposed street network changes in the central portion of the site.

The Historic Preservation Alternative would not result in as much overall development as the proposed project, and would have reduced impacts compared to the proposed project because of the lesser intensity of uses proposed. However, the relatively modest reduction in development program would not avoid all of the project's significant and unavoidable impacts in the areas of air quality, land use, noise and vibration, or population and housing, although the severity of impacts would be marginally reduced compared to those of the proposed project. This alternative would, however, avoid all of the proposed project's significant unavoidable impacts on historic architectural resources. The Historic Preservation Alternative would meet many of the project objectives. However, it would not advance, to the same degree, the City's objectives for dense, transit-oriented development that aligns with the General Plan, DSAP, and Downtown Strategy 2040. This alternative also would not implement certain circulation improvements, particularly in the core of the site, would generate somewhat less economic growth, would develop a less cohesive plan due to gaps in the center of the site, and would offer less in the way of operational and energy efficiency than would the proposed project.

S.4.3 Historic Preservation/CLUP Noise Compliance Alternative

The Historic Preservation/San José International Airport Comprehensive Land Use Plan (CLUP) Noise Compliance Alternative would combine aspects of the Preservation Alternative and the proposed project to avoid significant impacts to all but one of the historical resources on the

project site and would also avoid significant noise and land use effects related to non-compliance with the CLUP airport noise exposure policy. It would avoid adverse effects to eight of the nine historical resources on the project site, but would include the project's proposed additions and alterations to the former Hellwig Iron Works Building at 150 South Montgomery to create an architectural icon. Because this transformation would appear to alter the building form and affect its historic integrity, it would result in a significant and unavoidable impact, similar to the proposed project. This alternative would develop a maximum of 3,600 dwelling units, 2,300 fewer than the project, and 436,000 gsf of active uses, about 13 percent less than the project. No residential uses would be developed on several blocks proposed for residential development under the project. This alternative would retain the project's proposed 7.3 million gsf of office space, 300 hotel rooms, 800 units of limited-term corporate accommodation, 100,000 gsf of conference/event space, and 230,000 gsf devoted to infrastructure and utilities. Total development would be about 14 percent less than the project. The change in location of residential units would avoid most development of new residential units within the 65 dBA CNEL airport noise contour, while the relatively small number residential units within the noise contour would not include outdoor space. Like the Historic Preservation Alternative, this alternative would not make all of the street network changes in the central portion of the site.

The Historic Preservation/CLUP Noise Compliance Alternative would result in a similar level of development to the Historic Preservation Alternative, and would have reduced impacts compared to the proposed project. However, the relatively modest reduction in development program would not avoid all of the project's significant and unavoidable impacts in the areas of air quality, cultural resources noise and vibration (traffic noise only), or population and housing, although the severity of impacts would be marginally reduced compared to those of the proposed project. This alternative would, however, avoid most of the proposed project's significant unavoidable impacts on historic architectural resources and would also avoid land use and noise impacts related to airport noise. The Historic Preservation/CLUP Noise Compliance Alternative would meet many of the project objectives. However, while providing the applicant's desired amount of open space and City-desired economic vitality, this alternative would develop nearly 40 percent (2,300 units) less housing than the project, which would also reduce the amount of affordable housing. This alternative also would not implement certain circulation improvements, particularly in the core of the site, would generate somewhat less economic growth, would develop a less cohesive plan due to gaps in the center of the site, and would offer less in the way of operational and energy efficiency than would the proposed project.

S.4.4 150 South Montgomery Street Preservation Alternative

This alternative would be identical to the proposed project except that it would not include the proposed project's alterations and additions to the building at 150 South Montgomery Street (historic Hellwig Ironworks) to accommodate new arts and cultural uses. Instead, the 150 South Montgomery Street building would be preserved and/or rehabilitated and adaptively reused in compliance with the Secretary's Standards for the Treatment of Historic Properties. Land use designations and height limits would be the same as under the proposed project, as would the proposed development program, because the program space identified for addition(s) to the 150 South Montgomery Street building would be developed elsewhere on the project site.

Impacts of this alternative would be virtually identical to those of the proposed project, with the exception of Impact CU-3 (additions and modifications to 150 South Montgomery Street). With the proposed project, this impact would be significant and unavoidable, but with this alternative, the impact would be less than significant with mitigation because the 150 South Montgomery Street building would not be adversely affected. No other impacts would be meaningfully different than those of the project. The very minor decrease in construction activity, compared to that with the proposed project, would not measurably decrease air quality or noise impacts, and the minor redistribution of traffic, should it occur, would not measurably change transportation impacts.

The 150 South Montgomery Street Preservation Alternative would meet all project objectives except that the 150 South Montgomery site would likely not be the "world-class, architecturally iconic civic/cultural center for the City of San José" with a "combination and juxtaposition of historic and contemporary design elements," as is proposed under the project.

S.4.5 Reduced Office Alternative

This alternative would include the same amount of housing as the proposed project and a reduced amount of commercial office space, and is intended to reduce the project's contribution to the cumulative jobs/housing impact identified in this EIR (Section 3.11, *Population and Housing*). The Reduced Office Alternative would include less overall development than the proposed project. Specifically, this alternative would include a maximum of only 3 million gsf of office space (almost 60 percent less than the project). In addition, the number of limited-term corporate accommodation rooms would also be reduced by 60 percent, to a maximum of 320 rooms, while infrastructure-related building space would be reduced by approximately 30,000 gsf (13 percent). Active uses (e.g., commercial retail/restaurant, cultural, institutional, child care and education) also would be reduced by approximately 275,000 gsf (55 percent), to a maximum of 225,000 gsf. The Reduced Office Alternative would provide up to 5,900 dwelling units and 300 hotel rooms, the same quantities as under the proposed project. The overall intensity of development, measured by building floor area, would be reduced by approximately 36 percent compared to the proposed project. Given the reduced development program, this alternative would likely preserve one or more historical resources that would be adversely affected under the proposed project.

With its smaller development program, this alternative would have reduced impacts compared to the project, because of the lesser intensity of uses proposed. Despite the large reduction in development program, however, the Reduced Office Alternative would not avoid all of the proposed project's significant unavoidable impacts in the areas of air quality, cultural resources, land use, or noise and vibration, although the severity of impacts would be greatly reduced as compared to those of the proposed project. This alternative would, however, avoid the proposed project's significant impact with respect to its cumulatively considerable contribution to the cumulative significant and unavoidable jobs/housing ratio impact projected to occur by 2040 under the General Plan.

The Reduced Office Alternative would meet some of the project objectives. However, with substantially less development, it would not do as much as the project to further City goals, stated in the General Plan, DSAP and Downtown Strategy 2040, of substantially improving the

Downtown jobs-to-housing ratio. In addition, the lesser office program would reduce the project's community benefits, including affordable housing, and this alternative would not meet the applicant's core objective to accommodate expansion of its operations in a transit-accessible Bay Area location. This alternative also would offer less operational and energy efficiency than the proposed project.

S.4.6 Reduced Intensity Alternative

The proposed project would result in a significant and unavoidable impact related to criteria pollutant emissions, and the Reduced Intensity Alternative was developed to reduce emissions from project operations. Compared to the proposed project, the Reduced Intensity Alternative would include approximately 55 percent less overall development, measured by building floor area. Specifically, this alternative would include up to 3 million gsf of office space, up to 2,655 dwelling units, a maximum of 150,000 gsf of active uses (e.g., commercial retail/restaurant, cultural, institutional, child care, and education), up to 135 hotel rooms, up to 320 units of limited-term corporate accommodation, as much as 45,000 gsf of event/conference space, and a maximum 127,000 gsf of infrastructure-related building space. Overall development would be about 58 percent less than with the project. Given the reduced development program, this alternative would likely preserve one or more historical resources that would be adversely affected under the proposed project.

With its substantially smaller development program, this alternative would have reduced impacts compared to the project because of the lesser intensity of uses proposed. Despite the large reduction in development program, however, the Reduced Intensity Alternative would not avoid all of the project's significant unavoidable impacts in the areas of air quality, cultural resources, land use, noise and vibration, or population and housing, although the severity of impacts would be greatly reduced, compared to those of the proposed project.

The Reduced Intensity Alternative would meet some of the project objectives. However, with substantially less development, it would not substantially address the stated objectives of either the project applicant or the City for the project site, as memorialized in the MOU, dated December 4, 2018. In addition, the Reduced Intensity Alternative would generate less in the way of community benefits, including affordable housing, and fewer economic benefits to the City. This alternative also would not meet the applicant's core objective to accommodate expansion of its operations in a transit-accessible Bay Area location. This alternative also would offer less operational and energy efficiency than the proposed project.

S.4.7 Environmentally Superior Alternative

Each of the alternatives selected for analysis would have different and somewhat lesser impacts than the proposed project, although each would continue to have significant and unavoidable impacts.

The CEQA Guidelines specify that an EIR must identify the environmentally superior alternative among those discussed. If the environmentally superior alternative is the "No Project" alternative, the EIR shall also identify an environmentally superior alternative among the other alternatives.

The Reduced Intensity Alternative is the environmentally superior alternative because it would substantially reduce the project's significant air quality impacts (Impacts AQ-2, AQ-3, C-AQ-1, and C-AQ-2) and would substantially reduce noise impacts (Impacts NO-1b, NO-1c, C-NO-1, and C-NO-2). In addition, the Reduced Intensity Alternative would most likely reduce, and could potentially avoid, the project's significant unavoidable impacts due to demolition and substantial alteration of cultural resources (Impacts CU-1, CU-3, and C-CU-1). On the whole, due to the overall reduced scale of development, this alternative was found to provide a relatively greater decrease in significant environmental impacts than the other alternatives considered for the project site. It should be noted, however, that to the extent that the demand for additional developed space that would otherwise be built pursuant to the proposed project would be met elsewhere in the Bay Area, employees in and residents of such development could potentially generate greater impacts on transportation systems (including vehicle miles traveled), air quality, and greenhouse gases than would be the case for development on the more compact and better-served-by-transit project site.

S.5 Known Areas of Controversy

The City of San José issued a Notice of Preparation on October 23, 2019, seeking input from public agencies and the public regarding the scope of the EIR. A copy of the notice and letters received during the scoping period, which extended from October 23, 2019, to November 22, 2019, are included in Appendix A. In total, 34 comment letters and emails were received. Issues of concern reflected in these letters and emails include, but are not limited to, the following:

- The potential for the project to cause gentrification or displacement of existing residents.
- The potential for glare and light pollution.
- The potential for increased traffic and impacts on all modes of transportation.
- The potential for air quality impacts and human health risks from air pollutant emissions from increased traffic.
- The potential for impacts on biological resources and Los Gatos Creek.
- The potential for greenhouse gas impacts.
- The presence of hazardous materials on the site and the need for mitigation measures to reduce the impacts of hazardous materials.
- The need for a water supply assessment and potential impacts on existing water supply infrastructure.
- The need to consider a range of residential and other non-office uses.
- The potential for noise impacts on nearby residents.
- The issue of emergency access.
- The potential for effects on nearby parks and trails.
- Increased project-related demand for utilities.

During the scoping period, the City also conducted a public scoping meeting to seek oral input from public agencies and the general public regarding the environmental issues and concerns that

may potentially result from the proposed project. A copy of the scoping meeting transcript is also included in Appendix A. A total of 13 speakers provided comments during the scoping meeting, raising issues of concern including, but not limited to, the following:

- The need to address cyclist and pedestrian safety during construction.
- The need to consider the effects of flooding.
- The need to address emergency access and response during construction.
- The potential for social and economic effects such as displacement.
- The need to include open space.
- The potential for transportation effects associated with additional vehicle trips and potential cumulative transportation impacts.
- The potential for impacts on adjacent properties and the surrounding neighborhood.
- The need to integrate the new transportation network into the City's existing network.
- The presence of a historic neighborhood and potential impacts on cultural resources.
- The potential for construction noise.
- The need to reduce greenhouse gas emissions and climate change.
- The potential for impacts on biological resources and effects on nearby creeks.

For more details on the issues of concern raised by public agencies and members of the public, which represent potential areas of controversy, refer to the letters and transcript in Appendix A.

S.6 Issues to Be Resolved

The major issues to be resolved for the proposed project include decisions by the City of San José, as the lead agency, whether this EIR adequately describes the environmental impacts of the project; whether recommended mitigation measures should be adopted or modified; and whether additional measures need to be applied to the project. In addition, the City will need to determine whether potentially feasible alternatives exist that would achieve most of the basic objectives of the project and reduce significant environmental effects; whether the potential benefits of the project would outweigh the significant and unavoidable impacts identified in the EIR; and whether the project should or should not be approved.

TABLE S-1
SUMMARY OF IMPACTS AND MITIGATION

Impact Statement	Level of Significance prior to Mitigation	Mitigation Measures	Level of Significance after Mitigation
3.1 Air Quality			
Impact AQ-1: The project would not conflict with or obstruct implementation of the applicable air quality plan.	S	**Mitigation Measure AQ-2a: Construction Emissions Minimization Plan** (refer to Impact AQ-2) **Mitigation Measure AQ-2b: Construction Equipment Maintenance and Tuning** (refer to Impact AQ-2) **Mitigation Measure AQ-2c: Heavy-Duty Truck Model Year Requirement** (refer to Impact AQ-2) **Mitigation Measure AQ-2d: Super-Compliant VOC Architectural Coatings during Operations** (refer to Impact AQ-2) **Mitigation Measure AQ-2e: Best Available Emissions Controls for Stationary Emergency Generators** (refer to Impact AQ-2) **Mitigation Measure AQ-2f: Operational Diesel Truck Emissions Reduction** (refer to Impact AQ-2) **Mitigation Measure AQ-2g: Electric Vehicle Charging** (refer to Impact AQ-2) **Mitigation Measure AQ-2h: Enhanced Transportation Demand Management Program** (refer to Impact AQ-2) **Mitigation Measure AQ-3: Exposure to Air Pollution—Toxic Air Contaminants** (refer to Impact AQ-3) **Mitigation Measure AQ-5: Hydrogen Sulfide and Odor Management Program for the Potential Water Reuse Facility(s)** (refer to Impact AQ-5)	LTSM
Impact AQ-2: The proposed project would result in a cumulatively considerable net increase of a criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard.	S	**Mitigation Measure AQ-2a: Construction Emissions Minimization Plan** To ensure that the project features assumed in the analysis of air pollutant emissions are implemented, and to further reduce criteria pollutant emissions from construction activities, the project applicant shall implement the following measures prior to the issuance of any demolition, grading, or building permits for each phase of the project: 1. *Engine Requirements.* a. As part of the project design, all off-road construction equipment with engines greater than 25 horsepower must adhere to Tier 4 Final off-road emissions standards, if commercially available (refer to Item #2, *Engine Requirement Waivers*, below, for the definition of "commercially available"). This adherence shall be verified through submittal of an equipment inventory and Certification Statement to the Director of Planning, Building and Code Enforcement or the Director's designee. The Certification Statement must state that each	SU

IMPACT CODES:

NA = not applicable
NI = no impact
LTS = less than significant or negligible impact; no mitigation required
LTSM = less than significant or negligible impact, after mitigation
S = significant
SU = significant and unavoidable adverse impact, after mitigation (where applicable)

TABLE S-1
SUMMARY OF IMPACTS AND MITIGATION

Impact Statement	Level of Significance prior to Mitigation	Mitigation Measures	Level of Significance after Mitigation
		contractor agrees to compliance and acknowledges that a significant violation of this requirement shall constitute a material breach of the contractor's agreement and/or the general contract with the project applicant. b. The project applicant shall use alternative fuels as commercially available, such as renewable diesel, biodiesel, natural gas, propane, and electric equipment. The applicant must demonstrate to the satisfaction of the Director of Planning, Building and Code Enforcement, or the Director's designee, that any alternative fuels used in any construction equipment, such as biodiesel, renewable diesel, natural gas, or other biofuels, reduce ROG, NO_X, and PM emissions compared to traditional diesel fuel. c. The project applicant shall use electricity to power off-road equipment, specifically for all concrete/industrial saws, sweepers/scrubbers, aerial lifts, welders, air compressors, fixed cranes, forklifts, and cement and mortar mixers, along with 90 percent of pressure washers and 70 percent of pumps, in all but isolated cases where diesel powered equipment is used as an interim measure prior to the availability of grid power at more remote areas of the site. Portable equipment shall be powered by grid electricity or alternative fuels (i.e., not diesel) instead of by diesel generators. 2. *Engine Requirement Waivers.* If engines that comply with Tier 4 Final off-road emission standards are not commercially available for specific off-road equipment necessary during construction, the project applicant shall provide the next cleanest piece of off-road equipment, as provided by the step-down schedule identified in Table M-AQ-2a. The project applicant shall provide to the Director of Planning, Building and Code Enforcement, or the Director's designee, for review and approval documentation showing that engines that comply with Tier 4 Final off-road emission standards are not commercially available for the specific off-road equipment necessary during construction. For purposes of this mitigation measure, "commercially available" shall take into consideration the following factors: (i) potential significant delays to critical-path timing of construction and (ii) the geographic proximity to the project site of Tier 4 Final equipment. The project applicant shall maintain records of its efforts to comply with this requirement.	

IMPACT CODES:

NA = not applicable
NI = no impact
LTS = less than significant or negligible impact; no mitigation required
LTSM = less than significant or negligible impact, after mitigation
S = significant
SU = significant and unavoidable adverse impact, after mitigation (where applicable)

TABLE S-1
SUMMARY OF IMPACTS AND MITIGATION

Impact Statement	Level of Significance prior to Mitigation	Mitigation Measures	Level of Significance after Mitigation

TABLE M-AQ-2A
OFF-ROAD EQUIPMENT COMPLIANCE STEP-DOWN SCHEDULE

Compliance Alternative	Engine Emissions Standard	Emissions Control
1	Tier 4 Interim	N/A
2	Tier 3	CARB Level 3 VDECS
3	Tier 2	CARB Level 3 VDCES

NOTES: CARB = California Air Resources Board; N/A = not applicable; VDECS = Verified Diesel Emissions Control Strategies

How to use the table: If engines that comply with Tier 4 Final off-road emission standards are not commercially available, the project applicant shall meet Compliance Alternative 1. If off-road equipment meeting Compliance Alternative 1 is not commercially available, the project applicant shall meet Compliance Alternative 2. If off-road equipment meeting Compliance Alternative 2 is not commercially available, the project applicant shall meet Compliance Alternative 3.

3. *Additional Exhaust Emissions Control Measures*.

   The Emissions Plan (described in greater detail under Item #5, *Construction Emissions Minimization Plan*, below) shall include the applicable measures for controlling criteria air pollutants and toxic air contaminants during construction of the proposed project. Control measures shall include but are not limited to the following:

   a. Idling times on all diesel-fueled commercial vehicles weighing more than 10,000 pounds shall be minimized either by shutting equipment off when not in use or by reducing the maximum idling time to two minutes, exceeding the five-minute limit required by the California airborne toxics control measure (California Code of Regulations Title 13, Section 2485s). Clear signage to this effect shall be provided for construction workers at all access points.

   b. Idling times on all diesel-fueled off-road vehicles exceeding 25 horsepower shall be minimized either by shutting equipment off when not in use or by reducing the maximum idling time to two minutes. Fleet operators must develop a written policy as required by California Code of Regulations Title 23, Section 2449 (“California Air Resources Board Off-Road Diesel Regulations”).

   c. Portable equipment shall be powered by grid electricity if available, instead of diesel generators. If grid electricity is not available, batteries or fuel cell systems or other non-diesel fuels shall be used for backup power.

IMPACT CODES:

NA = not applicable
NI = no impact
LTS = less than significant or negligible impact; no mitigation required
LTSM = less than significant or negligible impact, after mitigation
S = significant
SU = significant and unavoidable adverse impact, after mitigation (where applicable)

TABLE S-1
SUMMARY OF IMPACTS AND MITIGATION

Impact Statement	Level of Significance prior to Mitigation	Mitigation Measures	Level of Significance after Mitigation
		d. The project applicant shall use super-compliant volatile organic compound (VOC) architectural coatings during construction for all interior and exterior spaces and shall include this requirement on plans submitted for review by the City's building official. "Super-compliant" coatings are those that meet a limit of 10 grams VOC per liter (http://www.aqmd.gov/home/regulations/compliance/architectural-coatings/super-compliant-coatings). e. All equipment to be used on the construction site shall comply with the requirements of California Code of Regulations Title 13, Section 2449 ("California Air Resources Board Off-Road Diesel Regulations"). This regulation imposes idling limits; requires that all off-road equipment be reported to California Air Resources Board and labeled; restricts adding older vehicles to fleets starting January 1, 2014; and requires fleets to reduce their emissions by retiring, replacing, or repowering older engines, or installing Verified Diesel Emissions Control Strategies. Upon request by the City (and Bay Area Air Quality Management District if specifically requested), the project applicant and/or its contractor shall provide written documentation that fleet requirements have been met. f. Truck routes shall be established to avoid both on-site and off-site sensitive receptors. A truck route program, along with truck calming, parking, and delivery restrictions, shall be implemented. This program must demonstrate how the project applicant will locate the truck routes as far from on-site receptors as possible and how truck activity (travel, idling, and deliveries) will be minimized. The Construction Emissions Minimization Plan must include the location of construction truck routes and must demonstrate that routes have been established as far as possible from the locations of all on-site and off-site sensitive receptors. g. The project applicant shall encourage walking, bicycling, and transit use by construction employees by offering incentives such as on-site bike parking, transit subsidies, and additional shuttles. The project shall achieve a performance standard of diverting at least 50 percent of construction employee trips from single-occupant vehicles. This may include the use of carpools and vanpools for construction workers. 4. *Dust Control Measures*. The project applicant shall implement the following dust control requirements during construction of the project, consistent with the San José Downtown Strategy: a. All exposed surfaces shall be watered at a frequency adequate to maintain minimum soil moisture of 12 percent (verified by lab samples or moisture probe).	

IMPACT CODES:

NA = not applicable
NI = no impact
LTS = less than significant or negligible impact; no mitigation required
LTSM = less than significant or negligible impact, after mitigation
S = significant
SU = significant and unavoidable adverse impact, after mitigation (where applicable)

TABLE S-1
SUMMARY OF IMPACTS AND MITIGATION

Impact Statement	Level of Significance prior to Mitigation	Mitigation Measures	Level of Significance after Mitigation
		b. All excavation, grading, and/or demolition activities shall be suspended when average wind speeds exceed 20 miles per hour (mph). c. All trucks and equipment, including tires, shall be washed off before they leave the project site. d. All haul trucks transporting soil, sand, or other loose material off-site shall be covered. e. All visible mud or dirt track-out onto adjacent public roads shall be removed using wet power vacuum street sweepers at least once per day. The use of dry power sweeping is prohibited. f. All vehicle speeds on unpaved roads shall be limited to 15 mph. g. All roadways, driveways, and sidewalks to be paved shall be completed as soon as possible. Building pads shall be laid as soon as possible after grading unless seeding or soil binders are used. h. A publicly visible sign shall be posted, listing the telephone number and person to contact at the lead agency (the City) regarding dust complaints. This person shall respond and take corrective action within 48 hours. The sign shall also include the telephone number of the on-site construction manager. BAAQMD's phone number shall also be visible to ensure compliance with applicable regulations. i. Wind breaks (e.g., trees, fences) shall be installed on the windward side(s) of actively disturbed areas of construction. Wind breaks should have at maximum 50 percent air porosity. j. Vegetative ground cover (e.g., fast-germinating native grass seed) shall be planted in disturbed areas as soon as possible and watered appropriately until vegetation is established. k. Site accesses to a distance of 100 feet from the paved road shall be treated with a 6- to 12-inch compacted layer of wood chips, mulch, or gravel. l. Sandbags or other erosion control measures shall be installed to prevent silt runoff to public roadways from sites with a slope greater than 1 percent. 5. *Construction Emissions Minimization Plan*. Before starting each phase of on-site ground disturbance, demolition, or construction activities, the project applicant shall submit a Construction Emissions Minimization Plan (Emissions Plan) to the Director of the City of San José Department of Planning, Building and Code Enforcement, or the Director's designee, for review and approval. The Emissions Plan shall state, in reasonable detail, how the project applicant and/or its contractor shall meet the requirements of Section 1, Engine Requirements; Section 3, Additional Exhaust Emissions Control Measures; and Section 4, Dust Control Measures.	

IMPACT CODES:

NA = not applicable
NI = no impact
LTS = less than significant or negligible impact; no mitigation required
LTSM = less than significant or negligible impact, after mitigation
S = significant
SU = significant and unavoidable adverse impact, after mitigation (where applicable)

TABLE S-1
SUMMARY OF IMPACTS AND MITIGATION

Impact Statement	Level of Significance prior to Mitigation	Mitigation Measures	Level of Significance after Mitigation
		a. The Emissions Plan shall include estimates of the construction timeline, with a description of each piece of off-road equipment required. The description shall include but not be limited to equipment type, equipment manufacturer, engine model year, engine certification (tier rating), horsepower, and expected fuel usage and hours of operation. b. For off-road equipment using alternative fuels, the description shall also specify the type of alternative fuel being used. c. The project applicant shall ensure that all applicable requirements of the Emissions Plan have been incorporated into the contract specifications. The plan shall include a certification statement that each contractor agrees to comply fully with the plan. d. The Emissions Plan shall be verified through an equipment inventory and Certification Statement submitted to the Director of Planning, Building and Code Enforcement or the Director's designee. The Certification Statement must state that the project applicant agrees to compliance and acknowledges that a significant violation of this requirement shall constitute a material breach of the contractor's agreement with the project applicant and/or the general contractor. e. The project applicant and/or its contractor shall make the Emissions Plan available to the public for review on-site during working hours. The project applicant and/or its contractor shall post at the construction site a legible and visible sign summarizing the Emissions Plan. The sign shall also state that the public may ask to inspect the project's Emissions Plan at any time during working hours and shall explain how to request to inspect the Emissions Plan. The project applicant and/or its contractor shall post at least one copy of the sign in a visible location on each side of the construction site facing a public right-of-way. The sign shall include contact information for an on-site construction coordinator if any member of the public has complaints or concerns. 6. *Monitoring*. After the start of construction activities, the project applicant and/or its contractor shall submit annual reports to the Director of the City of San José Department of Planning, Building and Code Enforcement, or the Director's designee, documenting compliance with the Emissions Plan. The reports shall indicate the actual location of construction during each year and must demonstrate how construction of each project component is consistent with the Emissions Plan. **Mitigation Measure AQ-2b: Construction Equipment Maintenance and Tuning** Prior to the issuance of any demolition, grading, or building permits for each phase, the project applicant shall implement the following measures: 1. Instruct all construction workers and equipment operators on the maintenance and tuning of construction equipment and require such workers and operators to	

IMPACT CODES:

NA = not applicable
NI = no impact
LTS = less than significant or negligible impact; no mitigation required
LTSM = less than significant or negligible impact, after mitigation
S = significant
SU = significant and unavoidable adverse impact, after mitigation (where applicable)

TABLE S-1
SUMMARY OF IMPACTS AND MITIGATION

Impact Statement	Level of Significance prior to Mitigation	Mitigation Measures	Level of Significance after Mitigation
		properly maintain and tune equipment in accordance with the manufacturers' specifications. All equipment shall be checked by a certified mechanic and determined to be running in proper condition before operation. Equipment check documentation shall be kept at the construction site and be available for review by the City and Bay Area Air Quality Management District as needed. 2. Implement the construction minimization requirements of Mitigation Measure AQ-2a Item #5, *Construction Emissions Minimization Plan*. 3. Implement the monitoring requirements of Mitigation Measure AQ-2a Item #6, *Monitoring*. **Mitigation Measure AQ-2c: Heavy-Duty Truck Model Year Requirement** Prior to the issuance of any demolition, grading, or building permits for each phase, the project applicant shall ensure that all on-road heavy-duty trucks with a gross vehicle weight rating of 33,000 pounds or greater used at the project site during construction (such as haul trucks, water trucks, dump trucks, and vendor trucks) have engines that are model year 2014 or newer. This assurance shall be included in the construction contracts for all contractors and vendors using heavy-duty trucks for any construction-related activity. **Mitigation Measure AQ-2d: Super-Compliant VOC Architectural Coatings during Operations** Prior to the issuance of any building permits, the project applicant shall set an enforceable protocol for inclusion in all lease terms and/or building operation plans for all non-residential and residential developed blocks requiring all future interior and exterior spaces to be repainted only with "super-compliant" VOC (i.e., ROG) architectural coatings beyond BAAQMD requirements (i.e., Regulation 8, Rule 3: Architectural Coatings). "Super-compliant" coatings meet the standard of less than 10 grams VOC per liter (http://www.aqmd.gov/home/regulations/compliance/architectural-coatings/super-compliant-coatings). The Director of the City of San José Department of Planning, Building and Code Enforcement, or the Director's designee, shall review the mandatory protocol to ensure that this requirement is included, and shall mandate that this requirement be added if not included. **Mitigation Measure AQ-2e: Best Available Emissions Controls for Stationary Emergency Generators** To reduce emissions of criteria pollutants and TACs associated with operation of the proposed project, the project applicant shall implement the following measures. These features shall be submitted to the Director of the Department of Planning, Building and Code Enforcement, or the Director's designee, for review and approval, and shall be	

IMPACT CODES:

NA = not applicable
NI = no impact
LTS = less than significant or negligible impact; no mitigation required
LTSM = less than significant or negligible impact, after mitigation
S = significant
SU = significant and unavoidable adverse impact, after mitigation (where applicable)

TABLE S-1
SUMMARY OF IMPACTS AND MITIGATION

Impact Statement	Level of Significance prior to Mitigation	Mitigation Measures	Level of Significance after Mitigation
		included on the project drawings submitted for the construction-related permit(s) or on other documentation submitted to the City prior to the issuance of any building permits: 1. Permanent stationary emergency generators installed on-site shall have engines that meet or exceed CARB Tier 4 Off-Road Compression Ignition Engine Standards (California Code of Regulations Title 13, Section 2423), which have the lowest NO_X and PM emissions of commercially available generators. If the California Air Resources Board adopts future emissions standards that exceed the Tier 4 requirement, the emissions standards resulting in the lowest NO_X emissions shall apply. 2. As non-diesel-fueled emergency generator technology becomes readily available and cost effective in the future, and subject to the review and approval of the City fire department for safety purposes, non-diesel-fueled generators shall be installed in new buildings, provided that alternative fuels used in generators, such as biodiesel, renewable diesel, natural gas, or other biofuels or other non-diesel emergency power systems, are demonstrated to reduce ROG, NO_X, and PM emissions compared to diesel fuel. 3. Permanent stationary emergency diesel backup generators shall have an annual maintenance testing limit of 50 hours, subject to any further restrictions as may be imposed by Bay Area Air Quality Management District (BAAQMD) in its permitting process. 4. For each new diesel backup generator permit submitted to BAAQMD for the proposed project, the project applicant shall submit the anticipated location and engine specifications to the Director of the City of San José Department of Planning, Building and Code Enforcement, or the Director's designee, for review and approval prior to issuance of a permit for the generator. Once operational, all diesel backup generators shall be maintained in good working order for the life of the equipment, and any future replacement of the diesel backup generators must be consistent with these emissions specifications. The operator of the facility at which the generator is located shall maintain records of the testing schedule for each diesel backup generator for the life of that diesel backup generator and shall provide this information for review to the Director of the City of San José Department of Planning, Building and Code Enforcement, or the Director's designee, within three months of requesting such information. **Mitigation Measure AQ-2f: Operational Diesel Truck Emissions Reduction** The project applicant shall incorporate the following measures into the project design and construction contracts (as applicable) to reduce emissions associated with operational diesel trucks, along with the potential health risk caused by exposure to toxic air contaminants. These features shall be submitted to the Director of Planning, Building and Code Enforcement, or the Director's designee, for review and approval prior to the issuance of any building permits, and shall be included on the project	

IMPACT CODES:

NA = not applicable
NI = no impact
LTS = less than significant or negligible impact; no mitigation required
LTSM = less than significant or negligible impact, after mitigation
S = significant
SU = significant and unavoidable adverse impact, after mitigation (where applicable)

TABLE S-1
SUMMARY OF IMPACTS AND MITIGATION

Impact Statement	Level of Significance prior to Mitigation	Mitigation Measures	Level of Significance after Mitigation
		drawings submitted for the construction-related permit or on other documentation submitted to the City. Emissions from project-related diesel trucks shall be reduced by implementing the following measures: 1. Equip all truck delivery bays with electrical hook-ups for diesel trucks at loading docks to accommodate plug-in electric truck transportation refrigeration units (TRUs) during project operations. Ensure that intra-campus delivery vehicles traveling within the project site to serve the project applicant are all electric or natural gas. 2. Encourage the use of trucks equipped with TRUs that meet U.S. Environmental Protection Agency Tier 4 emission standards. 3. Prohibit TRUs from operating at loading docks for more than thirty minutes by posting signs at each loading dock presenting this TRU limit. 4. Prohibit trucks from idling for more than two minutes by posting "no idling" signs at the site entry point, at all loading locations, and throughout the project site. **Mitigation Measure AQ-2g: Electric Vehicle Charging** Prior to the issuance of the final building's certificate of occupancy for each phase of construction, the project applicant shall demonstrate that at least 15 percent of all parking spaces are equipped with electric vehicle (EV) charging equipment, which exceeds the San José Reach Code's requirement of 10 percent EV supply equipment spaces. The installation of all EV charging equipment shall be documented in a report submitted to the Director of the City of San José Department of Planning, Building and Code Enforcement, or the Director's designee, for review and approval, and shall be included on the project drawings submitted for the construction-related permit(s) or on other documentation submitted to the City. **Mitigation Measure AQ-2h: Enhanced Transportation Demand Management Program** The project applicant shall develop and submit a Transportation Demand Management (TDM) Program for review and approval by the Directors of Public Works and Planning, Building, and Code Enforcement or the Directors' designees prior to or concurrent with adoption of the PD Permit. The TDM program shall be designed such that all project-related daily vehicle trips are reduced with the primary focus on the office and residential components of the proposed project. (Office and residential trips would comprise approximately 85 percent of project vehicle trips and are assumed to serve as a proxy for all project trips.) The TDM program shall: (A) Be designed to meet performance standards that include exceeding the 15 percent transportation efficiency requirement of AB 900 *and* achieving additional vehicle	

IMPACT CODES:

NA = not applicable
NI = no impact
LTS = less than significant or negligible impact; no mitigation required
LTSM = less than significant or negligible impact, after mitigation
S = significant
SU = significant and unavoidable adverse impact, after mitigation (where applicable)

TABLE S-1
SUMMARY OF IMPACTS AND MITIGATION

Impact Statement	Level of Significance prior to Mitigation	Mitigation Measures	Level of Significance after Mitigation
		trip reductions to mitigate transportation-related environmental impacts and reduce criteria pollutant emissions from mobile sources, as described below; (B) Describe project features and TDM measures that shall and may be used to achieve the performance standard commitments; (C) Describe a monitoring and reporting program, including a penalty structure for non-compliance; and (D) Recognizing that commute patterns, behavior and technology continue to evolve, describe a process for amending and updating the TDM program as needed over time while continuing to achieve the performance standards described below. These elements of the TDM Program are described further below. A. **Performance Standards:** The project's TDM program shall be designed to achieve the performance standards described below: • Assuming currently available (pre-COVID-19) public transit service levels, achieve a non-single occupancy vehicle (SOV) rate of 50 percent, which is estimated to be equivalent to a 24 percent reduction in daily vehicle trips from the City of San José Travel Demand Forecasting Model's travel demand outputs. • Following completion of service enhancements related to Caltrain Electrification, achieve a non-SOV rate of 60 percent, which is estimated to be equivalent to a 26 percent reduction in daily vehicle trips from the City Travel Demand Forecasting Model's travel demand outputs. • Following completion of service enhancements related to the start of BART service to Diridon Station, achieve a non-SOV rate of 65 percent, which is estimated to be equivalent to a 27 percent reduction in daily vehicle trips from the City Travel Demand Forecasting Model's travel demand outputs. B. **TDM Program:** Project features and required SOV trip reduction strategies shall include the following elements: 1. Improvements to pedestrian and bicycle facilities on-site and connecting the site to surrounding areas, including construction/contribution to Los Gatos Creek Trail improvements and on-street connectors between West San Carlos Street and West Santa Clara Street; 2. Limited parking supplies on-site, including no more than 4,800 parking spaces for commercial uses and no more than 2,360 spaces for residential development (a portion of the residential spaces could be available as shared-use spaces for office employees) and enforcement of parking maximums for new uses as a disincentive for employees and visitors to the site, encouraging them to carpool, take transit, bike, and walk instead of drive;	

IMPACT CODES:

NA = not applicable
NI = no impact
LTS = less than significant or negligible impact; no mitigation required
LTSM = less than significant or negligible impact, after mitigation
S = significant
SU = significant and unavoidable adverse impact, after mitigation (where applicable)

TABLE S-1
SUMMARY OF IMPACTS AND MITIGATION

Impact Statement	Level of Significance prior to Mitigation	Mitigation Measures	Level of Significance after Mitigation
		3. Market-rate parking pricing for non-residential uses and unbundled parking for market-rate residential uses; 4. Pre-tax commuter benefits for employees allowing employees to exclude their transit or vanpooling expenses from taxable income or an alternate commuter benefit option consistent with the MTC/BAAQMD Commuter Benefits Program required for employers with 50 or more full-time employees; 5. Marketing (encouragement and incentives) to encourage transit use, carpooling, vanpooling, and all non-SOV travel by employees and residents, including welcome packets for new employees and residents, and dissemination of information about Spare the Air Days in the San Francisco Bay Area Air Basin, as recommended by the 2017 Clean Air Plan; and 6. Rideshare coordination, such as implementation of the 511 Regional Rideshare Program or equivalent, as recommended by the 2017 Clean Air Plan. Other supplemental SOV trip reduction strategies to meet performance standards shall include some combination of the following: **Transit Fare Subsidy**: Make available transit passes to employees and residents to make transit an attractive, affordable mode of travel. **Parking Pricing Structure**: Ensure that the parking pricing structure complements on-street parking pricing and encourages "park once" behavior for all uses. **Preferential Carpool and Vanpool Parking**: Provide dedicated parking for carpool and vanpool vehicles near building and garage entrances. **On-Site Bicycle Storage**: Provide additional security and convenience for bicycle parking, such as lockers or secured bicycle rooms. **Designated Ride-Hailing Waiting Areas**: Dedicate curbside areas for passenger pickup by ride-hailing services, to minimize traffic intrusion and double-parking by rideshare vehicles. **Traffic Calming**: Implement on-site traffic calming improvements to support the increased use of walking, biking, and transit.	

IMPACT CODES:

NA = not applicable
NI = no impact
LTS = less than significant or negligible impact; no mitigation required
LTSM = less than significant or negligible impact, after mitigation
S = significant
SU = significant and unavoidable adverse impact, after mitigation (where applicable)

TABLE S-1
SUMMARY OF IMPACTS AND MITIGATION

Impact Statement	Level of Significance prior to Mitigation	Mitigation Measures		Level of Significance after Mitigation
		Express Bus or Commuter Shuttle Services	Provide express bus or other commuter shuttle services to complement existing, high-quality, high-frequency public transit; service may also be provided through public/private partnerships with transit providers.	
		Alternative Work Schedules and Telecommuting	Allow and encourage employees to adopt alternative work schedules and telecommute when possible, reducing the need to travel to the office component of the project.	
		First-/Last-Mile Subsidy	Provide subsidies for first-/last-mile travel modes to employees to reduce barriers to the use of transit as a primary commute mode by making short connecting trips to and from longer transit trips less costly and more convenient. First-/last-mile subsidies could be used to access bicycle share, scooter share, ride hailing, and local bus and shuttle services, and could subsidize bicycling and walking.	
		On-Site Transportation Coordinators	Provide TDM program outreach and marketing via on-site transportation coordinators who can also give individualized directions, establish ridesharing connections, and provide other alternative travel information to project employees and residents.	
		Technology-Based Services	Use technology-based information, encouragement, and trip coordination services to encourage carpooling, transit, walking, and biking by project employees and visitors. These can include third-party apps to distribute incentives to people who choose to use these modes.	
		Employer-Sponsored Vanpools	Coordinate and provide subsidized vanpools for employees who cannot easily commute via transit.	
		Biking Incentives and On-Site Bike Repair Facilities	Provide additional incentives that encourage bicycle usage and ability to repair bikes on site.	

IMPACT CODES:

NA = not applicable
NI = no impact
LTS = less than significant or negligible impact; no mitigation required
LTSM = less than significant or negligible impact, after mitigation
S = significant
SU = significant and unavoidable adverse impact, after mitigation (where applicable)

TABLE S-1
SUMMARY OF IMPACTS AND MITIGATION

Impact Statement	Level of Significance prior to Mitigation	Mitigation Measures	Level of Significance after Mitigation

Carshare Program	Provide carshare subsidies to residents encourage the use of carshare programs (such as ZipCar, Car2Go, and Gig) and limit parking demand.
Building-Specific TDM Plans	Develop customized TDM plans for specific buildings and tenants to better address the needs of their users.
Transportation Management Agency Membership	Join a non-profit transportation management association if formed for Downtown San José, and leverage the larger pool of commuters and residents to improve TDM program marketing and coordinate TDM programs.

C. **Monitoring and Enforcement:** Starting in the calendar year after the City issues the first certificate of occupancy for the first office or residential building in the first development phase, the project applicant shall retain the services of an independent City-approved transportation planning/engineering firm to conduct an annual mode-share survey of the project's office and residential components each fall (mid-September through mid-November). The survey shall be conducted to determine whether the project is achieving the non-SOV mode share for office and residential uses sufficient to indicate the specified trip reductions. The applicant shall submit an annual report to the staff of the San José Department of Transportation each January 31 of the following year.

The annual report shall describe: (a) implementation of the TDM program; and (b) results of the annual mode split survey, including a summary of the methodology for collecting the mode split data, statistics on response rates, a summary conclusion, and an outline of additional TDM measures (i.e., a corrective action plan) to be implemented in subsequent years if the non-SOV mode split goal is not reached.

If timely reports are not submitted and/or reports indicate that the project office and residential uses have failed to achieve the non-SOV mode share specified above in two consecutive years after issuance of the certificates of occupancy for 50 percent of the office development, the project will be considered in violation of this mitigation measure. The City will issue a notice of non-compliance after the first year the project fails to meet monitoring requirements (submittal of timely reports and/or achieving specified non-SOV mode share), after which the applicant has one year to comply with the monitoring requirements.

After two years of not meeting monitoring requirements, the City may initiate enforcement action against the applicant and successors, including imposition of financial penalties to the owners and/or operators of the office and residential

IMPACT CODES:

NA = not applicable
NI = no impact
LTS = less than significant or negligible impact; no mitigation required
LTSM = less than significant or negligible impact, after mitigation
S = significant
SU = significant and unavoidable adverse impact, after mitigation (where applicable)

TABLE S-1
SUMMARY OF IMPACTS AND MITIGATION

Impact Statement	Level of Significance prior to Mitigation	Mitigation Measures	Level of Significance after Mitigation
		development that will support the funding and management of transportation improvements that would bring the non-SOV mode share to the targeted level. Enforcement actions shall generally be consistent with City Council Policy 5-1, and shall include a mutually agreed-upon monetary cap. If timely reports are submitted and demonstrate that the applicant has achieved the non-SOV mode share specified above for five consecutive years after full project occupancy, monitoring shall no longer be required annually, and shall instead be required every five years, or upon request by the City of San José Planning, Building, and Code Enforcement Department or Department of Public Works for an annual update, as needed. D. **Flexibility and Amendments:** The project applicant may propose amendments to the approved TDM program as part of its annual report each year, subject to review and approval by the Director of Public Works and Director of Planning, Building, and Code Enforcement or the Directors' designees. The applicant shall not be permitted to decrease the performance standards specified in Section A, above. The City and the project applicant expect that the TDM program will evolve as travel behavior changes and as new technologies become available. Any proposed changes will be considered approved unless the Director of Public Works and Director of Planning, Building, and Code Enforcement object to the proposed change within 30 days of receipt.	
Impact AQ-3: The proposed project would expose sensitive receptors to substantial pollutant concentrations.	S	**Mitigation Measure AQ-2a: Construction Emissions Minimization Plan** (refer to Impact AQ-2) **Mitigation Measure AQ-2b: Construction Equipment Maintenance and Tuning** (refer to Impact AQ-2) **Mitigation Measure AQ-2c: Heavy-Duty Truck Model Year Requirement** (refer to Impact AQ-2) **Mitigation Measure AQ-2e: Best Available Emissions Controls for Stationary Emergency Generators** (refer to Impact AQ-2) **Mitigation Measure AQ-2f: Operational Diesel Truck Emissions Reduction** (refer to Impact AQ-2) **Mitigation Measure AQ-2g: Electric Vehicle Charging** (refer to Impact AQ-2) **Mitigation Measure AQ-2h: Enhanced Transportation Demand Management Program** (refer to Impact AQ-2) **Mitigation Measure AQ-3: Exposure to Air Pollution—Toxic Air Contaminants** The project applicant shall incorporate the following health risk reduction measures into the project design to reduce the potential health risk caused by exposure to toxic	SU

IMPACT CODES:

NA = not applicable
NI = no impact
LTS = less than significant or negligible impact; no mitigation required
LTSM = less than significant or negligible impact, after mitigation
S = significant
SU = significant and unavoidable adverse impact, after mitigation (where applicable)

TABLE S-1
SUMMARY OF IMPACTS AND MITIGATION

Impact Statement	Level of Significance prior to Mitigation	Mitigation Measures	Level of Significance after Mitigation
		air contaminants (TACs), as feasible for the project's sources of TACs. These features shall be submitted to the Director of Planning, Building and Code Enforcement, or the Director's designee, for review and approval and shall be included on the project drawings submitted for the construction-related permit(s) or on other documentation submitted to the City: 1. Plant trees and/or vegetation between new on-site and existing off-site sensitive receptors and the project's operational source(s) of TACs, if feasible. In addition, plant trees and/or vegetation between new on-site sensitive receptors and existing background sources of toxic air contaminants, if feasible. Locally native trees that provide suitable trapping of particulate matter are preferred. 2. Construction trucks shall adhere to the modeled haul route as presented in Figure 3.1-2. If an alternative truck haul route is used, the project applicant shall quantitatively demonstrate to the satisfaction of the Director of Planning, Building and Code Enforcement, or the Director's designee, that these haul routes would not result in health risks that exceed the project-level thresholds of significance for either existing off-site or new on-site sensitive receptors.	
Impact AQ-4: Traffic associated with the development of the proposed project would not contribute to carbon monoxide concentrations exceeding the California ambient air quality standards of 9 parts per million averaged over eight hours and 20 parts per million for one hour.	LTS	None required	LTS
Impact AQ-5: The proposed project would not result in other emissions (such as those leading to odors) adversely affecting a substantial number of people.	S	**Mitigation Measure AQ-5: Hydrogen Sulfide and Odor Management Program for the Potential Water Reuse Facility(s)** Prior to construction of each WRF, the project applicant shall develop a Hydrogen Sulfide and Odor Management program (HSOM Program) at each water reuse facility (WRF) for review and approval by the Director of Planning, Building and Code Enforcement and the Director of Environmental Services, or the Directors' designees. The HSOM Program shall address hydrogen sulfide and odor management using a performance-based approach designed to meet the regulatory ambient air concentrations established in BAAQMD Regulation 9, Rule 2, (i.e., 0.06 ppm averaged over three consecutive minutes or 0.03 ppm averaged over any 60 consecutive minutes) and to limit public complaints. The HSOM Program shall include best management practices and emissions controls as follows: 1. For grit and screenings, refuse containers shall be odor proof and contained within an area draining to the sanitary sewer.	LTSM

IMPACT CODES:

NA = not applicable
NI = no impact
LTS = less than significant or negligible impact; no mitigation required
LTSM = less than significant or negligible impact, after mitigation
S = significant
SU = significant and unavoidable adverse impact, after mitigation (where applicable)

TABLE S-1
SUMMARY OF IMPACTS AND MITIGATION

Impact Statement	Level of Significance prior to Mitigation	Mitigation Measures	Level of Significance after Mitigation
		2. Primary screenings shall be housed in a ventilated enclosure at the WRF(s). 3. Carbon absorption, biofiltration, or ammonia scrubbers shall be installed at the WRF(s). 4. Ferrous chloride injection for hydrogen sulfide removal may also be installed and implemented if necessary. The project applicant shall implement the HSOM Program on an ongoing basis and provide the Directors or the Directors' designees with an annual report to describe implementation of the program and any adjustments needed to improve performance. The HSOM Program shall address odor complaints that occur over time and shall designate WRF staff to receive and respond to complaints. The name and contact information of the responsible WRF staff shall be posted in a noticeable location on each WRF facility. The performance standard for odors shall be based on a three-tier threshold based on 30-day, 90-day, and three year averaging times for complaints. The performance standards that must be met shall be as follows: 1. Three or more violation notices for public nuisance related to odors issued by the BAAQMD within a 30-day period; 2. Odor complaints from ten or more complainants within a 90-day period; or 3. Five or more confirmed odor complaints per year averaged over three years as an indication of a significant odor impact from a facility. If one or more of these standards are not met, the project applicant shall revise the program and make any necessary improvement to the WRF odor controls to achieve all performance standards in subsequent reporting years. Additionally, odor-control facilities shall be designed to meet the requirements of Section 302 of BAAQMD Regulation 7 and shall not allow the WRF to discharge any odorous substance that causes the ambient air at or beyond the property line to be odorous and to remain odorous after dilution with four parts of odor-free air.	

IMPACT CODES:

NA = not applicable
NI = no impact
LTS = less than significant or negligible impact; no mitigation required
LTSM = less than significant or negligible impact, after mitigation
S = significant
SU = significant and unavoidable adverse impact, after mitigation (where applicable)

TABLE S-1
SUMMARY OF IMPACTS AND MITIGATION

Impact Statement	Level of Significance prior to Mitigation	Mitigation Measures	Level of Significance after Mitigation
Impact C-AQ-1: The proposed project, in combination with past, present, and reasonably foreseeable future development in the project area, would result in a cumulatively considerable contribution to significant cumulative regional air quality impacts.	S	**Mitigation Measure AQ-2a: Construction Emissions Minimization Plan** (refer to Impact AQ-2) **Mitigation Measure AQ-2b: Construction Equipment Maintenance and Tuning** (refer to Impact AQ-2) **Mitigation Measure AQ-2c: Heavy-Duty Truck Model Year Requirement** (refer to Impact AQ-2) **Mitigation Measure AQ-2d: Super-Compliant VOC Architectural Coatings during Operations** (refer to Impact AQ-2) **Mitigation Measure AQ-2e: Best Available Emissions Controls for Stationary Emergency Generators** (refer to Impact AQ-2) **Mitigation Measure AQ-2f: Diesel Truck Emissions Reduction** (refer to Impact AQ-2) **Mitigation Measure AQ-2g: Electric Vehicle Charging** (refer to Impact AQ-2) **Mitigation Measure AQ-2h: Enhanced Transportation Demand Management Program** (refer to Impact AQ-2) **Mitigation Measure AQ-5: Hydrogen Sulfide and Odor Management Program for the Potential Water Reuse Facility(s)** (refer to Impact AQ-5)	SU
Impact C-AQ-2: The proposed project, in combination with past, present, and reasonably foreseeable future development in the project area, would result in a cumulatively considerable contribution to significant cumulative health risk impacts on sensitive receptors.	S	**Mitigation Measure AQ-2a: Construction Emissions Minimization Plan** (refer to Impact AQ-2) **Mitigation Measure AQ-2b: Construction Equipment Maintenance and Tuning** (refer to Impact AQ-2) **Mitigation Measure AQ-2c: Heavy-Duty Truck Model Year Requirement** (refer to Impact AQ-2) **Mitigation Measure AQ-2e: Best Available Emissions Controls for Stationary Emergency Generators** (refer to Impact AQ-2) **Mitigation Measure AQ-2f: Operational Diesel Truck Emissions Reduction** (refer to Impact AQ-2) **Mitigation Measure AQ-2g: Electric Vehicle Charging** (refer to Impact AQ-2) **Mitigation Measure AQ-2h: Enhanced Transportation Demand Management Program** (refer to Impact AQ-2) **Mitigation Measure AQ-3: Exposure to Air Pollution—Toxic Air Contaminants** (refer to Impact AQ-3)	SU

IMPACT CODES:

NA = not applicable
NI = no impact
LTS = less than significant or negligible impact; no mitigation required
LTSM = less than significant or negligible impact, after mitigation
S = significant
SU = significant and unavoidable adverse impact, after mitigation (where applicable)

TABLE S-1
SUMMARY OF IMPACTS AND MITIGATION

Impact Statement	Level of Significance prior to Mitigation	Mitigation Measures	Level of Significance after Mitigation
3.2 Biological Resources			
Impact BI-1: The proposed project could have a substantial adverse effect, either directly, indirectly, or through habitat modifications, on a species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by CDFW or USFWS (western pond turtle, central California coast steelhead distinct population segment, nesting birds, special-status bats).	S	**Mitigation Measure BI-1a: General Avoidance and Protection Measures** This measure shall be required for demolition, site preparation (including clearing of vegetation), and construction work in the Los Gatos Creek channel and riparian corridor and the 50-foot building construction setback from the riparian corridor. It shall also be required for proposed construction activities within 50 feet of the Guadalupe River (Blocks E1 and E3), and work within 20 feet of the creeping wild rye plant community described under Impact BI-2. Relevant avoidance and protection measures shall be included on demolition, grading, and building permit plans. • Before the issuance of any demolition, grading, or building permit, a qualified biologist shall prepare a worker environmental awareness training brochure and submit the brochure to the Director of Planning, Building and Code Enforcement, or the Director's designee, for review and approval. The training shall be distributed to the construction contractor for the specific work in question to ensure that a copy is available to all construction workers on-site. The training shall be implemented as described below. • A California Department of Fish and Wildlife (CDFW)– and National Marine Fisheries Service (NMFS)–approved biologist shall be present to monitor all of the following activities: – All construction-related work within the Los Gatos Creek channel or riparian corridor or the 50-foot building construction setback from the riparian corridor; – Construction activities within 50 feet of the Guadalupe River (Blocks E1 and E3 and the former San Jose Water Company building); and – Work within 20 feet of the creeping wild rye plant community. The biologist shall prepare and submit daily reports demonstrating compliance with all general avoidance and protection measures to the Director of Planning, Building and Code Enforcement or the Director's designee. • A qualified biologist shall provide the worker environmental awareness training to field management and construction personnel. Communication efforts and training shall take place during pre-construction meetings so that construction personnel are aware of their responsibilities and the importance of compliance. The training shall identify the types of sensitive biological resources in the project area (nesting birds, roosting bats, salmonids, western pond turtle, riparian habitat, and creeping wild rye plant community) and the measures required to avoid impacting these resources. The materials covered in the training program shall include environmental rules and regulations for the specific project and shall require workers to limit activities to the construction work area and avoid demarcated sensitive resource areas.	LTSM

IMPACT CODES:

NA = not applicable
NI = no impact
LTS = less than significant or negligible impact; no mitigation required
LTSM = less than significant or negligible impact, after mitigation
S = significant
SU = significant and unavoidable adverse impact, after mitigation (where applicable)

TABLE S-1
SUMMARY OF IMPACTS AND MITIGATION

Impact Statement	Level of Significance prior to Mitigation	Mitigation Measures	Level of Significance after Mitigation
		• If the project adds new construction personnel, the contractor for the work in question shall ensure that the new personnel receive worker environmental awareness training before starting work within the Los Gatos Creek riparian corridor or channel; within the 50-foot building construction setback from the Los Gatos Creek riparian corridor and the Guadalupe River; or within 20 feet of the creeping wild rye plant community. The contractor shall maintain a sign-in sheet identifying the individuals who have received the training. A representative from the contractor company for the work in question shall be appointed during the training to be the contact person for any employee or contractor who might inadvertently kill or injure a listed species, or who finds a dead, injured, or entrapped individual. The representative's name and telephone number shall be provided to NMFS and CDFW before the start of ground disturbance. • The minimum qualifications for a qualified biologist shall be a four-year college degree in biology or related field and at least two years' demonstrated experience with the species of concern. • If a listed wildlife species is discovered, construction activities shall not begin in the immediate vicinity of the individual until the CDFW Region 3 office in Fairfield is contacted, and the discovered species has been allowed to leave and is no longer present in the construction area. • Any special-status species observed by the qualified biologist shall be reported to CDFW by the qualified biologist, or by a biologist designated by the qualified biologist, so that the observations can be added to the California Natural Diversity Database. • The discharge of water from new construction sites into Los Gatos Creek or the Guadalupe River shall be prohibited if the temperature of the discharged water exceeds 72 degrees Fahrenheit (°F), unless modeling studies and subsequent monitoring demonstrate that the volume of the discharge would not increase maximum daily stream temperatures above 75.2°F. This prohibition shall cover both direct discharges and indirect discharges into local storm drains that discharge to Los Gatos Creek or the Guadalupe River. Construction discharges shall be prohibited until the discharged water cools below the average daily stream temperature at the discharge point or maximum daily stream temperatures drop below 75°F. **Mitigation Measure BI-1b: In-Water Construction Schedule** All in-water construction work in the Los Gatos Creek channel shall occur outside of the normal rainy season, between June 1 and October 15 inclusive (or as otherwise specified by permits from the San Francisco Bay Regional Water Quality Control Board, California Department of Fish and Wildlife, National Marine Fisheries Service, and/or U.S. Army Corps of Engineers), when flows in Los Gatos Creek and the	

IMPACT CODES:

NA = not applicable
NI = no impact
LTS = less than significant or negligible impact; no mitigation required
LTSM = less than significant or negligible impact, after mitigation
S = significant
SU = significant and unavoidable adverse impact, after mitigation (where applicable)

TABLE S-1
SUMMARY OF IMPACTS AND MITIGATION

Impact Statement	Level of Significance prior to Mitigation	Mitigation Measures	Level of Significance after Mitigation
		Guadalupe River are normally at their lowest and special-status anadromous fish species are least likely to occur in the project area. **Mitigation Measure BI-1c: Native Fish Capture and Relocation** The project applicant shall ensure that any contractor for any construction work in the Los Gatos Creek channel prepares and submits a fish relocation plan (consistent with federal and state permit requirements) for in-water work in Los Gatos Creek. Relocation shall be required only for in-water work in the Los Gatos Creek channel. The plan shall be prepared in coordination with the California Department of Fish and Wildlife (CDFW), and a copy of the final plan shall be provided to the Director of Planning, Building and Code Enforcement or the Director's designee, along with demonstration of coordination with CDFW. Implementation of the fish relocation plan shall be consistent with the following conditions: • Before rescues of listed species are attempted, any necessary authorization shall be obtained from the resource agencies (CDFW and/or National Marine Fisheries Service [NMFS]). • Before dewatering may occur, a qualified biologist shall determine whether the extent of dewatering will result in immediate or foreseeable impacts on fish and wildlife. This shall include conducting a reconnaissance survey of the dewatering zone. • Before dewatering can begin, the following elements of fish relocation shall be determined: – *Staging Area:* Staging areas in the dewatering zone shall be identified. Sites should be selected based on their proximity and access to the dewatering zone and ability to support safe operation of the equipment. – *Relocation Sites:* Relocation site(s) shall be identified. Priority shall be given to a site's close proximity to the dewatering zone in the same stream. If a qualified on-site biologist determines that no suitable site in the stream is available, then "second choice" locations within the watershed shall be selected. In all cases, the closest site that is likely to result in a successful rescue shall be used. – *Transportation Routes:* Transport routes for rescued fish species shall be determined in advance of dewatering. – *Disease Consideration:* To guard against disease transmission, fish shall not be moved upstream over substantial barriers or long distances (i.e., greater than 10 miles). • If salmonids are encountered during relocation, they shall be moved upstream to a location of perennial running water or the best available habitat determined by a qualified biologist. Collection and transport methods shall be determined based on	

IMPACT CODES:

NA = not applicable
NI = no impact
LTS = less than significant or negligible impact; no mitigation required
LTSM = less than significant or negligible impact, after mitigation
S = significant
SU = significant and unavoidable adverse impact, after mitigation (where applicable)

TABLE S-1
SUMMARY OF IMPACTS AND MITIGATION

Impact Statement	Level of Significance prior to Mitigation	Mitigation Measures	Level of Significance after Mitigation
		site conditions. Methods shall also be selected to maximize the efficiency of the collection effort while minimizing handling and transport time and stress. Creek water from the site shall be used in all containers. The local transport of fish may be completed using various methods, including: – *Net Transfer:* Appropriate for short distances (less than 50 feet) where rapid transfer is possible. – *Live Car:* Appropriate for temporary holding in the stream and for short distances where a rapid transfer is required. – *Bucket:* Appropriate for temporary holding and transport over short to medium distances. Holding time should be minimized if possible and aeration should be supplied. – *Aerated Cooler:* Appropriate for temporary holding and transport for long distances. Temperature shall be maintained to be similar to the temperature of the source creek water, and if necessary, fish shall be sorted by size to reduce risks of predation. • Species and collection/relocation sites shall be prioritized as follows: (1) Threatened species; and (2) other native fishes. • A contact person at each of the appropriate resource agencies (CDFW, NMFS, and/or U.S. Fish and Wildlife Service) shall be identified in the relocation plan. At least 24 hours before fish relocation begins, the appropriate resource agencies shall be notified to communicate the details of the fish relocation and to confirm disposition instructions. • Fish shall be relocated under the following conditions: – *Setup:* Upon arrival at the site, a qualified biologist shall review the operational sequence and logistics of the rescue and field assignments shall be designated. The fish relocation team shall review safety and operational methods. – *Live Well Operation:* ▪ If necessary, live wells shall be set up early in the operation to stabilize tank conditions. ▪ Local "native" water shall be used to fill live wells, if available and clean. ▪ To lessen stress on fish, the temperature in live wells shall be reduced or managed to be compatible with the water temperatures in which the fish were encountered. ▪ To ensure that sufficient oxygen is present during the adjustment period, the aeration system shall be started before fish are placed into the live well. When salmonids are placed in the live well, the live well shall be managed to the extent possible so that the dissolved oxygen concentration is greater than 6 milligrams per liter, but less than saturation.	

IMPACT CODES:

NA = not applicable
NI = no impact
LTS = less than significant or negligible impact; no mitigation required
LTSM = less than significant or negligible impact, after mitigation
S = significant
SU = significant and unavoidable adverse impact, after mitigation (where applicable)

TABLE S-1
SUMMARY OF IMPACTS AND MITIGATION

Impact Statement	Level of Significance prior to Mitigation	Mitigation Measures	Level of Significance after Mitigation
		– *Electrofishing Operation:* ▪ The electrofishing unit settings shall be adjusted to the conductivity and temperature of the water. Settings shall be adjusted for either varying width (wide to narrow) or varying frequency (high to low) to minimize possible fish injury when these settings elicit proper taxis (i.e., response of fish toward or away from stimulus) for fish capture. ▪ The settings used and any incidental electrofishing mortalities shall be recorded in the field notebook. If electrofishing mortalities for salmonids and other species listed as threatened or endangered exceed 5 percent of the total capture, or as otherwise specified in any biological resource permits, a qualified biologist shall re-evaluate and possibly terminate electrofishing activities. ▪ Fish other than salmonids experiencing mortality from electrofishing activities shall be noted and used as an indicator of the possible injury or mortality rates of salmonids and other fish. – *General Collection Guidelines:* ▪ Fish shall be collected in a manner to minimize handling time and stress, yet maintain the safety of personnel. ▪ Multiple buckets and/or live cars shall be used to reduce crowding during collection and transfer. ▪ Fish shall be pre-sorted as needed for transport. ▪ Buckets that hold salmonids shall be equipped with portable aerators until the fish are transferred to a live well. – *Transport:* ▪ Fish shall be transported to minimize holding time and alternately sequenced in tandem with ongoing collection activities. ▪ Normal live well operations shall continue during transport. – *Records and Data:* ▪ Fish shall be inventoried and pertinent data shall be recorded, including species, numbers of each species, disposition, and fork length. If conditions preclude a complete inventory, at a minimum, the species present and their disposition shall be documented and their abundance shall be estimated. ▪ Information on ambient site conditions (available habitat/water quality) shall be recorded as appropriate, including photo documentation at collection and release sites and other information on collection, handling, and transport.	

IMPACT CODES:

NA = not applicable
NI = no impact
LTS = less than significant or negligible impact; no mitigation required
LTSM = less than significant or negligible impact, after mitigation
S = significant
SU = significant and unavoidable adverse impact, after mitigation (where applicable)

TABLE S-1
SUMMARY OF IMPACTS AND MITIGATION

Impact Statement	Level of Significance prior to Mitigation	Mitigation Measures	Level of Significance after Mitigation
		▪ At completion, a qualified biologist shall conduct an assessment of the fish relocation to identify lessons learned, estimate the number of individual fish and fish species moved, and determine the mortality rate. The assessment report shall be forwarded to the appropriate resource agencies and to the Director of Planning, Building, and Code Enforcement or the Director's designee within a month of the completion of in-water work. **Mitigation Measure BI-1d: Western Pond Turtle Protection Measures** Prior to the start of any construction activities within 50 feet of the Los Gatos Creek riparian corridor (measured from the outer dripline of riparian vegetation or the top of bank, whichever is greater), the project applicant for the specific construction activity to be undertaken shall retain a qualified biologist to conduct pre-construction surveys for western pond turtles in all suitable habitats (i.e., aquatic and upland in the Los Gatos Creek riparian corridor) near the work site. Surveys shall take place no more than 72 hours before the onset of site preparation and construction activities that have the potential to disturb turtles or their habitat and copies shall be provided to the Director of Planning, Building, and Code Enforcement or the Director's designee. If pre-construction surveys identify active western pond turtle nests on the project site, the biologist shall establish no-disturbance buffer zones around each nest using temporary orange construction fencing. The demarcation shall be permeable to allow young turtles to move away from the nest after hatching. The radius of the buffer zone and the duration of exclusion shall be determined in consultation with the California Department of Fish and Wildlife (CDFW). The buffer zones and fencing shall remain in place until the young have left the nest, as determined by the qualified biologist. A qualified biologist shall monitor construction activities near suitable habitat within which western pond turtle is found (either during the survey or observed during construction), and shall remove and relocate western pond turtles in proposed construction areas to suitable habitat outside the project limits, consistent with CDFW protocols and handling permits. Relocation sites shall be subject to CDFW approval. If any turtles are found on the project site, construction activities shall halt within 50 feet of the turtle(s) and the qualified biologist shall be notified. If the biologist determines that the turtle is a western pond turtle, the turtle shall be relocated into nearby suitable habitat consistent with CDFW protocols and with approval from CDFW. The biologist shall submit a final report to the Director of Planning, Building, and Code Enforcement or the Director's designee following completion of construction and relocation. **Mitigation Measure BI-1e: Avoidance of Impacts on Nesting Birds** Prior to the issuance of any demolition, grading, or building permits, the project shall implement the following measures to avoid impacts on nesting migratory birds:	

IMPACT CODES:

NA = not applicable
NI = no impact
LTS = less than significant or negligible impact; no mitigation required
LTSM = less than significant or negligible impact, after mitigation
S = significant
SU = significant and unavoidable adverse impact, after mitigation (where applicable)

TABLE S-1
SUMMARY OF IMPACTS AND MITIGATION

Impact Statement	Level of Significance prior to Mitigation	Mitigation Measures	Level of Significance after Mitigation
		• **Avoidance:** The project applicant for the specific construction activity to be undertaken shall schedule demolition and construction activities to avoid commencement during the nesting season. The nesting season for most birds, including most raptors in the San Francisco Bay Area, extends from February 1 through August 15 (inclusive), as amended. • **Nesting Bird Surveys:** If demolition and construction cannot be scheduled to occur between August 16 and January 31 (inclusive), a qualified ornithologist shall complete pre-construction surveys for nesting birds to ensure that no nests are disturbed during project implementation. This survey shall be completed no more than 14 days before the start of construction activities during the early part of the breeding season (February 1 through April 30 inclusive), and no more than 30 days before the start of construction activities during the late part of the breeding season (May 1 through August 15 inclusive). During this survey, the ornithologist shall inspect all trees and other possible nesting habitats immediately adjacent to the construction areas for nests. • **Buffer Zones:** If an active nest is found within 250 feet of work areas to be disturbed by construction, the ornithologist, in coordination with the California Department of Fish and Wildlife (CDFW), shall determine the extent of a construction-free buffer zone to be established around the nest, typically 250 feet for raptors and 100 feet for songbirds, or an area determined to be adequate by the qualified ornithologist in coordination with CDFW, to ensure that raptor or migratory bird nests are not be disturbed during project construction. The no-disturbance buffer shall remain in place until the ornithologist determines that the nest is no longer active or the nesting season ends. If construction ceases for 7 days or more, then resumes during the nesting season, an additional survey shall be necessary to avoid impacts on active bird nests that may be present. • **Reporting:** The project applicant for the specific construction activity to be undertaken shall submit the ornithologist's report indicating the results of the surveys and any designated buffer zones to the Director of Planning, Building and Code Enforcement, or the Director's designee, for review and approval prior to issuance of any grading or building permits or tree removal (whichever occurs first). • The results of the surveys and any identified designated buffer zones shall be submitted to the Director of Planning, Building and Code Enforcement or the Director's designee. **Mitigation Measure BI-1f: Roosting Bat Surveys** In advance of tree and structure removal or adaptive reuse, a qualified biologist shall conduct a pre-construction survey for special-status bats to characterize potential bat habitat and identify active roost sites within 100 feet of the project site. The results of the surveys and the locations of any designated buffer zones shall be submitted to the	

IMPACT CODES:

NA = not applicable
NI = no impact
LTS = less than significant or negligible impact; no mitigation required
LTSM = less than significant or negligible impact, after mitigation
S = significant
SU = significant and unavoidable adverse impact, after mitigation (where applicable)

TABLE S-1
SUMMARY OF IMPACTS AND MITIGATION

Impact Statement	Level of Significance prior to Mitigation	Mitigation Measures	Level of Significance after Mitigation
		Director of Planning, Building and Code Enforcement, or the Director's designee, for review and approval prior to issuance of any demolition or building permits. Should potential roosting habitat or active bat roosts be found in trees and/or structures to be removed or renovated under the project or within a 100-foot buffer zone from these areas, the following measures shall be implemented: • Removal of trees and structures with active roosts shall occur when bats are active, approximately between March 1 and April 15 inclusive and between September 15 and October 15 inclusive. To the extent feasible, removal shall occur outside of bat maternity roosting season (approximately April 15 to August 31 inclusive) and outside of the months of winter torpor (approximately October 16 to February 28 inclusive). • If removing trees and structures during the periods when bats are active is not feasible and active bat roosts being used for maternity or hibernation purposes are found on or in the immediate vicinity of the project area where tree and structure removal is planned, a 100-foot no-disturbance buffer shall be established around these roost sites until the qualified biologist has determined that they are no longer active. • The qualified biologist shall be present during removal of trees and structures when active bat roosts not being used for maternity or hibernation purposes are present. Trees and structures with active roosts shall be removed only when no rain is occurring and rain is not forecast to occur for 3 days following removal of the roost, and when daytime temperatures are at least 50 degrees Fahrenheit. • Removal of trees with active or potentially active roost sites shall follow a two-step removal process: (1) On the first day of tree removal and under the supervision of the qualified biologist, branches and limbs that do not contain cavities or fissures in which bats could roost shall be cut only using chainsaws. Removal of the canopy makes the tree unappealing for bats to return that evening to roost. (2) On the following day and under the supervision of the qualified biologist, after confirmation that bats have not returned, the remainder of the tree may be removed, using either chain saws or other equipment (e.g., excavator or backhoe). Structures that contain or are suspected to contain active bat roosts, but that are not being used for maternity or hibernation purposes, shall be dismantled under the supervision of the qualified biologist in the evening, after bats have emerged from the roost to forage. The structures shall be partially dismantled to substantially change roost conditions, causing the bats to abandon and not return to the roost.	

IMPACT CODES:

NA = not applicable
NI = no impact
LTS = less than significant or negligible impact; no mitigation required
LTSM = less than significant or negligible impact, after mitigation
S = significant
SU = significant and unavoidable adverse impact, after mitigation (where applicable)

TABLE S-1
SUMMARY OF IMPACTS AND MITIGATION

Impact Statement	Level of Significance prior to Mitigation	Mitigation Measures	Level of Significance after Mitigation
Impact BI-2: The proposed project could have a substantial adverse effect on riparian habitat or other sensitive natural communities identified in local or regional plans, policies, regulations, or by CDFW or USFWS.	S	**Mitigation Measures BI-1a**, **BI-1b**, **BI-1c**, **BI-1e**, **BI-1f**, **HY-3b,** and **NO-1a** **Mitigation Measure BI-2a: Avoidance of Impacts on Riparian Habitat** The project applicant for the specific construction activity to be undertaken and its contractors shall implement the following measures. For portions of the project site located within 50 feet of the riparian corridor—such as the new footbridge; multi-use trail and associated infrastructure; pedestrian boardwalks, viewing platforms, and signage; removal and replacement of fencing; replacement of the West San Fernando Street vehicle bridge; reconstruction of the existing storm drain; and building demolition, construction, and renovation—a qualified biologist shall clearly delineate the construction footprint in or within 50 feet of the riparian area with flagging before the start of construction to avoid the accidental removal or trampling of vegetation outside of the project limits. The limits of construction within 50 feet of the riparian corridor shall be confined to the smallest possible area to complete the required work. The edge of construction in and near riparian areas shall be separated and protected from the work area through silt fencing, amphibian-friendly fiber rolls (i.e., no microfilament), or other appropriate erosion control material. Staging of materials and all other project-related activity shall be located at least 25 feet upslope from riparian areas. Where disturbance to riparian habitat cannot be avoided, any temporarily affected riparian habitat shall be restored to pre-construction conditions or better at the end of construction, in accordance with the requirements of USACE, the San Francisco Bay Regional Water Quality Control Board, and CDFW permits. Compensation for permanent impacts on riparian habitat shall be provided at a 1:1 or greater ratio, or as specified by USACE, the San Francisco Bay Regional Water Quality Control Board, and CDFW. Compensation for loss of riparian habitat may be in the form of permanent on-site or off-site creation, restoration, enhancement, or preservation of habitat. At a minimum, the restoration or compensation sites shall meet the following performance standards by the fifth year after restoration or as otherwise required by resource agency permits: (1) Temporarily affected areas are returned to pre-project conditions or better. (2) Native vegetation cover shall be at least 70 percent of the baseline native vegetation cover in the impact area. (3) No more cover by invasive species shall be present than in the baseline/impact area. Restoration or compensation shall be detailed in a Riparian Habitat Mitigation and Monitoring Plan, which shall be developed before the start of construction and in	LTSM

IMPACT CODES:

NA = not applicable
NI = no impact
LTS = less than significant or negligible impact; no mitigation required
LTSM = less than significant or negligible impact, after mitigation
S = significant
SU = significant and unavoidable adverse impact, after mitigation (where applicable)

TABLE S-1
SUMMARY OF IMPACTS AND MITIGATION

Impact Statement	Level of Significance prior to Mitigation	Mitigation Measures	Level of Significance after Mitigation
		coordination with permit applications and/or conditions from applicable regulatory agencies. At a minimum, the plan shall include: (1) Name and contact information for the property owner of the land on which the mitigation will take place; (2) Identification of the water source for supplemental irrigation, if needed; (3) Identification of depth to groundwater; (4) Topsoil salvage and storage methods for areas that support special-status plants; (5) Site preparation guidelines to prepare for planting, including coarse and fine grading; (6) Plant material procurement, including assessment of the risk of introduction of plant pathogens through the use of nursery-grown container stock vs. collection and propagation of site-specific plant materials, or use of seeds; (7) A planting plan outlining species selection, planting locations, and spacing for each vegetation type to be restored; (8) Planting methods, including containers, hydroseed or hydromulch, weed barriers, and cages, as needed; (9) Soil amendment recommendations, if needed; (10) An irrigation plan, with proposed rates (in gallons per minute), schedule (i.e., recurrence interval), and seasonal guidelines for watering; (11) A site protection plan to prevent unauthorized access, accidental damage, and vandalism; (12) Weeding and other vegetation maintenance tasks and schedule, with specific thresholds for acceptance of invasive species; (13) Performance standards, as referenced above, by which successful completion of mitigation can be assessed relative to a relevant baseline or reference site, and by which remedial actions will be triggered; (14) Success criteria that shall include the minimum performance standards described in Mitigation Measure BI-2a, Avoidance of Impacts on Riparian Habitat, and Mitigation Measure BI-2d, Avoidance and Protection of Creeping Wild Rye Habitat; (15) Monitoring methods and schedule; (16) Reporting requirements and schedule; (17) Adaptive management and corrective actions to achieve the established success criteria; and (18) An educational outreach program to inform operations and maintenance departments of local land management and utility agencies of the mitigation purpose of restored areas to prevent accidental damages.	

IMPACT CODES:

NA = not applicable
NI = no impact
LTS = less than significant or negligible impact; no mitigation required
LTSM = less than significant or negligible impact, after mitigation
S = significant
SU = significant and unavoidable adverse impact, after mitigation (where applicable)

TABLE S-1
SUMMARY OF IMPACTS AND MITIGATION

Impact Statement	Level of Significance prior to Mitigation	Mitigation Measures	Level of Significance after Mitigation
		The Riparian Habitat Mitigation and Monitoring Plan shall be developed before the start of construction and in coordination with permit applications and/or conditions from applicable regulatory oversight agencies. The plan shall be submitted to the Director of Planning, Building and Code Enforcement, or the Director's designee, prior to the issuance of any demolition, grading, or building permit that would include construction activities that would have direct impacts on riparian habitat. **Mitigation Measure BI-2b: Frac-Out Contingency Plan** If jack-and-bore construction is implemented, the project applicant shall require the contractor to retain a licensed geotechnical engineer to develop a Frac-out Contingency Plan. The project applicant shall submit the contingency plan to the appropriate resource agencies (e.g., the California Department of Fish and Wildlife [CDFW], Regional Water Quality Control Board, U.S. Army Corps of Engineers [USACE], U.S. Fish and Wildlife Service [USFWS], and National Marine Fisheries Service [NMFS]) for review and approval prior to the start of construction of any pipeline that requires jack-and-bore construction to avoid surface waters. The regulatory agency–approved Frac-Out Contingency Plan shall also be submitted to the Director of Planning, Building and Code Enforcement or the Director's designee. The Frac-out Contingency Plan shall be implemented where jack-and-bore construction under a waterway will occur to avoid, minimize, or mitigate potential project impacts during jack-and-bore construction, as specified in the contingency plan. The Frac-out Contingency Plan shall include, at a minimum: (1) Measures describing training of construction personnel about monitoring procedures, equipment, materials, and procedures in place for the prevention, containment, cleanup (creating a containment area and using a pump, using a vacuum truck, etc.), and disposal of released bentonite slurry, and agency notification protocols; (2) Methods for preventing frac-out, including maintaining pressure in the borehole to avoid exceeding the strength of the overlying soil; (3) Methods for detecting an accidental release of bentonite slurry that include: (a) Monitoring by a minimum of one qualified biological monitor throughout drilling operations to ensure swift response if a frac-out occurs; (b) Continuous monitoring of drilling pressures to ensure they do not exceed those needed to penetrate the formation; (c) Continuous monitoring of slurry returns at the exit and entry pits to determine if slurry circulation has been lost; and (d) Continuous monitoring by spotters to follow the progress of the drill bit during the pilot hole operation, and reaming and pull back operations;	

IMPACT CODES:

NA = not applicable
NI = no impact
LTS = less than significant or negligible impact; no mitigation required
LTSM = less than significant or negligible impact, after mitigation
S = significant
SU = significant and unavoidable adverse impact, after mitigation (where applicable)

TABLE S-1
SUMMARY OF IMPACTS AND MITIGATION

Impact Statement	Level of Significance prior to Mitigation	Mitigation Measures	Level of Significance after Mitigation
		(4) Protocols that the contractor would follow if there is a loss of circulation or other indicator of a release of slurry; and (5) Cleanup and disposal procedures and equipment the contractor would use if a frac-out occurs. If a frac-out occurs, the contractor shall immediately halt work and implement the measures outlined in the Frac-out Contingency Plan to contain, clean up, and dispose of the bentonite slurry. The project applicant and/or contractor shall also notify and coordinate with appropriate regulatory agencies, as required by the Frac-Out Contingency Plan (e.g., CDFW, the Regional Water Quality Control Board, USACE, USFWS, and NMFS) before jack-and-bore activities can begin again. **Mitigation Measure BI-2c: Monitor Effects of Shading and Heat Island on Riparian Vegetation and Stream Temperature** To evaluate the effects of building shading on riparian vegetation and water temperature in Los Gatos Creek, the project applicant shall implement an annual monitoring program that includes a baseline assessment and continues annually for 15 years following construction. Two or more unshaded reference sites shall be included for comparison to shaded areas to account for vegetation effects that are unrelated to the project, such as from drought. The following performance standards shall be used to evaluate vegetation and water temperature changes over time, and determine whether project-related shading is negatively affecting the riparian corridor, or whether the increased urban footprint is negatively affecting water temperatures in Los Gatos Creek. **Aquatic monitoring.** The project applicant shall use the following methodology to study water temperature in Los Gatos Creek during the 15-year monitoring period. Prior to project construction, water and ambient air temperature loggers shall be installed at three locations within and adjacent to the project site. One logger shall be installed in upstream Los Gatos Creek, one within the affected reach adjacent to building construction, and one downstream of the project site. Care shall be taken to ensure that each of these temperature loggers is installed in similar habitat types (e.g., pool, riffle, run) within similar habitat conditions (e.g., amount of cover, depth, flow rate). Loggers at these three locations shall record hourly water temperature values before, during, and after project construction. If the difference in water temperature between the upstream and downstream monitoring locations increases substantially over time, particularly above the threshold of concern (71.6 degrees Fahrenheit), then additional adaptive actions shall be implemented (e.g., riparian planting, increase in urban tree canopy, treatment of runoff) to compensate for any increase in stream temperature. All actions shall be consistent with the approved Habitat Enhancement Plan, described below.	

IMPACT CODES:

NA = not applicable
NI = no impact
LTS = less than significant or negligible impact; no mitigation required
LTSM = less than significant or negligible impact, after mitigation
S = significant
SU = significant and unavoidable adverse impact, after mitigation (where applicable)

TABLE S-1
SUMMARY OF IMPACTS AND MITIGATION

Impact Statement	Level of Significance prior to Mitigation	Mitigation Measures	Level of Significance after Mitigation
		Riparian monitoring. At a minimum, riparian vegetation shaded by project buildings shall meet the following performance standards by the 15th year of post-project monitoring: (1) The loss of absolute cover of riparian canopy and understory cover relative to baseline conditions is less than or equal to 15 percent. (If the loss of cover exceeds this criterion, then the change shall be compared with changes measured in the reference site[s] to determine whether on-site shading is the causal factor as opposed to other external regional factors such as climate change, drought, and alterations to reservoir releases.) (2) There is no more than a 5 percent reduction in native species relative to non-native species for tree and woody shrub species, measured both as species richness and relative cover. The following approach shall be used to monitor vegetation conditions during the 15-year period: (1) Prior to the start of building construction within 100 feet of the riparian corridor, the project applicant shall prepare a 15-Year Riparian Vegetation Monitoring Plan to assess the change in riparian vegetation canopy and understory cover in the Los Gatos Creek riparian corridor within 100 feet of the project. The Riparian Vegetation Monitoring Plan shall describe quantitative methods for measuring the canopy and understory vegetation cover of baseline on-site and reference site riparian habitat and changes in the extent and species composition of riparian vegetation canopy following the completion of building construction within 100 feet of the riparian corridor. This plan shall assess the impacts of shading by project buildings on the riparian vegetation. Reference sites shall be chosen that have comparable canopy coverage, species composition, hydrology, topography, and scale from locations on Los Gatos Creek or the Guadalupe River as close to the project site as possible. The Riparian Vegetation Monitoring Plan shall be submitted to the appropriate regulatory agencies (e.g., the California Department of Fish and Wildlife [CDFW]) for review and subsequently to the Director of Planning, Building and Code Enforcement or the Director's designee. The Riparian Vegetation Monitoring Plan shall include, at a minimum, the following elements: (a) Methods for monitoring and measuring composition (i.e., species), cover, and extent of existing riparian vegetation, which may include: (1) Tree canopy and wood understory cover plots or transects; and (2) Percent cover of non-native invasive species. In addition, monitoring shall include qualitative indicators of riparian vegetation health such as photomonitoring and signs of early decline (e.g., yellowing of leaves, small leaves, poor growth) to allow for early indications that riparian canopy cover and understory vegetation is in decline. Monitoring will also	

IMPACT CODES:

NA = not applicable
NI = no impact
LTS = less than significant or negligible impact; no mitigation required
LTSM = less than significant or negligible impact, after mitigation
S = significant
SU = significant and unavoidable adverse impact, after mitigation (where applicable)

TABLE S-1
SUMMARY OF IMPACTS AND MITIGATION

Impact Statement	Level of Significance prior to Mitigation	Mitigation Measures	Level of Significance after Mitigation
		include natural recruitment/succession of native riparian vegetation, by recording observations of seedling and sapling tree species, and tracking their persistence and growth each year. (b) Pre-project conditions shall be assessed during the late summer before the start of each construction phase that includes construction within 100 feet of the riparian corridor. Post-project monitoring shall be conducted in years 1–15 following the conclusion of each construction phase that includes construction within 100 feet of the riparian corridor. Surveys shall be conducted during the late summer to capture riparian species during their maximum growth. (c) The project applicant shall prepare and submit to the Director of Planning, Building and Code Enforcement, or the Director's designee, an annual report documenting the monitoring of riparian habitat and any associated habitat enhancement activities. The first-year report shall consist of baseline on-site and reference site monitoring and a plan for habitat enhancement. Reports shall be submitted by December 30 of each monitoring year. (2) A failure to meet the performance standards defined above in year 5, 10, or 15 shall trigger implementation of the following habitat enhancement measures as mitigation for loss of existing riparian habitat: (a) Repeat the monitoring the following year (e.g., if performance criteria are not met in year 5, repeat monitoring in year 6). If in the following year (e.g., year 6), performance criteria are not met (i.e., for 2 years in a row), implement step (b), below. (b) The project applicant shall develop a Habitat Enhancement Plan to be reviewed and approved by appropriate regulatory agencies (e.g., National Marine Fisheries Service), and submitted to the Director of Planning, Building and Code Enforcement, or the Director's designee. The plan shall consist of a planting palette composed primarily of shade-tolerant riparian vegetation such as white alder (*Alnus rhombifolia*), bigleaf maple (*Acer macrophyllum*), box elder (*Acer negundo*), Oregon ash (*Fraxinus latifolia*), California buckeye (*Aesculus californica*), and other locally appropriate native species, as well as an invasive vegetation control plan (if appropriate based on monitoring findings). (c) The area of plantings needed to offset losses of existing riparian vegetation shall be defined in the Habitat Enhancement Plan based on the documented difference in percent absolute cover of riparian vegetation between the baseline conditions and the percent absolute cover averaged over each year of annual monitoring to date. (d) Mitigation gains in woody riparian vegetation shall be deemed successful when there is an 80 percent survival rate of plantings after 5 years of	

IMPACT CODES:

NA = not applicable
NI = no impact
LTS = less than significant or negligible impact; no mitigation required
LTSM = less than significant or negligible impact, after mitigation
S = significant
SU = significant and unavoidable adverse impact, after mitigation (where applicable)

TABLE S-1
SUMMARY OF IMPACTS AND MITIGATION

Impact Statement	Level of Significance prior to Mitigation	Mitigation Measures	Level of Significance after Mitigation
		additional monitoring, and no increase in percent cover of invasive plant species in restored areas. (e) If these criteria are not met, adaptive management and corrective actions shall be implemented to achieve the established success criteria, in coordination with the applicable regulatory agencies. These may include additional plantings, weeding, or provision of supplemental water. Monitoring within the corrective action area shall continue for up to 10 additional years, until the criteria are met, or as otherwise required by the applicable regulatory agencies. (f) The project applicant shall prepare and submit an annual report to the Director of Planning, Building and Code Enforcement, or the Director's designee, documenting the annual monitoring of habitat enhancement activities to document that this performance standard has been satisfied. **Mitigation Measure BI-2d: Avoidance and Protection of Creeping Wild Rye Habitat** Prior to the start of construction within 20 feet of retained areas of creeping wild rye, the project applicant shall ensure that all areas that contain or potentially contain creeping wild rye are clearly delineated, separated, and protected from the work area by environmentally sensitive area fencing, which shall be maintained throughout the construction period. A qualified biologist shall oversee the delineation and installation of fencing. Excavation, vehicular traffic, staging of materials, and all other project-related activity shall be located outside of the environmentally sensitive area. If creeping wild rye cannot be avoided, any temporarily affected areas shall be restored to pre-construction conditions or better at the end of construction that occurs within 20 feet of the retained area of creeping wild rye. At a minimum, the restoration sites shall meet the following performance standards by the fifth year after restoration: (1) Temporarily affected areas shall be returned to pre-project conditions or better. (2) Native vegetation cover shall be at least 70 percent of the baseline native vegetation cover in the impact area. (3) No more cover by invasive species shall be present than in the baseline/impact area. Restoration shall be detailed in a habitat mitigation and monitoring plan, which shall be developed before the start of construction and in coordination with permit applications and/or conditions. At a minimum, the plan shall include: (1) Name and contact information for the property owner of the land on which the mitigation will take place; (2) Identification of the water source for supplemental irrigation, if needed; (3) Identification of depth to groundwater;	

IMPACT CODES:

NA = not applicable
NI = no impact
LTS = less than significant or negligible impact; no mitigation required
LTSM = less than significant or negligible impact, after mitigation
S = significant
SU = significant and unavoidable adverse impact, after mitigation (where applicable)

TABLE S-1
SUMMARY OF IMPACTS AND MITIGATION

Impact Statement	Level of Significance prior to Mitigation	Mitigation Measures	Level of Significance after Mitigation
		(4) Topsoil salvage and storage methods for areas that support special-status plants; (5) Site preparation guidelines to prepare for planting, including coarse and fine grading; (6) Plant material procurement, including assessment of the risk of introduction of plant pathogens through the use of nursery-grown container stock vs. collection and propagation of site-specific plant materials, or use of seeds; (7) A planting plan outlining species selection, planting locations, and spacing for each vegetation type to be restored; (8) Planting methods, including containers, hydroseed or hydromulch, weed barriers, and cages, as needed; (9) Soil amendment recommendations, if needed; (10) An irrigation plan, with proposed rates (in gallons per minute), schedule (i.e., recurrence interval), and seasonal guidelines for watering; (11) A site protection plan to prevent unauthorized access, accidental damage, and vandalism; (12) Weeding and other vegetation maintenance tasks and schedule, with specific thresholds for acceptance of invasive species; (13) Performance standards by which successful completion of mitigation can be assessed relative to a relevant baseline or reference site, and by which remedial actions will be triggered; (14) Success criteria that shall include the minimum performance standards described in Mitigation Measure BI-2a, Avoidance of Impacts on Riparian Habitat, and Mitigation Measure BI-2d, Avoidance and Protection of Creeping Wild Rye Habitat; (15) Monitoring methods and schedule; (16) Reporting requirements and schedule; (17) Adaptive management and corrective actions to achieve the established success criteria; and (18) An educational outreach program to inform operations and maintenance departments of local land management and utility agencies of the mitigation purpose of restored areas to prevent accidental damages. The Habitat Mitigation and Monitoring Plan and all field documentation, prepared in coordination with the appropriate regulatory agencies, shall be submitted to the Director of the City of Planning, Building and Code Enforcement or the Director's designee for review and approval prior to the issuance of any demolition, grading, or building permit for construction that would occur within 20 feet of creeping wild rye habitat.	

IMPACT CODES:

NA = not applicable
NI = no impact
LTS = less than significant or negligible impact; no mitigation required
LTSM = less than significant or negligible impact, after mitigation
S = significant
SU = significant and unavoidable adverse impact, after mitigation (where applicable)

TABLE S-1
SUMMARY OF IMPACTS AND MITIGATION

Impact Statement	Level of Significance prior to Mitigation	Mitigation Measures	Level of Significance after Mitigation
Impact BI-3: The proposed project could have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means.	S	**Mitigation Measures BI-1a**, **BI-2a**, and **BI-2d** **Mitigation Measure BI-3: Avoidance of Impacts on Wetlands and Waters** The project applicant for the specific construction activity to be undertaken and its contractors shall minimize impacts on waters of the United States and waters of the state, including wetlands, by implementing the following measures: • A preliminary jurisdictional delineation of wetlands shall be prepared to determine the extent of waters of the United States and/or waters of the state within the project component footprints and anticipated construction disturbance areas. The results shall be summarized in a wetland delineation report to be submitted to the Director of the City of San José Department of Planning, Building and Code Enforcement, or the Director's designee, for review and approval before the issuance of any demolition, grading, or building permit for construction activity within the riparian corridor. Wetlands identified in the report shall be avoided through project design, if feasible. All identified avoidance and protection measures shall be included on the plans for proposed demolition, grading, and/or building permits for construction activities within the riparian corridor. • The proposed project shall be designed to avoid, to the extent practical, work within wetlands and/or waters under the jurisdiction of U.S. Army Corps of Engineers (USACE), the San Francisco Bay Regional Water Quality Control Board, and/or the California Department of Fish and Wildlife (CDFW). If applicable, permits or approvals shall be sought from the above agencies, as required. Where wetlands or other water features must be disturbed, the minimum area of disturbance necessary for construction shall be identified and the area outside avoided. • Before the start of construction within 50 feet of any wetlands and drainages, appropriate measures shall be taken to ensure protection of the wetland from construction runoff or direct impact from equipment or materials, such as the installation of a silt fence, and signs indicating the required avoidance shall be installed. No equipment mobilization, grading, clearing, or storage of equipment or machinery, or similar activity, shall occur until a qualified biologist has inspected and approved the fencing installed around these features. The construction contractor for the specific construction activity to be undertaken shall ensure that the temporary fencing is maintained until construction activities are complete. No construction activities, including equipment movement, storage of materials, or temporary spoils stockpiling, shall be allowed within the fenced areas protecting wetlands. • Where disturbance to jurisdictional wetlands or waters cannot be avoided, any temporarily affected jurisdictional wetlands or waters shall be restored to pre-construction conditions or better at the end of construction, in accordance with the requirements of USACE, San Francisco Bay Regional Water Quality Control Board, and/or CDFW permits. Compensation for permanent impacts on wetlands	LTSM

IMPACT CODES:

NA = not applicable
NI = no impact
LTS = less than significant or negligible impact; no mitigation required
LTSM = less than significant or negligible impact, after mitigation
S = significant
SU = significant and unavoidable adverse impact, after mitigation (where applicable)

TABLE S-1
SUMMARY OF IMPACTS AND MITIGATION

Impact Statement	Level of Significance prior to Mitigation	Mitigation Measures	Level of Significance after Mitigation
		or waters shall be provided at a 1:1 ratio, or as agreed upon by CDFW, USACE, and the San Francisco Bay Regional Water Quality Control Board, as applicable. Compensation for loss of wetlands may be in the form of permanent on-site or off-site creation, restoration, enhancement, or preservation of habitat. At a minimum, the restoration or compensation sites shall meet the following performance standards by the fifth year after restoration: (1) Temporarily affected areas shall be returned to pre-project conditions or better. (2) Wetlands restored or constructed as federal wetlands meet the applicable federal criteria for jurisdictional wetlands, and wetlands restored or constructed as state wetlands meet the state criteria for jurisdictional wetlands. (3) No more cover by invasive species shall be present than in the baseline/impact area pre-project. Restoration and compensatory mitigation activities shall be described in the habitat mitigation and monitoring plan prescribed by Mitigation Measure BI-2a, Avoidance of Impacts on Riparian Habitat.	
Impact BI-4: The proposed project could interfere substantially with the movement of a native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites.	S	**Mitigation Measure BI-4: Avian Collision Avoidance Measures** In addition to conforming to the bird safety standards and guidelines in the City's Downtown Design Guidelines, and the General Plan, the following mitigation measures shall be implemented: *Educating Residents and Occupants.* Prior to issuance of any building permits, the project applicant shall develop educational materials for building tenants, occupants, and residents, encouraging them to minimize light transmission from windows, especially during peak spring and fall migratory periods, by turning off unnecessary lights and/or closing window coverings at night. The Director of Planning, Building and Code Enforcement or the Director's designee shall review and approve the educational materials before buildings are occupied. The project applicant shall also supply documentation (e.g., written statement) describing when and how the materials will be distributed (e.g., poster in building lobby, attachment to lease, new-tenant welcome packet). Documentation shall be submitted to the Director of Planning, Building and Code Enforcement or the Director's designee. *Antennae, Monopole Structures, and Rooftop Elements.* Prior to issuance of any building permits, the project applicant shall provide documentation (e.g., construction drawings) that buildings minimize the number of and co-locate rooftop antennas and other rooftop equipment, and that monopole structures or antennas on buildings do not include guy wires. The documentation shall be reviewed and approved by a wildlife biologist before issuance of the site development permit for the project component (e.g., building) that poses a collision risk for birds. Documentation shall be submitted to the Director of Planning, Building and Code Enforcement or the Director's designee.	LTSM

IMPACT CODES:

NA = not applicable
NI = no impact
LTS = less than significant or negligible impact; no mitigation required
LTSM = less than significant or negligible impact, after mitigation
S = significant
SU = significant and unavoidable adverse impact, after mitigation (where applicable)

TABLE S-1
SUMMARY OF IMPACTS AND MITIGATION

Impact Statement	Level of Significance prior to Mitigation	Mitigation Measures	Level of Significance after Mitigation
Impact BI-5: The proposed project would not conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance.	LTS	None required	LTS
Impact BI-6: The proposed project would not conflict with the provisions of an adopted habitat conservation plan, natural community conservation plan, or other approved local, regional, or state habitat conservation plan.	S	**Mitigation Measures BI-1a, BI-1b, BI-1c, and BI-2a**	LTSM
Impact C-BI-1: The proposed project, in conjunction with other past, current, or foreseeable development in the project vicinity, could result in cumulative impacts on biological resources.	S	**Mitigation Measures BI-1a through BI-1f**, **BI-2a through BI-2d**, **BI-3**, **BI-4, HY-3b, and NO-1a**	LTSM
3.3 Cultural Resources and Tribal Cultural Resources			
Impact CU-1: The proposed project would demolish historic architectural resources, resulting in a substantial adverse change in the significance of a historical resource as defined in CEQA Guidelines Section 15064.5.	S	**Mitigation Measure CU-1a: Documentation** Before the issuance of a demolition and/or relocation permit and under the direction of the Director of Planning, Building and Code Enforcement or the Director's designee, the project applicant shall prepare documentation of all historic architectural resources under CEQA subject to demolition and/or relocation. This includes **343 North Montgomery Street; 345 North Montgomery Street; 559, 563, and 567 West Julian Street; 145 South Montgomery Street; and 580 Lorraine Avenue**. Each resource shall be photo-documented to an archival level utilizing 35 mm photography and consisting of selected black-and-white views of the building to the following standards: • *Cover sheet*—A cover sheet identifying the photographer, providing the address of the building, common or historic name of the building, date of construction, date of photographs, and photograph descriptions. • *Camera*—A 35mm camera. • *Lenses*—No soft-focus lenses. Lenses may include normal focal length, wide angle, and telephoto. • *Filters*—Photographer's choice. Use of a pola screen is encouraged. • *Film*—Black-and-white film only; tri-X, Plus-X, or T-Max film is recommended.	SU

IMPACT CODES:

NA = not applicable
NI = no impact
LTS = less than significant or negligible impact; no mitigation required
LTSM = less than significant or negligible impact, after mitigation
S = significant
SU = significant and unavoidable adverse impact, after mitigation (where applicable)

TABLE S-1
SUMMARY OF IMPACTS AND MITIGATION

Impact Statement	Level of Significance prior to Mitigation	Mitigation Measures	Level of Significance after Mitigation
		• *View*—Perspective view–front and other elevations. All photographs shall be composed to give primary consideration to the architectural and/or engineering features of the structure, with aesthetic considerations necessary but secondary. • *Lighting*—Sunlight usually preferred for exteriors, especially of the front façade. Light overcast days, however, may provide more satisfactory lighting for some structures. A flash may be needed to cast light into porch areas or overhangs. • *Technical*—Sharp focus required for all areas of the photograph. The project applicant shall coordinate the submission of the photo-documentation, including the original prints and negatives, to History San José. Digital photos may be provided as a supplement to the above photo-documentation, but not in place of it. Digital photography shall be recorded on a CD and shall be submitted with the above documentation. The above shall be accompanied by a transmittal stating that the documentation is submitted as a Standard Measure to address the loss of the historic resource, which shall be named and the address stated, with a copy provided to the Director of Planning, Building and Code Enforcement or the Director's designee. **Mitigation Measure CU-1b: Relocation** In accordance with General Plan Policy LU-13.2, and consistent with the DSAP Final EIR's *Measures Included in the Project to Reduce and Avoid Impacts to Historic Resources,* relocation of a historic architectural resource shall be considered as an alternative to demolition. After implementation of Mitigation Measure CU-1a, Documentation, and prior to issuance of any permit that would allow demolition of a historic architectural resource, the project applicant shall take the following actions to facilitate historic architectural resource relocation. This applies to **343 North Montgomery Street (partial); 345 North Montgomery Street; 559, 563, and 567 West Julian Street; and 145 South Montgomery Street (partial)**:[5] (1) **Relocation Outreach.** The project applicant shall advertise the availability for relocation of historic architectural resources subject to Mitigation Measure CU-1b, Relocation. A dollar amount equal to the estimated cost of demolition, as certified by a licensed contractor, and any associated Planning Permit fees for relocation shall be offered to the recipient of the building who is willing to undertake relocation and rehabilitation after relocation. Advertisement and outreach to identify an interested third party shall continue for no less than 60 days. The advertisements shall include notification in at least one newspaper of general circulation and on online platforms as appropriate, including at a minimum the *San Jose Mercury News* (print and online), and the City of San José Department of	

5 Garden City Construction, "Downtown West Mixed Use Plan – Historic Resource Move Feasibility," memo, prepared for Google/Lendlease, June 29, 2020.

IMPACT CODES:

NA = not applicable
NI = no impact
LTS = less than significant or negligible impact; no mitigation required
LTSM = less than significant or negligible impact, after mitigation
S = significant
SU = significant and unavoidable adverse impact, after mitigation (where applicable)

TABLE S-1
SUMMARY OF IMPACTS AND MITIGATION

Impact Statement	Level of Significance prior to Mitigation	Mitigation Measures	Level of Significance after Mitigation
		Planning, Building and Code Enforcement's Environmental Review website. Noticing shall be compliant with City Council Policy 6-30: Public Outreach Policy and shall include posting of a notice, on each building proposed for demolition, that is no smaller than 48 x 72 inches and is visible from the public right-of-way.[6] Satisfaction of the notification provisions shall be subject to review by the Director of Planning, Building and Code Enforcement or the Director's designee following completion of the minimum 60-day public outreach period, before the issuance of demolition permits. (2) **Relocation Implementation Plan(s).** If, before the end of the outreach period, an interested third party (or parties) expresses interest in relocating and rehabilitating one or more of the resources to a suitable site under their ownership or control, they shall be allowed a period of up to 60 days to prepare and submit a Relocation Implementation Plan, and an additional 120 days to complete removal of the resources from the project site. The Relocation Implementation Plan(s) shall be prepared in consultation with historic preservation professionals who meet or exceed the *Secretary of the Interior's Professional Qualification Standards*. The plan(s) shall be based on the findings of the *Downtown West Mixed-Use Plan—Historic Resource Move Feasibility* memo and *Site Selection Criteria for Relocation of Identified Historic Resources* memo (EIR Appendix E3) or subsequent relocation feasibility documentation, to support relocation of the historic resource to a site outside of the project site and acceptable to the City.[7] The Relocation Implementation Plan for each resource shall include: • A description of the intended relocation receiver site and an analysis of its compatibility with the unique character, historical context, and prior physical environment of the resource; • A description and set of working drawings detailing methods and means of securing and bracing the building through all stages of relocation; • A site plan for the receiver site demonstrating compliance with all setback and zoning requirements; • A travel route survey that records the width of streets, street lamp and signal arm heights, heights of overhead utilities that may require lifting or temporary removal, and other details necessary for coordinating the relocation; • A scope of work for building rehabilitation following completion of relocation, and anticipated timing to initiate and complete such rehabilitation; and	

6 Current noticing protocols for On-Site Noticing/Posting Requirements for Large Development Proposals can be found at https://www.sanjoseca.gov/home/showdocument?id=15573.

7 Garden City Construction, "Downtown West Mixed Use Plan – Historic Resource Move Feasibility," memo, prepared for Google/Lendlease, June 29, 2020; Architectural Resources Group, Site Selection Criteria for Relocation of Identified Historic Resources, memo, prepared for Google/Lendlease, August 7, 2020.

IMPACT CODES:

NA = not applicable
NI = no impact
LTS = less than significant or negligible impact; no mitigation required
LTSM = less than significant or negligible impact, after mitigation
S = significant
SU = significant and unavoidable adverse impact, after mitigation (where applicable)

TABLE S-1
SUMMARY OF IMPACTS AND MITIGATION

Impact Statement	Level of Significance prior to Mitigation	Mitigation Measures	Level of Significance after Mitigation
		• Roles and responsibilities between the interested party, project applicant, City staff, and outside individuals, groups, firms, and/or consultants as necessary. Once the Relocation Implementation Plan(s) have been reviewed and approved by the Director of Planning, Building and Code Enforcement or the Director's designee, implementation of the approved relocation shall occur within 120 days. (3) **Rehabilitation after Relocation.** After relocation of the resource(s) and pursuant to General Plan Policy LU-13.6 and CEQA Section 15064.5(3), parties responsible for relocation shall also be responsible for rehabilitation of the building(s) on their new site(s) as specified in the Relocation Implementation Plan. Resource(s) shall be secured on a foundation and repaired to ensure that each resource remains in good condition and is usable for its intended purpose, and that all modifications are sensitive to those elements that convey the resource's historical significance. All repairs and modifications shall be consistent with the *Secretary of the Interior's Standards and Guidelines for Rehabilitation* and related permits shall be subject to review by the Director of Planning, Building and Code Enforcement or the Director's designee. **Mitigation Measure CU-1c: Interpretation/Commemoration** As part of the Downtown West Design Standards and Guidelines conformance review for each new building on the site of one or more demolished resources, the project applicant, in consultation with a qualified architectural historian and design professional, and under the direction of the Director of Planning, Building and Code Enforcement or the Director's designee, shall develop an interpretive program that may include one or more interpretive displays, artworks, electronic media, smartphone apps, and other means of presenting information regarding the site's history and development. The program shall concentrate on those contextual elements that are specific to the resources that have been demolished. Display panels, if included in the interpretive program, shall be placed at, or as near as possible to, the location where the resource was historically located. The interpretive program shall be approved prior to the issuance of demolition permit(s) for the historical resource(s) to be demolished and shall be fully implemented and/or installed before the issuance of a certificate of occupancy for the applicable new building(s). **Mitigation Measure CU-1d: Salvage** Before the demolition of any historic resource on the site that is not relocated, the subject building shall be made available for salvage to companies or individuals facilitating reuse of historic building materials, including local preservation organizations. Noticing for salvage opportunities shall include notification in at least one newspaper of general circulation and online platforms as appropriate, including at a minimum the *San Jose Mercury News* (print and online) and the City of San José Department of Planning, Building and Code Enforcement's Environmental Review	

IMPACT CODES:

NA = not applicable
NI = no impact
LTS = less than significant or negligible impact; no mitigation required
LTSM = less than significant or negligible impact, after mitigation
S = significant
SU = significant and unavoidable adverse impact, after mitigation (where applicable)

TABLE S-1
SUMMARY OF IMPACTS AND MITIGATION

Impact Statement	Level of Significance prior to Mitigation	Mitigation Measures	Level of Significance after Mitigation
		website. Noticing shall be compliant with City Council Policy 6-30: Public Outreach Policy and shall include a notice, on each building proposed for demolition, that is no smaller than 48 x 72 inches and is visible from the public right-of-way.[8] The time frame for materials salvage shall be 30 days of noticing after the initial 60 days noticing for relocation.	
Impact CU-2: The proposed project would relocate, construct an addition to, and adaptively reuse the historic portions of 40 South Montgomery Street (Kearney Pattern Works and Foundry). This could result in a substantial adverse change in the significance of a historical resource as defined in CEQA Guidelines Section 15064.5.	S	**Mitigation Measure CU-2a: Relocation On-site** Before the issuance of any permit that would allow disturbance of the historic resource at 40 South Montgomery Street, the project applicant shall prepare a Relocation Implementation Plan that includes a detailed description of the proposed relocation methodology. At a minimum, this plan shall include detailed descriptions and drawings that indicate: • The means and methods of securing and bracing the building through all stages of relocation; • The proposed locations of cuts to facilitate relocation, with sections that are as large as feasible to limit damage to the historic fabric; • Proposed siting and foundation details; and • The approximate timetable for the completion of work, including major milestones. All work shall be undertaken in consultation with an architect or professional who meets the *Secretary of the Interior's Historic Preservation Professional Qualifications Standards*. The Relocation Implementation Plan shall be subject to review and approval by the Director of Planning, Building and Code Enforcement or the Director's designee. **Mitigation Measure CU-2b: Compliance with the Secretary of the Interior's Standards** Before the issuance of any permit to move or modify or expand the building at 40 South Montgomery Street, the project applicant shall submit detailed designs prepared by a qualified historic preservation architect demonstrating that all proposed relocation methodologies, including satisfaction of the provisions of Mitigation Measure CU-2a, Relocation On-site, repairs, modifications, and additions, are consistent with the Standards for Rehabilitation. The submitted designs shall be subject to review and approval by the Director of Planning, Building and Code Enforcement or the Director's designee.	LTSM

[8] Current noticing protocols for On-Site Noticing/Posting Requirements for Large Development Proposals can be found at https://www.sanjoseca.gov/home/showdocument?id=15573.

IMPACT CODES:

NA = not applicable
NI = no impact
LTS = less than significant or negligible impact; no mitigation required
LTSM = less than significant or negligible impact, after mitigation
S = significant
SU = significant and unavoidable adverse impact, after mitigation (where applicable)

TABLE S-1
SUMMARY OF IMPACTS AND MITIGATION

Impact Statement	Level of Significance prior to Mitigation	Mitigation Measures	Level of Significance after Mitigation
Impact CU-3: The proposed project would construct one or more additions to and adaptively reuse 150 South Montgomery Street (Hellwig Ironworks). The proposed additions and modifications would result in a substantial adverse change in the significance of a historical resource as defined in CEQA Guidelines Section 15064.5.	S	**Mitigation Measure CU-1a, Documentation** **Mitigation Measure CU-1c, Interpretation/Commemoration**	SU
Impact CU-4: The proposed project could result in significant impacts on historical resources resulting from construction-related vibrations.	S	**Mitigation Measure NO-2a** (refer to Section 3.10, *Noise and Vibration*) **Mitigation Measure CU-4: Construction Vibration Operation Plan for Historic Structures** As presented in General Plan Policy EC-3.2, building damage for sensitive historic structures is generally experienced when vibration levels exceed 0.08 in/sec PPV. Section 3.10, Table 3.10-13, *Vibration Levels for Construction Activity*, lists a number of construction activities with their estimated PPVs at various distances. At distances up to 170 feet, vibration levels can approach the 0.08 PPV recommended threshold. Therefore, before the issuance of any demolition, grading, or building permit (whichever comes first) for work within 170 feet of a historic resource, the project applicant shall submit a Construction Vibration Operation Plan prepared by an acoustical and/or structural engineer or other appropriate qualified professional to the Director of Planning, Building and Code Enforcement, or the Director's designee, for review and approval. The Construction Vibration Operation Plan shall establish pre-construction baseline conditions and threshold levels of vibration that could damage the historic structures located within 170 feet of construction, regardless of whether the historic structures are located on the project site or adjacent to it. The plan shall also include measures to limit operation of vibration-generating construction equipment near sensitive structures to the greatest extent feasible. In addition, the Construction Vibration Operation Plan shall address the feasibility and potential implementation of the following measures during construction: • Prohibit impact, sonic, or vibratory pile driving methods where feasible. Drilled piles cause lower vibration levels where geological conditions permit their use. • Limit other vibration-inducing equipment to the extent feasible. • Submit a list of all heavy construction equipment to be used for this project known to produce high vibration levels (e.g., tracked vehicles, vibratory compaction, jackhammers, hoe rams) to the Director of the City of San José Department of	LTSM

IMPACT CODES:

NA = not applicable
NI = no impact
LTS = less than significant or negligible impact; no mitigation required
LTSM = less than significant or negligible impact, after mitigation
S = significant
SU = significant and unavoidable adverse impact, after mitigation (where applicable)

TABLE S-1
SUMMARY OF IMPACTS AND MITIGATION

Impact Statement	Level of Significance prior to Mitigation	Mitigation Measures	Level of Significance after Mitigation
		Planning, Building and Code Enforcement or the Director's designee. This list shall be used to identify equipment and activities that would potentially generate substantial vibration and to define the level of effort required for continuous vibration monitoring. • Where vibration-inducing equipment is deemed necessary for construction work within 170 feet of a historic resource, include details outlining implementation of continued vibration monitoring. All construction contracts and approved plans shall include notes with reviewer-identified limitations and diagrams to avoid impacts on historic resources.	
Impact CU-5: The proposed project would not result in significant impacts on 374 West Santa Clara Street (San Jose Water Works) or the Southern Pacific Depot Historic District from modifications to the City Landmark designation boundaries.	LTS	None required	LTS
Impact CU-6: The proposed project would not result in significant impacts on 374 West Santa Clara Street (San Jose Water Works), 65 Cahill Street (the Southern Pacific Depot Historic District), the 19th century residences between North Montgomery and North Autumn Streets (160 North Montgomery Street and 195, 199, and 203 North Autumn Street), 237 North Autumn Street (Dennis Residence), 40 South Montgomery Street (Kearney Pattern Works and Foundry), and/or contributors to the Lakehouse Historic District including the individual historic architectural resources under CEQA of 396, 398, 416, and 454 West San Fernando Street and 124 Delmas Avenue from increased density of surrounding development, changes in adjacent land use, or changes in circulation patterns.	LTS	None required	LTS

IMPACT CODES:

NA = not applicable
NI = no impact
LTS = less than significant or negligible impact; no mitigation required
LTSM = less than significant or negligible impact, after mitigation
S = significant
SU = significant and unavoidable adverse impact, after mitigation (where applicable)

TABLE S-1
SUMMARY OF IMPACTS AND MITIGATION

Impact Statement	Level of Significance prior to Mitigation	Mitigation Measures	Level of Significance after Mitigation
Impact CU-7: The proposed project could result in significant impacts at 105 South Montgomery Street (Stephen's Meat Projects sign), a historic resource, as a result of its removal, storage, and relocation within the project site.	S	**Mitigation Measure CU-7: Sign Relocation** Before the issuance of the first permit for site preparation or construction on the site within 100 feet of the Stephen's Meat Product sign, the project applicant, in consultation with a qualified historic preservation professional, shall remove the sign from the site. If the sign is not immediately relocated to a receiver site, it shall be placed in secure storage. Storage shall be indoors, or otherwise protected from weather, impacts, and vandalism. The location of the storage facility shall be communicated to the Director of Planning, Building and Code Enforcement or the Director's designee. During design development, a receiver site shall be identified on the project site with the following characteristics: • The site shall be similar to the existing location along a public right-of-way. • The sign shall be placed upon a single support pole of similar dimension. • Views of the sign shall be permitted from a minimum of 150 feet along both directions of the public right-of-way. • The sign shall be repaired, as needed, to return it to its current functional state. • Interpretive signage indicating the sign's age, association, and original location shall be located at the base of the structural support. The selected site shall be subject to approval by the Director of Planning, Building and Code Enforcement, or the Director's designee. Relocation of the sign shall be completed within no more than five years from the date of its removal, with the potential for an extension not to exceed an additional five years upon approval by the Director of Planning, Building and Code Enforcement or the Director's designee.	LTSM
Impact CU-8: The proposed project could cause a substantial adverse change in the significance of an archaeological resource as defined in CEQA Guidelines Section 15064.5.	S	**Mitigation Measure CU-8a: Cultural Resources Awareness Training** Before any ground-disturbing and/or construction activities, a Secretary of the Interior–qualified archaeologist shall conduct a training program for all construction and field personnel involved in site disturbance. On-site personnel shall attend a mandatory pre-project training that will outline the general archaeological sensitivity of the area and the procedures to follow in the event an archaeological resource and/or human remains are inadvertently discovered. A training program shall be established for new project personnel before project work. **Mitigation Measure CU-8b: Archaeological Testing Plan** Before the issuance of any demolition or grading permits (whichever comes first) for each of the three construction phases, the project applicant shall be required to complete subsurface testing to determine the extent of possible cultural resources on-site. Subsurface testing shall be completed by a qualified archaeologist based on an	LTSM

IMPACT CODES:

NA = not applicable
NI = no impact
LTS = less than significant or negligible impact; no mitigation required
LTSM = less than significant or negligible impact, after mitigation
S = significant
SU = significant and unavoidable adverse impact, after mitigation (where applicable)

TABLE S-1
SUMMARY OF IMPACTS AND MITIGATION

Impact Statement	Level of Significance prior to Mitigation	Mitigation Measures	Level of Significance after Mitigation
		approved Archaeological Testing Plan prepared and submitted to the Director of the City of San José Department of Planning, Building and Code Enforcement, or the Director's designee, for review and approval. The Testing Plan shall include, at a minimum: • Identification of the property types of the expected archaeological resource(s) that could be affected by construction; • The testing method to be used (hand excavation, coring, and/or mechanical trenching); • The locations recommended for testing; and • A written report of the findings. The purpose of the archaeological testing program shall be to determine the presence or absence of archaeological resources to the extent possible and to evaluate whether any archeological resource encountered on the site constitutes an historical resource under CEQA. **Mitigation Measure CU-8c: Archaeological Evaluation** The project applicant shall ensure that all prehistoric and historic-era materials and features identified during testing are evaluated by a qualified archaeologist based on California Register of Historical Resources criteria and consistent with the approved Archaeological Testing Plan. Based on the findings of the subsurface testing, a qualified archaeologist shall prepare an Archaeological Resources Treatment Plan addressing archaeological resources, in accordance with Mitigation Measure CU-8d, Archaeological Resources Treatment Plan. **Mitigation Measure CU-8d: Archaeological Resources Treatment Plan** The project applicant shall submit the Archaeological Resources Treatment Plan to the Director of the City of San José Department of Planning, Building and Code Enforcement, or the Director's designee, for review and approval before the issuance of any demolition and grading permits. The treatment plan shall contain the following elements, at a minimum: • Identification of the scope of work and range of subsurface effects (with a location map and development plan), including requirements for preliminary field investigations; • Development of research questions and goals to be addressed by the investigation (what is significant vs. what is redundant information); • Detailed field strategy used to record, recover, or avoid the finds and address research goals; • Analytical methods;	

IMPACT CODES:

NA = not applicable
NI = no impact
LTS = less than significant or negligible impact; no mitigation required
LTSM = less than significant or negligible impact, after mitigation
S = significant
SU = significant and unavoidable adverse impact, after mitigation (where applicable)

TABLE S-1
SUMMARY OF IMPACTS AND MITIGATION

Impact Statement	Level of Significance prior to Mitigation	Mitigation Measures	Level of Significance after Mitigation
		• Report structure and outline of document contents; • Disposition of the artifacts; and • Appendices: Site records, correspondence, and consultation with Native Americans and other interested parties. The project applicant shall implement the approved Archaeological Treatment Plan before the issuance of any demolition or grading permits. After completion of the fieldwork, all artifacts shall be cataloged in accordance with 36 CFR Part 79, and the State of California's *Guidelines for the Curation of Archeological Collections*. The qualified archaeologist shall complete and submit the appropriate forms documenting the findings with the Northwest Information Center of the California Historical Resources Information System at Sonoma State University.	
Impact CU-9: The proposed project would disturb human remains, including those interred outside of formal cemeteries.	S	**Mitigation Measure CU-8a**	LTSM
Impact CU-10: The proposed project could cause a substantial adverse change in the significance of a tribal cultural resource as defined in Public Resources Code Section 21074.	S	**Mitigation Measures CU-8a through CU-8d**	LTSM
Impact C-CU-1: The proposed project would make a cumulatively considerable contribution to previously identified significant cumulative adverse impacts on Downtown historical resources as defined in CEQA Guidelines Section 15064.5.	S	**Mitigation Measures CU-1a through CU-1d**	SU
Impact C-CU-2: The proposed project would not make a cumulatively considerable contribution to previously identified significant impacts on the Southern Pacific Depot historic district.	LTS	None required	LTS

IMPACT CODES:

NA = not applicable
NI = no impact
LTS = less than significant or negligible impact; no mitigation required
LTSM = less than significant or negligible impact, after mitigation
S = significant
SU = significant and unavoidable adverse impact, after mitigation (where applicable)

TABLE S-1
SUMMARY OF IMPACTS AND MITIGATION

Impact Statement	Level of Significance prior to Mitigation	Mitigation Measures	Level of Significance after Mitigation
Impact C-CU-3: The proposed project, in combination with past and foreseeable future projects, would not result in a cumulative adverse impact on 374 West Santa Clara Street (San Jose Water Works), a historic architectural resource as defined in CEQA Guidelines Section 15064.5.	LTS	None required	LTS
Impact C-CU-4: The proposed project would combine with other projects to result in significant cumulative effects on archaeological resources as defined in CEQA Guidelines Section 15064.5; human remains, including those interred outside of formal cemeteries; and tribal cultural resources as defined in Public Resources Code Section 21074.	S	**Mitigation Measures CU-8a through CU-8d**	LTSM
3.4 Energy			
Impact EN-1: The proposed project would not result in potentially significant environmental impacts due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation.	LTS	None required	LTS
Impact EN-2: The proposed project would not conflict with or obstruct a state or local plan for renewable energy or energy efficiency.	LTS	None required	LTS
Impact C-EN-1: The proposed project would not result in a cumulatively considerable contribution to a significant energy impact.	LTS	None required	LTS

IMPACT CODES:

NA = not applicable
NI = no impact
LTS = less than significant or negligible impact; no mitigation required
LTSM = less than significant or negligible impact, after mitigation
S = significant
SU = significant and unavoidable adverse impact, after mitigation (where applicable)

TABLE S-1
SUMMARY OF IMPACTS AND MITIGATION

Impact Statement	Level of Significance prior to Mitigation	Mitigation Measures	Level of Significance after Mitigation
3.5 Geology, Soils, and Paleontological Resources			
Impact GE-1: The proposed project could directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving strong seismic ground shaking; or seismic-related ground failure, including liquefaction.	S	**Mitigation Measure GE-1: Seismic Damage and Seismic-Related Ground Failure, including Liquefaction** Prior to the issuance of any grading or building permit for new building construction, the project applicant shall implement the following measures: • To avoid or minimize potential damage from seismic shaking, use standard engineering and seismic safety design techniques for project construction. Complete building design and construction at the site in conformance with the recommendations of an approved geotechnical investigation. The geotechnical investigation report shall be reviewed and approved by the Director of the City of San José Department of Public Works as part of the building permit review and entitlement process. The buildings shall meet the requirements of applicable Building and Fire Codes as adopted or updated by the City. The project shall be designed to withstand soil hazards identified on the site, and designed to reduce the risk to life or property on-site and off-site to the extent feasible and in compliance with the Building Code. • Construct the project in accordance with standard engineering practices in the California Building Code, as adopted by the City of San José. Obtain a grading permit from the Department of Public Works prior to the issuance of a Public Works Clearance. These standard practices will ensure that future buildings on the site are designed to properly account for soils-related hazards.	LTSM
Impact GE-2: The proposed project would not result in substantial soil erosion or the loss of topsoil.	LTS	None required	LTS
Impact GE-3: The proposed project would not be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse.	S	**Mitigation Measure GE-3: Geotechnical Report** Prior to or coincident with the submittal of grading and drainage plans for each proposed building or other improvements, the project applicant for the improvements in question shall submit to the City of San José Director of Public Works or his/her designee for review and approval, in accordance with the California Building Code, a geotechnical report for the site under consideration. The applicant for the improvements in question shall comply with the recommendations of the geotechnical report, as approved by the Director of Public Works or his/her designee.	LTSM

IMPACT CODES:

NA = not applicable
NI = no impact
LTS = less than significant or negligible impact; no mitigation required
LTSM = less than significant or negligible impact, after mitigation
S = significant
SU = significant and unavoidable adverse impact, after mitigation (where applicable)

TABLE S-1
SUMMARY OF IMPACTS AND MITIGATION

Impact Statement	Level of Significance prior to Mitigation	Mitigation Measures	Level of Significance after Mitigation
Impact GE-4: The proposed project would not be located on expansive soil, as defined in Section 1803.5.3 of the California Building Code (2019), that would create substantial direct or indirect risks to life or property.	LTS	None required	LTS
Impact GE-5: The proposed project could directly or indirectly destroy a unique paleontological resource or site or unique geologic feature.	S	**Mitigation Measure GE-5a: Project Paleontologist** The project applicant for specific construction work proposed shall retain a qualified professional paleontologist (qualified paleontologist) meeting the Society of Vertebrate Paleontology standards as set forth in the "Definitions" section of Standard Procedures for the Assessment and Mitigation of Adverse Impacts to Paleontological Resources (2010) prior to the approval of demolition or grading permits. The qualified paleontologist shall attend the project kickoff meeting and project progress meetings on a regular basis, shall report to the site in the event potential paleontological resources are encountered, and shall implement the duties outlined in Mitigation Measures GE-5b through GE-5d. Documentation of a paleontologist attending the project kickoff meeting and project progress meetings shall be submitted to the Director of the City of San José Department of Planning, Building, and Code Enforcement, or the Director's designee. **Mitigation Measure GE-5b: Worker Training** Prior to the start of any ground-disturbing activity (including vegetation removal, grading, etc.), the qualified paleontologist shall prepare paleontological resources sensitivity training materials for use during the project-wide Worker Environmental Awareness Training (or equivalent). The paleontological resources sensitivity training shall be conducted by a qualified environmental trainer (often the Lead Environmental Inspector or equivalent position, like the qualified paleontologist). In the event construction crews are phased, additional trainings shall be conducted for new construction personnel. The training session shall focus on the recognition of the types of paleontological resources that could be encountered within the project site and the procedures to be followed if they are found, as outlined in the approved Paleontological Resources Monitoring and Mitigation Plan in Mitigation Measure GE-5c. The project applicant for specific construction work proposed and/or its contractor shall retain documentation demonstrating that all construction personnel attended the training prior to the start of work on the site, and shall provide the documentation to the Director of the City of San José Department of Planning, Building, and Code Enforcement, or the Director's designee. **Mitigation Measure GE-5c: Paleontological Monitoring** The qualified paleontologist shall prepare, and the project applicant for specific construction work proposed and/or its contractors shall implement, a Paleontological	LTSM

IMPACT CODES:

NA = not applicable
NI = no impact
LTS = less than significant or negligible impact; no mitigation required
LTSM = less than significant or negligible impact, after mitigation
S = significant
SU = significant and unavoidable adverse impact, after mitigation (where applicable)

TABLE S-1
SUMMARY OF IMPACTS AND MITIGATION

Impact Statement	Level of Significance prior to Mitigation	Mitigation Measures	Level of Significance after Mitigation
		Resources Monitoring and Mitigation Plan (PRMMP). The project applicant shall submit the plan to the Director of the City of San José Department of Planning, Building and Code Enforcement, or the Director's designee, for review and approval at least 30 days prior to the start of construction. This plan shall address the specifics of monitoring and mitigation and comply with the recommendations of the Society of Vertebrate Paleontology (SVP) (2010), as follows. 1. The qualified paleontologist shall identify, and the project applicant or its contractor(s) shall retain, qualified paleontological resource monitors (qualified monitors) meeting the SVP standards (2010). 2. The qualified paleontologist and/or the qualified monitors under the direction of the qualified paleontologist shall conduct full-time paleontological resources monitoring for all ground-disturbing activities in previously undisturbed sediments in the project site that have high paleontological sensitivity. This includes any excavation that exceeds 2 feet in depth in previously undisturbed areas. The PRMMP shall clearly map these portions of the proposed project based on final design provided by the project applicant and/or its contractor(s). 3. If many pieces of heavy equipment are in use simultaneously but at diverse locations, each location shall be individually monitored. 4. Monitors shall have the authority to temporarily halt or divert work away from exposed fossils in order to evaluate and recover the fossil specimens, establishing a 50-foot buffer. 5. If construction or other project personnel discover any potential fossils during construction, regardless of the depth of work or location and regardless of whether the site is being monitored, work at the discovery location shall cease in a 50-foot radius of the discovery until the qualified paleontologist has assessed the discovery and made recommendations as to the appropriate treatment. 6. The qualified paleontologist shall determine the significance of any fossils discovered, and shall determine the appropriate treatment for significant fossils in accordance with the SVP standards. The qualified paleontologist shall inform the project applicant of these determinations as soon as practicable. See Mitigation Measure GE-5d regarding significant fossil treatment. 7. Monitors shall prepare daily logs detailing the types of activities and soils observed, and any discoveries. The qualified paleontologist shall prepare a final monitoring and mitigation report to document the results of the monitoring effort and any curation of fossils. The project applicant shall provide the daily logs to the Director of the City of San José Department of Planning, Building, and Code Enforcement, or the Director's designee, upon request, and shall provide the final report to the Director of the City of San José Department of Planning, Building, and Code Enforcement, or the Director's designee, upon completion.	

IMPACT CODES:

NA = not applicable
NI = no impact
LTS = less than significant or negligible impact; no mitigation required
LTSM = less than significant or negligible impact, after mitigation
S = significant
SU = significant and unavoidable adverse impact, after mitigation (where applicable)

TABLE S-1
SUMMARY OF IMPACTS AND MITIGATION

Impact Statement	Level of Significance prior to Mitigation	Mitigation Measures	Level of Significance after Mitigation
		Mitigation Measure GE-5d: Significant Fossil Treatment If any find is deemed significant, as defined in the Society of Vertebrate Paleontology (SVP) (2010) standards and following the process outlined in Mitigation Measure GE-5c, the qualified paleontologist shall salvage and prepare the fossil for permanent curation with a certified repository with retrievable storage following the SVP standards, and plans for permanent curation shall be submitted to the Director of the City of San José Department of Planning, Building, and Code Enforcement, or the Director's designee.	
Impact C-GE-1: The proposed project, in combination with past, present, and reasonably foreseeable future projects, could result in significant cumulative impacts related to geology, soils, or paleontology.	S	**Mitigation Measures GE-5a through GE-5d**	LTSM
3.6 Greenhouse Gas Emissions			
Impact GR-1: The proposed project could generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment.	LTS	None required	LTS
Impact GR-2: The proposed project would not conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases.	S	**Mitigation Measures AQ-2a, AQ-2b, AQ-2c, AQ-2e, AQ-2f, AQ-2g, AQ-2h** (refer to Impact AQ-2a) **Mitigation Measure GR-2: Compliance with AB 900** Prior to the City's first design Conformance Review for the first new construction building or buildings, the project applicant shall submit a plan documenting the project's proposed GHG emissions reductions and schedule for compliance with AB 900 to the Director of Planning, Building and Code Enforcement or the Director's designee. The plan shall: • Quantify project construction for all phases and operational GHG emissions for the life of the project (defined as 30 years of operation); • Specify the project features and project-specific emission reduction strategies that shall be implemented during construction and operation of the project; and	LTSM

IMPACT CODES:

NA = not applicable
NI = no impact
LTS = less than significant or negligible impact; no mitigation required
LTSM = less than significant or negligible impact, after mitigation
S = significant
SU = significant and unavoidable adverse impact, after mitigation (where applicable)

TABLE S-1
SUMMARY OF IMPACTS AND MITIGATION

Impact Statement	Level of Significance prior to Mitigation	Mitigation Measures	Level of Significance after Mitigation
		• Contain the schedule of GHG offset purchases required as part of the AB 900 certification process to comply with the "no net additional" requirement of Public Resources Code Section 21183(c). With funding from the project applicant, the City shall retain the services of a third-party expert who meets or exceeds the following level of experience and qualifications to assist with the City's annual review of the GHG plan: an expert GHG emissions verifier accredited by the ANSI National Accreditation Board (ANAB) Accreditation Program for Greenhouse Gas Validation/Verification Bodies or a Greenhouse Gas Emissions Lead Verifier accredited by CARB. **Emission Reductions:** At a minimum, project features and project-specific emission reduction strategies shall include the following measures. These measures reflect commitments by the applicant and specific mitigation measures incorporated to reduce air pollutant emissions as described in Section 3.1, *Air Quality*: 1. Achieve LEED ND Gold Certification and LEED Gold for all office buildings. 2. Implement a transportation demand management program to achieve a minimum non–single occupancy vehicle rate of 50 percent for office uses, assuming current transit service levels. The non–single occupancy vehicle rate shall increase to 60 percent for office uses following implementation of the Caltrain Business Plan and to 65 percent for office uses following the start of BART service. 3. Install EV charging equipment on 15 percent or more of all parking spaces at the project site. 4. Design and operate buildings with all-electric utilities (no on-site fossil fuels consumed to provide cooling, heating, cooking, water heating, etc.), with the exception of a total of 20,000 square feet of restaurant kitchens that may be equipped with natural gas for food preparation purposes. 5. Install and operate on-site a solar photovoltaic system generating at least 7.8 MW. 6. Use recycled water for all non-potable water demand. 7. Use electric off-road equipment for construction, including for all concrete/industrial saws, sweepers/scrubbers, aerial lifts, welders, air compressors, fixed cranes, forklifts, pumps, pressure washers, and 50 percent of all cement and mortar mixers. Power portable equipment by grid electricity instead of diesel generators. 8. Meet or exceed all applicable building code requirements and standards, including the CALGreen and San José Reach Codes, and meet or exceed ASHRAE 2019 energy efficiency standards. **GHG Offset Credits:** The project applicant's plan shall describe the schedule for the purchase of GHG offset credits sufficient to offset the balance of the project's GHG emissions for the life of the project consistent with the CARB Determination dated December 19, 2019. As detailed in the CARB Determination, the project applicant's	

IMPACT CODES:

NA = not applicable
NI = no impact
LTS = less than significant or negligible impact; no mitigation required
LTSM = less than significant or negligible impact, after mitigation
S = significant
SU = significant and unavoidable adverse impact, after mitigation (where applicable)

TABLE S-1
SUMMARY OF IMPACTS AND MITIGATION

Impact Statement	Level of Significance prior to Mitigation	Mitigation Measures	Level of Significance after Mitigation

purchases of GHG offsets shall coincide with the phases defined in the AB 900 analysis:

AB 900 Phasing	Total GHG Emissions ($MTCO_2e$)		
	Construction	Net Operational	Net Combined
Phase 1	54,663	494,359	549,022
Phase 2	55,431	523,451	578,882
Phase 3	47,153	438,704	485,857
Total	**157,247**	**1,456,514**	**1,613,761**

SOURCE: CARB Executive Order G-19-154, *Downtown Mixed Use Plan AB 900 Application and Supporting Documentation*, Attachment 2, p. 10, Table 2 (construction), and Attachment 1, pp. 11–12, Table 4.

As documented in the CARB Determination, the project applicant shall purchase GHG offset credits necessary to offset construction-generated emissions on a prorated basis before obtaining the first building permit in each phase of construction, for a total of three offset payments over three construction phases. The project applicant shall purchase GHG offset credits necessary to offset the cumulative net increase in operational emissions over the life of the project on a pro-rated basis before the City issues the final Certificate of Occupancy for the first building in each phase of construction, for a total of three offset payments over three construction phases.

To enable the City to monitor and enforce this requirement, the project applicant's plan shall identify the amount of construction and square footage of development associated with the GHG emissions anticipated for each phase. Any building that would cause emissions to exceed the projected 30-year net additional construction or operational emissions associated with a particular phase shall be considered to be in the next phase. At this point, the project applicant would have to purchase the next installment of AB 900 credits for the associated phase before the final Certificate of Occupancy is issued for this building (see below for more detail).

To account for potential future changes in phasing and project buildout, the project applicant shall purchase carbon credits for each of the three construction phases and three operational phases as follows.

- **Construction—Phase 1:** Before obtaining the first building permit for construction, the project applicant shall purchase the first installment of GHG offset credits for construction as presented in the table above and in the CARB Determination.

IMPACT CODES:

NA = not applicable
NI = no impact
LTS = less than significant or negligible impact; no mitigation required
LTSM = less than significant or negligible impact, after mitigation
S = significant
SU = significant and unavoidable adverse impact, after mitigation (where applicable)

TABLE S-1
SUMMARY OF IMPACTS AND MITIGATION

Impact Statement	Level of Significance prior to Mitigation	Mitigation Measures	Level of Significance after Mitigation
		• **Construction—Phase 2:** Before obtaining the first building permit in Phase 2 of construction (i.e., the building permit for the first building that would cause construction emissions to exceed 54,663 $MTCO_2e$), the project applicant shall purchase GHG offset credits for construction as presented in the table above and in the CARB Determination. • **Construction—Phase 3:** Before obtaining the first building permit in Phase 3 of construction (i.e., the building permit for the first building that would cause total construction emissions to exceed 110,094 $MTCO_2e$, which is the total of Phase 1 and Phase 2, as defined by the CARB Determination), the project applicant shall purchase the third installment of GHG offset credits for construction as presented in the table above. • **Operations—Phase 1:** Before the City issues the final Certificate of Occupancy for the first building in Phase 1, the project applicant shall purchase the first installment of GHG offset credits for operations as presented in the table above and in the CARB Determination. • **Operations—Phase 2:** Before the City issues the final Certificate of Occupancy for the first building in Phase 2 (i.e., the building permit for the first building that would cause projected 30-year net additional operational emissions to exceed 494,359 $MTCO_2e$), the project applicant shall purchase the second installment of GHG offset credits for operations as presented in the table above and in the CARB Determination. • **Operations—Phase 3:** Before the City issues the final Certificate of Occupancy for the first building in Phase 3 (i.e., the building permit for the first building that would cause total projected 30-year net additional operational emissions to exceed 1,017,810 $MTCO_2e$, the total of Phase 1 and Phase 2 as defined by the CARB Determination), the project applicant shall purchase the third installment of GHG offset credits for operations as presented in the table above. The applicant shall increase the GHG offset purchase if needed to offset additional GHG emissions from project-lifetime construction and operations beyond the total GHG offsets required at the time of CARB's Determination, as calculated in the plan. As described in the CARB Determination, all GHG offset credits shall be purchased from the following CARB-accredited carbon registries: the American Climate Registry, Climate Action Reserve, and Verra (formerly Verified Carbon Standard). The GHG offset credits shall be verifiable by the City and enforceable in accordance with the registry's applicable standards, practices, or protocols. The GHG offsets must substantively satisfy all six of the statutory "environmental integrity" requirements applicable to the CARB Cap-and-Trade Program, generally as set forth in both subdivisions (d)(1) and (d)(2) of California Health and Safety Code §38562: real, additional, quantifiable, permanent, verifiable, and enforceable. To be eligible to be used to meet this Mitigation Measure, offset credits must be generated and verified in	

IMPACT CODES:

NA = not applicable
NI = no impact
LTS = less than significant or negligible impact; no mitigation required
LTSM = less than significant or negligible impact, after mitigation
S = significant
SU = significant and unavoidable adverse impact, after mitigation (where applicable)

TABLE S-1
SUMMARY OF IMPACTS AND MITIGATION

Impact Statement	Level of Significance prior to Mitigation	Mitigation Measures	Level of Significance after Mitigation
		accordance with published protocols and other applicable standards which can demonstrate to the satisfaction of the City's verifier that all six of these environmental integrity requirements are substantively satisfied. All offset credits shall be verified by an independent verifier who meets stringent levels of professional qualification (i.e., ANAB Accreditation Program for Greenhouse Gas Validation/Verification Bodies or a Greenhouse Gas Emissions Lead Verifier accredited by CARB), or an expert with equivalent qualifications to the extent necessary to assist with the verification). Without limiting the generality of the foregoing, in the event that an approved registry becomes no longer accredited by CARB and the offset credits cannot be transferred to another accredited registry, the project applicant shall comply with the rules and procedures for retiring and/or replacing offset credits in the manner specified by the applicable protocol or other applicable standards including (to the extent required) by purchasing an equivalent number of credits to recoup the loss. The project applicant shall utilize the purchase and retirement of GHG offset credits generated from projects within the United States of America. In the unlikely event that an approved registry becomes no longer approved by CARB and the offset credits cannot be transferred to another CARB-approved registry, the project applicant shall comply with the rules and procedures for retiring and/or replacing offset credits in the manner specified by the applicable Protocol, Standard or Methodology, including (to the extent required) by purchasing an equivalent number of credits to recoup the loss. **Reporting and Enforcement:** On an annual basis, by March 1 of each year, the project applicant shall submit a letter to the Director of Planning, Building and Code Enforcement or the Director's designee confirming implementation of the emission reduction strategies listed in the AB 900 compliance plan. The letter shall also identify any changes or additions to the plan, including any recalculation of project emissions based on new information, incorporation of additional strategies, or changes in technology. If changes or additions to the plan are proposed, these shall be subject to review and approval by the Director of Planning, Building and Code Enforcement or the Director's designee, and the City's third-party consultant as noted above, within 30 days. In addition, before the City issues the final Certificate of Occupancy for the first building constructed in each phase, as the phases were defined at the time of CARB's certification and as laid out in the project applicant's plan, the applicant shall provide copies of GHG offset contracts demonstrating required purchases to the Director of the City of San José Department of Planning, Building and Code Enforcement, or the Director's designee, and to CARB and the Governor's Office of Planning and Research. This will serve as documentation to fully enforce the provision that the project result in no net additional GHG emissions for the life of the obligation.	

IMPACT CODES:

NA = not applicable
NI = no impact
LTS = less than significant or negligible impact; no mitigation required
LTSM = less than significant or negligible impact, after mitigation
S = significant
SU = significant and unavoidable adverse impact, after mitigation (where applicable)

TABLE S-1
SUMMARY OF IMPACTS AND MITIGATION

Impact Statement	Level of Significance prior to Mitigation	Mitigation Measures	Level of Significance after Mitigation
3.7 Hazards and Hazardous Materials			
Impact HA-1: The proposed project would not create a significant hazard to the public or the environment through the routine transport, use, or disposal, or through reasonably foreseeable upset and accidental release of hazardous materials.	LTS	None required	LTS
Impact HA-2: The proposed project would not emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school.	S	**Mitigation Measures HA-3b and HA-3c**	LTSM
Impact HA-3: The proposed project is located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would create a significant hazard to the public or the environment.	S	**Mitigation Measure HA-3a: Land Use Limitations** Before construction activities on parcels with land use covenants, other regulatory land use restrictions, open remediation cases, or contamination identified as part of a Phase II investigation above regulatory environmental screening levels, the project applicant for the specific work proposed shall obtain regulatory oversight from the appropriate agency. The project applicant shall perform further environmental investigation or remediation as needed to ensure full protection of construction workers, the environment, and the public. For properties with land use limitations, the limitations and restrictions may be reduced or removed entirely if the underlying contamination is removed or treated to below the regulatory screening levels for the proposed land use (residential, commercial, or industrial). The project applicant shall be required to prepare a remedial action plan describing the proposed cleanup actions, the target cleanup levels, and the proposed land use after cleanup. The remedial action plan shall be submitted to the regulatory agency enforcing the land use limitations for its review and approval. Upon regulatory agency approval, the project applicant shall implement the remedial action to clean up the site, followed by confirmation sampling and testing of soil, soil gas, and/or groundwater to verify that the cleanup achieved the target cleanup levels. The project applicant shall prepare a report documenting the cleanup activities, comparing the sample results to the target cleanup levels, and request that the land use limitations be modified or removed. The regulatory agency shall review the report and, if satisfied that the cleanup is sufficient, modify or remove the land use limitations. The report	LTSM

IMPACT CODES:

NA = not applicable
NI = no impact
LTS = less than significant or negligible impact; no mitigation required
LTSM = less than significant or negligible impact, after mitigation
S = significant
SU = significant and unavoidable adverse impact, after mitigation (where applicable)

TABLE S-1
SUMMARY OF IMPACTS AND MITIGATION

Impact Statement	Level of Significance prior to Mitigation	Mitigation Measures	Level of Significance after Mitigation
		shall also be submitted to the Environmental Services Department's Municipal Environmental Compliance Officer. For properties with land use covenants (LUCs) that have incomplete Phase II investigations or that need further investigation to inform changes or removals of LUCs, Phase II investigations shall be performed before the start of any construction activities. If the Phase II investigations show soil, soil gas, and/or groundwater concentrations that exceed regulatory screening levels, the project applicant shall obtain regulatory oversight from the appropriate regulatory agency. The project applicant shall perform further environmental investigation and remediation if needed to ensure full protection of construction workers, the environment, and the public. Mitigation Measures HA-3b and HA-3c, described below, would be required and would describe the remediation measures to be implemented. Mitigation Measure HA-3d, described below, may also be implemented if appropriate to the particular site. **Mitigation Measure HA-3b: Health and Safety Plan** Before the start of ground-disturbing activities, including grading, trenching, or excavation, or structure demolition on parcels within the project site, the project applicant for the specific work proposed shall require that the construction contractor(s) retain a qualified professional to prepare a site-specific health and safety plan (HSP) in accordance with federal Occupational Safety and Health Administration regulations (29 CFR 1910.120) and California Occupational Safety and Health Administration regulations (8 CCR Section 5192). The HSP shall be implemented by the construction contractor to protect construction workers, the public, and the environment during all ground-disturbing and structure demolition activities. HSPs shall be submitted to the Director of Planning, Building, and Code Enforcement, or the Director's designee, the Environmental Services Department Municipal Environmental Compliance Officer, and any applicable oversight regulatory agency (if regulatory oversight is required) for review before the start of demolition and construction activities and as a condition of the grading, construction, and/or demolition permit(s). The HSP shall include, but not be limited to, the following elements: • Designation of a trained, experienced site safety and health supervisor who has the responsibility and authority to develop and implement the site HSP. • A summary of all potential risks to demolition and construction workers and maximum exposure limits for all known and reasonably foreseeable site chemicals. • Specified personal protective equipment and decontamination procedures, if needed. • The requirement to prepare documentation showing that HSP measures have been implemented during construction (e.g., tailgate safety meeting notes with signup sheet for attendees).	

IMPACT CODES:

NA = not applicable
NI = no impact
LTS = less than significant or negligible impact; no mitigation required
LTSM = less than significant or negligible impact, after mitigation
S = significant
SU = significant and unavoidable adverse impact, after mitigation (where applicable)

TABLE S-1
SUMMARY OF IMPACTS AND MITIGATION

Impact Statement	Level of Significance prior to Mitigation	Mitigation Measures	Level of Significance after Mitigation
		• A requirement specifying that any site worker who identifies hazardous materials has the authority to stop work and notify the site safety and health supervisor. • Emergency procedures, including the route to the nearest hospital. • Procedures to follow if evidence of potential soil or groundwater contamination is encountered (such as soil staining, noxious odors, debris or buried storage containers). These procedures shall be followed in accordance with hazardous waste operations regulations and specifically include, but not be limited to, immediately stopping work in the vicinity of the unknown hazardous materials release; notifying the PBCE and the regulatory agency overseeing site cleanup, if any; and retaining a qualified environmental firm to perform sampling and remediation. **Mitigation Measure HA-3c: Site Management Plan** In support of the health and safety plans described in Mitigation Measure HA-3b, the project applicant for the specific work proposed shall develop and require that its contractor(s) develop and implement site management plans (SMPs) for the management of soil, soil gas, and groundwater before any ground-disturbing activity for all parcels with land use limitations and all parcels with known or suspected contamination. SMPs may be prepared for the entire project site, for groups of parcels, or for individual parcels. In any case, all such parcels shall be covered by an SMP. Each SMP shall include the following, at a minimum: • Site description, including the hazardous materials that may be encountered. • Roles and responsibilities of on-site workers, supervisors, and the regulatory agency. • Training for site workers focused on the recognition of and response to encountering hazardous materials. • Protocols for the materials (soil and/or dewatering effluent) testing, handling, removing, transporting, and disposing of all excavated materials and dewatering effluent in a safe, appropriate, and lawful manner. • Reporting requirement to the overseeing regulatory agency and the Planning, Building, and Code Enforcement (PBCE), documenting that site activities were conducted in accordance with the SMP. SMPs for parcels with soil, soil gas, and/or groundwater above environmental screening levels for the proposed land use shall be submitted to the regulatory agency with jurisdiction (i.e., Department of Toxic Substances Control, the Regional Water Quality Control Board, or the SCCDEH), for review, and to the Director of Planning, Building, and Coded Enforcement or the Director's designee, and the Environmental Services Municipal Environmental Compliance Officer to inform their permit approval process before the start of demolition and construction activities and as a condition of the grading, construction, and/or demolition permit(s). The overseeing regulatory	

IMPACT CODES:

NA = not applicable
NI = no impact
LTS = less than significant or negligible impact; no mitigation required
LTSM = less than significant or negligible impact, after mitigation
S = significant
SU = significant and unavoidable adverse impact, after mitigation (where applicable)

TABLE S-1
SUMMARY OF IMPACTS AND MITIGATION

Impact Statement	Level of Significance prior to Mitigation	Mitigation Measures	Level of Significance after Mitigation
		agency, if it accepts oversight, will require enrolment in its cleanup program and payment for oversight. The Contract specifications shall mandate full compliance with all applicable federal, state, and local regulations related to the identification, transportation, and disposal of hazardous materials. For work at parcels that would encounter groundwater, as part of the SMPs, contractors shall include a groundwater dewatering control and disposal plan specifying how groundwater (dewatering effluent), if encountered, will be handled and disposed of in a safe, appropriate, and lawful manner. The groundwater portion of the SMPs shall include the following, at a minimum: • The locations at which groundwater dewatering is likely to be required. • Test methods to analyze groundwater for hazardous materials. • Appropriate treatment and/or disposal methods. • Discussion of discharge to a publicly owned treatment works or the stormwater system, in accordance with any regulatory requirements the treatment works may have, if this effluent disposal option is to be used. **Mitigation Measure HA-3d: Vapor Mitigation** To mitigate exceedances of indoor air standards, the project applicant shall incorporate at least one or more of the vapor mitigation methods listed below on each parcel known to have soil gas concentrations above soil gas screening levels or identified to have concentrations above screening levels as a result of Phase II investigations included in Mitigation Measure HA-3c. The proposed work-specific vapor mitigation, if not in compliance with then-current guidance, must be pre-approved by the applicable regulatory oversight agency (e.g., DTSC, the Regional Water Quality Control Board, or the Santa Clara County Department of Environmental Health [SCCDEH]): • Excavate and remove contaminated materials (soil and, if needed, groundwater), to levels where subsequent testing verifies that soil gas levels are below screening levels. This approach would remove the source of soil gas and would not require a physical barrier such as a high-density polyethylene vapor barrier to prevent vapor intrusion. • Install a physical vapor barrier (e.g., liner) beneath the structure foundation that prevents soil gas from seeping into breathing spaces inside the structure. • Install a passive or powered vapor mitigation system layer that draws soil gas out of the under-foundation base rock and directs that soil gas to a treatment system to prevent people from being exposed outdoors. Upon completion, the project applicant shall prepare a report documenting the testing results and installed vapor mitigation method and submit the report to the regulatory agency with jurisdiction (i.e., DTSC, SCCDEH, or the Regional Water Quality Control	

IMPACT CODES:

NA = not applicable
NI = no impact
LTS = less than significant or negligible impact; no mitigation required
LTSM = less than significant or negligible impact, after mitigation
S = significant
SU = significant and unavoidable adverse impact, after mitigation (where applicable)

TABLE S-1
SUMMARY OF IMPACTS AND MITIGATION

Impact Statement	Level of Significance prior to Mitigation	Mitigation Measures	Level of Significance after Mitigation
		Board). A copy of the report shall be provided to Director of Planning, Building and Code Enforcement, or the Director's designee, and the Environmental Services Department Municipal Environmental Compliance Officer to inform them of compliance with this requirement. The implemented mitigation measure shall result in indoor air concentrations that do not exceed the screening levels provided in the above-referenced DTSC HHRA Note 3.	
Impact HA-4: The proposed project is located within 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, but would not result in a safety hazard or excessive noise for people residing or working in the project area.	S	**Mitigation Measure NO-3** (refer to Section 3.10, *Noise and Vibration*)	LTSM
Impact HA-5: The proposed project would not impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan.	LTS	None required	LTS
Impact C-HA-1: The proposed project would not combine with other projects to result in significant cumulative impacts related to hazardous materials.	S	**Mitigation Measures HA-3b**, **HA-3c**, and **HA-3d**	LTSM
Impact C-HA-2: The proposed project would not combine with other projects to result in significant cumulative impacts related to proximity to airports.	S	**Mitigation Measure NO-3** (refer to Section 3.10, *Noise and Vibration*)	LTSM
Impact C-HA-3: The proposed project would not combine with other projects to result in significant cumulative impacts related to impairment of implementation of or physical interference with adopted emergency response or evacuation plans.	LTS	None required	LTS

IMPACT CODES:

NA = not applicable
NI = no impact
LTS = less than significant or negligible impact; no mitigation required
LTSM = less than significant or negligible impact, after mitigation
S = significant
SU = significant and unavoidable adverse impact, after mitigation (where applicable)

TABLE S-1
SUMMARY OF IMPACTS AND MITIGATION

Impact Statement	Level of Significance prior to Mitigation	Mitigation Measures	Level of Significance after Mitigation
3.8 Hydrology and Water Quality			
Impact HY-1: The proposed project could violate a water quality standard or waste discharge requirement or otherwise substantially degrade surface or groundwater quality.	S	**Mitigation Measures BI-1a**, **BI-2a, HA-3b,** and **HA-3c** (refer to Section 3.2, *Biological Resources*, and Section 3.7, *Hazards and Hazardous Materials*) **Mitigation Measure HY-1: Water Quality Best Management Practices during Construction Activities in and near Waterways** To avoid and/or minimize potential impacts on water quality (and jurisdictional waters) for project activities that would be conducted in, over, or within 100 feet of waterways, the project contractor shall implement the following standard construction best management practices (BMPs), applicable to project construction activities in, near, or over waterways, to prevent releases of construction materials or hazardous materials and to avoid other potential environmental impacts: • If the project includes activities such as debris removal or pier/pile demolition, the project applicant for the specific work proposed shall be required to submit a notice of intent to comply with waste discharge requirements and conditions identified by the San Francisco Bay Regional Water Quality Control Board. No debris, rubbish, soil, silt, sand, cement, concrete, or washings thereof, or other construction-related materials or wastes, oil, or petroleum products shall be allowed to enter jurisdictional waters, or shall be placed where it would be subject to erosion by rain, wind, or waves and enter into jurisdictional waters, except as permitted by the San Francisco Bay Regional Water Quality Control Board under an approved waste discharge requirement permit condition. Staged construction materials with the potential to be eroded/entrained during a rainfall event shall be covered every night and during any rainfall event (as applicable). • In-stream construction shall be scheduled during the summer low-flow season to the extent feasible to minimize impacts on aquatic resources. • To the maximum extent practicable, construction materials, wastes, debris, sediment, rubbish, trash, fencing, etc., shall be removed from the project site's riparian areas daily during construction, and thoroughly at the completion of the project. Debris shall be transported to a pre-designated upland disposal area. • Protective measures shall be used to prevent accidental discharges of oils, gasoline, or other hazardous materials to jurisdictional waters during fueling, cleaning, and maintenance of equipment, as outlined in the project's soil and groundwater management plan. Well-maintained equipment shall be used to perform construction work, and except in the case of failure or breakdown, equipment maintenance shall be performed off-site, to the extent feasible. Crews shall check heavy equipment daily for leaks; if a leak is discovered, it shall be immediately contained and use of the equipment shall be suspended until	LTSM

IMPACT CODES:

NA = not applicable
NI = no impact
LTS = less than significant or negligible impact; no mitigation required
LTSM = less than significant or negligible impact, after mitigation
S = significant
SU = significant and unavoidable adverse impact, after mitigation (where applicable)

TABLE S-1
SUMMARY OF IMPACTS AND MITIGATION

Impact Statement	Level of Significance prior to Mitigation	Mitigation Measures	Level of Significance after Mitigation
		repaired. The source of the leak shall be identified, material shall be cleaned up, and the cleaning materials shall be collected and properly disposed. • Vehicles and equipment used during construction shall be serviced off-site, as feasible, or in a designated location a minimum of 100 feet from waterways. Fueling locations shall be inspected after fueling to document that no spills have occurred. Any spills shall be cleaned up immediately.	
Impact HY-2: The proposed project would not substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin.	LTS	None required	LTS
Impact HY-3: The proposed project could substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would result in substantial erosion or siltation on- or off-site; or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site.	S	**Mitigation Measure HY-1** **Mitigation Measure BI-1a** (refer to Section 3.2, *Biological Resources*) **Mitigation Measure HY-3a: Flood Risk Analysis and Modeling** Once the final design is complete and before the issuance of any building permit for any portion of the project potentially subject to flooding according to FEMA flood maps and/or the best available data from the City or Valley Water, the project applicant for the specific work proposed shall conduct a hydrologic analysis of the final project design to address flood risks. The project applicant shall prepare a thorough hydrologic technical evaluation and demonstrate that the project poses minimal flood risk to occupants, residents, visitors, and surrounding properties. The project design shall be modified to minimize the impacts of the proposed development and shall be submitted to the City for review and approval. The design shall ensure that proposed new structures are elevated or flood-proofed above the 1 percent (100-year) base flood elevation, consistent with the City's adopted performance standards[9] that limit development within a special flood hazard area (Zone A) unless demonstrated that the cumulative effect of the proposed development not increase the water surface elevation of the base flood more than 1 foot at any point within the City of San José. The hydrologic technical evaluation shall demonstrate that after construction of the new structure(s), floodplain encroachments shall not result in any increase in flood levels during the occurrence of the base flood discharge for existing adjacent	LTSM

9 City of San José, *City of San José Code of Ordinances*, Title 17, Buildings and Construction; Chapter 17.08, Special Flood Hazard Areas; Part 5, Requirements; Section 17.08.640, New Developments. Available at https://library.municode.com/ca/san_jose/codes/code_of_ordinances?nodeId=TIT17BUCO_CH17.08SPFLHAARRE_PT5RESPFLHAAR_17.08.640NEDE. Accessed January 15, 2020.

IMPACT CODES:

NA = not applicable
NI = no impact
LTS = less than significant or negligible impact; no mitigation required
LTSM = less than significant or negligible impact, after mitigation
S = significant
SU = significant and unavoidable adverse impact, after mitigation (where applicable)

TABLE S-1
SUMMARY OF IMPACTS AND MITIGATION

Impact Statement	Level of Significance prior to Mitigation	Mitigation Measures	Level of Significance after Mitigation
		structures or, for those structures located in the 100-year floodplain under existing conditions, the project shall not result in increases in the base flood elevation of more than one foot, consistent with the City's adopted performance standard. Final design measures shall be developed in consultation with Valley Water, subject to review and approval by the City Department of Public Works and Department of Planning, Building and Code Enforcement. Measures could include any of the following: • Use in-stream and associated floodplain restoration strategies in the riparian corridor to expand a greenway along Los Gatos Creek and conduct associated floodplain restoration. • Remove existing obstructions to flood conveyance, such as channel debris or existing structures within the floodway. • Upgrade the City's storm drain network. • Install protective infrastructure for subsurface structures to reduce the risk of inundation. • Raise the level of the project's structures to minimize risks to occupants and the surrounding community. • Flood-proof project structures with, including but not limited to, permanent or removable standing barriers, garage flood gates, or automated flip-up barriers. **Mitigation Measure HY-3b: Plan for Ongoing Creek Maintenance** In the event that the project includes channel rehabilitation, within 30 days of completion of the initial restoration program within Los Gatos Creek, the project applicant shall submit to Valley Water and to the Director of Planning, Building, and Code Enforcement for review and approval a plan for ongoing maintenance of the affected reach of Los Gatos Creek. The Plan shall be consistent with the conditions in the existing permits for Valley Water's ongoing stream maintenance program and/or shall be subject to its own project-specific permitting regime, subject to jurisdictional agency review and approval.	
Impact HY-4: The proposed project could create or contribute runoff water that could exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff, or impede or redirect flood flows.	S	**Mitigation Measures HY-1, HY-3a, and HY-3b**	LTSM

IMPACT CODES:

NA = not applicable
NI = no impact
LTS = less than significant or negligible impact; no mitigation required
LTSM = less than significant or negligible impact, after mitigation
S = significant
SU = significant and unavoidable adverse impact, after mitigation (where applicable)

TABLE S-1
SUMMARY OF IMPACTS AND MITIGATION

Impact Statement	Level of Significance prior to Mitigation	Mitigation Measures	Level of Significance after Mitigation
Impact HY-5: The proposed project could risk release of pollutants in a flood hazard, tsunami, or seiche zone due to project inundation.	S	**Mitigation Measures HY-3a and HY-3b**	LTSM
Impact HY-6: The proposed project could conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan.	S	**Mitigation Measures HA-3b** and **HA-3c**	LTSM
Impact C-HY-1: The proposed project, in combination with past, present, and reasonably foreseeable future projects in the site vicinity, could result in a considerable contribution to cumulative impacts on hydrology and water quality.	S	**Mitigation Measure HY-1** **Mitigation Measures BI-1a, BI-2a, HA-3b, and HA-3c** (refer to Section 3.2, *Biological Resources*, and Section 3.7, *Hazards and Hazardous Materials*)	LTSM
Impact C-HY-2: The proposed project, in combination with past, present, and reasonably foreseeable future projects in the site vicinity, could result in a considerable contribution to cumulative impacts related to potentially substantial decreases in groundwater supplies.	LTS	None required	LTS
Impact C-HY-3: The proposed project, in combination with past, present, and reasonably foreseeable future projects in the site vicinity, could result in a considerable contribution to cumulative impacts related to flood hazards.	S	**Mitigation Measures HY-3a and HY-3b**	LTSM

IMPACT CODES:

NA = not applicable
NI = no impact
LTS = less than significant or negligible impact; no mitigation required
LTSM = less than significant or negligible impact, after mitigation
S = significant
SU = significant and unavoidable adverse impact, after mitigation (where applicable)

TABLE S-1
SUMMARY OF IMPACTS AND MITIGATION

Impact Statement	Level of Significance prior to Mitigation	Mitigation Measures	Level of Significance after Mitigation
3.9 Land Use			
Impact LU-1: The proposed project would not physically divide an established community.	LTS	None required	LTS
Impact LU-2: The proposed project would cause a significant environmental impact due to a conflict with a land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect.	S	**Mitigation Measure NO-3** (refer to Section 3.10, *Noise and Vibration*)	SU
Impact LU-3: The proposed project would not result in 10 percent or more of the area of any one of the six major open space areas in the Downtown San José area (St. James Park, Plaza of Palms, Plaza de Cesar Chavez, Paseo de San Antonio, Guadalupe River Park, McEnery Park) being newly shaded by the project.	LTS	None required	LTS
Impact C-LU-1: The proposed project, in combination with past, present, existing, approved, pending, and reasonably foreseeable future projects within and in the vicinity of the project site, would not physically divide an established community.	LTS	None required	LTS

IMPACT CODES:

NA = not applicable
NI = no impact
LTS = less than significant or negligible impact; no mitigation required
LTSM = less than significant or negligible impact, after mitigation
S = significant
SU = significant and unavoidable adverse impact, after mitigation (where applicable)

TABLE S-1
SUMMARY OF IMPACTS AND MITIGATION

Impact Statement	Level of Significance prior to Mitigation	Mitigation Measures	Level of Significance after Mitigation
Impact C-LU-2: The proposed project, in combination with past, present, and reasonably foreseeable future projects in the vicinity of the project site, would result in a significant cumulative impact due to a conflict with a land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect.	S	**Mitigation Measure NO-3** (refer to Section 3.10, *Noise and Vibration*)	SU
Impact C-LU-3: The proposed project, in combination with past, present, existing, approved, pending, and reasonably foreseeable future projects within and in the vicinity of the project site, would not result in significant cumulative impacts related to shadow.	LTS	None required	LTS
3.10 Noise and Vibration			
Impact NO-1a: Stationary sources associated with operation of the proposed project could result in generation of a 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.	S	**Mitigation Measure NO-1a: Operational Noise Performance Standard** Prior to the issuance of any building permit, the project applicant shall ensure that all mechanical equipment is selected and designed to reduce impacts on surrounding uses by meeting the performance standards of Chapters 20.20 through 20.50 of the San José Municipal Code, limiting noise from stationary sources such as mechanical equipment, loading docks, and central utility plants to 55 dBA, 60 dBA, and 70 dBA at the property lines of residential, commercial, and industrial receivers, respectively. If noise levels exceed these standards, the activity causing the noise shall be abated until appropriate noise reduction measures have been installed and compliance has been verified by the City. Methods of achieving these standards include using low-noise-emitting HVAC equipment, locating HVAC and other mechanical equipment within a rooftop mechanical penthouse, and using shields and parapets to reduce noise levels to adjacent land uses. For emergency generators, industrial-grade silencers can reduce exhaust noise by 12 to 18 dBA, and residential-grade silencers can reduce such noise by 18 to 25 dBA.[10] Acoustical screening can also be applied to exterior	LTSM

[10] American Society of Heating, Refrigeration, and Air Conditioning Engineers, Technical Committee on Sound and Vibration, Generator Noise Control—An Overview, 2006.

IMPACT CODES:

NA = not applicable
NI = no impact
LTS = less than significant or negligible impact; no mitigation required
LTSM = less than significant or negligible impact, after mitigation
S = significant
SU = significant and unavoidable adverse impact, after mitigation (where applicable)

TABLE S-1
SUMMARY OF IMPACTS AND MITIGATION

Impact Statement	Level of Significance prior to Mitigation	Mitigation Measures	Level of Significance after Mitigation
		noise sources of the proposed central utility plants and can achieve up to 15 dBA of noise reduction.[11] An acoustical study shall be prepared by a qualified acoustical engineer during final building design to evaluate the potential noise generated by building mechanical equipment and to identify the necessary design measures to be incorporated to meet the City's standards. The study shall be submitted to the Director of the City of San José Department of Planning, Building and Code Enforcement or the Director's designee for review and approval before the issuance of any building permit.	
Impact NO-1b: Project-generated traffic noise would result in permanent increases 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.	S	**Mitigation Measure NO-1b: Traffic Noise Impact Reduction** Prior to the issuance of any building permits, the project applicant shall implement the following measures to reduce roadside noise impacts at the following roadway segments: • *West San Fernando Street from South Montgomery Street to Delmas Avenue*. Prior to the issuance of any building permits for Phase 1 construction on this block, the project applicant for the construction work proposed shall prepare and submit to the Director of Planning, Building and Code Enforcement, or the Director's designee, a site-specific acoustical study for review and approval. Upon approval of the site-specific acoustical study, the project applicant shall directly contact property owners of single-family residences to implement, with the owners' consent, reasonable sound insulation treatments, such as replacing the existing windows and doors with sound-rated windows and doors and providing a suitable form of forced-air mechanical ventilation, that could reduce indoor noise levels up to 45 dBA DNL, as warranted by the study. • *Bird Avenue from West San Carlos Street to Auzerais Avenue*. Prior to the issuance of any building permits for Phase 1 construction on this block, the project applicant for the construction work proposed shall prepare and submit to the Director of Planning, Building and Code Enforcement, or the Director's designee, a site-specific acoustical study for review and approval. Upon approval of the site-specific acoustical study, the project applicant shall directly contact the property owners of single-family homes on Auzerais Avenue, within 200 feet of Bird Avenue, to implement, with the owners' consent, reasonable sound insulation treatments, such as replacing the existing windows and doors with sound-rated windows and doors and providing a suitable form of forced-air mechanical ventilation, that could reduce indoor noise levels up to 45 dBA DNL, as warranted by the study.	SU

[11] Environmental Noise Control, Product Specification Sheet, ENC STC-32 Sound Control Panel System, 2014.

IMPACT CODES:

NA = not applicable
NI = no impact
LTS = less than significant or negligible impact; no mitigation required
LTSM = less than significant or negligible impact, after mitigation
S = significant
SU = significant and unavoidable adverse impact, after mitigation (where applicable)

TABLE S-1
SUMMARY OF IMPACTS AND MITIGATION

Impact Statement	Level of Significance prior to Mitigation	Mitigation Measures	Level of Significance after Mitigation
Impact NO-1c: Construction of the proposed project could result in temporary increases 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.	S	**Mitigation Measure NO-1c: Master Construction Noise Reduction Plan** Prior to the issuance of the first building permit for new construction within the project site, the project applicant shall prepare a Master Construction Noise Reduction Plan, to be implemented as development occurs throughout the project site to address demolition and construction of buildings within 500 feet of residential uses, or within 200 feet of commercial or office uses. The plan shall be submitted to the Director of Planning, Building and Code Enforcement, or the Director's designee, for review and approval, and implementation of the identified measures shall be required as a condition of each permit. This Master Construction Noise Reduction Plan shall include, at a minimum, the following noise reduction measures: 1. **Noise Monitoring:** The Master Construction Noise Reduction Plan shall include a requirement for noise monitoring of construction activity throughout the duration of project construction, at times and locations determined appropriate by the qualified consultant and approved by the Director of Planning, Building and Code Enforcement, or the Director's designee. 2. **Schedule:** Loud activities such as rock breaking and pile driving shall occur only between 8 a.m. and 4 p.m., every day (with pile driving and rock breaking to start no earlier than 9 a.m. on weekends). Similarly, other activities with the potential to create extreme noise levels exceeding 90 dBA shall be avoided where possible. Where such activities cannot be avoided, they shall also occur only between 8 a.m. and 4 p.m. Any proposed nighttime construction activities, such as nighttime concrete pours or other nighttime work necessary to achieve satisfactory results or to avoid traffic impacts, shall undergo review, permitting, and approval by the Director of Planning, Building and Code Enforcement, or the Director's designee. 3. **Site Perimeter Barrier:** To reduce noise levels for work occurring adjacent to residences, schools, or other noise-sensitive land uses, a noise barrier(s) shall be constructed on the edge of the work site facing the receptor(s). Barriers shall be constructed either with two layers of 0.5-inch-thick plywood (joints staggered) and K-rail or other support, or with a limp mass barrier material weighing 2 pounds per square foot. If commercial barriers are employed, such barriers shall be constructed of materials with a Sound Transmission Class rating of 25 or greater. 4. **Stationary-Source Equipment Placement:** Stationary noise sources, such as generators and air compressors, shall be located as far from adjacent properties as possible. These noise sources shall be muffled and enclosed within temporary sheds, shall incorporate insulation barriers, or shall use other measures as determined by the Director of Planning, Building, and Code Enforcement, or the Director's designee, to provide equivalent noise reduction. 5. **Stationary-Source Equipment Local Barriers:** For stationary equipment, such as generators and air compressors, that will operate for more than one week within 500 feet of a noise-sensitive land use, the project contractor shall provide	SU

IMPACT CODES:

NA = not applicable
NI = no impact
LTS = less than significant or negligible impact; no mitigation required
LTSM = less than significant or negligible impact, after mitigation
S = significant
SU = significant and unavoidable adverse impact, after mitigation (where applicable)

TABLE S-1
SUMMARY OF IMPACTS AND MITIGATION

Impact Statement	Level of Significance prior to Mitigation	Mitigation Measures	Level of Significance after Mitigation
		additional localized barriers around such stationary equipment that break the line of sight[12] to neighboring properties. 6. **Temporary Power:** The project applicant shall use temporary power poles instead of generators, where feasible. 7. **Construction Equipment:** Exhaust mufflers shall be provided on pneumatic tools when in operation for more than one week within 500 feet of a noise-sensitive land use. All equipment shall be properly maintained. 8. **Truck Traffic:** The project applicant shall restrict individual truck idling to no more than two consecutive minutes per trip end. Trucks shall load and unload materials in the construction areas, rather than idling on local streets. If truck staging is required, the staging area shall be located along major roadways with higher traffic noise levels or away from the noise-sensitive receivers, where such locations are available. 9. **Methods:** The construction contractor(s) shall consider means to reduce the use of heavy impact tools, such as pile driving, and shall locate these activities away from the property line, as practicable. Alternative methods of pile installation, including drilling, could be employed if noise levels are found to be excessive. Piles could be pre-drilled, as practicable, and a wood block placed between the hammer and pile to reduce metal-to-metal contact noise and "ringing" of the pile. 10. **Noise Complaint Liaison:** A noise complaint liaison shall be identified to field complaints regarding construction noise and interface with the project construction team. Contact information shall be distributed to nearby noise-sensitive receivers. Signs that include contact information shall be posted at the construction site. 11. **Notification and Confirmation:** Businesses and residents within 500 feet shall be notified by certified mail at least one month before the start of extreme noise-generating activities (to be defined in the Construction Noise Reduction Plan). The notification shall include, at a minimum, the estimated duration of the activity, construction hours, and contact information. 12. **Nighttime Construction:** If monitoring confirms that nighttime construction activities substantially exceed the ambient noise level (to be defined for receptors near each nighttime construction area in the site-wide Master Construction Noise Reduction Plan) and complaints occur regularly (generally considered to be two or more per week), additional methods shall be implemented, such as installing additional storm windows in specific residences and/or constructing additional local barriers. The specific approach shall be refined as the construction activities and noise levels are refined.	

[12] If a barrier does not block the line of sight between the source and the observer, the barrier will provide little or no attenuation (U.S. Department of Housing and Urban Development, The Noise Guidebook, prepared by The Environmental Planning Division, Office of Environment and Energy, March 2009, p. 24).

IMPACT CODES:

NA = not applicable
NI = no impact
LTS = less than significant or negligible impact; no mitigation required
LTSM = less than significant or negligible impact, after mitigation
S = significant
SU = significant and unavoidable adverse impact, after mitigation (where applicable)

TABLE S-1
SUMMARY OF IMPACTS AND MITIGATION

Impact Statement	Level of Significance prior to Mitigation	Mitigation Measures	Level of Significance after Mitigation
		13. **Complaint Protocol:** Protocols shall be implemented for receiving, responding to, and tracking received complaints. A noise complaint liaison shall be designated by the applicant and shall be responsible for responding to any local complaints about construction noise. The community liaison shall determine the cause of the noise complaint and require that measures to correct the problem be implemented. Signage that includes the community liaison's telephone number shall be posted at the construction site and the liaison's contact information shall be included in the notice sent to neighbors regarding the construction schedule.	
Impact NO-2: The proposed project could result in the generation of excessive groundborne vibration or groundborne noise levels.	S	**Mitigation Measure NO-2a: Master Construction Vibration Avoidance and Reduction Plan** Prior to the issuance of the first building permit for the project, the project applicant shall prepare a Master Construction Vibration Avoidance and Reduction Plan. The plan shall be implemented by the applicant as development occurs throughout the project site to address demolition and construction activity that involves impact or vibratory pile driving, or use of a tunnel boring machine within 75 feet of conventionally constructed buildings. The plan shall be submitted to the Director of Planning, Building and Code Enforcement, or the Director's designee, for review and approval before the issuance of the initial grading or building permit. The plan shall include, at a minimum, the following vibration avoidance and reduction measures: • Neighbors within 500 feet of the construction site shall be notified of the construction schedule and that noticeable vibration levels could result from pile driving. • Foundation pile holes shall be pre-drilled to minimize the number of impacts required to seat the pile. • Piles shall be jetted[13] or partially jetted into place to minimize the number of impacts required to seat the piles. • A construction vibration monitoring plan shall be implemented to document conditions before, during, and after pile driving and use of the tunnel boring machine. All plan tasks shall be undertaken under the direction of a Professional Structural Engineer licensed in the State of California, in accordance with industry-accepted standard methods. The construction vibration monitoring plan shall include the following tasks: – Identify the sensitivity of nearby structures to groundborne vibration. A vibration survey (generally described below) would need to be performed.	LTSM

[13] "Pile jetting" is a technique that is frequently used in conjunction with, or separate from, pile driving equipment for pile placement. Pile jetting uses a carefully directed and pressurized flow of water to assist in pile placement. This greatly decreases the bearing capacity of the soils below the pile tip, causing the pile to descend toward its final tip elevation with much less soil resistance, largely under its own weight.

IMPACT CODES:

NA = not applicable
NI = no impact
LTS = less than significant or negligible impact; no mitigation required
LTSM = less than significant or negligible impact, after mitigation
S = significant
SU = significant and unavoidable adverse impact, after mitigation (where applicable)

TABLE S-1
SUMMARY OF IMPACTS AND MITIGATION

Impact Statement	Level of Significance prior to Mitigation	Mitigation Measures	Level of Significance after Mitigation
		– Perform a pre-construction photo survey, elevation survey, and crack monitoring survey for each of these structures. Surveys shall be performed before any pile driving activity, at regular intervals during pile driving, and after completion. The surveys shall include monitoring for internal and external cracks in structures, settlement, and distress, and shall document the condition of foundations, walls, and other structural elements in the interior and exterior of the structures. – Develop a vibration monitoring and construction contingency plan. The plan shall identify structures where monitoring is to be conducted, establish a vibration monitoring schedule, define structure-specific vibration limits, and address the need to conduct photo, elevation, and crack surveys to document conditions before and after pile driving. – Identify alternative construction methods for when vibration levels approach the limits stated in the General Plan, such as in Policy EC-2.3. – If vibration levels approach the limits, suspend construction and implement alternative construction methods to either lower vibration levels or secure the affected structures. – Conduct a post-construction survey on structures where either monitoring has indicated high vibration levels or complaints have been received regarding damage. Where damage has resulted from construction activities, make appropriate repairs or provide compensation. – Within one month after substantial completion of each phase identified in the project schedule, summarize the results of all vibration monitoring in a report and submit the report for review by the Director of Planning, Building and Code Enforcement or the Director's designee. The report shall describe measurement methods and equipment used, present calibration certificates, and include graphics as required to clearly identify the locations of vibration monitoring. An explanation of all events that exceeded vibration limits shall be included together with proper documentation supporting any such claims. – Designate a person responsible for registering and investigating claims of excessive vibration. The contact information of such person shall be clearly posted on the construction site. **Mitigation Measure NO-2b: Master Construction Vibration Avoidance from Compaction** The project applicant shall also prepare a Master Construction Vibration Avoidance and Reduction Plan for construction activities that will not involve impact or vibratory pile driving but will employ a vibratory roller as a method of compaction. The plan shall be implemented by the applicant as development occurs throughout the project site to address construction activity occurring within 25 feet of conventionally constructed	

IMPACT CODES:

NA = not applicable
NI = no impact
LTS = less than significant or negligible impact; no mitigation required
LTSM = less than significant or negligible impact, after mitigation
S = significant
SU = significant and unavoidable adverse impact, after mitigation (where applicable)

TABLE S-1
SUMMARY OF IMPACTS AND MITIGATION

Impact Statement	Level of Significance prior to Mitigation	Mitigation Measures	Level of Significance after Mitigation
		buildings. The plan shall be submitted to the Director of Planning, Building, and Code Enforcement or the Director's designee for review and approval before the issuance of the initial grading or building permit. The plan shall include, at a minimum, the following vibration avoidance and reduction measures: • Contractors shall use non-vibratory, excavator-mounted compaction wheels and small smooth drum rollers for final compaction of asphalt base and asphalt concrete, if within 50 feet of a historic structure or 25 feet of a conventionally constructed structure. If needed to meet compaction requirements, smaller vibratory rollers shall be used to minimize vibration levels during repaving activities where needed to meet vibration standards. • The use of vibratory rollers and clam shovel drops near sensitive areas shall be avoided. • Construction methods shall be modified, or alternative construction methods shall be identified, and designed to reduce vibration levels below the limits. **Mitigation Measure CU-4** (refer to Section 3.3, *Cultural Resources and Tribal Cultural Resources*)	
Impact NO-3: 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, the proposed project could expose people residing or working in the project area to excessive noise levels.	S	**Mitigation Measure NO-3: Exposure to Airport Noise** Prior to approval of construction-related permits for residential and hotel structures on the easternmost blocks of the project site, which are located within the year 2027 65 dBA CNEL noise contour—including Blocks E2, E3, C1, and C3—each project applicant for a residential or hotel structure shall submit a noise reduction plan prepared by a qualified acoustical engineer for review and approval by the Director of Planning, Building and Code Enforcement or the Director's designee. The noise reduction plan shall contain noise reduction measures (e.g., sound-rated window, wall, and door assemblies) to achieve an acceptable interior noise level in accordance with the land use compatibility guidelines of the General Plan's Noise Element for any and all proposed residential land uses within the 65 dBA CNEL noise contour for operations at Norman Y. Mineta San José International Airport. Exterior-to-interior noise reductions of 36 dBA have been demonstrated in modern urban residential uses,[14] while attenuation of up to 45 dBA CNEL has been achieved at Airport hotels. Noise-reduction specifications shall be included on all building plans, and the construction contractor shall implement the approved plans during construction such that interior noise levels shall not exceed 45 dBA CNEL at these residential land uses.	SU

[14] Environmental Science Associates, 301 Mission Street, Millennium Tower Perimeter Pile Upgrade Project, Preliminary Mitigated Negative Declaration and Initial Study, November 2019, p. 102.

IMPACT CODES:

NA = not applicable
NI = no impact
LTS = less than significant or negligible impact; no mitigation required
LTSM = less than significant or negligible impact, after mitigation
S = significant
SU = significant and unavoidable adverse impact, after mitigation (where applicable)

TABLE S-1
SUMMARY OF IMPACTS AND MITIGATION

Impact Statement	Level of Significance prior to Mitigation	Mitigation Measures	Level of Significance after Mitigation
Impact NO-4 *(Non-CEQA noise impacts of the environment on the project)*: The project would not expose people residing or working within the project area to excessive noise levels.	NI	None required	NA
Impact NO-5 *(Non-CEQA vibration impacts of the environment on the project)*: The project could expose people residing or working within the project area to excessive groundborne vibration levels.	NI	None required[15]	NA
Impact C-NO-1: Construction activities for the proposed project combined with cumulative construction noise in the project area would result in a substantial temporary or periodic increase in ambient noise levels in excess of standards established in the General Plan or Noise Ordinance.	S	**Mitigation Measure NO-1c**	SU
Impact C-NO-2: Operation of the proposed project when considered with other cumulative development would cause a substantial permanent increase in ambient noise levels in excess of standards established in the General Plan or Noise Ordinance.	S	**Mitigation Measure C-NO-2: Cumulative Traffic Noise Impact Reduction** Prior to the issuance of any building permits, the project applicant shall implement the following measures to reduce roadside noise impacts at the following roadway segment: • *North Montgomery Street from West Julian Street to St. John Street.* Prior to the issuance of any building permits for Phase 1 construction on this block, the project applicant shall prepare and submit to the Director of Planning, Building and Code Enforcement, or the Director's designee, a site-specific acoustical study for review and approval. Upon approval of the site-specific acoustical study, the project applicant shall directly contact property owners of single-family homes on this stretch of North Montgomery Street to implement, with the owners' consent, reasonable sound insulation treatments. Treatments may include replacing the existing windows and doors with sound-rated windows and doors and providing a suitable form of forced-air mechanical ventilation, which could reduce indoor noise levels up to 45 dBA DNL, as warranted by the study.	SU

[15] A condition of approval to address this non-CEQA impact would establish a vibration performance standard for residential developments exposed to vibration levels in excess of 72 VdB from operations of the adjacent Caltrain tracks and would require preparation of detailed project-level vibration analyses to ensure that the standard would be met.

IMPACT CODES:

NA = not applicable
NI = no impact
LTS = less than significant or negligible impact; no mitigation required
LTSM = less than significant or negligible impact, after mitigation
S = significant
SU = significant and unavoidable adverse impact, after mitigation (where applicable)

TABLE S-1
SUMMARY OF IMPACTS AND MITIGATION

Impact Statement	Level of Significance prior to Mitigation	Mitigation Measures	Level of Significance after Mitigation
Impact C-NO-3: The proposed project would make a considerable contribution to exposure of people to excessive airport noise levels.	S	**Mitigation Measure NO-3**	SU
3.11 Population and Housing			
Impact PH-1: The proposed project would not induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure).	LTS	None required	LTS
Impact PH-2: The proposed project would not displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere.	LTS	None required	LTS
Impact C-PH-1: The proposed project would result in a cumulatively considerable contribution to the citywide significant and unavoidable cumulative impact related to the jobs/housing imbalance identified in the 2040 General Plan EIR.	S	No feasible mitigation is available.	SU

IMPACT CODES:

NA = not applicable
NI = no impact
LTS = less than significant or negligible impact; no mitigation required
LTSM = less than significant or negligible impact, after mitigation
S = significant
SU = significant and unavoidable adverse impact, after mitigation (where applicable)

TABLE S-1
SUMMARY OF IMPACTS AND MITIGATION

Impact Statement	Level of Significance prior to Mitigation	Mitigation Measures	Level of Significance after Mitigation
3.12 Public Services and Recreation			
Impact PS-1: The proposed project would not result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, or the need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for fire protection and emergency services.	LTS	None required	LTS
Impact PS-2: The proposed project would not result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, or the need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for police protection.	LTS	None required	LTS

IMPACT CODES:

NA = not applicable
NI = no impact
LTS = less than significant or negligible impact; no mitigation required
LTSM = less than significant or negligible impact, after mitigation
S = significant
SU = significant and unavoidable adverse impact, after mitigation (where applicable)

TABLE S-1
SUMMARY OF IMPACTS AND MITIGATION

Impact Statement	Level of Significance prior to Mitigation	Mitigation Measures	Level of Significance after Mitigation
Impact PS-3: The proposed project would not result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, or the need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios or other performance objectives for schools.	LTS	None required	LTS
Impact PS-4: The proposed project would not result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, or the need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios or other performance objectives for libraries.	LTS	None required	LTS
Impact PS-5: The proposed project would not result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, or the need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios or other performance objectives for parks and community centers.	LTS	None required	LTS

IMPACT CODES:

NA = not applicable
NI = no impact
LTS = less than significant or negligible impact; no mitigation required
LTSM = less than significant or negligible impact, after mitigation
S = significant
SU = significant and unavoidable adverse impact, after mitigation (where applicable)

TABLE S-1
SUMMARY OF IMPACTS AND MITIGATION

Impact Statement	Level of Significance prior to Mitigation	Mitigation Measures	Level of Significance after Mitigation
Impact PS-6: The proposed project would not increase the use of existing neighborhood- and regional serving parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated.	LTS	None required	LTS
Impact PS-7: The proposed project would not include recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment.	S	**Mitigation Measures AQ-2a**, **AQ-2b**, **AQ-2c**, **BI-1a**, **BI-1b**, **BI-1c**, **BI-1d**, **BI-1e**, **BI-1f**, **BI-2a**, **BI-2b**, **BI-2d**, **BI-3**, **CU-8a**, **CU-8b**, **CU-8c**, **CU-8d**, **GE-5a**, **GE-5b**, **GE-5c**, **GE-5d**, **GR-2, HA-3a**, **HA-3b**, **HA-3c**, **HY-1, HY-3a, NO-1c**, **NO-2a**, and **NO-2b** (refer to Section 3.1, *Air Quality*; Section 3.2, *Biological Resources*; Section 3.3, *Cultural Resources and Tribal Cultural Resources*; Section 3.5, *Geology, Soils, and Paleontological Resources*; Section 3.6, *Greenhouse Gas Emissions*; Section 3.7, *Hazards and Hazardous Materials*; Section 3.8, *Hydrology and Water Quality*; and Section 3.10, *Noise and Vibration*)	LTSM
Impact C-PS-1: The proposed project, combined with cumulative development in the project vicinity and citywide, would contribute to a cumulative increase in demand for fire protection and emergency services but would not result in significant environmental impacts due to the construction of new facilities.	LTS	None required	LTS
Impact C-PS-2: The proposed project, combined with cumulative development in the project vicinity and citywide, would not result in an adverse cumulative increase in demand for police protection.	LTS	None required	LTS
Impact C-PS-3: The proposed project, combined with cumulative development in the project vicinity and citywide, would not result in an adverse cumulative increase in demand for schools.	LTS	None required	LTS

IMPACT CODES:

NA = not applicable
NI = no impact
LTS = less than significant or negligible impact; no mitigation required
LTSM = less than significant or negligible impact, after mitigation
S = significant
SU = significant and unavoidable adverse impact, after mitigation (where applicable)

TABLE S-1
SUMMARY OF IMPACTS AND MITIGATION

Impact Statement	Level of Significance prior to Mitigation	Mitigation Measures	Level of Significance after Mitigation
Impact C-PS-4: The proposed project, combined with cumulative development in the project vicinity and citywide, would not result in an adverse cumulative increase in demand for library services.	LTS	None required	LTS
Impact C-PS-5: The proposed project, combined with cumulative development in the project vicinity and citywide, would not result in an adverse cumulative increase in demand for parks and recreation services.	LTS	None required	LTS
3.13 Transportation			
Impact TR-1: The proposed project would not conflict with a program plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities.	LTS	None required	LTS
Impact TR-2: The proposed project would not conflict or be inconsistent with CEQA Guidelines Section 15064.3(b) regarding the use of VMT for analysis of land use projects.	LTS	None required	LTS
Impact TR-3: The proposed project would not substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment).	LTS	None required	LTS
Impact TR-4: The proposed project would not result in inadequate emergency access.	LTS	None required	LTS

IMPACT CODES:

NA = not applicable
NI = no impact
LTS = less than significant or negligible impact; no mitigation required
LTSM = less than significant or negligible impact, after mitigation
S = significant
SU = significant and unavoidable adverse impact, after mitigation (where applicable)

TABLE S-1
SUMMARY OF IMPACTS AND MITIGATION

Impact Statement	Level of Significance prior to Mitigation	Mitigation Measures	Level of Significance after Mitigation
Impact TR-5: The proposed project would not cause an increase in VMT per service population over Year 2040 Cumulative No Project conditions.	LTS	None required	LTS
Impact TR-6: The proposed project would not cause an increase in journey-to-work drive-alone mode share over Year 2040 Cumulative No Project conditions.	LTS	None required	LTS
Impact TR-7: The proposed project would cause a decrease in average travel speed on a transit corridor below Year 2040 Cumulative No Project conditions in the 1-hour a.m. peak period when the average speed drops below 15 mph or decreases by 25 percent or more; OR when the average speed drops by 1 mph or more for a transit corridor with average speed below 15 mph.	S	**Mitigation Measure: AQ-2h, Enhanced Transportation Demand Management Program** (refer to Section 3.1, *Air Quality*)	LTSM
Impact C-TR-1: The proposed project would result in a cumulatively considerable contribution to a significant transportation impact.	S	**Mitigation Measure: AQ-2h, Enhanced Transportation Demand Management Program** (refer to Section 3.1, *Air Quality*)	LTSM
3.14 Utilities and Service Systems			
Impact UT-1: The proposed project would not require or result in the relocation or construction of new or expanded water facilities, the construction or relocation of which could cause significant environmental effects.	S	**Mitigation Measures AQ-2a, AQ-2b, AQ-2c, BI-1a**, **BI-1b**, **BI-1c**, **BI-1d**, **BI-1e**, **BI-1f**, **BI-2a**, **BI-2b**, **BI-2d**, **BI-3**, **CU-8a**, **CU-8b**, **CU-8c**, **CU-8d**, **GE-5a, GE-5b, GE-5c, GE-5d**, **HA-3a**, **HA-3b, HA-3c, HA-3d, HY-1, HY-3a, NO-1c, NO-2a, and NO-2b** (Refer to Section 3.1, *Air Quality*; Section 3.2, *Biological Resources*; Section 3.3, *Cultural Resources and Tribal Cultural Resources*; Section 3.5, *Geology, Soils, and Paleontological Resources*; Section 3.7, *Hazards and Hazardous Materials*; Section 3.8, *Hydrology and Water Quality*; and Section 3.10, *Noise and Vibration*)	LTSM

IMPACT CODES:

NA = not applicable
NI = no impact
LTS = less than significant or negligible impact; no mitigation required
LTSM = less than significant or negligible impact, after mitigation
S = significant
SU = significant and unavoidable adverse impact, after mitigation (where applicable)

TABLE S-1
SUMMARY OF IMPACTS AND MITIGATION

Impact Statement	Level of Significance prior to Mitigation	Mitigation Measures	Level of Significance after Mitigation
Impact UT-2: The proposed project would have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry, and multiple dry years.	LTS	None required	LTS
Impact UT-3: The proposed project would not require or result in the relocation or construction of new or expanded wastewater treatment facilities, the construction or relocation of which could cause significant environmental effects.	S	**Mitigation Measures AQ-2a, AQ-2b, AQ-2c, BI-1a**, **BI-1b**, **BI-1c**, **BI-1d**, **BI-1e**, **BI-1f**, **BI-2a**, **BI-2b**, **BI-2d**, **BI-3**, **CU-8a**, **CU-8b**, **CU-8c**, **CU-8d**, **GE-5a, GE-5b, GE-5c, GE-5d**, **HA-3a**, **HA-3b, HA-3c, HA-3d, HY-1, HY-3a, NO-1c, NO-2a, and NO-2b** (Refer to Section 3.1, *Air Quality*; Section 3.2, *Biological Resources*; Section 3.3, *Cultural Resources and Tribal Cultural Resources*; Section 3.5, *Geology, Soils, and Paleontological Resources*; Section 3.7, *Hazards and Hazardous Materials*; Section 3.8, *Hydrology and Water Quality*; and Section 3.10, *Noise and Vibration*)	LTSM
Impact UT-4: The proposed project would not result in a determination by the wastewater treatment provider that serves or may serve the project that it does not have adequate capacity to serve the project's projected demand in addition to the provider's existing commitments.	LTS	None required	LTS
Impact UT-5: The proposed project would not require or result in the relocation or construction of new or expanded stormwater drainage facilities, the construction or relocation of which could cause significant environmental effects.	S	**Mitigation Measures AQ-2a, AQ-2b, AQ-2c, BI-1a**, **BI-1b**, **BI-1c**, **BI-1d**, **BI-1e**, **BI-1f**, **BI-2a**, **BI-2b**, **BI-2d**, **BI-3**, **CU-8a**, **CU-8b**, **CU-8c**, **CU-8d**, **GE-5a, GE-5b, GE-5c, GE-5d**, **HA-3a**, **HA-3b, HA-3c, HA-3d, HY-1, HY-3a, NO-1c, NO-2a, and NO-2b** (Refer to Section 3.1, *Air Quality*; Section 3.2, *Biological Resources*; Section 3.3, *Cultural Resources and Tribal Cultural Resources*; Section 3.5, *Geology, Soils, and Paleontological Resources*; Section 3.7, *Hazards and Hazardous Materials*; Section 3.8, *Hydrology and Water Quality*; and Section 3.10, *Noise and Vibration*)	LTSM
Impact UT-6: The proposed project would not require or result in the relocation or construction of new or expanded electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects.	S	**Mitigation Measures AQ-2a, AQ-2b, AQ-2c, BI-1a**, **BI-1b**, **BI-1c**, **BI-1d**, **BI-1e**, **BI-1f**, **BI-2a**, **BI-2b**, **BI-2d**, **BI-3**, **CU-8a**, **CU-8b**, **CU-8c**, **CU-8d**, **GE-5a, GE-5b, GE-5c, GE-5d**, **HA-3a**, **HA-3b, HA-3c, HA-3d, HY-1, HY-3a, NO-1c, NO-2a, and NO-2b** (Refer to Section 3.1, *Air Quality*; Section 3.2, *Biological Resources*; Section 3.3, *Cultural Resources and Tribal Cultural Resources*; Section 3.5, *Geology, Soils, and Paleontological Resources*; Section 3.7, *Hazards and Hazardous Materials*; Section 3.8, *Hydrology and Water Quality*; and Section 3.10, *Noise and Vibration*)	LTSM

IMPACT CODES:

NA = not applicable
NI = no impact
LTS = less than significant or negligible impact; no mitigation required
LTSM = less than significant or negligible impact, after mitigation
S = significant
SU = significant and unavoidable adverse impact, after mitigation (where applicable)

TABLE S-1
SUMMARY OF IMPACTS AND MITIGATION

Impact Statement	Level of Significance prior to Mitigation	Mitigation Measures	Level of Significance after Mitigation
Impact UT-7: The proposed project would not generate solid waste in excess of state or local standards or of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals.	LTS	None required	LTS
Impact UT-8: The proposed project would comply with federal, state, and local management and reduction statutes and regulations related to solid waste.	LTS	None required	LTS
Impact C-UT-1: The proposed project, in combination with past, present, existing, approved, pending, and reasonably foreseeable future projects in the vicinity, would not contribute considerably to cumulative impacts on water utility systems or water supply.	LTS	None required	LTS
Impact C-UT-2: The proposed project, in combination with past, present, existing, approved, pending, and reasonably foreseeable future projects in the vicinity, would not contribute considerably to cumulative impacts on wastewater utility systems.	LTS	None required	LTS
Impact C-UT-3: The proposed project, in combination with past, present, existing, approved, pending, and reasonably foreseeable future projects in the vicinity, would not contribute considerably to cumulative impacts on stormwater utility systems.	LTS	None required	LTS

IMPACT CODES:

NA = not applicable
NI = no impact
LTS = less than significant or negligible impact; no mitigation required
LTSM = less than significant or negligible impact, after mitigation
S = significant
SU = significant and unavoidable adverse impact, after mitigation (where applicable)

TABLE S-1
SUMMARY OF IMPACTS AND MITIGATION

Impact Statement	Level of Significance prior to Mitigation	Mitigation Measures	Level of Significance after Mitigation
Impact C-UT-4: The proposed project, in combination with past, present, existing, approved, pending, and reasonably foreseeable future projects in the vicinity, would not contribute considerably to cumulative impacts on electric power, natural gas, or telecommunications systems.	LTS	None required	LTS
Impact C-UT-5: The proposed project, in combination with past, present, existing, approved, pending, and reasonably foreseeable future projects in the vicinity, would not contribute considerably to cumulative impacts related to solid waste.	LTS	None required	LTS

IMPACT CODES:

NA = not applicable
NI = no impact
LTS = less than significant or negligible impact; no mitigation required
LTSM = less than significant or negligible impact, after mitigation
S = significant
SU = significant and unavoidable adverse impact, after mitigation (where applicable)

This page intentionally left blank

CHAPTER 1
Introduction

1.1 Purpose of This Environmental Impact Report

The City of San José (City), as the lead agency, has prepared this draft environmental impact report (EIR) for the Downtown West Mixed-Use Plan (proposed project) in compliance with the California Environmental Quality Act (CEQA), the CEQA Guidelines, and San José Municipal Code Title 21. This EIR evaluates the whole of the proposed project, including project-level impacts (off-site, on-site, construction-related, operational, direct, and indirect) and cumulative impacts.

As described in CEQA Guidelines Section 15121(a), an EIR is an informational document that assesses the potential environmental impacts of a proposed project, and identifies mitigation measures and alternatives to the project that could reduce or avoid adverse environmental impacts. As the CEQA lead agency for this project, the City is required to consider the information in the EIR along with any other available information in deciding whether to approve the project.

The basic requirements for an EIR include discussions of the environmental setting, environmental impacts, mitigation measures, cumulative impacts, alternatives, and growth-inducing impacts. It is not the intent of an EIR to recommend either approval or denial of a project.

This EIR was prepared as an informational document that in and of itself does not determine whether the proposed project or any component of it, such as proposed street network changes, will be approved. The EIR informs the planning and decision-making process by disclosing the potential for significant adverse impacts. In conformance with CEQA (California Public Resources Code Section 21000 et seq.), this EIR provides objective information addressing the environmental consequences of the proposed project and identifies the means of reducing or avoiding its significant impacts where feasible. The CEQA Guidelines help define the role and expectations of this EIR as follows:

- **Informational Document.** An EIR is an informational document that informs public agency decision-makers and the public of the significant environmental effect(s) of a project, identifies feasible ways to avoid or minimize significant effects, and describes reasonable alternatives to the project. The public agency shall consider the information in the EIR along with other information contained in the administrative record (Section 15121(a)).
- **Degree of Specificity.** An EIR on a construction project necessarily will be more detailed in the specific effects of the project than an EIR on the adoption of a local general plan or comprehensive zoning ordinance because the effects of the construction project can be

predicted with greater accuracy. An EIR on a project such as the adoption or amendment of a comprehensive zoning ordinance or a local general plan should focus on the secondary effects that can be reasonably expected to follow from the adoption or amendment, but the EIR need not be as detailed as an EIR on the specific construction projects that might follow (Section 15146).

- **Standards for Adequacy of an EIR.** An EIR should be prepared with a sufficient degree of analysis to provide decision-makers with information that enables them to make a decision that intelligently takes account of environmental consequences. An evaluation of the environmental effects of a proposed project need not be exhaustive, but the sufficiency of an EIR is to be reviewed in the light of what is reasonably feasible. Disagreement among experts does not make an EIR inadequate, but the EIR should summarize the main points of disagreement among the experts. The courts have looked not for perfection but for adequacy, completeness, and a good faith effort at full disclosure (Section 15151).
- **Type of EIR.** An EIR can be tailored to different situations and intended uses, but all EIRs must meet the content requirements of Section 15120. This document is a project-level EIR. A project-level EIR focuses primarily on the changes in the environment that would result from all phases of the project including planning, construction, and operation of the specific development project (Section 15161).

1.2 Environmental Review Process

1.2.1 Notice of Preparation and Scoping

In accordance with CEQA Guidelines Sections 15063 and 15082, the City prepared a notice of preparation (NOP) for this EIR. The NOP provided a general description of the proposed project and identified environmental impacts that could result from its implementation. The NOP was circulated to federal, state, and local agencies and other interested parties on October 23, 2019. The standard 30-day comment period concluded on November 22, 2019.

The City held a public scoping meeting on November 7, 2019, to discuss the proposed project and solicit public input on the scope and contents of this EIR. The meeting was held at the San José City Hall, Wing Rooms 118–120, at 200 East Santa Clara Street, San José, CA 95113.

The Department of Planning, Building, and Code Enforcement has considered the comments made by the public and agencies in response to the NOP, as summarized in **Table 1-1**. Comments on the NOP that relate to environmental issues are addressed and analyzed throughout this EIR. The scoping comments, as summarized in this table, also indicate areas of controversy known to the lead agency and issues to be resolved, per CEQA Guidelines Section 15123. **Appendix A1** of this EIR includes the NOP and comments received on the NOP. While no formal written response to comments on the NOP is required by CEQA, comments relevant to environmental issues are reflected in the topical sections/analyses in the EIR.

TABLE 1-1
SUMMARY OF SCOPING COMMENTS

Topic	Comment
CEQA Process	• The EIR would be better suited as a program-level document, rather than a project-specific document. • The EIR review process should be extended. • The EIR should discuss the scope of direct or indirect impacts.
Scoping	• The scoping meeting was not well advertised and did not reach all areas that would be affected by the proposed project. • The scoping period was only 15 days when it typically lasts 60–90 days. • The public should be able to review the final project description before circulation of the final EIR.
Project Description	• The project description should be consistent with the Assembly Bill (AB) 900 application. • Include discussions of tiering off of other planning documents. • Describe the baseline year used for impact analysis; the timeline/phasing of the project; how transit providers' station access requirements would be accommodated; project objectives; the number of employees and other on-site users; consistency with other plans in the area; and permit requirements. • Include details about planned development such as improvements to roadways (including bike lanes), bridges, parking, open space and trails, utilities, and preservation of Diridon Station.
Air Quality	• The project may have a significant impact on air quality due to increased traffic. • The EIR should use Bay Area Air Quality Management District (BAAQMD) Guidelines. • The EIR should identify all required permits from the air district. • The EIR should evaluate consistency with other air quality plans and human health risk.
Biological Resources	• The EIR should describe the baseline conditions of the aquatic and riparian ecosystems as well as anticipated work affecting these systems. • The EIR should evaluate impacts on biological resources. • Include mitigation measures for impacts on Los Gatos Creek. • Mitigation should comply with the City's policies and guidelines. • New plantings should be native, non-invasive species.
Tribal Cultural Resources	• Include compliance with AB 52 and Senate Bill (SB) 18 tribal consultation requirements. • Evaluate buildings on the project site for cultural resource status and analyze impacts on these resources. • Evaluate the impact of the project on historic and other nearby neighborhoods, including the Delmas area.
Greenhouse Gas (GHG) Emissions	• The lead agency should use the BAAQMD Guidelines and tools to analyze GHG impacts from the project. • The EIR should discuss impacts of tree removal on carbon absorption capacity, project emissions, and energy use during construction and operation. • The EIR should include mitigation measures.
Hazards and Hazardous Materials	• Consider alternative evacuation routes from the project site. • Evaluate homes on West San Carlos Street for hazardous materials. • The EIR should include a discussion of potential hazardous materials associated with the homeless community within the project site, cleanup/remediation measures, and mitigation measures to reduce the impact of hazardous materials.

TABLE 1-1
SUMMARY OF SCOPING COMMENTS

Topic	Comment
Hydrology and Water Quality	• The EIR should discuss: – Baseline hydrologic conditions and impacts on underground parking feasibility – Adequacy of current water supply sources – Estimate of water that will be pumped from underground structures at buildout – Any new or improvements to existing outfalls as part of the proposed project – Impacts on existing wells and planned destruction/construction of wells – Impacts on sewer systems and waterways • The EIR should include a water supply assessment (WSA).
Land Use and Land Use Planning	• The EIR should include: – Analysis of a range of residential and other non-office uses – Analysis of project impacts on the assumptions made in planning documents – Discussion of how the project will affect past City approvals
Aesthetics	• Evaluate impacts on aesthetics and shade in regards to the nearby trails. • Evaluate impact of glare from project buildings. • Evaluate compliance with standards in the City's Design Guidelines. • Implement mitigation measures for light pollution.
Noise	• The EIR should evaluate noise generated from groundwater pumping activities and construction noise. • Implement all mitigation measures to limit noise impacts on nearby residents.
Population and Housing	• The EIR should evaluate: – Impacts on housing availability and displacement – Impact on the homeless population within and near the project site • The EIR should include a Job/Housing Fit analysis and mitigation measures to reduce and/or eliminate displacement.
Environmental Justice	• The EIR should evaluate: – Impacts on communities of color including school enrollment and the housing market – Impacts on vulnerable communities and businesses that serve vulnerable communities – The benefits that will be afforded to communities historically excluded from economic activities
Public Services	• Mitigate impacts on public services. • The EIR should evaluate impacts on emergency service levels, response times, access to the project site and nearby development, and evacuation routes from the northernmost area of the project.
Recreation	• Describe baseline conditions, including safety at Los Gatos Creek. • Evaluate project compliance with other park plans and impacts on recreation in regards to nearby trails and parks. • Identify mitigation measures.

TABLE 1-1
SUMMARY OF SCOPING COMMENTS

Topic	Comment
Transportation and Circulation	• The EIR should include a Transportation Demand Management (TDM) Plan, Transportation Analysis (TA), and a Local Transportation Analysis (LTA). • The EIR should use both level of service (LOS) and vehicle miles traveled (VMT) methodologies for analysis and should provide assumptions and performance measures. • The EIR should evaluate impacts on transportation, parking, and circulation for all modes of transport. • Mitigation measures should mitigate adverse parking effects on nearby residents/businesses and include implementation responsibilities for mitigation of impacts.
Utilities and Service Systems	• The EIR should evaluate and identify: – Consistency with Pacific Gas and Electric Company (PG&E) requirements – Utilities within California Department of Transportation (Caltrans) right-of-way and permit requirements – Increased project-related demand for utilities and capacity of the PG&E substation – Planned utility maintenance services – Potential mitigation measures
Cumulative Impacts	• The EIR should evaluate cumulative impacts and incorporate past, present, and future projects.
Alternatives	• The EIR should include alternatives that account for the following: – The roadway configuration in the NOP – The City's plans for Santa Clara Street as a transit priority corridor – A scaled-down campus size – A campus at an alternative location – A No Project Alternative • The alternatives section should clearly describe and differentiate between the "Proposed Project" and the "Northern Variant."
Mitigation Monitoring and Reporting	• Publish monitoring reports for impacts on air, hydrology and water quality, and biological resources online, both during construction and 25 years after construction, for public review.

1.2.2 Project Changes after the Notice of Preparation

The project applicant, Google LLC, originally planned for an approximately 84-acre project site in the project application, and the NOP described the same acreage. Since publication of the NOP, the project boundary has been reduced by 3 acres because the applicant is no longer proposing to include parcels along Cahill Street adjacent to Diridon Station that are owned by the Peninsula Corridor Joint Powers Board (Caltrain). The applicant originally included these parcels, with Caltrain's consent, because the parties were in discussions about Google acquiring these parcels for inclusion in the Downtown West Mixed-Use Plan. The parties have not reached terms on a real estate transaction and have mutually agreed that the parcels should be removed from the project boundary (refer to **Appendix A2**). Development of those parcels would instead likely be planned as part of the City's broader Diridon Station Area Plan (DSAP) amendment, which is included as a cumulative project in this EIR. Further, Caltrain is a participating agency in the Diridon Integrated Station Concept process, and development of these parcels—which interface

directly with Diridon Station—may be affected by future plans for the upgraded station. Although removal of the Caltrain parcels reduces the project site by 3 acres, this is a small area when compared to the total project site, and the full development program would continue to be accommodated on the reduced project area of 81 acres.

Overall, the development parcels other than the Caltrain parcels remain generally consistent with those in the NOP project, as does the proposed street network within the project site. At the time of the NOP, the Caltrain parcels were assumed to be developed with office space, and under the project analyzed in this EIR, the development program has been redistributed. Much of the office space assumed for the Caltrain parcels would now be developed north of West Santa Clara Street, replacing some of the residential development previously proposed there. Those residential units, and some of the Caltrain parcels office space, have been redistributed across the remainder of the project site. All of these changes are reflected in the analysis in this EIR.

Additionally, the NOP project proposed approximately 16.8 acres of open space, while the project analyzed in this EIR proposes about 15 acres of open space. The reduction is due to elimination of one open space area that would have been located on the Caltrain parcels and to refinement of open space typologies (i.e., semi-public vs. riparian vs. open space, etc.), as well as minor adjustments to block boundaries and private streets, as compared to the plan contemplated at the time of the NOP.

The project analyzed in the EIR also includes more parking spaces than described in the NOP. In response to comments on the NOP expressing the opinion that the proposed parking supply would be insufficient, the project applicant now proposes up to 7,160 total parking spaces, 39 percent more parking than the 5,160 spaces proposed in the NOP.

Finally, the NOP project included a "Northern Variant" under which the locations of some project land uses would be different north of West Santa Clara Street, although the overall development program would be the same. The Northern Variant is no longer under consideration and is, therefore, not analyzed in this EIR. Also since the NOP, the square footage proposed for district utilities buildings floor area has increased by 13 percent, from 115,000 gross square feet (gsf) to 130,000 gsf.

The above-described changes generally correspond to differences between the project analyzed in the project's application for certification under Assembly Bill 900 (AB 900; discussed in Section 1.3, *Assembly Bill 900*) and the project analyzed in this EIR, with the following exceptions:

- The AB 900 project (Variant A) anticipated 100,000 gsf of district utilities, compared to 115,000 gsf in the NOP project and 130,000 gsf analyzed in this EIR.
- The AB 900 project (Variant A) proposed 6,010 parking spaces, compared to a maximum of 5,160 parking spaces in the NOP and 6,560 parking spaces for the project analyzed in this EIR.
- The phasing of construction and occupancy of the project analyzed in this EIR varies somewhat from the development phasing assumed in the AB 900 project. (No specific phasing program was identified in the NOP.)

All of the above-changes in the project description since publication of the NOP are reflected in the analyses in Chapter 3 of this EIR.

1.2.3 Draft Environmental Impact Report Public Review and Comment Period

CEQA Guidelines Section 15201 encourages public participation in the planning and environmental review processes. The public is invited to provide comments and concerns regarding the environmental issues that are addressed and analyzed throughout this EIR.

Publication of this draft EIR establishes the 45-day public review and comment period, which begins on Wednesday October 7, 2020, and ends on Monday November 23, 2020.[1] During this period, the draft EIR will be available to federal, state, and local agencies and interested organizations and individuals for review. Notice of this draft EIR will be sent directly to every agency, person, and organization that commented on the NOP.

Should you wish to receive a printed copy (excluding appendices, which will be on electronic media only), please email:

shannon.hill@sanjoseca.gov

During the 45-day public review and comment period, written comments regarding the environmental review contained in this draft EIR should be sent to:

City of San José, Department of Planning, Building, and Code Enforcement
Attn: Shannon Hill, Environmental Project Manager
200 East Santa Clara Street, 3rd Floor Tower
San José, CA 95113

Alternatively, commenters may submit written comments by email to the environmental project manager at the following address:

shannon.hill@sanjoseca.gov

1.3 Assembly Bill 900

The project applicant filed an application with the Governor's Office of Planning and Research in summer 2019, and the application was subject to public review from September 3, 2019, through October 3, 2019.[2] On December 30, 2019, Governor Gavin Newsom certified the project under the Jobs and Economic Improvement through Environmental Leadership Act of 2011 (AB 900, as amended by Senate Bill 734 and AB 246). AB 900, as amended, provides judicial streamlining

[1] Two days have been added to the public review period so that it does not end on a weekend.
[2] Governor's Office of Planning and Research, *California Jobs (AB 900): Submitted Applications, 2019080493, Downtown West Mixed-Use Project.* Available at http://opr.ca.gov/ceqa/california-jobs.html. Accessed November 2, 2019.

benefits under CEQA for certified environmental leadership development projects and defines an environmental leadership development project as the following:[3]

- The project is residential, retail, commercial, sports, cultural, entertainment, or recreational in nature;
- The project, upon completion, will qualify for Leadership in Energy and Environmental Design (LEED) Gold certification or better;
- The project will achieve at least 15 percent greater transportation efficiency than comparable projects;[4]
- The project is located on an infill site[5] and in an urbanized area;
- In the Bay Area, the project is consistent with the general use designation, density, building intensity, and applicable policies specified for the project area in *Plan Bay Area 2040*, the region's sustainable communities strategy;[6] and
- Private vehicle parking spaces for multifamily residential projects are priced and rented or purchased separately from dwelling units; or dwelling units are subject to affordability restrictions that prescribe rent or sale prices, and the cost of parking spaces cannot be unbundled from the cost of dwelling units.[7]

For the Governor to certify an environmental leadership development project, the project (or project applicant) must: (1) result in a minimum investment of $100 million in California upon completion of construction; (2) create high-wage, highly skilled jobs that pay prevailing wages and living wages and provide construction jobs and permanent jobs for Californians, and help reduce unemployment; (3) not result in any net additional greenhouse gas (GHG) emissions; (4) comply with state requirements for commercial and organic waste recycling; (5) have a binding agreement with the lead agency committing to implement and monitor mitigation measures required to comply with AB 900, as amended; and (6) agree to pay appellate court costs if applicable and the cost of preparing the administrative record of proceedings.[8]

On December 19, 2019, the California Air Resources Board determined that the proposed project would not result in any net additional GHG emissions for purposes of certification under AB 900, as amended,[9] leading to the Governor's review and certification on December 30, 2019.

---

3 California Public Resources Code Section 21178 et seq. and Governor's Office of Planning and Research, *California Jobs (AB 900): Governor's Guidelines for Streamlining Judicial Review Under the California Environmental Quality Act Pursuant to AB 900.* Available at http://opr.ca.gov/ceqa/california-jobs.html. Accessed November 2, 2019.

4 "Transportation efficiency" is defined as the number of vehicle trips by employees, visitors, or customers to the project divided by the total number of employees, visitors, and customers. The applicant shall provide information setting forth its basis for determining and evaluating comparable projects and their transportation efficiency, and how the project will achieve at least 15 percent greater transportation efficiency. For the purpose of this provision, comparable means a project of the same size, capacity, and location.

5 An infill site is defined in Public Resources Code Section 21061.3 as a site that "has been previously developed for qualified urban uses." A "qualified urban use" is defined in Public Resources Code Section 21072 as "any residential, commercial, public institutional, transit or transportation passenger facility, or retail use, or any combination of those uses."

6 California Public Resources Code Section 21180(b).

7 California Public Resources Code Section 21184(a), added by SB 734 (2016).

8 California Public Resources Code Section 21183.

9 California Air Resources Board, *Executive Order G-19-154 Relating to Determination of No Net Additional Greenhouse Gas Emissions Under Public Resources Code Section 21183(c) for Downtown West Mixed-Use Plan*, December 19, 2019.

Within 10 days after the Governor certified the proposed project as an environmental leadership development project, the Department of Planning, Building, and Code Enforcement issued a public notice stating that the applicant has elected to proceed under Chapter 6.5 (commencing with Section 21178) of the Public Resources Code. This chapter provides, among other things, that any judicial action challenging the certification of the EIR or the approval of the project described in the EIR is subject to the procedures set forth in Sections 21185–21186, inclusive, of the Public Resources Code. The notice was issued on January 8, 2020, by direct mailing to organizations and individuals who had previously requested notices and by publication in the *San Jose Mercury News*. A second notice was issued on February 5, 2020, by direct mailing to organizations and individuals who had previously requested notices and by posting of notices on and around the project site notifying the public of the Joint Budget Legislative Committee's concurrence pursuant to Public Resources Code Section 21184(b)(2).

In accordance with AB 900, as amended (Public Resources Code Section 21186), the Department of Planning, Building, and Code Enforcement, as the local lead agency under CEQA, has made this EIR available to the public on the City's website and has prepared a record of proceedings for the proposed project that can be accessed and downloaded from the following website: https://www.sanjoseca.gov/your-government/departments-offices/planning-building-code-enforcement/planning-division/projects-of-high-interest/google-project. The record of proceedings includes the EIR and all other documents and materials submitted to, or relied upon by, the lead agency in preparation of the EIR and approval of the project. Any document prepared by the lead agency or submitted by the applicant after the draft EIR's release date that is part of the record of proceedings, any comments received on the draft EIR, and other relevant documents or materials, will be made available to the public on this same website in a readily accessible electronic format within the time frames specified by AB 900. Together, these documents constitute the administrative record of proceedings. If the City of San José, as lead agency, approves the project, it must certify the final record of proceedings within 5 days of its approval.

As required by Public Resources Code Section 21185, the Judicial Council adopted rules of court establishing procedures for actions or proceedings brought to attack, review, set aside, void, or annul the certification of the EIR for an environmental leadership development project (certified by the Governor under AB 900) or the granting of any project approvals. The procedures require that the actions or proceedings, including any potential appeals, be resolved to the extent feasible within 270 days of the filing of the certified record of proceedings with the court. This creates an accelerated time frame for CEQA litigation. The procedures can be found in California Rules of Court Rules 3.2220 to 3.2231.

The provisions of AB 900, as amended, apply to projects that were certified by the Governor as environmental leadership development projects by January 1, 2020. This act remains in effect until January 1, 2021. In June and August 2020, differing versions of a bill (SB 995) to extend the provisions of AB 900 passed the California Senate and the California Assembly, respectively. However, the separate versions of the bill were not reconciled by the two chambers prior to the end of the 2019–2020 legislative session on August 31, 2020. Accordingly, AB 900 currently provides that if a lead agency fails to approve a project certified by the Governor before January 1, 2021, then the certification expires and is no longer valid. Nevertheless, the project

applicant has committed, even if no extension of AB 900 is forthcoming, that the project would provide the environmental benefits required under AB 900, including no net increase in GHG emissions. Therefore, this EIR assumes that the substantive requirements of AB 900 would continue to apply to the project, regardless of whether legislation is approved to extend the time period for approval of a Governor-certified project. Moreover, the City of San José is working with the President Pro Tempore of the State Senate, who authored SB 995, and with the City's state legislative advocates and other cities affected by the failure of SB 995—including Los Angeles and San Diego—to encourage consideration of SB 995 in a Special Legislative Session that could be held this fall or as an urgency bill considered when the Legislature convenes in January 2021 and applied retroactively.[10] Thus, it is reasonably foreseeable that either the provisions AB 900 will be extended or that the project would continue to meet the substantive requirements of AB 900.

1.4 Final Environmental Impact Report and Responses to Comments

After the conclusion of the 45-day public review and comment period, the City will prepare a final EIR in conformance with CEQA Guidelines Section 15132. The final EIR will consist of:

- Revisions to the draft EIR text, as necessary;
- A list of individuals and agencies commenting on the draft EIR;
- Responses to comments received on the draft EIR, in accordance with CEQA Guidelines (Section 15088); and
- Copies of letters received on the draft EIR.

CEQA Guidelines Section 15091(a) stipulates that no public agency shall approve or carry out a project for which an EIR has been certified that identifies one or more significant environmental effects of the project, unless the public agency makes one or more written findings. If the lead agency approves a project even though it would result in significant adverse environmental impacts that cannot be mitigated to a less-than-significant level, the agency must state the reasons for its action in writing. This "statement of overriding considerations" must be included in the record of project approval.

If the proposed project is approved, the City of San José will file a notice of determination, which will be available for public inspection and posted within 24 hours of receipt at the Santa Clara County Clerk's Office for 30 days. The filing of the notice of determination starts a 30-day statute of limitations on court challenges to the approval under CEQA (CEQA Guidelines Section 15094(g)).

[10] Kim Walesh, Deputy City Manager, Update on AB 900 and Proposed Google Mixed-Use Development, Memorandum to Mayor and City Council, September 11, 2020. Available at: https://www.sanjoseca.gov/home/showdocument?id=63919. Accessed September 21, 2020.

1.5 Organization of This EIR

This EIR is organized into six chapters, as described below:

- ***Summary*.** This chapter provides a concise overview of the proposed project and the necessary approvals; the environmental impacts that would result from the proposed project; mitigation measures identified to reduce or eliminate these impacts; project alternatives; and areas of known controversy and issues to be resolved.
- **Chapter 1, *Introduction*.** This chapter summarizes the proposed project and describes the type, purpose, and function of the EIR; the environmental review process and comments received on the NOP; and the organization of the EIR.
- **Chapter 2, *Project Description*.** This chapter presents objectives of the City and the applicant, the location of the site and project boundaries, characteristics of the proposed project, and required approval actions by the City and other agencies.
- **Chapter 3, *Environmental Setting, Impacts, and Mitigation*.** This chapter includes introductory material regarding the purpose of the EIR and its scope and approach to the analysis of a comprehensive range of environmental resource topics. Each topic section then presents the environmental setting; regulatory framework; approach to analysis; project-specific and cumulative impacts; and mitigation measures, when appropriate. This chapter contains the following sections and environmental resource topics:
  - 3.1, *Air Quality*
  - 3.2, *Biological Resources*
  - 3.3, *Cultural Resources and Tribal Cultural Resources*
  - 3.4, *Energy*
  - 3.5, *Geology, Soils, and Paleontological Resources*
  - 3.6, *Greenhouse Gas Emissions*
  - 3.7, *Hazards and Hazardous Materials*
  - 3.8, *Hydrology and Water Quality*
  - 3.9, *Land Use and Planning*
  - 3.10, *Noise and Vibration*
  - 3.11, *Population and Housing*
  - 3.12, *Public Services and Recreation*
  - 3.13, *Transportation*
  - 3.14, *Utilities and Service Systems*
- **Chapter 4, *Other CEQA Issues*.** This chapter addresses potential growth-inducing impacts of the proposed project and identifies significant effects that cannot be avoided if the proposed project is implemented, as well as significant irreversible environmental changes that would occur with the project.
- **Chapter 5, *Alternatives*.** This chapter presents and evaluates the no project alternative and five other alternatives to the proposed project that could feasibly attain most of the project objectives and avoid or substantially lessen identified significant adverse impacts. This chapter also describes other alternatives that were considered but were not analyzed in detail, and explains the reasons for this decision. Alternatives evaluated in this chapter include the following:
  - Alternative 1: No Project Alternative/DSAP Development Alternative
  - Alternative 2A: Historic Preservation Alternative
  - Alternative 2B: Historic Preservation & Airport CLUP Consistent Alternative
  - Alternative 3: 150 South Montgomery Street Preservation Alternative

  - Alternative 4: Reduced Office Alternative
  - Alternative 5: Reduced Intensity Alternative

- **Chapter 6, *Lead Agency and Preparers*.** This chapter lists the EIR lead agency and consultants.
- ***Appendices*.** The EIR has 20 appendices with information and analyses used in preparation of this EIR, including comments received from the public (see Appendix A1, *Notice of Preparation and Scoping Comments*).

CHAPTER 2
Project Description

2.1 Project Overview

Google LLC, the project applicant, is proposing the Downtown West Mixed-Use Plan (proposed project) as part of the company's expansion of its workforce and business operations in the Bay Area. To address workforce growth and create more efficient transportation linkages between the Google workplace and employees' homes, the proposed project is located in the *Envision San José 2040 General Plan* (General Plan) Downtown Growth Area and largely within the boundaries of the City of San José's (City's) Diridon Station Area Plan (DSAP),[1] which envisions a new high-density job center anchored by public transportation. The proposed project would include a mix of uses generally consistent with the General Plan and DSAP, providing for a mixed-use Downtown neighborhood.

2.1.7 Summary of Project Elements

The proposed project consists of the demolition of most existing buildings on the project site and phased development of new buildings on approximately 81 acres on the west side of Downtown San José. The proposed project would require amendments to the General Plan and DSAP; Planned Development Rezoning; a Planned Development Permit, including adoption of the Downtown West Design Standards and Guidelines; Vesting Tentative Map(s)/Tentative Map(s)/Final Map(s); Historic Landmark Amendments to modify the boundaries of two Landmarks so as to eliminate non-historic portions; and other entitlements from the City, including, but not limited, to a Development Agreement and permits related to tree removal, demolition, grading, building, encroachment, solid waste, and historic preservation. For a more complete list of City approval actions required for the proposed project, refer to Section 2.15, *Uses of the EIR and Required Project Approvals*.

The proposed project would include development of the following uses:

- A maximum of 7.3 million gross square feet (gsf) of commercial office space
- A maximum of 5,900 residential units
- A maximum of 500,000 gsf of active uses (commercial retail/restaurant, arts, cultural, live entertainment, community center, institutional, childcare and education, maker spaces, non-profit, and small-format office space)[2]

[1] The City is currently analyzing revisions to the DSAP including a revision to the DSAP area boundary to encompass the project site; refer to Section 2.1.8, *Planning Context*.

[2] The active use space would include one or more indoor live entertainment venues, as described in Section 2.3.8, *Central Area of the Project Site (West Santa Clara Street to Park Avenue—Blocks D, E, and F).*

- A maximum of 300 hotel rooms
- A maximum of 800 rooms of limited-term corporate accommodations (lodging of company workforce for not more than 60 consecutive days and not open to the public; considered a non-residential use)
- A maximum of 100,000 gsf of event and conference space
- On- and off-street public/commercial and residential parking
- A district systems approach to delivery of on-site utilities,[3] including designated infrastructure zones with on-site centralized utility plants totaling up to 130,000 gsf
- One or more on-site logistics centers to serve the commercial on-site uses that would occupy a total of about 100,000 gsf
- A total of approximately 15 acres of parks, plazas, and open space, including areas for outdoor seating and commercial activity (such as retail, cafes, and restaurants), green spaces, landscaping, mid-block passages, riparian setbacks, and trails
- Various improvements to the public realm to improve transit access and pedestrian and bicycle circulation and facilitate connectivity, both within the site and to and from surrounding neighborhoods

The project would also include the adoption of the Downtown West Design Standards and Guidelines, an enforceable series of design-focused standards, along with advisory guidelines, that would govern development on the project site and would be approved as part of the Planned Development Permit and Planned Development Zoning District (refer to Section 2.12, *Downtown West Design Standards and Guidelines*, and Appendix M). Finally, the project may include further land assembly by the project applicant.[4]

2.1.8 Planning Context

Envision San José 2040 General Plan

The General Plan, adopted in 2011 and last amended in March 2020, plans for the future growth, development, and provision of municipal services for San José. The General Plan anticipates up to 382,000 new jobs and 120,000 new dwelling units, supporting a population of approximately 1.3 million people by 2040.

[3] A "district" utility system essentially entails creating an on-site utility network separate from, though sometimes linked to, the citywide or regional networks. District systems are most commonly used for building space heating and cooling, but may also be employed to generate and distribute electricity, collect and treat wastewater and stormwater, and the like. A small mutual water system serving a rural area is another common example of a district utility system. District systems shift from individual building systems such as chillers and cooling towers to centralized facilities such as central utility plants serving multiple buildings to enable more efficient operations.

[4] The project site, as defined herein, includes certain parcels not currently under the control of the applicant. That is, the project site includes parcels owned by the City of San José (parking lots adjacent to the SAP Center), as well as the Santa Clara County Valley Transportation Authority (southeast corner of West Santa Clara and Cahill Streets). These landowners have granted the applicant the authority to include their parcels in the project description and the applicant may purchase or lease one or more of these parcels in the future. The would also necessitate granting of access easements, land that would be added to the project site if the easements are granted. Refer to Section 2.2, *Project Site and Location*, for additional information.

Land use policies in the General Plan emphasize increasing the number of jobs and amount of housing in areas served by transit and improving other City services to minimize the environmental and fiscal impacts of new growth. The General Plan identifies Growth Areas to accommodate nearly all of San José's planned housing and job growth capacity. These are areas that generally have a high degree of access to transit and/or other infrastructure and proximity to retail and other services, and that are strategically located. The Growth Areas include Downtown (including the Diridon Station Area and the project site), Specific Plan Areas, Employment Land Areas, Urban Villages, and Other Growth Areas.

The project site is within the Downtown Growth Area and primarily within the Diridon Station Area Plan.

One of the General Plan's 12 Major Strategies is Destination Downtown, which is to "support continued growth in the Downtown as the City's cultural center and as a unique and important employment and residential neighborhood." Recognizing that Downtown is the city's cultural heart and its largest and most vibrant urban area, the strategy explains that emphasizing Downtown growth supports the General Plan's economic, fiscal, environmental, and urban design/placemaking goals. The strategy further notes that Downtown is a growing employment center, particularly with respect to software and creative services businesses whose employees generally value a downtown living environment and offer technical skills and creative talent in San José's urban center.

The Envision San José 2040 General Plan establishes a four-year review cycle to evaluate progress in achieving key goals and undertake any necessary adjustments to the General Plan. The City is currently in its second such four-year review of the General Plan, beginning with public meetings of the Envision San José 2040 Task Force in advance of City Council consideration.

Diridon Station Area Plan

In 2014, the City of San José adopted the DSAP, which is incorporated into the General Plan. The DSAP establishes a vision for Diridon Station and the surrounding area in response to the planned extension of Bay Area Rapid Transit (BART) and high-speed rail service to San José. The City initiated amendments to the DSAP in 2019 to account for the following changes in planning assumptions:

- New uses contemplated for a site, located within the boundary of the project site analyzed in this environmental impact report (EIR), that was previously identified for a proposed Major League Baseball ballpark
- The City Council direction to Planning Division staff, issued in March 2019, to develop new height limits for portions of Downtown—including the Diridon Station Area—to allow taller buildings than are currently permitted
- The City's focus on environmental sustainability through Climate Smart San José, a sustainability and greenhouse gas (GHG) emissions reduction plan adopted in 2018
- The City's adoption, in 2019, of the Downtown Design Guidelines, as well as the proposed development of a Downtown Transportation Plan

- The City's participation, along with Caltrain, the California High-Speed Rail Authority, and the Santa Clara Valley Transportation Authority (VTA), in the Diridon Integrated Station Concept (DISC) Plan process. This process will evaluate how to expand and redesign Diridon Station as a world-class center of transit and public life that provides intermodal connections and integration with the surrounding neighborhoods.[5]

The proposed DSAP amendments are intended to adapt the DSAP to updated circumstances; respond to and complement other adopted plans and information currently available for ongoing plans, including the General Plan; and support and facilitate DSAP implementation relative to both private development and public investment.

The City does not expect to make major changes to the primary objectives of the DSAP. Expected changes include reallocating development capacity from other General Plan–designated Growth Areas elsewhere in San José and updating the plan's existing sections pertaining to land use, design, transportation, and public spaces. The DSAP boundary is anticipated to be expanded eastward to the Guadalupe River between West Julian Street and to encompass Los Gatos Creek between West Santa Clara Street and north of Park Avenue. (As described in Section 2.4.11, *Other Proposed Revisions to the Diridon Station Area Plan*, the proposed project includes an amendment of the DSAP to bring the portion of the project site east of Los Gatos Creek within the DSAP boundary.)

The City will also prepare implementation plans for shared parking, infrastructure financing, and affordable housing.

With respect to the proposed project, this EIR assumes that project approvals would include Planning Commission and City Council consideration of project-specific General Plan and DSAP amendments. Accordingly, this EIR analyzes the environmental impacts of development under all project-specific General Plan and DSAP amendments.

Memorandum of Understanding

In December 2018, the project applicant, Google LLC, entered into a non-binding Memorandum of Understanding (MOU) with the City of San José with an intention to "collaborate on development in and around the Diridon Station Area to aid implementation of the planned expansion of San José's Downtown, the Diridon Station Area Plan, and the General Plan."[6]

The MOU set forth a vision for new development to transform the current area through new construction and adaptive reuse of existing facilities to a vibrant, fully functional transit-oriented neighborhood that embodies a commitment to place making, social equity, economic development, environmental sustainability and financially viable private development. Among the established goals are to balance the objectives of the City, the applicant, and the community; capitalize on transit synergy; optimize density and the mix of land uses; preserve existing housing and create new housing; create broad job opportunities; and pursue equitable development. Goals also address high-quality,

[5] The DISC Plan is not a land use plan. Instead, the plan will include a physical layout showing how the various track and station elements will fit together and relate to the surrounding neighborhood and a governing structure to implement the vision for the station and operate the station in the long term.

[6] *Memorandum of Understanding between the City of San Jose and Google LLC*, December 4, 2018. Available at https://www.diridonsj.org/s/Final-MOU-98jt.pdf.

human-scaled design; improvements to the public realm; enhanced sustainability, environmental stewardship, and innovation; improvements to existing transit access and the minimization of parking; timely implementation; assurances that private developers will fund a fair share of amenities and other improvements and pay prevailing wages to construction workers in office/research and development buildings; and public involvement in discussions regarding community benefits.

The MOU states that should the project be approved, the project applicant would enter into a Development Agreement with the City to "memorialize community benefits and secure vested development rights aligned with any proposed development masterplan." As a non-binding document, the MOU did not commit the City to any course of action, and the City retains full discretion to impose conditions or mitigation measures, or to disapprove the proposed project.

2.2 Project Site and Location

The project area is located in the western portion of Downtown San José, mostly within the DSAP. (The DSAP boundary would be amended to include the previously entitled project area west of South Autumn Street between West Santa Clara Street and West San Fernando Street.) **Figure 2-1** shows the project site generally bounded by Lenzen Avenue and the Union Pacific Railroad (UPRR) tracks to the north; North Montgomery Street, Los Gatos Creek, the Guadalupe River, South Autumn Street, and Royal Avenue to the east; Auzerais Avenue to the south; and Diridon Station and the Caltrain rail tracks to the west.[7] Cahill Street fronts Diridon Station and runs generally parallel to the rail tracks in the project's central area. The site is approximately 1 mile long from north to south and generally less than 800 feet wide from east to west, although the site reaches nearly 1,500 feet from east to west at its widest, just south of West Santa Clara Street.[8] **Figure 2-2** presents an aerial photo of the project site and vicinity.[9]

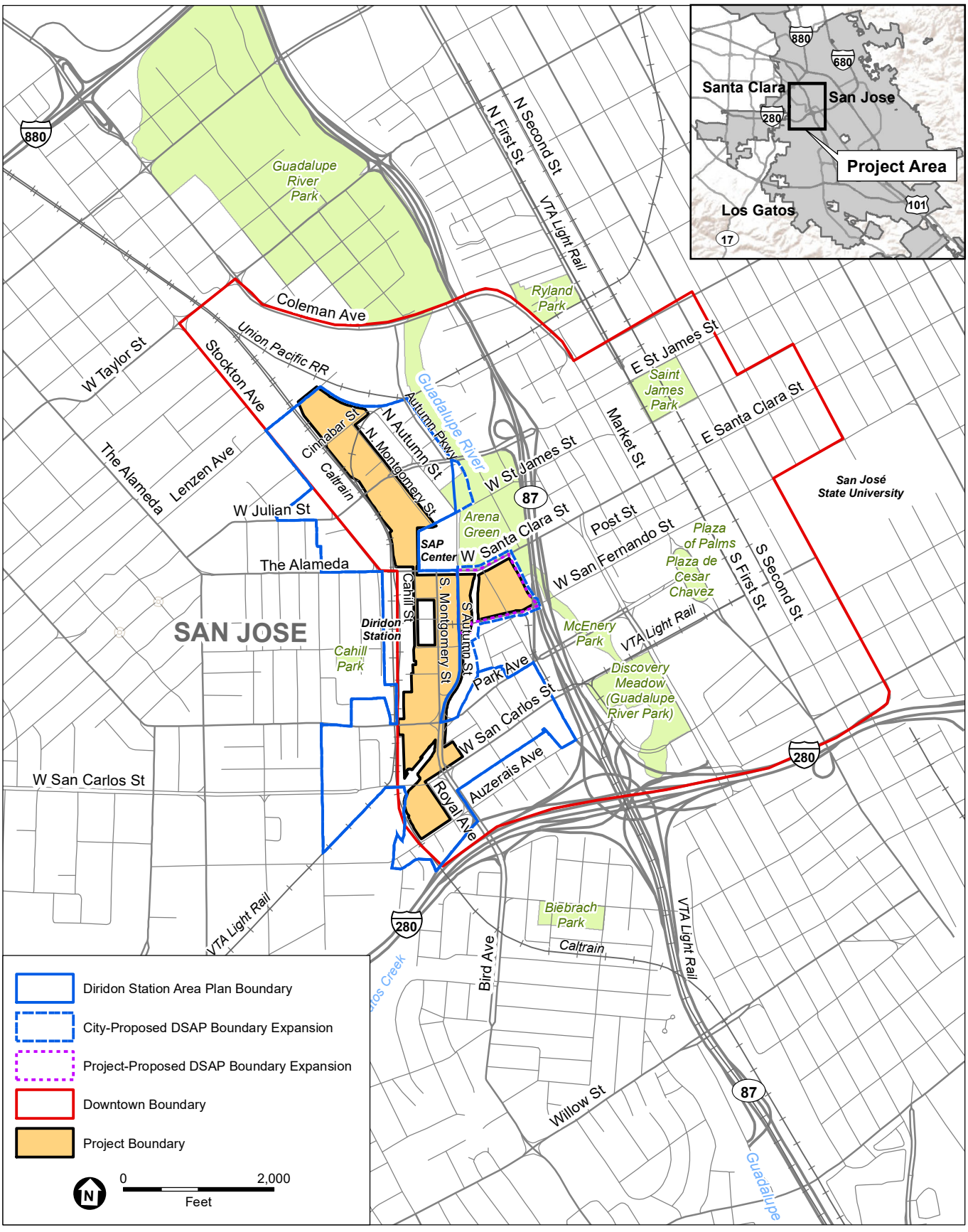
Certain parcels, currently containing Lots A, B, and C adjacent to the SAP Center to the west and northwest, are owned by the City, and the project applicant has entered into an option agreement to acquire these parcels for inclusion within the project site in the future. These parcels total approximately 11 acres (Assessor's Parcel Numbers [APNs] 259-28-031, 259-28-041, 259-28-044, a portion of APN 259-28-043, and portions of the rights-of-way of West St. John and West Julian Streets).[10] The project applicant is in discussions with the VTA regarding seven parcels owned by that agency (APNs 261-34-002 through -006, 261-34-011, and 261-34-023, totaling about 1.33 acres), located along the east side of Cahill Street south of West Santa Clara Street and currently used for surface parking. Although these parcels are not currently owned by the project

[7] Caltrain is operated by the Peninsula Corridor Joint Powers Board, consisting of representatives from San Francisco, San Mateo, and Santa Clara Counties. From just north of Santa Clara Station to Diridon Station, Altamont Corridor Express (ACE) and Amtrak Capitol Corridor trains also operate on the Caltrain tracks.

[8] This wider portion of the site results from an easterly extension bounded by Santa Clara Street, the Guadalupe River, West San Fernando Street/VTA light rail tracks, and South Autumn Street.

[9] As explained in Chapter 1, *Introduction*, since publication of the Notice of Preparation (NOP) for this EIR, the project boundary has changed to eliminate approximately 3 acres owned by the Peninsula Corridor Joint Powers Board (Caltrain), thus reducing the site's size from approximately 84 acres to approximately 81 acres. The proposed mix and amount of various land uses and the site improvements have not changed. See additional discussion in Section 2.3, *Development Program*, below.

[10] These parcels encompass project Blocks C1, C2, and C3, along with the intervening open space, as shown on Figure 2-3.



SOURCES: ESRI, 2019; City of San José, 2020; ESA, 2020

Downtown West Mixed-Use Plan

Figure 2-1
Project Location Map

SOURCES: Google LLC and SITELAB urban studio, 2020

Downtown West Mixed-Use Plan

Figure 2-2
Aerial Photo of Project Area

applicant, they are included in this analysis to ensure a full analysis of the anticipated maximum project buildout. VTA has granted the applicant the authority to include its parcels in the project description. (It is likely that development on these parcels would be undertaken separately in the future, at the election of VTA.)[11] Also included in the project site are portions of three parcels owned by other entities, over which the project would require access easements. These are:

- The northern "panhandle" reaching the south side of West San Fernando Street at Cahill Street of a parcel owned by Pacific Gas and Electric Company (PG&E) (a portion of Assessor's Parcel Number [APN] 261-35-002 encompassing about 6,125 square feet), over which Cahill Street would be extended south from West San Fernando Street to Park Avenue.[12]
- The easternmost edge of a parcel owned by the Peninsula Corridor Joint Powers Board (Caltrain) (a portion of APN 261-35-030 consisting of about 4,035 square feet), which would also be incorporated into the western edge of the southerly extension of Cahill Street;
- A portion of Caltrans-owned property (no APN; approximately 6,365 square feet) adjacent to SR 87 on the north side of West San Fernando Street, which would provide freight loading access to the easternmost development block within the project site.

The site excludes seven parcels owned by Caltrain, located north of West San Fernando Street and immediately across Cahill Street from Diridon Station. These parcels contain two Caltrain parking lots and a pair of one-way streets, separated by landscaping and walkways, that provide vehicular access to Diridon Station.

2.2.7 Existing Land Uses

The approximately 81-acre project site currently contains approximately 100 individual parcels (the total acreage also includes some public rights-of-way between or adjacent to project parcels). Most of the land being studied as part of the project as described above is owned by the project applicant.

The project site is in an area of Downtown San José that accommodates manufacturing, light industrial, and business service land uses intermixed with limited residential and commercial uses. The built environment of the project site and vicinity is characterized by a pattern of one- and two-story buildings that cover only portions of their lots, with the remaining unbuilt lot space used as surface parking. The total floor area of the buildings currently on the project site accounts for approximately 755,000 square feet; many of the existing buildings, comprising more than one-third of total building space, are vacant.

In all, approximately 40 percent of the project site is devoted to parking lots, a portion of which includes Lots A, B, and C, adjacent to the SAP Center, which provide 1,422 stalls. The site also includes Lot D, south of West Santa Clara Street between South Montgomery and South Autumn Streets, which provides 228 spaces for use by the SAP Center and for daytime public parking; VTA-owned parking lots west of South Montgomery Street; two large parking lots south of West Santa Clara Street on both sides of Delmas Avenue; and several other smaller parking lots, some publicly available and some dedicated to specific retail, restaurant, and other uses.

[11] These parcels are encompassed within project Block D1 (see Figure 2-3).
[12] The southern part of the Cahill Street extension would be over property owned by the project applicant.

In the northern portion of the project site, a variety of light and heavy industrial uses are present, including a food wholesale warehouse, along with one occupied residential property. In the central portion of the project site, immediately north and south of the SAP Center, surface parking lots provide parking for surrounding uses. Adjacent to the surface parking lots south of the SAP Center are a variety of light industrial and commercial uses, a church, and food-related uses. Immediately south of West San Fernando Street is a Pacific Gas and Electric Company (PG&E) substation. South of Park Avenue, existing uses include a San José Fire Department training facility (to be relocated at lease expiration in 2022), retail, and vacant properties.

The project site contains about 480,000 gross square feet (gsf) of occupied building space. The largest occupied commercial land use is a nearly 200,000 gsf warehouse (587 Cinnabar Street) used for wholesale food distribution. The second largest occupied land use is an approximately 120,000 gsf storage facility (501 Cinnabar Street). Together, these two buildings make up about two-thirds of the occupied building space on the project site. Other occupied non-residential establishments include a mix of light industrial, service, restaurant, and retail uses; the above-noted San José Fire Department training center; and a church. Most of these uses are in relatively small buildings, with only four greater than 10,000 square feet in floor area.

Existing employment on the project site, estimated based on occupied land uses as of the date of the NOP, is approximately 650 jobs.[13] The project site contains 11 residential units, but only one is occupied and, according to the project applicant, the occupant has made arrangements to relocate prior to commencement of construction.

2.2.8 Existing and Planned Transportation Facilities

The project site is surrounded by a network of regional transportation facilities, and is in portions of two Priority Development Areas (PDAs) identified by the City and so designated in *Plan Bay Area 2040*, the Bay Area's sustainable communities strategy prepared pursuant to Senate Bill (SB) 375.[14] PDAs are areas of existing communities that city or county governments have identified as locations for future growth. These areas typically have transit access and are often located near established job centers, shopping districts, and other services.[15] The project site is

[13] Employment estimated based on existing land uses and employment densities derived from Strategic Economics, *San José Market Overview and Employment Lands Analysis*, 2016. Prepared for the City of San José Four-Year General Plan Review. Refer to Section 3.11, *Population and Housing*, for more information.

[14] The northern and southern portions of the project site are within the Downtown Frame PDA; the more central area, between West Julian Street on the north and Park Avenue/West San Carlos Street on the south, is within the Greater Downtown PDA. According to the Association of Bay Area Governments, a PDA must be within an existing community, within 0.5 miles of frequent transit, and in an area planned for future housing and job growth (https://abag.ca.gov/our-work/land-use/pda-priority-development-areas). SB 375, enacted in 2008, requires the California Air Resources Board to establish regional GHG emissions reduction targets; links these targets to regional land use and transportation planning through preparation of sustainable communities strategies; and provides for CEQA streamlining for projects consistent with the sustainable communities strategies.

[15] Metropolitan Transportation Commission, Priority Development Areas. Available at https://mtc.ca.gov/our-work/plans-projects/focused-growth-livable-communities/priority-development-areas. PDA map available at http://opendata.mtc.ca.gov/datasets/56ee3b41d6a242e5a5871b043ae84dc1_0. Accessed October 2019.

also in a Transit Priority Area as defined in California Environmental Quality Act (CEQA) Section 21099, meaning that the site is within 0.5 miles of a major transit stop.[16]

The San José Diridon Station, a central passenger rail hub just outside and west of the project boundary, is served by Caltrain, ACE, VTA light rail, and the Amtrak Capitol Corridor and Coast Starlight routes. As of spring 2020, BART service to Diridon Station is anticipated to begin in approximately 2030 as a subsurface extension of the BART line to Berryessa Station in East San José.[17] The Diridon BART station would be located within the project site, underground along the south side of West Santa Clara Street between South Autumn and Cahill Streets across from the SAP Center.[18,19]

The California High-Speed Rail Authority plans to serve Diridon Station as well. The Draft Environmental Impact Statement (EIS)/EIR for that project's San José to Merced Project Section was published in April 2020. The Draft EIS/EIR evaluated four alternatives in addition to a No Project Alternative. Three of the alternatives would entail construction of elevated tracks through the Diridon Station area and an elevated station. The California High-Speed Rail Authority's Preferred Alternative, Alternative 4, envisions at-grade tracks through the Diridon Station area and an at-grade station.[20] The Preferred Alternative, therefore, is inconsistent with the preferred Concept Layout that has been developed through the DISC planning process (discussed immediately below). As acknowledged in the Draft EIS/EIR, "The ongoing multi-agency Diridon Integrated Station Concept (DISC) planning process is a separate planning process and decisions about future changes to the Diridon station and the surrounding, Caltrain-owned rail infrastructure and corridor are the subject of multiple planning and agreement processes that are proceeding independently from this [High-Speed Rail] environmental process."[21]

In conjunction with planning for the BART extension and potential future high-speed rail service, the City of San José, along with the Caltrain, BART, VTA, and the California High-Speed Rail Authority, has initiated the DISC process, as noted above. The DISC planning process is evaluating how to expand and redesign Diridon Station as a world-class transit center that provides intermodal connections and integration with the surrounding neighborhoods. The DISC Plan process does not propose any land use changes, but focuses on station design, including the

16 Metropolitan Transportation Commission, Transit Priority Areas. Available at http://opendata.mtc.ca.gov/datasets/d97b4f72543a40b2b85d59ac085e01a0_0. Accessed October 2019.

17 In April 2020, VTA staff, in a presentation to the authority's board of directors, explained that VTA would likely move forward with a "stacked" configuration, with tracks aligned one on top of the other, for the Downtown San José and Diridon stations, rather than side-by-side station tracks as had originally been analyzed. While this change could have schedule implications, no information on a potential change in operational date for the BART Downtown extension is available as of spring 2020.

18 Santa Clara Valley Transportation Authority, VTA's BART Silicon Valley Phase II Extension Project: Downtown-Diridon Community Working Group presentation, November 12, 2019. Accessed May 2020.

19 Refer to the Introduction to Chapter 3 for a discussion of cumulative projects considered in this EIR.

20 The High-Speed Rail Authority in July 2020 published a Draft EIR/EIS for the San Francisco to San José Project Section of the proposed high-speed rail route. This DEIR/DEIS incorporated the Diridon Station approach analysis from the San José to Merced Project Section DEIS/DEIR and stated that the decisions regarding the Diridon Station approach would be made as part of the latter project's approval process.

21 California High-Speed Rail Authority, *California High-Speed Rail Project, San Jose to Merced Project Section, Draft Environmental Impact Report/Environmental Impact Statement*, April 2020. Available at https://hsr.ca.gov/programs/environmental/eis_eir/draft_san_jose_merced.aspx.

spatial configuration determining how the various track and station elements will fit together and relate to the surrounding neighborhood.

The DISC process initially identified three conceptual layouts for the future Diridon Station: an at-grade station on West San Fernando Street, an elevated station on West Santa Clara Street, and an elevated station near West Stover Street. Through a community input process and ongoing technical work with the partner agencies, a fourth alternative was identified as the preferred "Concept Layout" for the DISC Plan, a preliminary alignment for elevated heavy rail tracks through Diridon Station. In February 2020, the San José City Council and the Caltrain board endorsed the Concept Layout, and the VTA board did so in June 2020.

To maximize rail access and passenger circulation, the Concept Layout includes two concourses: a primary concourse in the north, oriented toward West Santa Clara Street, and a southern concourse, oriented toward West San Fernando Street. Each concourse would have two entrances, one on the east side and one on the west side. The design also proposes public squares directly in front of three of the four station entrances to provide a transition area between the surrounding urban area and the station area. This would include the proposed conversion of Cahill Street within the intermodal hub (between West Santa Clara and West San Fernando Streets) to a non-motorized street. The DISC Concept Layout would facilitate potential at-grade east-west connections beneath the elevated station and tracks, including pedestrian and bicycle access to and through Diridon Station. To accommodate the future growth of passenger rail, the Concept Layout anticipates widening the rail right-of-way north and south of Diridon Station.

The project applicant has been coordinating with the DISC partner agencies so that the proposed project would complement the development of Diridon Station by providing high-density mixed uses that would generate future transit ridership. However, because the DISC Concept Layout was selected after development of the project plan and release of the NOP for this EIR, the proposed project as currently envisioned is not entirely consistent with the Concept Layout.

The preferred Concept Layout is still preliminary: the plans have yet to be finalized or reconciled with the Preferred Alternative for High-Speed Rail, as described above; environmental review (which will include analysis under both CEQA and the National Environmental Policy Act) has not been initiated; no clear timeline exists for construction, although it is anticipated to occur before 2040; and no dedicated funding is currently in place to construct the improvements. In addition, the eventual development of the preferred Concept Layout would require a government agency to acquire property along the existing railroad tracks, a process that has yet to be defined or initiated. Given the early stage of the proceedings, the project description for Diridon Station is not yet stable and it is likely that the final reconfiguration will differ from the Concept Layout.

The project applicant would work with the City and the DISC partner agencies to address the final selected layout, while still meeting the objectives of the proposed project. Standards S4.9.2 (Relationship to DISC and rail corridor), 5.5.5 (Relationship to DISC and rail corridor), and S6.3.4 (Relationship to DISC) of the project's proposed Downtown West Design Standards and Guidelines permit the project applicant to reconfigure development on the site in the event that a DISC partner agency begins proceedings to acquire land within the site boundary to expand the rail right-of-way.

In addition to Caltrain, ACE, VTA, and Amtrak, numerous bus lines serve Diridon Station: local and express VTA bus lines, Monterey-Salinas Transit, Santa Cruz Metro, Amtrak Thruway Bus, Greyhound Lines, Megabus, and private shuttles.

State Route (SR) 87 is adjacent to the easternmost portion of the project site; Interstate 280 is one block south of the southern project site boundary; and Interstate 880 is slightly less than 1 mile northwest of the site's northern boundary. Norman Y. Mineta San José International Airport (Airport) is also slightly less than 1 mile north-northwest of the northern site boundary. The SAP Center sports and entertainment venue is located on West Santa Clara Street immediately east of the project site.

2.2.9 Existing Land Use Context

In addition to the commercial uses, SAP Center, and transportation facilities as described above, the vicinity of the project site has several established residential neighborhoods: Autumn-Montgomery to the northeast; Delmas Park (including Lakehouse, Park/Lorraine, and Auzerais/Josefa), Gardner, and North Willow Glen to the southeast; Garden Alameda, St. Leo's, Midtown, and Shasta–Hanchett Park to the west; and the Horace Mann, Hensley, and Market Almaden neighborhoods east of SR 87.

2.2.10 Existing Public Facilities

The closest public elementary school to the project site is Gardner Elementary School at 502 Illinois Avenue, in the Willow Glen neighborhood just south of Interstate 280, about 0.25 miles southeast of the project site. Portions of the project site are within the attendance boundaries for Horace Mann and Grant Elementary Schools.

The closest public middle and high schools are Herbert Hoover Middle School and Abraham Lincoln High School, each about 1 mile west of the site, in the Rose Garden neighborhood. Portions of the project site are within the attendance boundaries for Muwekma Ohlone Middle School and San José High School. Santa Clara County Community School, a Santa Clara County Office of Education collaborative community day school for high-school age students, is located at 258 Sunol Street, 0.2 miles west of the project site.

The closest San José fire stations are Station 30 at 454 Auzerais Avenue, 0.25 miles east of the project site; Station 1 at 225 N. Market Street, 0.5 miles northeast of the site; and Station 7 at 800 Emory Street, 0.5 miles northwest of the site. The project site is within the San José Police Department's Central patrol division.

The City parks closest to the project site include Cahill Park, on West San Fernando Street just west of Diridon Station (about 500 feet west of the project site); Guadalupe River Park, and its Arena Green, immediately across West Santa Clara Street from the project site's easternmost extent (about 100 feet from the site); Del Monte Park, about 550 feet southwest of the project site at Auzerais Avenue and Los Gatos Creek; John P. McEnery Park, south of West San Fernando Street and immediately east of SR 87 from the site's easternmost extent (about 275 feet east of the project site); and portions of the linear Guadalupe River Park, which are as close as 100 feet

east of the site. There are also trail systems along both Los Gatos Creek and the Guadalupe River, portions of which are existing and parts of which have yet to be developed.

The closest public library to the project site is the main Dr. Martin Luther King Jr. Library at South Fourth and East San Fernando Streets, about 0.75 miles east of the site. The Rose Garden Branch Library is about 1.25 miles west of the project site.

2.3 Development Program

The proposed project would include a mix of primarily office and residential land uses across the approximately 81-acre project site. Other "active" uses, such as retail (including restaurants), arts, cultural, live entertainment, childcare/educational, institutional facilities, maker spaces, non-profit organizations, and small-format offices, would generally occupy ground or second-floor spaces in mixed-use and stand-alone buildings.[22] Some office amenities such as gyms and cafes at the ground or upper floors may also be made available for limited public use. The project would also include one or more hotel uses, limited-term corporate accommodations, and event/meeting space; new parks and open spaces; and changes to the local street network and improvements to the trail system that are intended to improve circulation and access within the project site for all modes. In addition, the project applicant intends to include on-site "district" utility systems for most on-site buildings. Notably, these systems include thermal heating and cooling, power distribution via a microgrid, and district water reuse facility(s) that would treat wastewater and provide recycled water to the project, employing up to two central utility plants located in up to two infrastructure zones. The infrastructure zones would also include up to two on-site logistics centers.

Under current site planning assumptions, the project applicant anticipates that development on the project site could ultimately entail adding about 65 new buildings. About 70 percent of these buildings would be high-rise structures, as defined in the California Building Code; that is, they would have an occupied floor level greater than 75 feet above grade.[23] (Refer to Section 2.5, *Building Heights*, for a discussion of proposed height limits on the project site.)

For the proposed project, the applicant is proposing site-specific Downtown West Design Standards and Guidelines that would govern development on the project site, excluding the portion of the project site currently owned by VTA at the southeast corner of West Santa Clara and Cahill Streets (Block D1 on Figure 2-3). These enforceable standards and advisory guidelines, provided in draft form Appendix M, would be considered for approval as part of the City Council's deliberations on the Planned Development Permit. The site-specific Downtown West Design Standards and Guidelines would specify which of the City's existing Downtown Design Guidelines and Complete Streets Design Standards and Guidelines continue to apply to the project and which are superseded or modified by the project's site-specific Downtown West Design Standards and Guidelines (refer to Section 2.12, *Downtown West Design Standards and Guidelines*, for additional information).

[22] Childcare facilities are proposed to be located in residential buildings on Blocks H2 and H3.

[23] This is the height for a typical, non-specialized building that triggers the Building Code requirement for backup electrical power (generally, a diesel generator) for emergency operation (California Building Code Section 2702.2.11).

Table 2-1 shows the total development program for the proposed project and **Figure 2-3** presents the proposed land use plan of primary uses. (On Figure 2-3, blocks are alphanumerically identified for reference, from north to south.) As shown, the proposed project would provide up to 7.3 million gsf of office space; up to 5,900 residential units; up to 500,000 gsf of active uses; up to 300 hotel rooms; and up to 800 rooms of limited-term corporate accommodations.[24] In addition, up to two event and conference centers would occupy a total of approximately 100,000 gsf and would accommodate events hosted or sponsored by the project applicant, with a maximum total capacity of approximately 2,000 attendees.[25] The active uses would be located primarily on the ground or second floors of mixed-use or stand-alone buildings throughout the site as well as within pavilions, kiosks, and program decks located in the open spaces; these uses would include one or more indoor live entertainment venues in the central portion of the site, as described in Section 2.3.8, *Central Area of the Project Site (West Santa Clara Street to Park Avenue—Blocks D, E, and F)*.

As part of the project's residential uses, affordable housing is planned to be delivered consistent with the MOU, which states that the project applicant and the City of San José "as a goal but not a requirement, strive for 25 percent of the housing developed in the Diridon Station Area to be affordable housing with a mix of affordability levels …"

The on-site central utility plants would be located within the infrastructure zones, as denoted on Figure 2-3: one zone in the southwest portion of the site and the other, if needed, in the northern portion of the site. The central utility plants would occupy a total of approximately 130,000 gsf. For the purposes of construction phasing, the project may also provide temporary thermal service at blocks with a connection to the central utility plants replacing the temporary service when appropriate. The infrastructure zones would also accommodate the logistics centers for the project. There would be one logistics center in each of the northern and southern zones to service the project, occupying a total of approximately 100,000 gsf.

The project proposes to provide up to 4,800 publicly accessible commercial parking spaces in below-ground parking structures of up to three levels, as well as above grade in a limited number of the office structures. Some of the commercial parking could be provided using mechanical parking stackers, which permit the floor area of a single parking space to accommodate more than one vehicle. Up to about 2,360 unbundled parking spaces would be available for the proposed project's residential uses, and would be provided in either below-ground or above-ground parking structures; a portion of these residential spaces could be available for shared parking by project office employees.[26] Provision of on-street parking is also proposed. It is currently anticipated that all parking for commercial uses would be provided on-site; however, if additional public parking becomes

[24] In accordance with the project's proposed General Development Permit, limited-term corporate accommodations would provide short-term lodging for a company workforce, for no more than 60 consecutive days per individual. These accommodations, considered a non-residential use under the Municipal Code, would accommodate Google employees typically visiting the site or newly relocated to the area. These accommodations would not be open to the public. These accommodations could occur as stand-alone uses or as part of mixed-use buildings.

[25] The development program includes approximately 1.04 million gsf of commercial space and 325 residential units previously approved as part of the Delmas Mixed-Use Development Project on the former San Jose Water Company site south of West Santa Clara Street, east and west of Delmas Avenue.

[26] "Unbundled" parking refers to residential parking that is available as an option to residents, but the cost of which is not included in either the purchase price or the monthly rental fee for a residential unit.

TABLE 2-1
PROJECT DEVELOPMENT PROGRAM

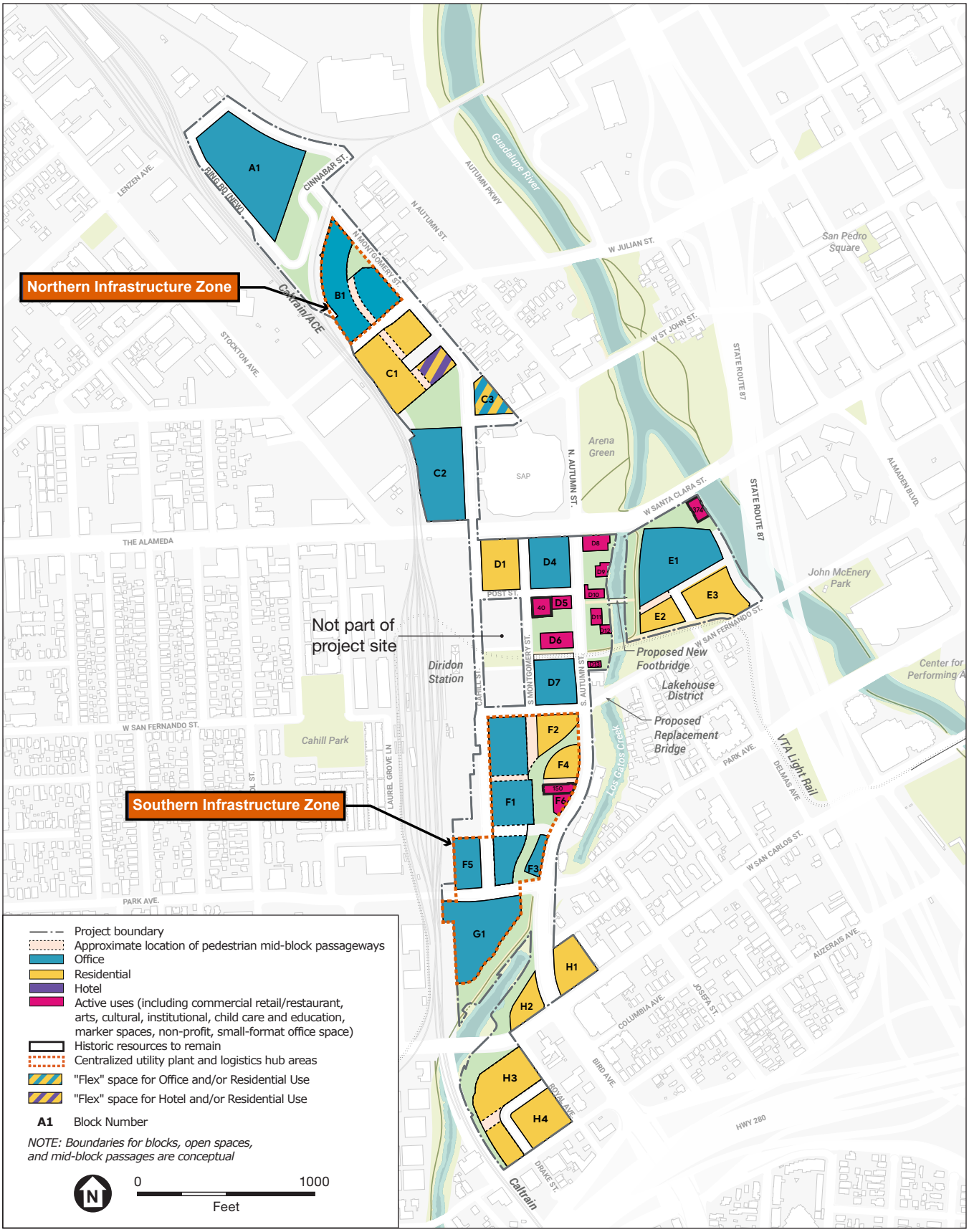
Development Program	Proposed Project
Land Uses	
Residential[a]	Up to 5,900 dwelling units
Active Uses (Retail, Restaurant, Arts, Cultural, Live Entertainment, Institutional, Childcare and Education, Maker Spaces, Non-profit, Small-Format Office)	Up to 500,000 gsf
Hotel	Up to 300 rooms
Limited-Term Corporate Accommodation	Up to 800 rooms
Office	Up to 7.3 million gsf
Event/Conference Centers	100,000 gsf
Central Utility Plants (District Systems)	Up to 130,000 gsf
Logistics/Warehouse(s)	100,000 gsf
Parking and Loading	
Public/Commercial Parking (above and below grade)[b]	Up to 4,800 spaces
Residential Parking (above and below grade)	Up to 2,360 spaces
Total Automobile Parking Spaces	***Up to 7,160 spaces***
Bicycle Parking	3,292 spaces at a minimum
Open Space	
Open Space[b]	Approx. 15 acres

NOTES:
gsf = gross square feet
[a] The percentage of affordable housing units will be determined as part of the project's Development Agreement, to be negotiated by the City and the applicant.
[b] Includes a portion of the residential spaces could be available for shared use by office employees. Some commercial parking could also be provided at off-site location(s), should such off-site parking be developed separately from the project in the future.
[b] Open space includes all parks, plazas, green spaces, landscaping, mid-block passages, and riparian buffers and stormwater treatment zones.
SOURCE: Downtown West Design Standards and Guidelines, September 2020 (Appendix M of this EIR); Table 1.1

available in the vicinity of the project site in the future, the project applicant may elect to rely on such parking among its strategies to meet commercial parking demands. If such off-site parking is proposed in the future, it would be subject to separate environmental analysis as appropriate.

The proposed project would also create a total of approximately 15 acres of parks and open space in parks and plazas, including areas for outdoor seating and commercial activity (such as retail, cafes, and restaurants), green spaces, landscaping, mid-block passages, riparian setbacks, and trails. The project would provide various improvements to public areas such as sidewalk improvements, plazas, and new street trees; in total, the project applicant estimates that approximately 2,280 new trees would be planted throughout the site.[27] These improvements would be intended to improve pedestrian spaces and enhance connectivity to regional transit

[27] Proposed open space improvements on the site are discussed in Section 2.6, *Parks and Open Space*, where an open space plan is provided. For additional detail, refer to Chapter 4, *Open Space*, of the Downtown West Design Standards and Guidelines in Appendix M.



SOURCES: Google LLC and SITELAB urban studio, 2020

Downtown West Mixed-Use Plan

NOTE: This figure indicates primary land uses but some residential and office buildings may also include active uses and/or limited term corporate accommodations.

Figure 2-3
Proposed Land Use Plan

available in the immediate vicinity (Caltrain, ACE trains, planned BART service, and proposed high-speed rail); enhance local pedestrian circulation; and improve bicycling linkages to Downtown San José, adjacent neighborhoods, and regional trails for residents and visitors.

Development would occur in three phases, conservatively assumed to occur between 2021 and 2031. Refer to Section 2.13, *Project Construction and Phasing*, for additional phasing detail.

Many of the existing buildings on the project site would be demolished, with demolition to occur in phases as each portion of the project is developed. (It is therefore assumed that some existing uses on the project site could continue operations well beyond the start of the project's first phase.) The project applicant proposes to retain three buildings identified as historic architectural resources (refer to Section 3.3, *Cultural Resources and Tribal Cultural Resources*), including 374 West Santa Clara Street (historic San Jose Water Works); 40 South Montgomery Street (historic Kearney Pattern Works and Foundry); and 150 South Montgomery Street (San José Taiko/historic Hellwig Ironworks).[28] The applicant proposes to relocate the 40 South Montgomery Street building approximately 30 feet south of its current location to allow for the project's proposed one-block extension of Post Street (refer to Section 2.7.1, *Changes to the Street Network*). An addition to the east of this building (designated Block D5) would demolish the non-historic portions of the former Kearney Pattern Works and Foundry that front South Autumn Street and redevelop that portion of the site with new construction.

The project calls for expansion and adaptive reuse of the 150 South Montgomery Street building to accommodate new arts and cultural use. According to the project applicant, the proposed alterations would build on the characteristics of the existing building, such as its brick construction, angled roof, and orientation, and construct a contemporary addition to create an iconic new center at the heart of the project site, adjacent to a newly proposed open space, The Meander. This would be accomplished through a vertical addition above and horizontal building addition south of the structure; the latter is designated Block F6. The project's Downtown West Design Standards and Guidelines (refer to Section 2.12, *Downtown West Design Standards and Guidelines*) require that this expansion be limited in size to no more than the building's existing square footage (i.e., approximately 8,500 square feet). Any vertical addition would not exceed one additional story and any horizontal addition(s) would not be taller than one story and would be set back 30 feet from the west façade of the original structure. The Downtown West Design Standards and Guidelines would require that new development on the blocks west of 150 South Montgomery Street maintain a minimum separation of 60 feet from the west façade of the building, and that development on the block to the north must maintain a minimum separation of 20 feet from the building's north façade.[29]

[28] The building at 374 West Santa Clara Street is a City Landmark and is eligible for listing in the California Register of Historical Resources and the National Register of Historic Places. Each of the other two buildings is a Candidate City Landmark; 40 South Montgomery Street is also eligible for listing in the California Register of Historical Resources and the National Register of Historic Places.

[29] As discussed in Section 3.3, Cultural Resources and Tribal Cultural Resources, these alterations would not be consistent with the Secretary of the Interior's Standards for the Treatment of Historic Properties.

The San Jose Water Company building (374 West Santa Clara Street), a designated City Landmark, has previously been approved for adaptive reuse and is anticipated to be renovated for commercial use as part of the project.[30] No physical expansion of the San Jose Water Company building is proposed. As part of the project, the applicant proposes a Historic Landmark Amendment that would alter the legal description of, and the land included in, the landmark designation to encompass only the building itself and the associated transformer house, which is a contributor to the landmark designation.[31,32] No historical resources are located in the area that would be excluded from the revised landmark boundary.

Similarly, the project applicant proposes a Historic Landmark Amendment that would alter the legal description of, and the land included in, the City Landmark including the former Southern Pacific Depot (now Diridon Station) district, because the existing landmark boundary encompasses small portions of the project site in two locations: north of West Santa Clara Street and south of West San Fernando Street. No historical resources are located in the area that would be excluded from the revised landmark boundary.[33]

The applicant also proposes to retain some existing non-historic small-scale industrial structures on South Autumn Street. Buildings would be retained, rehabilitated, renovated, or rebuilt, and ultimately reoccupied with new uses.

In addition to the primary land uses described within this section, the project applicant may use portions of the project site, including existing buildings, for interim uses pending the project's phased development. These interim uses could include surface parking, arts studios, arts production, arts programming, retail, food and beverage, maker spaces, urban agriculture, creative and small-scale offices, event spaces, community uses, recreation, and entertainment uses, many of which would be accommodated within existing structures or new temporary structures. Such uses are permitted on the project site in accordance with the San José Municipal Code and the Planned Development zoning, and would not necessarily require use-specific CEQA review; rather, they could potentially be approved on a ministerial, non-discretionary basis, subject to compliance with the Planned Development zoning and applicable provisions of the Municipal Code and Building Code. Other interim uses could potentially require discretionary approvals and would therefore be subject to subsequent environmental review. Because no such uses are currently proposed, they are not considered in the analyses in this EIR. In general, such interim uses could be undertaken by the applicant, in accordance with the proposed Planned Development Zoning standards, if the duration of such uses did not interfere with the development and final buildout of the project.

30 Previously permitted non-structural interior demolition and hazardous materials abatement at this building was being undertaken as of publication of this Draft EIR.

31 The proposed boundary change is described in Section 3.3, Cultural Resources and Tribal Cultural Resources, and depicted on Figure 3.3-4, therein.

32 A previously approved historic preservation permit to allow demolition of non-historic structures on the San Jose Water Company site (File No. HP16-002) and relocation of the historic transformer house remains valid and the City has extended this permit to May 2021 (Case No. HPAD20-007). The applicant has also received a Historic Preservation permit adjustment to allow exterior alterations to the San Jose Water Company Building, including installation of new and replacement windows (File No. HPAD20-006).

33 The proposed boundary change is described in Section 3.3, Cultural Resources and Tribal Cultural Resources, and depicted on Figure 3.3-5, therein.

Temporary uses are also contemplated on the site, and are considered short-term transitory uses that may occur on the property at any time (prior to, during or after construction of the proposed project). Permitted temporary uses are described in the proposed Planned Development zoning and would be subject to compliance with conditions required by the Planned Development zoning and applicable provisions of the Municipal Code and Building Code.

2.3.7 Northern Area of the Project Site (North of West Santa Clara Street—Blocks A, B, and C)

Under the proposed project, commercial office would be the primary land use in the northern portion of the site, from its boundary along Lenzen Avenue to West Santa Clara Street to the south (Blocks A1, B1, C2, and C3 on Figure 2-3). Housing would be constructed on the majority of Block C1 south of West Julian Street. Block C3 and the southeastern portion of C1 may include hotel or residential uses, and limited-term corporate accommodations could also be developed. The southern edge of Block C1 would front on an open space that would be situated northwest of the SAP Center, west of a newly extended Cahill Street and north of Block C2. (Proposed open spaces are described in detail in Section 2.6, *Parks and Open Space*.) This area of the project site would also accommodate the Northern Infrastructure Zone.

2.3.8 Central Area of the Project Site (West Santa Clara Street to Park Avenue—Blocks D, E, and F)

The central portion of the project site near Diridon Station, between West Santa Clara Street to the north and Park Avenue to the south, would contain office, residential, and active uses, along with limited-term corporate accommodations, each in various locations, intended to function as a destination and vibrant focal point for the project area. The area's development would be pedestrian-focused and anchored by South Montgomery and South Autumn Streets, which would contain a variety of active civic-oriented uses. As noted above, some of these uses would be housed in buildings retained and repurposed (on several of the Block D sites) to accommodate arts and cultural uses, educational and institutional uses, and retail and restaurant establishments among residential buildings.

In this central zone, the project proposes enhanced landscaping and improved open space amenities and access along Los Gatos Creek east of South Autumn Street and between buildings on Blocks F1, F2, F3, F4, and F6. Residential uses in this area would be developed at West Santa Clara and Cahill Streets (Block D1); south of West San Fernando Street and west of South Autumn Street (Blocks F2 and F4); and on the southern portion of the project site's easternmost area, adjacent to the Guadalupe River, north of the VTA light rail line between Los Gatos Creek and the Guadalupe River (Blocks E2 and E3).[34]

[34] The site's easternmost residential development would represent a reconfiguration and modification of a previously approved mixed-use project on the former San Jose Water Company site (Blocks E1, E2, and E3 of the current project), which permitted up to 1.04 million gsf of commercial space, including approximately 994,000 gsf office and 31,000 gsf retail space, and 325 multi-family attached residences (File Nos. PDC15-051, PD15-061, PT16-012, and HP16-002). The previous project no longer is being pursued as a separate project; instead, the property is

Event centers that would be primarily for applicant use are also proposed in the central area of the site, anticipated to be located on Blocks E1 and F1. The proposed facilities would accommodate a variety of functions hosted or sponsored by the project applicant, such as product launches/announcements, corporate meetings, conferences, seminars, small conventions, and screenings year-round. The venues would include flexible spaces to accommodate varying configurations for different event types. It is anticipated that most event center activity would consist of corporate events that would occur primarily during the daytime hours, although evening events would occur occasionally, and events would occasionally be open to the public. Together, the event center uses are anticipated to be able to accommodate up to a total of 2,000 visitors or attendees.

In addition to the event centers largely reserved for applicant use, the project would include one or more publicly accessible, indoor live entertainment venues in the project's central area. The venue(s) would likely be on Blocks D4, D5, and/or D6. The venue(s), which could include live music, would operate 5 to 6 days per week, with anticipated daytime events (11 a.m.–3 p.m.) held Wednesday through Sunday and nighttime events (7–11 p.m.) held Thursday through Saturday. There could be up to about 15 events per week. The venue(s) would total, in aggregate, up to 12,000 gsf, with a maximum (aggregate) capacity of approximately 500. This 12,000 square feet of floor area would be encompassed within the project's previously described total of 500,000 gsf of active use space.

This area of the project site would also accommodate the Southern Infrastructure Zone.

2.3.9 Southern Area of the Project Site (South of Park Avenue—Blocks G and H)

The project proposes mostly residential buildings south of Park Avenue, with office use limited to Block G1. Residential development proposed south of Los Gatos Creek is envisioned as creating continuity with the existing adjacent residential neighborhoods. This area of the site could also accommodate limited-term corporate accommodations. Access along Los Gatos Creek would be enhanced in the southern zone, and open spaces in this area would be adjacent to the creek. New buildings adjacent to the riparian corridor would be set back in compliance with the City Council's Riparian Corridor Protection and Bird Safe Design Policy (Policy 6-34) as it relates to Downtown sites.[35]

incorporated into the project site and would be developed with residential uses as part of the project. This EIR analyzes all potential impacts associated with development of the former San Jose Water Company site. However, the previously issued permit for demolition of non-historic elements of the San Jose Water Company site remains valid and has been extended to May 2021 (File No. HPAD20-07).

35 In general, Policy 6-34 requires that new buildings be set back 100 feet from the dripline of riparian vegetation or top of bank, whichever is greater, but lesser setbacks may be permitted Downtown, including the project site. (Policy 6-34's bird-safe design applies only north of SR 237.) With respect to Los Gatos Creek, the project proposes 50-foot setbacks. Consistent with the previously approved project on the former San Jose Water Company site, the project proposes a 30-foot setback from the top of the channel wall along the Guadalupe River at that location. Pedestrian-only paths are permitted at the top of bank and "may enter Riparian Corridor where necessary for continuity," according to Policy 6-34. Multi-use trails (pedestrian/equestrian/bicycle trails) along natural channels are permitted within 10 feet of the riparian corridor. Interpretive nodes, paths, stream crossings are not subject to the setback requirement.

2.3.10 Parking

As described below, the project proposes reduced parking in accordance with the City of San José Municipal Code, Section 20.90.220 (Reduction in Required Off-Street Parking Spaces), Section 20.70.330 (Reduction of Requirement for Off-Street Parking in Downtown), and Section 20.120.510 (General Development Plan Requirements).

Municipal Code Section 20.90.220 allows the off-street parking requirement to be reduced by up to 50 percent for any project, such as the proposed Downtown West project, that meets all of the following criteria:

- Located within 2,000 feet of a proposed or an existing rail station or bus rapid transit or a growth area designated in the General Plan;
- Provides the required number of bicycle parking spaces to meet Municipal Code Section 20.90.060; and
- Provides a robust Transportation Demand Management (TDM) program that includes either transit incentives or a carpool/vanpool/carshare program and at least two additional TDM strategies from among 14 options presented in the code.

The proposed project would meet the requirements of Section 20.90.220. It would be located within 2,000 feet of an existing rail station as well as within a growth area designated in the General Plan. It would provide the Code-required number of bicycle parking spaces, at a minimum, and would be required to implement a Transportation Demand Management program. Refer to Section 2.7.4, *Transportation Demand Management*, for discussion of the TDM program.

Municipal Code Section 20.70.330 states that the Director of Planning, Building and Code Enforcement may grant a Downtown development up to a 15 percent reduction in parking requirements if the project provides a TDM program that incorporates specified strategies such as VTA's SmartPass (an employer-paid commute pass, formerly known as Eco Pass), parking cash-out, alternate work schedules, ridesharing, transit support, carpool/vanpools, shared parking, or any other reasonable measures; and if the project demonstrates that it can maintain a TDM program for the life of the project. In general, the 15 percent reduction in parking requirements is in addition to the 50 percent reduction noted above. With these reductions, the proposed project would be required to provide 0.425 off-street parking spaces per residential unit, 1.06 spaces per 1,000 square feet of office space, and 0.15 spaces per hotel room.[36] This would total a requirement of 10,290 total off-street spaces (7,782 commercial spaces and 2,508 residential spaces).

However, Municipal Code Section 20.120.510 allows custom development standards, including standards related to required parking ratios, under the Planned Development rezoning process, so the City may approve projects in planned development zoning districts with less parking than the amounts allowed under Municipal Code Sections 20.90.220 and 20.70.330.

[36] James Han, Project Manager, San José Planning, Building, and Code Enforcement, letter to Alexa Arena, Google LLC, November 8, 2019. Available at https://www.sanjoseca.gov/home/showdocument?id=44992. Accessed May 10, 2020.

As illustrated in Table 2-1, the project proposes up to 4,800 above- and below-grade spaces for public and/or commercial use, and up to approximately 2,360 unbundled (and therefore not assigned to specific users) spaces for residential uses in either below-grade or podium structures, for a total of 7,160 spaces.[37] Some commercial parking could also be provided at off-site location(s), should such off-site parking be developed separately from the project in the future. In addition, a portion of the residential parking spaces could be designated as shared spaces, meaning that they could be used by office employees when not occupied by residential users. Shared parking is based on the concept of using the same parking spaces for two or more land uses, at different times of the day. It operates on the principal that peak parking demand occurs at different times for different land uses, not unlike travel demand. For example, parking facilities serving primarily office users are typically at very low occupancy on weekends and in the evening, which is typically the period of peak demand for residential uses. These complementary patterns of parking demand can allow the same parking space to serve multiple uses, making shared parking more efficient than parking facilities dedicated to a single land use. This can reduce the total number of spaces needed to serve a combination of uses, compared to single-use parking serving the same uses. Shared parking can reduce overall parking demand of a mix of uses by 10 to 20 percent in most cases, and potentially by 50 percent or more.[38] The project would therefore meet a minimum of 94 percent of the residential parking requirement. However, the project would provide only about 62 percent of the non-residential parking spaces typically required by the Municipal Code.[39] As noted, the Planned Development Zoning may allow for a reduced parking requirement, which the applicant has requested. Electric vehicle charging stations amounting to 10 percent of the total number of parking spaces provided (increasing to 15 percent with Mitigation Measure AQ-2g incorporated) would be installed on the project site in underground or above-ground parking structures.[40]

The project would provide at least 3,292 bicycle parking spaces: 1,552 for the office uses, 1,475 for the residential uses, and 265 for the remaining land uses, as required by the Municipal Code.

2.3.11 LEED Certification

The project applicant proposes that the project meet the Leadership in Energy and Environmental Design for Neighborhood Development (LEED ND) Gold rating (refer to Section 2.13, *Project Construction and Phasing*). The project applicant has further committed to constructing all office buildings to LEED Gold standards. At a minimum, all new construction over 10,000 square feet is required to meet the City's New Construction Green Building Requirements.

---

37 Depending on where below-grade parking structures are located relative to the Federal Emergency Management Agency (FEMA)–designated 100-year floodplain, flood-proofing of garages may be required.

38 Metropolitan Transportation Commission, *Value Pricing Pivot Parking Regional Analysis: Research, Findings, and Policy Recommendations*, September 2015. Available at https://mtc.ca.gov/sites/default/files/VPP%20Parking%20Regional%20Analysis%20Sept.%202015.pdf; and San Diego Association of Governments, *Parking Strategies for Smart Growth: Planning Tools for the San Diego Region*, June 2010. Available at https://www.sandag.org/uploads/publicationid/publicationid_1499_11603.pdf. Accessed August 27, 2020.

39 Residential parking: 2,360 spaces provided ÷ 2,508 spaces required = 94 percent; non-residential parking: 4,800 spaces provided ÷ 7,782 spaces required = 62 percent

40 Electric vehicle charging stations were estimated as 10 percent of the total planned parking spaces (including 10 percent of commercial/public spaces and 10 percent of residential spaces) pursuant to the City of San José's Reach Code ordinances, which require a minimum of 10 percent of parking spaces be equipped for electric charging.

2.4 Land Use Designations and Zoning Districts

2.4.7 Existing General Plan and Diridon Station Area Plan Designations

The existing General Plan and DSAP land use designations are the same except for the site of a Major League Baseball ballpark contemplated in the DSAP. (The General Plan shows this site as Commercial Downtown.)

Northern Area of the Project Site (North of West Santa Clara Street)

The area extending from the site's northern boundary at Lenzen Avenue south to West Julian Street is currently designated Transit Employment Center in the General Plan's Land Use/Transportation Diagram. This General Plan designation is intended for areas planned for intensive job growth because of their importance as employment areas and the extensive availability of transit and other facilities and services. The Transit Employment Center land use designation permits commercial/office development with a floor area ratio (FAR)[41] of up to 12.0, but generally does not allow residential development.

The area from West Julian Street south to West Santa Clara Street (currently parking lots adjacent to the SAP Center) currently has a General Plan designation of Public/Quasi-Public. This designation is generally applicable to public land uses, including parking, schools, colleges, corporation yards, homeless shelters, supportive housing for the homeless, libraries, fire stations, water treatment facilities, convention centers and auditoriums, museums, governmental offices, and airports, along with certain private entities such as hospitals that provide services to the public.[42]

Central Area of the Project Site (West Santa Clara Street to Park Avenue)

The existing General Plan land use designation west of Los Gatos Creek is Commercial Downtown, which allows for high-intensity office, hotel, retail, service, and entertainment uses in Downtown, consistent with other Downtown uses, but indicates locations where residential uses are not appropriate. The maximum permissible FAR in the Commercial Downtown district is 15.0.

The portion of the site that extends east of Los Gatos Creek has an existing designation of Downtown, which permits high-density office, retail, service, residential, and entertainment uses (described further in Section 2.4.8, *Proposed Changes to General Plan Land Use and Diridon Station Area Plan Designations*).

[41] FAR represents the ratio of a building's gross floor area to the net square footage of the lot on which the building stands. For example, a 4-story building that occupies 100 percent of its lot would have a FAR of 4.0, while a 21-story building that occupies two-thirds of its lot would have a FAR of 14.0. The calculation of FAR includes above-ground structured parking. However, for residential parcels, the FAR does not include the square footage of accessory structures, garages, attics, and basements.

[42] There is no FAR or density limit under the Public/Quasi-Public land use designation.

Southern Area of the Project Site (South of Park Avenue)

In the southern portion of the project site, the 6.15-acre location of the San José Fire Department training center (to be relocated as described in Section 3.12, *Public Services and Recreation*), between Park Avenue and Los Gatos Creek, is designated in the General Plan as Open Space, Parklands, and Habitat. This General Plan designation is applicable to publicly or privately owned areas that are intended for low-intensity uses. Lands in this designation are typically devoted to open space, parks, recreation areas, trails, habitat buffers, nature preserves, and other permanent open space areas.[43] South of Los Gatos Creek, the existing land use designation is Combined Industrial/Commercial, which permits a mix of commercial and industrial uses at a FAR up to 12.0 but generally does not allow residential uses. The project area east of Bird Avenue is designated as Downtown to match the zoning of the greater Delmas Park neighborhood in the DSAP.

2.4.8 Proposed Changes to General Plan Land Use and Diridon Station Area Plan Designations

Implementing the project's proposed land use program would require that the City amend the General Plan and DSAP land use designations for parts of the project site, particularly in the northern and southern areas (north of West Santa Clara Street and south of Park Avenue, respectively). To accommodate the proposed project, changes would be made to both documents for internal consistency.[44]

The project applicant proposes that the entire project site be designated in both the General Plan and the DSAP with a combination of Downtown and Commercial Downtown, with the latter in locations where the project contemplates only commercial use. The Downtown land use designation allows office, retail, service, residential, and entertainment uses, with a maximum residential density of 800 units per acre and a maximum FAR of 30.0. The Commercial Downtown land use designation allows the same uses as Downtown, with a maximum FAR of 15.0, but does not permit residential.

According to the General Plan, redevelopment should be "at very high intensities, unless incompatibility with other major policies within the Envision General Plan (such as Historic Preservation Policies) indicates otherwise." New development should serve as a transition to adjacent lower-intensity residential areas, where present, and "all development "should enhance the 'complete community' in downtown, support pedestrian and bicycle circulation, and increase transit ridership." Residential projects should generally incorporate ground-floor retail space. In

[43] The DSAP identifies this site as the future location of a new community park if the training center were to be relocated elsewhere in the city.

[44] In 2017, the City amended the General Plan to modify the boundary of the Midtown Specific Plan to eliminate the overlap between the Midtown Specific Plan boundary and the Diridon Station Area Plan (GP17-011/GPT17-005; approved November 28, 2017 [Resolution 78427]). The General Plan amendment shifted the eastern boundary of the Midtown Specific Plan between West San Carlos and West Santa Clara Streets westward to the Caltrain tracks such that all properties within the Diridon Station Area Plan are located within its boundary and not within the Midtown Specific Plan. Prior to the project applicant obtaining project approvals, the City anticipates processing conforming amendments to the Midtown Specific Plan to align the boundary shown in the Midtown Specific Plan with the General Plan.

addition, the Downtown Design Guidelines speak to the urban, pedestrian-oriented nature of this area. **Figure 2-4** depicts the proposed changes to the land use diagram.

Regarding the existing Open Space, Parklands, and Habitat land use designation for the San José Fire Department training center site, the project does not contemplate a community park in this location. However, a total of approximately 15 acres of parks and open space—in parks and plazas, including areas for outdoor seating and commercial activity (such as retail, cafes, and restaurants), green spaces, landscaping, mid-block passages, riparian setbacks, and trails—would be designated throughout the project site in the Planned Development zoning for the project. The MOU anticipates the re-designation of this site for a non–open space use as long as the total amount of open space identified in the amended DSAP does not decrease.

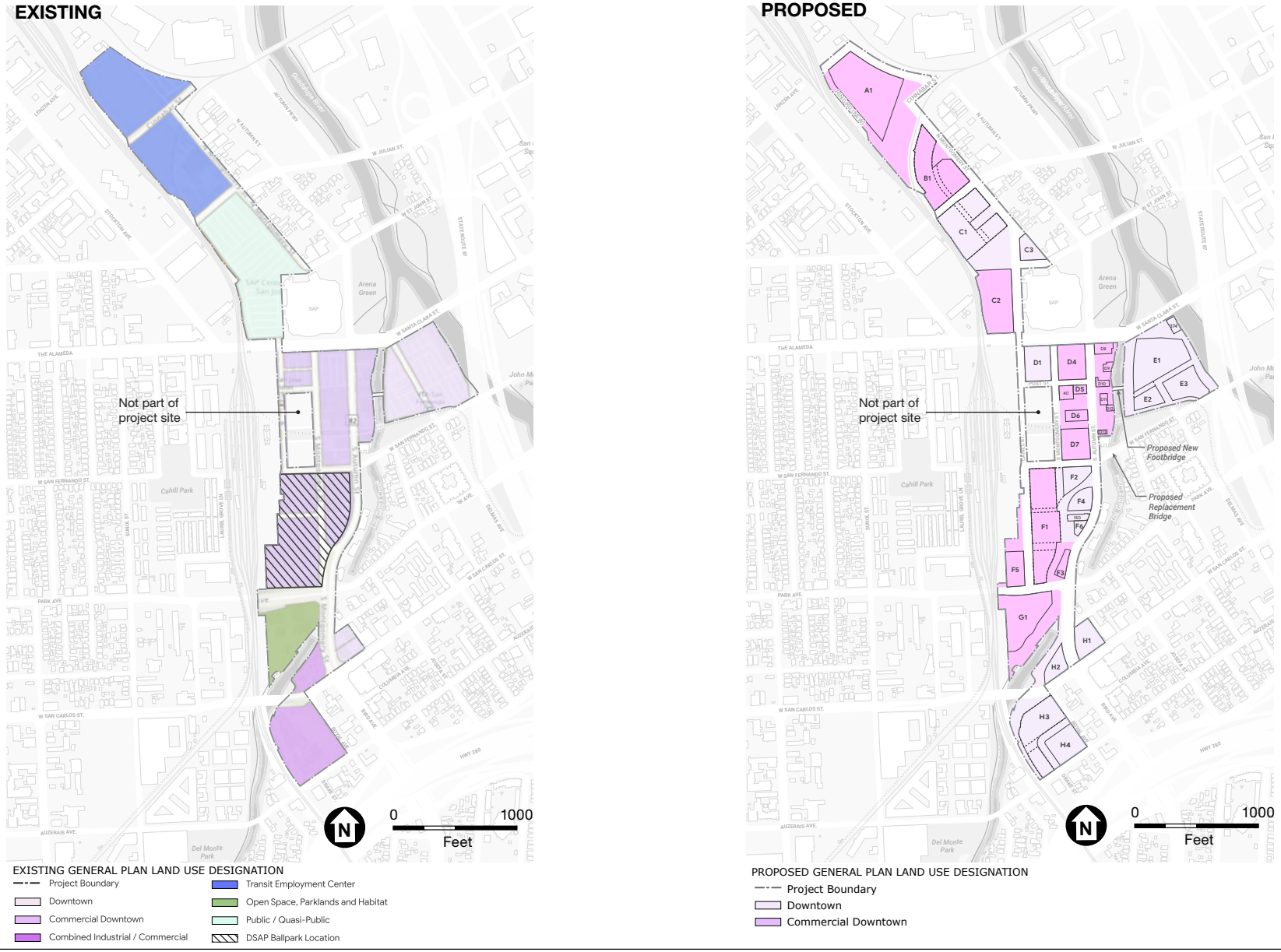
As explained in Section 2.1.8, *Planning Context*, the City is currently updating the DSAP; however, this EIR analyzes the physical effects of several project-specific amendments to the DSAP and the General Plan that the project applicant is seeking as part of the proposed project.

2.4.9 Proposed Changes to the General Plan Transportation Network Diagram

Portions of many streets in the project area are currently assigned various typologies in the General Plan Transportation Network Diagram: Grand Boulevards, On-Street Primary Bicycle Facilities, Main Streets, City Connector Streets, and Local Connector Streets (**Table 2-2**). Under the proposed project, South Montgomery Street would be re-designated from a Grand Boulevard to a Main Street from West Santa Clara Street to West San Fernando Street. The following streets would be vacated under the proposed project, necessitating removal from the General Plan Transportation Network Diagram: a portion of North Montgomery Street just north of the SAP Center; Delmas Avenue between West Santa Clara Street and West San Fernando Street; and South Montgomery Street between West San Fernando Street and Park Avenue. Table 2-2 indicates the other changes in street typologies.

2.4.10 Proposed Changes to the General Plan Growth Allocations by Area

Appendix 5 of the General Plan identifies the job and housing growth capacity planned for each General Plan–designated Growth Area. The Growth Areas consist of Downtown (including the Diridon Station Area and the project site), Specific Plan Areas, Employment Land Areas, Urban Villages, Neighborhood Villages, and Other Growth Areas. As explained in Appendix 5 of the General Plan, the Growth Areas generally "have a high degree of access to transit and/or other infrastructure, proximity to retail and other services and strategic locations which support surrounding neighborhoods." Directing growth to such areas would support the City's sustainability goals and thereby help to reduce GHG emissions.



SOURCE: Google LLC, 2020

Downtown West Mixed-Use Plan

Figure 2-4
Existing and Proposed Changes to General Plan Land Use Designations

TABLE 2-2
GENERAL PLAN TRANSPORTATION NETWORK DIAGRAM STREET TYPOLOGIES: EXISTING AND PROPOSED

Street	Bounds[a]	Existing Typology	Proposed Typology
Lenzen Ave.	Caltrain tracks to new street east of Parcel A1	None	None[b]
Cinnabar St.	N. Montgomery St. to new street east of Parcel A1	None	None[b]
New street east of Parcel A1	Cinnabar St. to Lenzen Ave.	None	None[b]
N. Montgomery St.	New Cahill St. extension to W. St. John St.	Local Connector Street	(removal; segment to be vacated)
N. Montgomery St.	W. Julian St. to new Cahill St. extension	Local Connector Street	Local Connector Street
W. Julian St.	Caltrain tracks to N. Montgomery St.	Local Connector Street	Local Connector Street
W. St. John St.	Cahill St. north extension to N. Montgomery St.	Not extant	Local Connector Street
W. Santa Clara St.	West of Caltrain tracks to Guadalupe River	Grand Boulevard	Grand Boulevard
S. Montgomery St.	W. Santa Clara St. to W. San Fernando St.	Grand Boulevard	Main Street
S. Montgomery St.	W. San Fernando St. to Park Ave.	Grand Boulevard	(removal; segment to be vacated)
Cahill St.	N. Montgomery St. to Park Ave. (includes new additions north of W. Santa Clara St. and south of W. San Fernando St.)	None	None
Delmas Ave.	W. Santa Clara St. to W. San Fernando St.	Main Street	(removal; segment to be vacated)
W. San Carlos St.	Caltrain tracks to east of S. Montgomery St.	Grand Boulevard	Grand Boulevard
W. San Fernando St.	Cahill St. to SR 87	Primary Bike Facility[c]	Primary Bike Facility[c]
Park Ave.	West of Caltrain tracks to east of S. Autumn St.	Primary Bike Facility[c]	Primary Bike Facility[c]
S. Autumn St.	W. Santa Clara St. to W. San Carlos St.	City Connector Street	City Connector Street
Royal Ave.	W. San Carlos St. to Auzerais Ave.	None	None
Auzerais Ave.	Caltrain tracks to Royal Ave.	Local Connector Street	Local Connector Street

NOTES:

Ave. = Avenue; SR = State Route; St. = Street

a Bounds indicated are within the project site only; designation may extend beyond the site.
b Street is included in the DSAP street network and would function as a Local Connector Street.
c Full name of street typology is On-Street Primary Bicycle Facility. In the proposed Downtown West Design Standards and Guidelines, for the purpose of street design, standards and guidelines applicable to Local Connector streets would apply to On-Street Primary Bikeways

SOURCE: Envision San José 2040 General Plan; Downtown West Design Standards and Guidelines, September 2020 (Appendix M of this EIR); Figure 6.3.

The General Plan amendment for the proposed project would reallocate 5,575 housing units and 6,306,000 gsf of commercial/office uses from other General Plan growth areas outside of Downtown to the Downtown. This is less than the proposed project's overall development program because development on the former San Jose Water Company site (Blocks E1, E2, and E3 of this project) was previously entitled.[45] It is noted that the General Plan reallocation being

[45] There is also sufficient retail and hotel growth capacity in the Downtown to accommodate the proposed project, including the project's proposed 500,000 gsf of active uses, 300-room hotel, and 800 rooms of limited-term corporate accommodations (as noted previously, these limited-term corporate accommodations are considered a non-residential use).

sought for the proposed project is a subset of a larger reallocation that the City is proposing to accommodate additional growth that would result from the updated DSAP. For more information, refer to Section 3.11, *Population and Housing*.

If the City approves its larger growth reallocation to the DSAP, the proposed project's growth reallocation would be subsumed in, and not additional to, that larger growth allocation. For more information, refer to Section 3.11, *Population and Housing*.

2.4.11 Other Proposed Revisions to the Diridon Station Area Plan

In addition to the land use changes described in Section 2.4.2, the DSAP would be amended to encompass the entire project site (as noted in Section 2.2, *Project Site and Location*, the easternmost portion of the site—Blocks E1, E2, and E3—is not currently within the DSAP area) and to re-classify the project site's height limits as discussed in Section 2.5, *Building Heights*.

For the proposed project, the applicant is proposing site-specific Downtown West Design Standards and Guidelines that would govern development on the project site. These enforceable standards, along with advisory guidelines, provided in draft form in Appendix M, would be considered by the City as part of the project entitlement, and would be separate from—and would expand upon—similar standards and guidelines developed for Downtown and the DSAP area (refer to Section 2.12, *Downtown West Design Standards and Guidelines*, for additional information).

In addition, the description of the DSAP's three Primary Zones—Northern, Central, and Southern—would be modified for consistency with the envisioned development character of the proposed project within each Primary Zone. Other DSAP amendments would clarify the applicability of certain DSAP provisions to the proposed project, including but not limited to open space, circulation, public art, and parking. Specific changes to the DSAP would address, but not necessarily be limited to the following:[46]

- Revisions to Chapter 1, *Introduction*, to be consistent with the proposed project;
- Update to the land use plan (including removal of the ballpark site) in Section 2.1;
- Revisions to the discussion of open space;
- Revisions to the designated street typologies (discussed in detail above);
- Revisions to population and employment forecasts;
- Revisions to the parking discussion;
- Update to the infrastructure analysis;
- Revision of the section on affordable housing; and
- Revision of the public art discussion.

[46] As described in Section 2.1.8, *Planning Context*, the City is planning to expand the boundary of the DSAP area independently of the proposed project, to encompass additional area east of the current plan boundary.

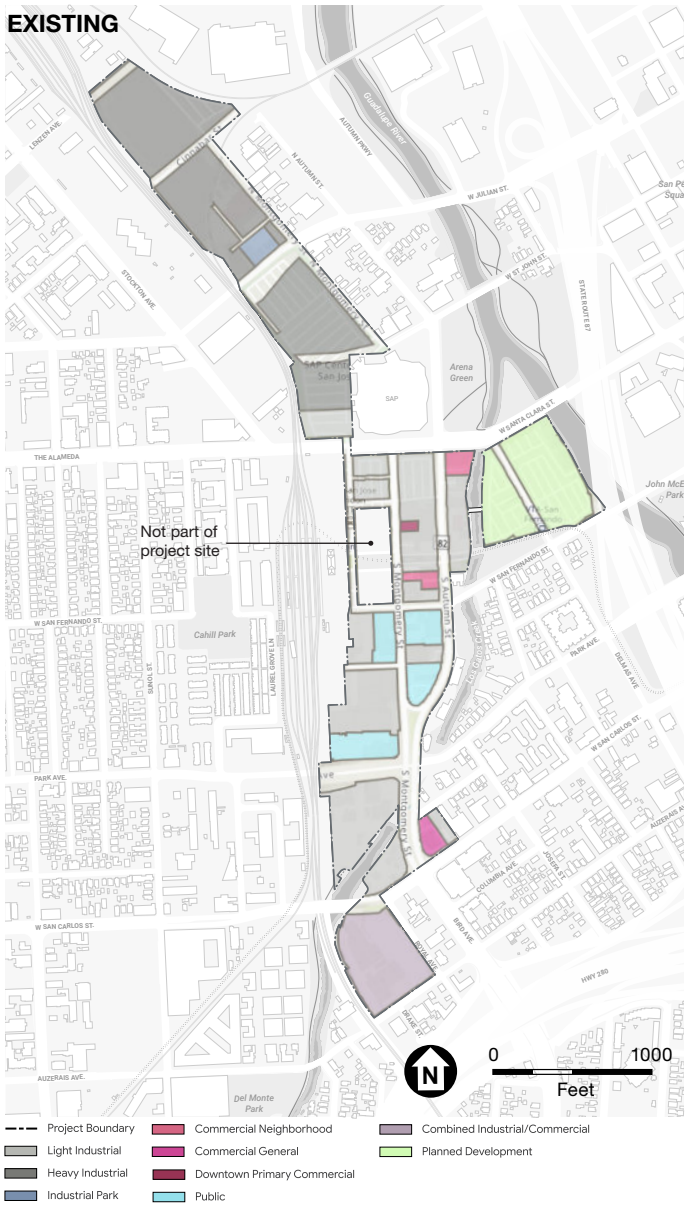
2.4.12 Zoning Districts

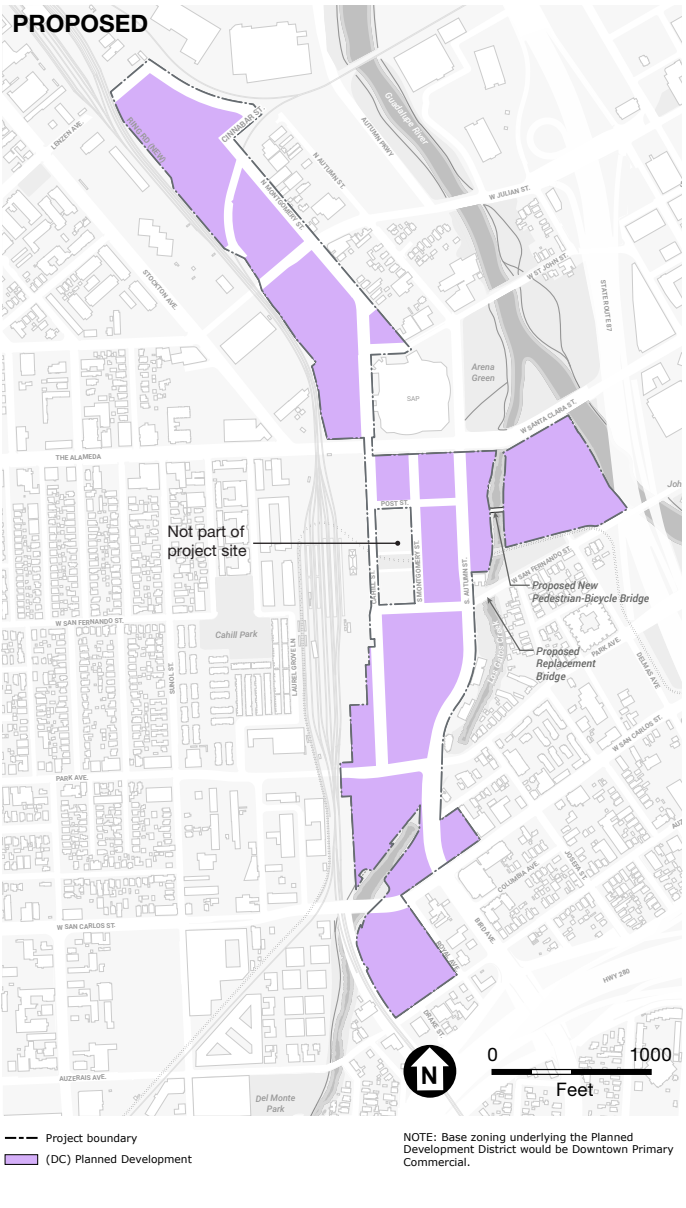
The project site lies within a variety of zoning districts as currently designated in the City's Zoning Ordinance (Title 20 of the San José Municipal Code):

- Heavy Industrial (most of the area north of West Santa Clara Street)
- Light Industrial (most of the remainder of the site west of Los Gatos Creek, from the north frontage of West Santa Clara Street south to Auzerais Avenue)
- Planned Development (the area east of Los Gatos Creek)
- Public/Quasi-Public (eight parcels between West San Fernando Street and Park Avenue)
- Commercial Neighborhood (four parcels between West Santa Clara and West San Fernando Street)
- Downtown Primary Commercial (one parcel between West Santa Clara and West San Fernando Street)
- Commercial General (one parcel at South Montgomery and West San Carlos Streets)
- Combined Industrial/Commercial (the former Orchard Supply Hardware site at Royal and Auzerais Avenues)

The project applicant proposes that the entire site be zoned as a Planned Development Zoning District, which would allow implementation of site-specific development as set forth in the zoning district's General Development Plan, one or more Planned Development Permits, and subsequent design conformance process. The City's Municipal Code requires that a Planned Development Zoning District be combined with an existing base zoning district. Development of property can occur only pursuant to an effective Planned Development Permit in conformity with an adopted General Development Plan, or in accordance with the requirements of the base zoning district if a Planned Development Permit has not been issued and has not become effective. The project applicant proposes that the base zoning districts identified above be amended and that the base district for the entire site be zoned Downtown Primary Commercial. **Figure 2-5** shows the existing and proposed zoning districts on the project site. The Planned Development Zoning District and General Development Plan for the proposed project consists of the entire project site. The Planned Development Permit excludes the portion of the project site currently owned by VTA at the southeast corner of West Santa Clara and Cahill Streets (Block D1 on Figure 2-3). Development of this VTA block would instead be subject to the zoning controls in the base Downtown Commercial zoning district until a valid Planned Development Permit in compliance with the site-wide General Development Plan is issued for the VTA site.

A Planned Development Zoning District requires any of the following: a valid Tentative Map, a valid Planned Development Permit in compliance with the Planned Development Zoning District, a building permit, or an institution of a use consistent with a duly issued permit to effectuate the zoning. A Planned Development Zoning District allows any use or combination of uses provided for in the accompanying Planned Development Permit that is approved by the City. The City's approving bodies evaluate future projects in Planned Development Zoning Districts against adopted design guidelines and standards to measure the acceptability of a project.





SOURCE: Google LLC, 2020

Downtown West Mixed-Use Plan

Figure 2-5
Existing and Proposed Zoning Districts

The San José City Council has adopted design guidelines for various land use types: Residential, Industrial, Commercial, Downtown/Historic, and Downtown. The guidelines generally seek to provide a common understanding of the minimum design standards to be applied to various land uses, development types, and sometimes specific locations. The design review process evaluates projects to determine whether they conform to City ordinances and the requirements of previous entitlements such as Planned Development zoning approvals, or concurrent processes such as subdivisions.

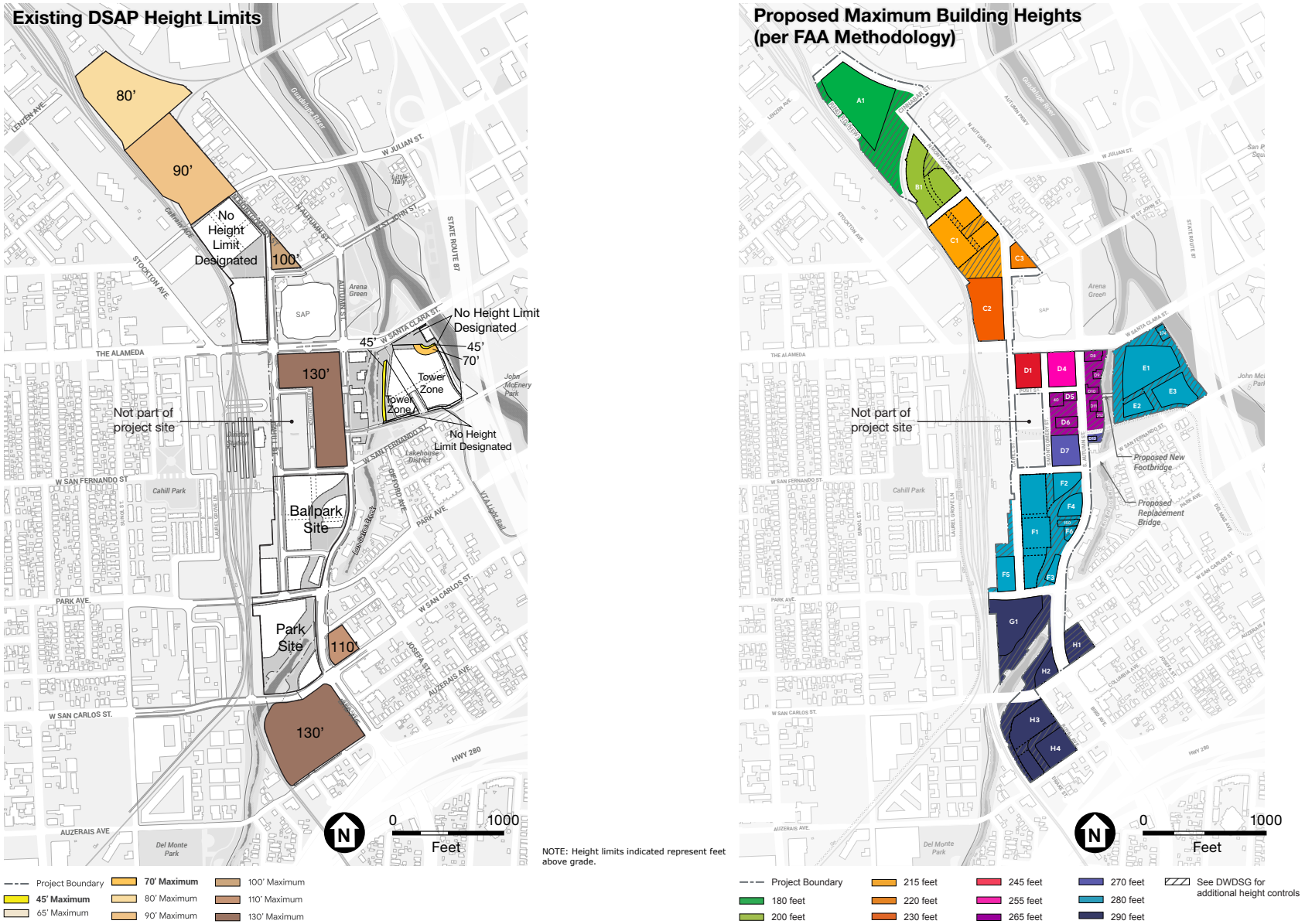
For the proposed project, the applicant is proposing site-specific Downtown West Design Standards and Guidelines that would govern development on the project site, excluding the portion of the project site currently owned by VTA at the southeast corner of West Santa Clara and Cahill Streets (Block D1 on Figure 2-3). These enforceable standards and advisory guidelines, provided in draft form in Appendix M, would be considered for approval as part of the City Council's deliberations on the Planned Development Permit. Assuming they are approved along with the other project entitlements, the site-specific Downtown West Design Standards and Guidelines would specify which of the City's existing Downtown Design Guidelines and Complete Streets Design Standards and Guidelines continue to apply to the project and which are superseded or modified by the project's site-specific Downtown West Design Standards and Guidelines (refer to Section 2.12, *Downtown West Design Standards and Guidelines,* for additional information).

2.5 Building Heights

Existing height limits on the project site are 65–130 feet above grade in the southern portion of the site, 130 feet in the site's central area, and 80–100 feet at the site's northern blocks. In March 2019, the San José City Council directed Planning Department staff to develop new height limits for portions of Downtown based on Federal Aviation Administration (FAA) regulations for aircraft operations at the Airport. Information presented to the City Council indicated that height limits in the area west of SR 87, including the project site, could increase from the current range of 65–130 feet to a range of 160–290 feet above grade.

The project applicant proposes to increase permitted heights on the project site consistent with City Council direction that height limits in Downtown be increased in accordance with FAA regulations. Under the proposal, building height limits would range from 180 feet at the northern end of the project site, where the existing height limit is 80 feet, to 290 feet at the southern end of the site, where the existing height limit is 130 feet.

Some buildings developed pursuant to the project may not reach the proposed maximum height limit for their portion of the site. Heights for new buildings constructed as part of the proposed project would range between approximately 25 and 290 feet (to the highest point of the structure, including all building elements and appurtenant structures). As noted previously, the project applicant anticipates that approximately 70 percent of the approximately 65 total structures to be developed would be high-rise structures, as defined in the California Building Code—that is, with an occupied floor level greater than 75 feet above grade. FAA regulations would continue to govern the area's maximum building heights, with height limits lower closest to the Airport in the north and gradually increasing to the south. **Figure 2-6** depicts existing height limits for the project site, as set forth in the DSAP. The figure illustrates maximum permissible building



SOURCE: Google LLC, 2020

Downtown West Mixed-Use Plan

Figure 2-6
Existing Height Limits and Proposed Height Limits

heights, based on review of the City's 2018 analysis of the heights that would be permitted under the FAA's Terminal Instrument Procedures, which establish allowable maximum heights near airports above current ground level.

Regardless of the height limits ultimately adopted by the City, given the project site's proximity to the Airport, each proposed building or structure—permanent or temporary—that would exceed the Federal Aviation Regulations/Part 77[47] airspace notification surface, or would otherwise stand 200 feet or more in height above ground, would be subject to FAA review. The FAA would determine whether the building or structure would be an obstruction to air navigation or navigational and communication facilities, affect the safe and efficient use of navigable airspace, or affect air navigation facilities or equipment (refer to Section 3.9, *Land Use*).

2.6 Parks and Open Space

Figure 2-7 shows the proposed project's open space plan. Consistent with the MOU, the proposed project would develop "robust, publicly accessible amenities, including parks, open space, plazas, and trails, and create attractive, vibrant, and safe experiences for pedestrians and bicyclists [that] provides and enables multimodal access and connections to the Guadalupe River, Los Gatos Creek, and other public spaces, with an emphasis on ecological restoration and preservation."[48]

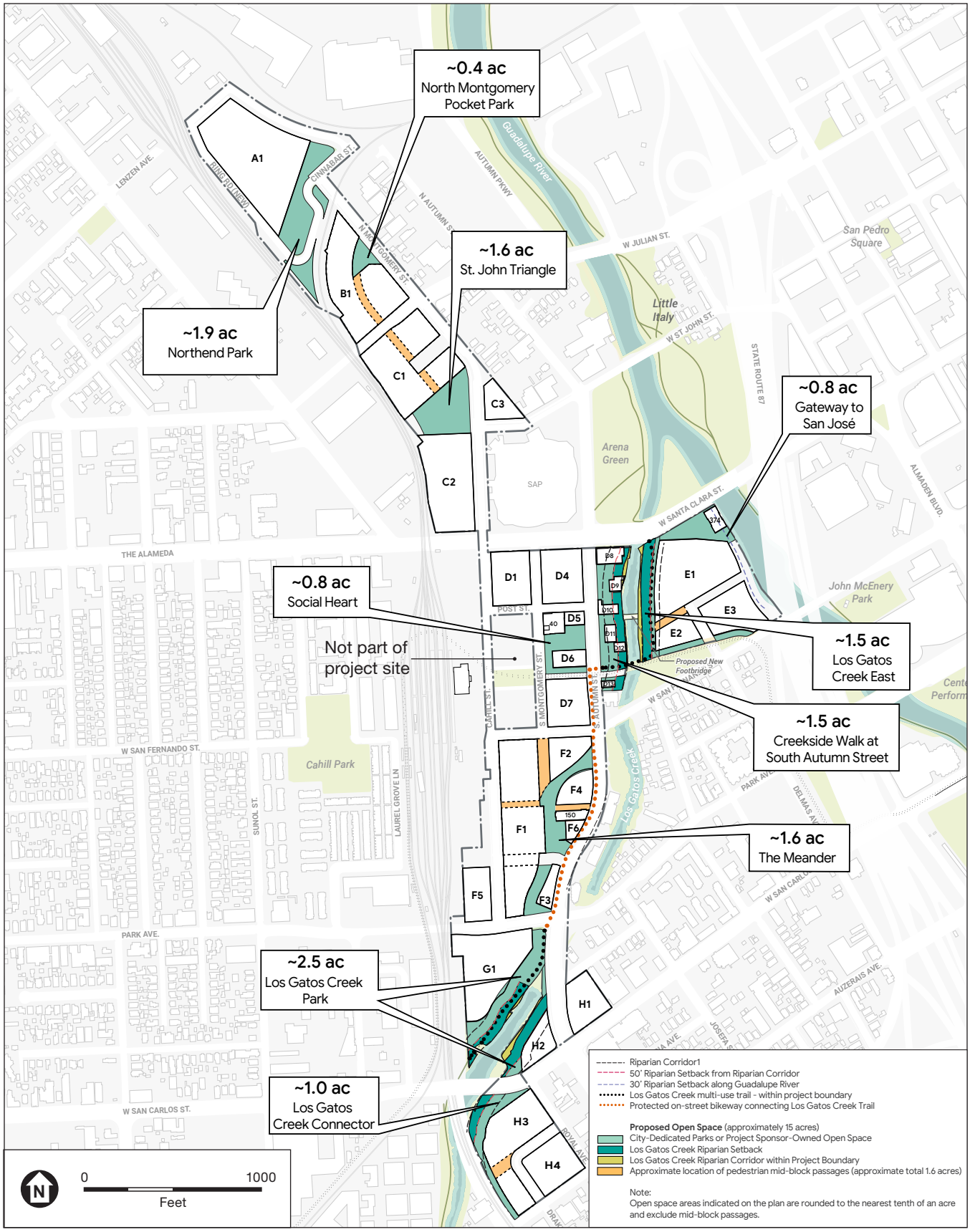
The project would include enhanced landscaping and new plantings on approximately 15 acres of new parks, plazas, open space, riparian setbacks, and mid-block passages on the project site, for use and enjoyment by area residents, employees, and visitors alike. Parks and open spaces would be located to provide open space connections both within the project area and between the project site and the rest of the city. The character and programming of the open space would vary relative to the local context and adjacent uses to provide diverse spaces that may be active with a variety of uses. Generally, the proposed project includes open spaces and park facilities that could accommodate an array of potential informal recreational uses.

The open spaces located throughout the project define the four zones—the Northend, Core, Meander, and Southend—within the project boundaries, each with its own programming and distinct character. Each open space zone is described below, followed by more-detailed discussions of each individual open space.

In the Northend area, the project's open spaces would include flexible event and entertainment space (St. John Triangle), as well as a space for informal recreational fields and multi-use courts with outdoor maker space (Northend Park) and a small vegetated open space (North Montgomery Pocket Park).

47 14 Code of Federal Regulations (CFR) Part 77 et seq. The Federal Aviation Regulations/Part 77 airspace notification surface is a 100:1 slope radiating out from the nearest runway point at the Airport.

48 *Memorandum of Understanding between the City of San Jose and Google LLC*, December 4, 2018. Available at https://www.diridonsj.org/s/Final-MOU-98jt.pdf.



SOURCES: Google LLC and SITELAB urban studio, 2020

Downtown West Mixed-Use Plan

Figure 2-7
Open Space Plan

In the project's Core zone, central open spaces would serve as the center for civic identity and learning, with programmable green and hardscape spaces between South Autumn and Cahill Streets. Open space would be created along each side of Los Gatos Creek: Creekside Walk at South Autumn Street and Los Gatos Creek East, located west and east, respectively, of the creek. This open space would be developed around a number of existing small-scale buildings that are proposed to be retained, rehabilitated, or renovated, and ultimately reoccupied with new uses. Los Gatos Creek East would provide creek setbacks and protect the creek bank and riparian canopy in an effort to support wildlife habitat and restore native plantings, and would enhance creek views while limiting human disturbance.[49] Separate from Los Gatos Creek East, but nearby, would be a community plaza along West Santa Clara Street (Gateway to San José), which would serve as a transition from the Los Gatos Creek–Guadalupe River confluence to urban development, creating a civic gateway from the project site to Downtown San José. Additional open spaces in the Core zone would include the Social Heart, located between South Montgomery Street and the Creekside Walk at South Autumn Street.

The Meander zone would offer a mix of urban and green spaces, with interactive art, water features, and social gathering spaces along an active, urban spine, acting as a transition between southern Los Gatos Creek open spaces and the Core zone.

The Southend open spaces (Los Gatos Creek Park and Los Gatos Creek Connector) would provide for natural play and learning initiatives, while also offering an Ecology Center and Pavilion that would provide opportunities for visitors to access and view district infrastructure and natural systems. The Ecology Center would provide a centralized location for the public to learn about and interact with local ecology through exhibits and integrated district systems technology. The pavilion would provide an indoor event space for public use and gatherings.

The proposed project also includes a new public access trail and improvements on the existing street network to strengthen the project site's north-south axis. The trail would follow Los Gatos Creek from Auzerais Avenue to Park Avenue and VTA tracks to West Santa Clara Street. Other portions will follow a Class IV protected bikeway[50] on the street right of way improved with new landscaping and would feature a publicly accessible walkway along Los Gatos Creek.

[49] As noted in Section 2.3, *Development Program*, the project applicant also proposes to retain some existing small-scale industrial structures on South Autumn Street. Some of these existing buildings encroach into the 50-foot riparian setback from the top of the Los Gatos Creek bank or from the edge of the riparian corridor, whichever is greater. If one or more of these buildings were to be replaced (which could occur if the building were unsuitable for reuse), the project's proposed Downtown West Design Standards and Guidelines would permit construction of a replacement structure within the existing footprint, or within a new building footprint that is not closer to the riparian corridor and maintains the same or lesser square footage within the riparian setback. The Downtown West Design Standards and Guidelines would, however, limit the height of any replacement structure to that of the existing structure and would also impose other restrictions on development adjacent to the riparian setback. See, in particular, Standards 5.5 and 5.6 of the Downtown West Design Standards and Guidelines (EIR Appendix M).

[50] A Class IV bikeway is an on-street bicycle lane that is protected from auto traffic by bollards, a parking lane, and/or other physical barriers. Other bicycle facilities include Class II on-street but unprotected bicycle lanes and Class III signed bicycle routes, on which bicycles and cars share a traffic lane.

Planned open spaces and their anticipated character and uses include (from north to south; approximate sizes indicated):

- **Northend Park:** A flexible, informal recreational area with amenities for physical activities, multi-use greens, courts, and maker space on an activated edge (1.9 acres)
- **North Montgomery Pocket Park:** A pocket park containing a grove of trees and seating area serving as an informal gathering space and providing habitat for local wildlife (0.4 acres)
- **St. John Triangle:** An event and entertainment space with a flexible lawn, anchor plaza, and outdoor performance space to accommodate outdoor musical presentations and other outdoor performances (1.6 acres)
- **Gateway to San José:** A flexible plaza that could host community events, public gatherings, and entertainment (0.8 acres)
- **Social Heart:** Uses may include a market hall, children's play area, social hub, and flexible seating (0.8 acres)
- **Los Gatos Creek East:** Riparian setback, expansion of riparian vegetation and creek corridor to provide habitat for the creek ecosystem, and regional habitat with a new City-dedicated bike trail between West Santa Clara Street and the VTA tracks, set back 50 feet from the riparian corridor. This open space would also include a connection to an Americans with Disabilities Act (ADA)-accessible footbridge over Los Gatos Creek (discussed below) that would connect to the Creekside Walk at South Autumn Street on the west side of Los Gatos Creek (also discussed below) (1.5 acres)
- **Creekside Walk at South Autumn Street:** A series of "outdoor living rooms" with a range of dining options, that would be developed outside the 50-foot riparian buffer. This open space would include a creekside pedestrian boardwalk built adjacent to and within the riparian corridor, along with a multi-use trail that would be a minimum of 10 feet outside the riparian corridor.[51] The boardwalk would provide continuous creekside pedestrian access from the VTA tracks north to West Santa Clara Street. To create the boardwalk, the project applicant would remove impervious, hardscape, and/or disturbed landscape surfaces behind (on the Los Gatos Creek side of) at least two of the buildings along the east side of South Autumn Street, south of West Santa Clara Street, that are adjacent to the top of the stream bank. The applicant would then revegetate the formerly hardscape/disturbed areas with riparian plant species and would install raised sections of pedestrian boardwalk along the edge of, and in some cases within, the riparian corridor. Because the boardwalk would entail removal of existing hardscape/disturbed areas and revegetation, it would reduce impervious surface and enhance vegetation along Los Gatos Creek (1.5 acres)
- **The Meander:** A mix of urban and green spaces offering immersive, interactive art, water features, plantings, and social gathering spaces along an active, urban promenade (1.6 acres)
- **Los Gatos Creek Park:** An immersive natural play area with learning initiatives, offering opportunities to make district infrastructure and natural systems accessible and visible to visitors through an Ecology Center. This open space would also include a segment of the City's Los Gatos Creek Trail (2.5 acres)

[51] As explained previously, pedestrian-only paths are permitted at the top of bank and may enter the riparian corridor to maintain continuity, while interpretive nodes, paths, stream crossings are not subject to the setback requirement. Multi-use trails (pedestrian/equestrian/bicycle trails) along natural channels are permitted within 10 feet of the riparian corridor.

- **Los Gatos Creek Connector:** A park serving surrounding residential communities for outdoor recreational needs, while also serving as an important connector for the City-dedicated multi-use trail (1.0 acres)

The parks and open spaces would include a network of mid-block passages throughout the project area that would be enhanced with new landscaping, native plant material, and park-like green environments, connecting the conventional parks throughout the project site. Mid-block passages would provide about 1.6 acres of open space in addition to the individual open spaces described above. Appropriate grading techniques would be used for construction on blocks adjacent to Los Gatos Creek, to account for existing hydrologic conditions and to protect water quality in the creek and existing habitat. As noted previously, the project would develop a new multi-use trail along the creek where the project applicant has site ownership within the project boundary. Existing fencing (generally, cyclone fences) along the top of the creek bank may be replaced with wildlife-friendly fencing, allowing animals passage to and from the creek.

The open space network would include structures in support of operations and maintenance, including serviced pavilions, un-serviced pavilions, kiosks, program decks, and maintenance structures.[52] All of these active uses would be located outside the 50-foot riparian setback. Serviced pavilions may include commercial concessions, event support space, public restrooms, shared community meeting space, food and beverage service in connection with events, and educational/learning/exhibit space. Serviced pavilions, each up 5,000 gsf in size, are anticipated to be located within Los Gatos Creek Park, Creekside Walk at South Autumn Street, and Northend Park. Un-serviced pavilions may include public restrooms, shared community meeting space, pre-cooked food and beverage, and educational/learning/exhibit space. Un-serviced pavilions, each up to 2,500 gsf, are anticipated in St. John Triangle and the Gateway to San José. Kiosks, no larger than 1,500 gsf each, may include commercial concessions, newsstands, food and beverage (pre-made), recreational rentals, and canopy structures, and would be located at approximately 10 locations throughout the project's open spaces. Pavilions would host live music events but would be enclosed structures. As noted above, the project would also include an outdoor performance space within the St. John Triangle open space that would also present live music.

Program decks would be outdoor places for informal gatherings, outdoor extension of retail and restaurant spaces, and social seating, and could also host temporary programming and events. Park maintenance structures may include facilities to serve park uses such as warehouse, park offices, public restrooms and maintenance functions for equipment and tool storage. A maximum of 20 percent of each open space would be used for park structures. In addition to facilities located within the open spaces, an approximately 0.3-acre site in the southern tip of Northend Park would be used as a maintenance office and outdoor yard to store maintenance supplies and equipment to service parks and open spaces.

[52] Both serviced and un-serviced pavilions would be small enclosed structures. Refer to the Downtown West Design Standards and Guidelines (Appendix M) for further information regarding the structures that would be permitted in project open spaces.

As noted above, the project also proposes a new ADA-accessible footbridge over Los Gatos Creek south of West Santa Clara Street, connecting the Creekside Walk at South Autumn Street to Los Gatos Creek east and providing for a link from the project's central open space—the Social Heart—to the remainder of Downtown, east of the creek. The new bridge would also provide access to future trails and open space near Los Gatos Creek.[53]

Open space would be created in phases, in tandem with the phasing of the development program. (Refer to Section 2.13, *Project Construction and Phasing*, for a project phasing plan.)

2.7 Transportation and Circulation

The project applicant proposes a comprehensive circulation system for the project site with the goals of making the project people-centric; making transit and active mobility the easiest option for site residents and employees; connecting the site to neighborhoods, the rest of Downtown, and the region; enhancing access to nature; and adapting to emerging mobility options.

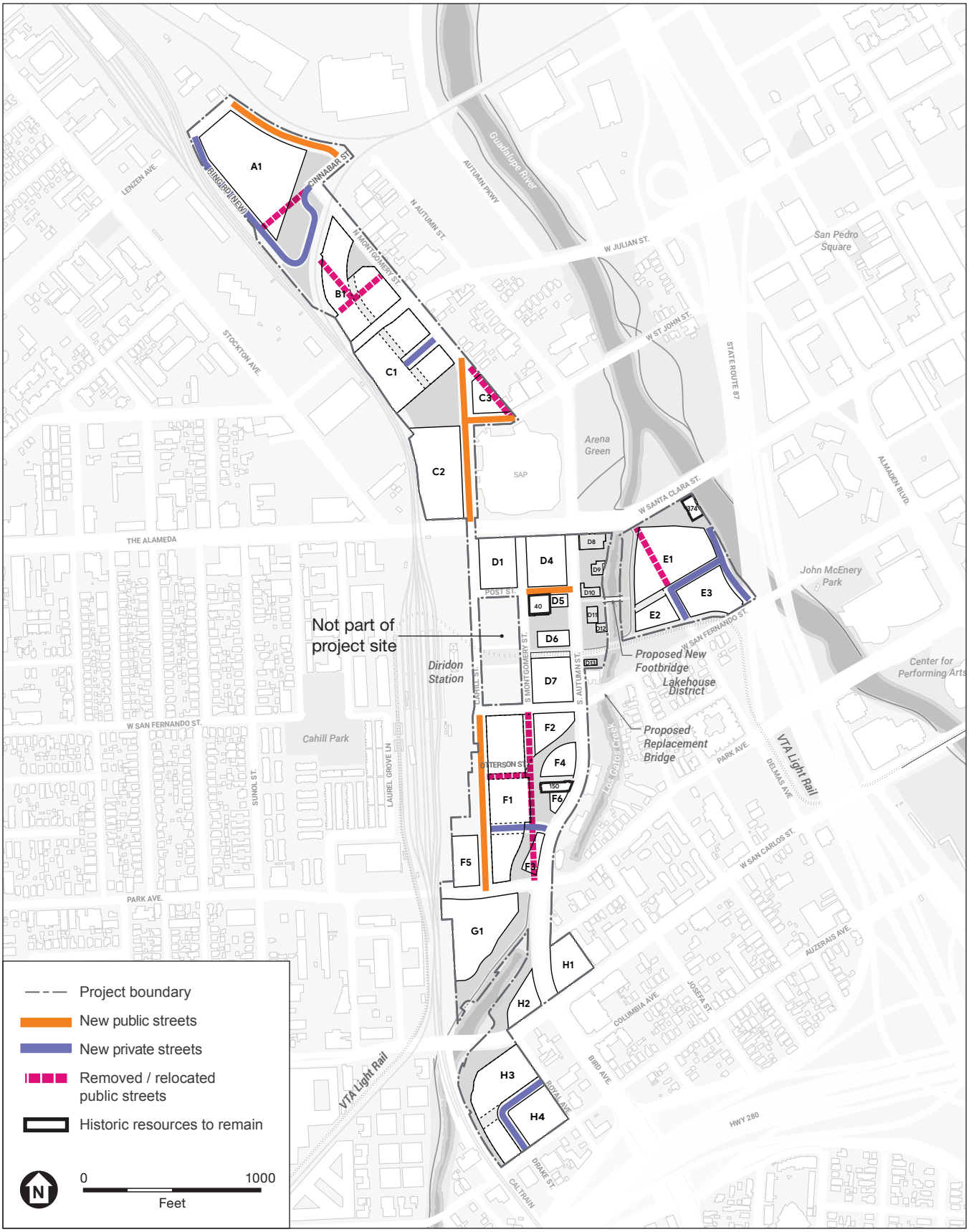
Streets throughout the project site would be designed to put people first, with wide sidewalks, off-street trails, protected bicycle lanes, and implementation of traffic calming measures to support safe movement by workers, residents, and visitors. Other improvements would enhance transit access and ridership by leveraging the project site's proximity to Diridon Station. The project's proposed street network is set forth in detail in the Downtown West Design Standards and Guidelines, which are discussed in Section 2.12, *Downtown West Design Standards and Guidelines*, and included in their entirety in Appendix M.

2.7.1 Changes to the Street Network

The project applicant proposes to extend portions of certain streets across the project site and remove sections of other streets (refer to **Figure 2-8**). Notably, the proposed project would extend Cahill Street from its current terminus at West Santa Clara Street to North Montgomery Street in the north and from West San Fernando Street to Park Avenue in the south to enhance north–south connectivity throughout the length of the project site (refer to additional discussion below).

North of the SAP Center, West St. John Street would be extended to connect with the extended Cahill Street. North of the UPRR tracks, circulation would be reconfigured with a perimeter street framing new development. The project would also create a new block-long east-west extension of Post Street between South Montgomery and South Autumn Streets. Privately owned but generally publicly accessible streets would be added in the form of a Ring Road extending west from the intersection of North Montgomery and Cinnabar Street around the rear (west) of Block A1, connecting to the former Lenzen Avenue right-of-way north of Block A1 and to a new public street along the east side of Block A1; west from North Montgomery Street within Block C1; north from West San Fernando Street along the alignment of Delmas Street between Blocks E2 and E3 and turning east to the Guadalupe River; and an L-shaped street linking Royal Avenue and Auzerais

[53] The new bridge is intended primarily for pedestrians. While it would permit bicycle traffic, it would not be designated as a formal bicycle route and would not be part of a Class I bikeway.



SOURCES: Google LLC and SITELAB urban studio, 2020

Downtown West Mixed-Use Plan

Figure 2-8
Proposed Street Network Changes

Street (between Blocks H3 and H4). Limited-access private streets providing primarily service and loading access would include a street that would run north of West San Fernando Street and parallel to Delmas Avenue at the eastern border of the project site and a connection between Cahill Street and South Autumn Street north of Park Avenue (through Block F1).

The proposed project would remove a number of street segments within the project site: Cinnabar Street west of North Montgomery Street, North Montgomery Street between West St. John and Cahill Streets, Delmas Avenue between West Santa Clara and West San Fernando Streets, South Montgomery Street between West San Fernando Street and Park Avenue, and Otterson Street west of South Montgomery Street. The southern portion of the segment of Delmas Avenue to be removed as a through street would be reconfigured as a private street north of West San Fernando Street, between Blocks E2 and E3, as noted above; this private street would provide parking access and egress to and from the proposed development on the E blocks.

In addition, as a flood control improvement (discussed in Section 2.11, *Flood Control Improvements*), the project applicant proposes to replace the existing Los Gatos Creek bridge along San Fernando Street with a new bridge in approximately the same location. This off-site improvement would not affect the circulation system, except temporarily during construction.

Northerly Cahill Street Extension

To extend Cahill Street north of West Santa Clara Street to North Montgomery Street, the project applicant proposes certain modifications to exterior access and egress ways for the SAP Center, along the arena's west side and at the northwestern corner of the building. The existing stairs from the SAP Center descend to the existing elevation of the facility's main parking lot (Lots A, B, and C). However, the Cahill Street extension would be at generally the same elevation as West Santa Clara Street, which is approximately 8 to 10 feet below the elevation of Lots A, B, and C. Accordingly, with the Cahill Street extension, the SAP Center egress would need to descend to the new, lower Cahill Street level.

Because of the internal layout of the SAP Center, internal modifications to add inside stairs or escalators would not likely be possible because they could result in a major disruption of the facility's Club Level. Thus, these modifications most likely could only occur on the exterior of the SAP Center. Accordingly, the project applicant proposes to demolish the existing western stairs to parking lot level, then construct two new staircases oriented at 90 degrees relative to the existing stairs (and parallel to the SAP Center's western façade). The new stairs would descend from the SAP Center's Concourse Level to the Cahill Street level both north and south of the existing stairs. In addition, at the northwest corner of the SAP Center, the applicant proposes to demolish the existing stairs and ramp, then construct a new longer staircase from the Concourse Level down to the Cahill Street level. The project would also construct an elevator to provide ADA compliance. A canopy would cover the new northwestern entry landing.

The project applicant would need to reach agreement with both the City, the owner of the SAP Center, and Sharks & Sports Entertainment, Inc. (owner of the San Jose Sharks hockey team), the SAP Center's operator, to proceed with this component of the proposed project.

Southerly Cahill Street Extension

To extend Cahill Street south of West San Fernando Street to Park Avenue, the project would require access easements from PG&E and Caltrain. The extension of Cahill Street would traverse about 6,650 square feet of a PG&E-owned parcel (APN 261-35-002) immediately south of West San Fernando Street at Cahill Street and an adjacent strip of Caltrain-owned land (about 1,680 square feet of APN 261-35-030). South of these two parcels, the Cahill Street extension would cross property owned by the project applicant. The southerly Cahill Street extension would also necessitate relocation of two high-voltage PG&E power poles that serve the existing PG&E San Jose A Substation, which occupies the remainder of APN 261-35-02.

Northern Emergency Vehicle Access

The proposed project would establish the required emergency vehicle access at the northern end of the site before occupancy of the portion of the site north of the UPRR tracks, to allow emergency vehicles to enter the site by going across or under the railroad tracks. The project applicant has evaluated a range of options for a new at-grade crossing of the tracks or new grade separation under the railroad tracks. Grade separation options considered by the project include an underpass at Lenzen Avenue or North Montgomery Street. A grade separation over the railroad is not being considered because the elevations required for rail clearance would not be feasible given current roadway geometry.

The project applicant currently proposes to modify the existing North Montgomery Street at-grade railroad crossing to provide adequate emergency vehicle access. A dedicated lane could be provided for use emergency vehicles. Also, the circulation option lost by the removal of Cinnabar Street west of North Montgomery Street would be replaced by a new private street connection between North Montgomery Street and Lenzen Avenue along the southern and western perimeter of the block, and a new north-south connection between Cinnabar Street and Lenzen Avenue along the eastern perimeter of the block. The applicant could instead, or additionally, construct a new at-grade crossing of the northern of two UPRR tracks in this area, to connect the project site with the San Jose Market Center, the retail center northeast of the site. However, it is possible that North Montgomery Street could continue to serve as the sole emergency vehicle access point, with the introduction of new technologies, such as remotely controlled bollards/gates, and integrated communications between building fire alarm systems and rail and/or mass notification systems.

The specific proposal for emergency vehicle access has not been finalized, given the need to coordinate with other efforts that affect the feasibility of certain options. The City is applying to the Federal Railroad Administration for a quiet zone on the Warm Springs corridor from North Montgomery Street to Horning Street, which may include improvements to the North Montgomery Street at-grade railroad crossing. In addition, as described in Section 2.2.8, *Existing and Planned Transportation Facilities*, the DISC partner agencies have endorsed a Concept Layout that would elevate the railroad tracks that currently limit access to the project site.[54] Elevating the tracks consistent with the Concept Layout would allow for at-grade or nearly at-

[54] As noted in Section 2.2.8, Existing and Planned Transportation Facilities, the Concept Plan is inconsistent with the California High-Speed Rail Authority's preferred alternative for service to Diridon Station.

grade reconnections of streets to the north end of the site. These streets could include North Autumn Street, Cinnabar Street, and/or Lenzen Avenue.

Any new emergency vehicle access proposed by the project applicant at the northern end of the site could be reconfigured, replaced, or supplemented by alternative access options at the time that the railroad is elevated as proposed by the DISC partner agencies. The new at-grade or grade-separated crossing ultimately proposed by the project would require coordination with the City, the California Public Utilities Commission and/or Federal Railroad Administration, and Caltrain and UPRR as applicable.

2.7.2 Mid-block Pedestrian Passages and Roadway Improvements

The project applicant proposes to construct publicly accessible mid-block pedestrian passages at several locations to facilitate pedestrian and bicycle access through the project site and break up the scale of larger blocks. The project would enhance sidewalks and implement removal and reconfiguration of lanes along Park Avenue, and South Montgomery Street south of Park Avenue. Implementing these changes would also entail changing South Autumn and South Montgomery Streets from one-way to two-way operation and removing vehicular access from South Montgomery Street south of San Fernando Street, and from Delmas Avenue between West Santa Clara and West San Fernando Streets.

2.7.3 Streetscape Improvements

The proposed project would enhance streetscape and intersection designs and implement new and improved pedestrian and bike facilities throughout the project area to prioritize pedestrian and bicyclist safety and expand linkages to Downtown San José and surrounding communities. Additionally, streetscapes would be enhanced with green infrastructure to treat stormwater runoff before it flows through outfalls into Los Gatos Creek and the Guadalupe River. Other improvements would be aimed at enhancing access to transit by leveraging the site's proximity to Diridon Station, which is currently served by multiple transit agencies, and where existing and new transit providers are planning new or enhanced services in the future.

2.7.4 Transportation Demand Management

The project's location is intended to leverage the multiple existing and planned transit options serving Diridon Station and the surrounding area and minimize vehicle trips for employees, residents, and visitors to the site. The proposed project includes a TDM program to reduce the use of single-occupancy vehicles to and from the project site, thereby reducing the demand for on-site commercial parking. The TDM program would exceed the 15 percent transportation efficiency requirement of Assembly Bill (AB) 900, achieve additional vehicle trip reductions and reduce criteria pollutant emissions. The program would include project features and TDM measures, a monitoring and reporting program, and a process for revisions as needed over time. The features of the proposed TDM program are summarized below. The full TDM program is included as

Mitigation Measure AQ-2h in Section 3.1, *Air Quality* (refer also to Section 2.9, *Project Features to Minimize Greenhouse Gas Emissions*).

Project features and mandatory trip reduction strategies to reduce single-occupancy vehicle (SOV) travel would include the following elements:

- Pedestrian and bicycle improvements both on- and off-site, including construction/ contribution to Los Gatos Creek Trail improvements and on-street connectors;
- A limited on-site parking supply as a disincentive for site employees and visitors to drive;
- Market-rate parking pricing for non-residential uses and unbundled parking for market-rate residential uses;
- Provision of pre-tax commuter benefits for employees;
- Marketing (encouragement and incentives) to encourage transit use, carpooling, vanpooling, and non-SOV travel by employees and residents; and
- Rideshare coordination, such as implementation of the 511 Regional Rideshare Program or equivalent, as recommended by the 2017 Clean Air Plan.

Other SOV trip reduction strategies to meet specific performance standards may include:

- Transit Fare Subsidies
- Preferential Carpool and Vanpool Parking
- On-Site Bicycle Storage
- Designated Ride-Hailing Waiting Areas
- Traffic Calming
- Express Bus or Commuter Shuttle Services
- Alternative Work Schedules and Telecommuting
- First-/Last-Mile Subsidy
- On-Site Transportation Coordinators
- Technology-Based Services
- Employer- Sponsored Vanpools
- Biking Incentives and On-Site Bike Repair Facilities
- Carshare Program
- Building-Specific TDM Plans
- Transportation Management Agency Membership[55]

As part of monitoring and enforcement, a City-approved transportation planning/engineering consultant would prepare an annual report describing program implementation and providing the

[55] A Transportation Management Agency (TMA) is a non-profit association that provides programs and information to employees and residents of the area covered by the TMA to facilitate commute travel by means other than single-occupancy vehicles. No TMA exists in the project area at present, but the applicant could join a TMA if one is created.

results of the annual mode split survey. Enforcement would allow the City, after two years of non-compliance with the SOV target, to impose financial penalties sufficient to fund and manage transportation improvements that would reduce vehicle trips to the targeted level.

The TDM program would evolve to respond to future mobility trends, including new and enhanced transit options, as well as the growth of transportation network companies such as Uber and Lyft, the emergence of autonomous vehicles, and the continued growth of micro-mobility services that offer dockless scooter and bike sharing.

2.7.5 Building Access and Egress

Building access and egress would be regulated by the project's Downtown West Design Standards and Guidelines, with which subsequent site and building plans must comply. The Downtown West Design Standards and Guidelines support locating vehicular access off of primary active frontages to improve safety and enhance the public realm. Accordingly, curb cuts would be prohibited along large portions of the project's building frontages facing open spaces and select street segments. As noted previously, a draft of the Downtown West Design Standards and Guidelines is included in Appendix M.

2.7.6 Off-Site Transportation Improvements

Circulation Improvements

As part of the proposed project, the project applicant would undertake a series of off-site transportation network improvements intended to enhance transit ridership and pedestrian and bicycle circulation in the project site vicinity. These improvements, which are part of the project analyzed in this EIR, are listed below.[56]

- The first of these off-site transportation improvement would be the new ADA-accessible footbridge over Los Gatos Creek between West Santa Clara Street and the VTA light rail tracks, as discussed above in Section 2.6, *Parks and Open Space*.[57]
- The project applicant would construct a controlled at-grade crossing (crosswalk and curb improvements) for the Los Gatos Creek Trail across West Santa Clara Street at or near Delmas Avenue. This crossing would connect the existing segment of the Los Gatos Creek Trail within Arena Green, along the west side of the creek, with a new portion of the trail to be developed as part of the project on the east side of Los Gatos Creek between the VTA tracks and West Santa Clara Street.[58]

[56] These improvements are not required to address physical environmental impacts identified in the EIR. Rather, they were identified by the City as a result of the non-CEQA analysis in the project's Local Transportation Analysis. However, because these improvements could result in physical impacts on the environment, they are analyzed in this EIR.

[57] Although this footbridge would begin and end within the project site, it would cross Los Gatos Creek, which is not part of the site, and is therefore included on this list of off-site transportation improvements.

[58] The City's approved master plan for the Los Gatos Creek Trail–Reach 5, which would extend from the south side of Auzerais Avenue to the north side of West Santa Clara Street to link existing trail segments, does not contemplate a trail on the east side of the creek, as is proposed by the project applicant. In addition, the master plan, evaluated in a 2008 mitigated negative declaration, includes a grade-separated crossing of West San Carlos Street (beneath the elevated roadway and the at-grade Caltrain tracks just north of a Caltrain bridge over Los Gatos

- The project applicant would construct improved bicycle facilities on Auzerais Avenue between the existing Los Gatos Creek Trail and Bird Avenue.
- The project applicant would widen the north sidewalk of Auzerais Avenue beneath the SR 87 freeway, beginning from the existing Auzerais Avenue/Delmas Avenue intersection, and would align the curb line at the northeast corner of this intersection with the curb line at the northwest corner. A signal modification would also be made at this intersection.
- The project applicant would construct improvements at the Coleman Avenue/West Taylor Street intersection to enhance bicycle connectivity along West Taylor Street from Walnut Street to Stockton Avenue. Pedestrian walkway improvements, removal of corner islands, and widening within the existing rail undercrossing would also be included.

In addition, the applicant may provide funding, or partial funding, to the City to implement other off-site transportation improvements. Such improvements are not part of the project, and environmental review of other off-site transportation improvements beyond those set forth above would be conducted separately by the City, as required.

SAP Center Parking

In addition to the above-described improvements, this EIR provides a qualitative evaluation of changes to parking for SAP Center event attendees that have the potential to occur as an indirect effect of the proposed project. These potential changes would not be implemented by the project applicant; rather, they would be undertaken as a separate project by the City in conjunction with the update to the DSAP. For this reason, and because these potential changes would not occur on the project site, they are evaluated in this EIR at a programmatic or qualitative level.

As described in Section 2.2.7, *Existing Land Uses*, the parcels commonly known as Lots A, B, and C contain a total of 1,422 parking spaces. Although these parcels are currently owned by the City, they are leased to San Jose Arena Management, LLC, an entity affiliated with Sharks Sports and Entertainment LLC (owner of the San Jose Sharks hockey team), under an agreement commonly known as the Arena Management Agreement (AMA). The AMA is a comprehensive agreement between the City and San Jose Arena Management that addresses many of the SAP Center's operational issues, including parking and access. The AMA provides that the City must ensure a minimum number of parking spaces close to the arena throughout the term of the AMA, which ends in 2040.

The City and the project applicant entered into an Option/Negotiation Rights Agreement in December 2018, giving the applicant the right to purchase Lots A, B, and C within 5 years, or, if Google does not exercise this option, a right of first offer to purchase until 2041. However, certain conditions must be met before Google can exercise those rights and acquire Lots A, B, and C. In particular, the City and San Jose Arena Management must reach terms to amend the parking provisions of the AMA, subject to the applicant's acceptance, or the AMA must expire or terminate

Creek). The City has also expressed support for grade-separated crossings at West San Fernando and West Santa Clara Streets; these latter crossings were not included in the Master Plan. The project does not propose grade-separated crossings; if undertaken in the future, these and other improvements not evaluated herein would be considered separate projects that would be subject to their own environmental review.

on its own terms. The applicant's option agreement with the City confirms that Google has no obligation to provide any replacement spaces, unless a specific agreement to this effect is reached.

Given the AMA's current requirements, in order for the applicant to acquire Lots A, B, and C before 2040 as it intends, the option agreement provides that the parking provisions of the AMA must be amended. Although the agreement does not specify how to amend the AMA and no such decision has been reached, discussions among the parties have focused on where to relocate the parking spaces now provided in Lots A, B, and C. There are several options for providing parking near the SAP Center; one option is to retain the existing AMA until it expires in 2040, and other options for parking replacement are under consideration. At this point, given the ongoing nature of the negotiations and the variety of options available, it would be speculative to provide specific detail on potential future changes to SAP Center parking. However, because some discussions about amendment options have occurred, this section briefly addresses those options for informational purposes.

One option under discussion is City development of parking on a group of parcels known as "Lot E," which is located immediately north of and across West St. John Street from SAP Center. Portions of this site are currently owned by the City, but the City would need to acquire other parcels from third parties to proceed with this option.[59] The completion and timing of parcel assembly has not been established, and to the extent that it may require the City to exercise eminent domain, it is not guaranteed. If parcel assembly were to be completed, Lot E could be developed with a parking structure that could provide approximately 1,000 stalls. It should be noted that the development of Lot E for a parking garage could proceed with or without the project, and the City and San Jose Arena Management have long viewed this location as a potential future site for a parking garage.

Chapter 4 of the adopted DSAP contains a "test-fit" scenario to identify the maximum possible theoretical buildout. The DSAP anticipates that existing surface parking south of the SAP Center will be replaced with new development, some of which could include parking. As part of developing the "test fit," the DSAP includes an analysis of parking supply, which includes relocating existing surface parking into structured parking. That analysis includes two categories of parking supply: (1) shared use of parking that is within the development projects located within a 0.5-mile radius of the station, and (2) a new parking structure of at least 900 spaces on Lot E. The DSAP also explains that the City and San Jose Arena Management had entered into an agreement to develop a Lot E garage.

As part of its current broader effort to update the DSAP, the City is also updating the parking analysis. Lot E could be developed as a stand-alone parking garage that, assuming 1,000 stalls, would likely be four or possibly five levels (three above grade and one or two below), although it could also be incorporated into a larger development project. However, the exact configuration and location are not known at this time, particularly because the City does not own all of Lot E.

[59] Entities other than the City-owned portions of Lot E include San Jose Arena Management, LLC, Google, LLC, as well as other private property owners.

However, providing replacement parking on Lot E is only one option and it may not occur. Other options include the following:

- A collection of parcels directly east of Lot E, commonly known as the Milligan site, may provide an opportunity for approximately 300 stalls of surface parking.
- The Adobe North Tower building, now under construction on West San Fernando Street just east of SR 87, will have approximately 1,000 stalls that could be used for SAP Center purposes and is within the proximity currently allowed by the AMA.
- The Platform 16 project, also under construction, has 286 stalls that are required to be available to the public after 6:30 p.m. and on weekends.
- The three-building Santa Clara County facility just east of the Guadalupe River on West Julian Street could potentially accommodate 450 SAP Center employee spaces.
- Other potential parking sites that are available throughout the DSAP area.

The applicant is not a party to the AMA and, therefore the City, rather than the applicant, has an obligation to provide the required parking under the AMA. However, the AMA must be amended in order to for the applicant to exercise the option agreement with the City with respect to Lots A, B, and C, and the parking in those lots must be relocated to a location near the SAP Center in order for Lots A, B, and C to be part of the project prior to the 2040 expiration date of the AMA. Therefore, replacement parking in the vicinity is considered a reasonably foreseeable, if indirect, future consequence of the project.

Because the details of the relocated parking are not known, the analysis is provided at a programmatic or qualitative level, and the potential changes are considered in the context of the DSAP, which assumes a parking garage at this location, and would be undertaken by entities other than the project applicant and not on the project site. The purpose of the discussion of SAP Center replacement parking in this EIR is not to provide environmental clearance for the development of replacement parking on Lot E or the Milligan site (or at any other location), but rather to fully disclose potential future impacts based on the information known today. If the City and/or a private applicant formally proposes replacement parking in a new parking structure in the future, such as on Lot E or the Milligan site, such a project would undergo separate environmental review.

2.8 Utilities

The project site is currently served by several public and private utilities, including public utilities for wastewater and storm drainage (City of San José) and private companies that provide potable water (San Jose Water Company), natural gas (PG&E), and telecommunications (AT&T and Comcast, along with other smaller providers). Electricity is jointly provided by PG&E and the City of San José Community Energy Department. The City's Environmental Services Department manages solid waste collection and disposal of garbage, recycling, and yard waste that are provided through contracted service providers. Implementing the proposed project's building program would increase demand for resources, including water and energy to service building operations.

2.8.7 Diridon Station Area Infrastructure Analysis

In 2017, as part of the implementation of the adopted DSAP, the City of San José prepared the *Diridon Station Area Infrastructure Analysis* (Infrastructure Analysis). The report provides a detailed analysis of the utility and transportation improvements necessary to accommodate buildout of the proposed land uses in the Diridon Station Area. The Infrastructure Analysis evaluated streets, sanitary sewer, storm drain, potable water, recycled water, joint trench facilities, and parks and related facilities, to identify existing infrastructure facilities and their condition, along with existing deficiencies; recommend improvements to accommodate future, transit-oriented development in the station area; and to provide cost estimates and explore implementation phasing for the needed improvements.[60]

The Infrastructure Analysis identified several "backbone" infrastructure improvements that would provide a broad benefit to the entire Diridon Station Area and recommended that they be constructed in large phases, not parcel by parcel, as would likely occur if the facilities were constructed as part of individual development projects. The report noted that some of these improvements would improve the quality and character of the Diridon Station Area and should therefore be completed in the near future, potentially with funding from a plan area funding mechanism.

On the project site, backbone improvements include street upgrades to West Julian Street, West Santa Clara Street/The Alameda, West San Fernando Street, Park Avenue, West San Carlos Street, and South Autumn Street; and sanitary sewer, storm drain, and potable water main upgrades in several streets. The Diridon Station Area Infrastructure Analysis (Infrastructure Analysis) also recommends expanding the City's recycled water system into the DSAP area from its current nearby terminus in Autumn Parkway on the north side of the UPRR tracks. However, the Infrastructure Analysis also notes that the City does not currently have any planned improvements programmed. As part of the proposed Downtown West project, the project applicant proposes to construct several components consistent with the backbone infrastructure that are identified in the Infrastructure Analysis and that are located on the project site.

The Infrastructure Analysis acknowledged that the required improvements will have to be reevaluated in the future, once more detailed information is available regarding construction timing for the BART Downtown extension and the alignment and construction schedule for high-speed rail, and to account for evolving sustainability goals, changing state and federal requirements, and private development in the DSAP area.

2.8.8 Project District Systems Overview

The project proposes a district systems approach to handle at least some of its utilities—such as electricity, thermal (heating and cooling), wastewater, recycled water, and solid waste flows—most efficiently. Where feasible, such services would be delivered through district-wide infrastructure, rather than individual and building-specific systems. District systems would utilize centralized facilities in up to two central utility plants to enable more efficient operations. District systems, through the consolidation of systems, deliver resource efficiency, including reduced

[60] City of San José, *Diridon Station Area Infrastructure Analysis*, January 31, 2017.

energy and carbon use, and reduced potable water consumption. The central utility plants would provide thermal heating and cooling to the majority of buildings within the project site. Refer to Section 2.8.14 for additional detail regarding central utility plans and district utility systems.

The district systems would serve the project site via a new private utility corridor. Refer to Section 2.8.9 for additional detail.

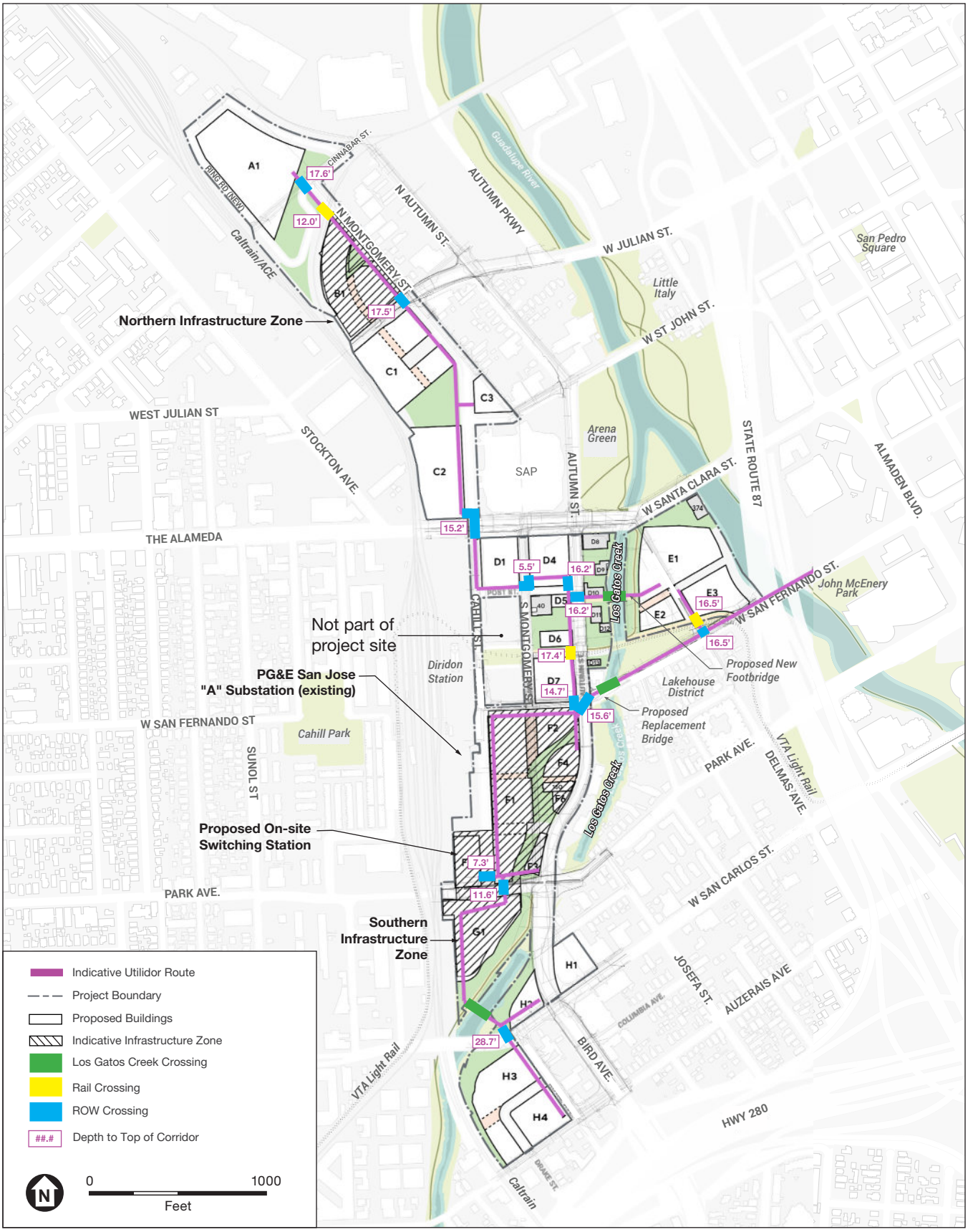
2.8.9 Utility Corridor

The proposed project would include a new utility corridor (referred to herein as a "utilidor") for conveying privately owned utilities (piping and cables; described in detail below) to and from project buildings. These private utilities could include sanitary wastewater collection, recycled water, thermal water (chilled and hot water), electrical distribution, communications, and solid waste collection and distribution.

The utilidor would be constructed as a combination of direct-bury utility trenches, utilities in basement parking garages, and underground tunnel structures. The utilidor is intended to be constructed on private property to the maximum extent feasible, but may need to cross or be constructed within public rights-of-way to service the project. Where it would cross existing streets, the proposed utilidor could be constructed using a jack-and-bore method to pass beneath existing utilities in the street, thus avoiding physical disturbance of existing utilities and street closures. Should the utilidor be constructed within existing roads, existing public and private utilities may need to be relocated or consolidated.

To link Blocks E1, E2, and E3 (the portion of the site between Los Gatos Creek and the Guadalupe River and between West Santa Clara Street and the VTA tracks) with the rest of the site, the utilidor would cross Los Gatos Creek by one or more of the three following options: on the proposed replacement West San Fernando Street bridge (described in Section 2.11, *Flood Control Improvements*), on the new footbridge that would be built across Los Gatos Creek as part of the project, using jack-and-bore construction beneath the creek, or a combination of these options. If jack-and-bore construction is used, jacking and receiving pits would be placed outside of the riparian corridor. On the southern end of the project site, to link Blocks H1–H4 with the rest of the site, an additional crossing of Los Gatos Creek would be made north of West San Carlos Street, using jack-and-bore construction beneath the creek. Jacking and receiving pits required in this crossing option would be placed outside of the riparian corridor. Jack-and-bore construction would also be used beneath the UPRR tracks in the northern portion of the site to allow the utilidor to reach the most northerly project block, Block A1.

Figure 2-9 illustrates the proposed utilidor alignment options.



SOURCE: Google LLC, 2020

Downtown West Mixed-Use Plan

Figure 2-9
Proposed Utilidor Layout

2.8.10 Potable Water

The project site is served by San Jose Water Company, an investor-owned public utility that serves most of San José. The water supply for this area of the city is sourced primarily from the Santa Clara groundwater basin. Existing water mains in adjacent streets vary from 4 inches to 21.25 inches in diameter. The proposed buildings would connect to the San Jose Water Company's potable water system for both domestic water supply and fire protection.

The proposed project would require new water lines where most of the new street segments are proposed, as well as north-south through the Block E sites, and would upgrade existing water lines along existing streets, including South Montgomery and West San Fernando Streets within the project site and off-site segments of West San Fernando Street (500 feet in length, connecting with the new water main through the Block E sites) and West San Carlos Street from Bird Avenue to Josefa Street (500 feet). The project would also require removing segments of existing water mains from portions of both South Montgomery and North Montgomery Streets that would be removed (described in Section 2.7, *Transportation and Circulation*), from the San José Fire Department training facility site, from the northern portion of Delmas Avenue, and from a public utility easement east of Diridon Station between Cahill and South Montgomery Streets. The project applicant would coordinate with San Jose Water Company for the necessary upgrades and other changes to the potable water distribution network, including removal and relocation of existing water lines. Work would be phased to ensure that existing water service would not be interrupted.

2.8.11 Wastewater

The project area is currently served by the City's existing sanitary sewer network, which flows north to the San José–Santa Clara Regional Wastewater Facility in the Alviso neighborhood of north San José. Under the proposed project, a private sewage collection network would collect wastewater from the project buildings and transport it to one or two on-site district water reuse facilities (wastewater treatment plants). In this scenario, the project would connect to the existing City sewer network to accommodate potential seasonal discharge during periods of low demand for recycled water, to receive wastewater if the district system were offline for any reason, and potentially, for disposal to the City sewer system of residual solids (sludge), as described below. Alternatively, if no water reuse facilities were included in the project, the project site would be connected to the City's existing sanitary sewer system, with all project-generated wastewater transported via existing collection facilities to the San José–Santa Clara Regional Wastewater Facility. The project applicant has coordinated with the City of San José to model the potential effects of both scenarios on the existing sanitary sewer system to determine deficiencies and required upgrades. Because of proposed right-of-way vacations (discussed in Section 2.7, *Transportation and Circulation*), some existing sanitary sewer infrastructure would need to be relocated or removed, including from North Montgomery and South Montgomery Streets, Cinnabar Street, and potentially from the San José Fire Department training facility site. The project applicant would coordinate with the City to determine acceptable relocations.

District treatment of wastewater would require new construction of a private sewage collection network and construction of a water reuse facility on the project site. If an on-site district water reuse facility is pursued, up to two on-site water reuse facilities would treat project-generated wastewater for reuse to meet demands for non-potable water, such as for toilet and urinal flushing, irrigation, and cooling.

The district water reuse facility(s) would have the capacity to treat project-generated wastewater to disinfected tertiary (unrestricted use) recycled water standards as described under Title 22 of the California Code of Regulations. Per those regulations, the wastewater will be oxidized, filtered, and disinfected. The wastewater treatment process and supporting treatment equipment would be co-located with the thermal plant in up to two proposed central utility plants (described in Section 2.8.14, *Central Utility Plants and District Utilities*).

To increase the performance of district thermal systems, the project may incorporate heat exchange from the private wastewater treatment. Wastewater heat exchange allows for the heating and cooling co-located with the water reuse facility or facilities within the central utility plant(s) to capture heat present in the wastewater flows or extract heat from stored water after tertiary treatment. In addition, the wastewater treatment process tanks could benefit from the rejection of excess heat from the thermal facilities. The integration of wastewater heat recovery or rejection would improve the project's overall energy efficiency. Wastewater heat exchange could also be implemented in individual buildings, especially residential buildings, to benefit from higher temperature wastewater flows before heat dissipation through wastewater collection networks.

In the private sewage collection network scenario, wastewater would be collected via pump station(s) and pumped into a low-pressure force main within the proposed utilidor. A pressurized wastewater collection system allows sewage to be conveyed in a physically smaller layout than a conventional gravity-flow system, which requires a dedicated trench with larger pipes to achieve adequate slope.

Wastewater treatment residual solids ("sludge") could be discharged into the City's sanitary sewer system or managed on-site and periodically hauled off for beneficial reuse. The on-site treatment of these residuals may be achieved via anaerobic digestion, generating biogas that could be used in fuel cells to generate electricity and dewatered biosolids that could be reused beneficially as a land-applied fertilizer. Alternatively, these solids could be discharged into the City's sanitary sewer network where adequate flow exists to carry these solids to the San José–Santa Clara Regional Wastewater Facility.

2.8.12 Recycled Water

Recycled water is not currently provided to the project site. The nearest South Bay Water Recycling Program recycled-water main extends south from Coleman Avenue along Autumn Parkway, but ends on the north side of the UPRR tracks, about 0.1 mile west of the project site's northern portion. The proposed project would include an option for on-site wastewater treatment and use of the resulting recycled water. Under the proposed project, recycled water—whether generated by the on-site water reuse facilities or obtained from the City's recycled water system—would be used for

toilet flushing irrigation, and as a make-up supply for the use of evaporative cooling towers for building air conditioning systems.[61] Recycled water could also be used during maintenance activities (e.g., street cleaning and washdown of photovoltaic [PV] solar panels).

Recycled water treated on-site would be distributed throughout the project site by a private distribution system routed through the utilidor.

Should recycled water not be produced at a district water reuse facility, the project would construct a recycled-water pipeline from the existing recycled-water system so that the project would use the same volume of recycled water as assumed to be available from project generated recycled water.[62]

Potable water supplied by San Jose Water Company would be used as a backup supply to the recycled water system in the event of a temporary failure of the on-site recycled water system. Due to the phasing of the project, potable water would also be used as a supply for non-potable uses until the water reuse facility(s) are constructed and brought online.

2.8.13 Stormwater

The project area is currently serviced by the City's storm drain network, which, in the project vicinity, includes stormwater outlets into both Los Gatos Creek and the Guadalupe River. There is an existing above-grade stormwater pump station on the project site. This pump station is currently located on the San José Fire Department training facility site, south of Park Avenue near South Montgomery Street.

With project implementation, stormwater would be managed in accordance with the City's Municipal Regional Stormwater National Pollutant Discharge Elimination System permit. Stormwater management would be consistent with the City's Green Stormwater Infrastructure Plan and the Santa Clara Valley Urban Runoff Pollution Prevention Program. The project would meet these requirements by implementing green infrastructure strategies that may include bioretention, flow-through planters, pervious paving, green roofs, and possibly rainwater harvesting or infiltration facilities.

The existing site is approximately 97 percent impervious. The existing land use includes industrial and commercial development with many large asphalt parking lots and minimal existing landscaped areas. The existing developments do not treat stormwater runoff before discharge to the City's collection network.

---

[61] As with the thermal heating and cooling system, some project buildings, such as the first structures developed, certain residential buildings, and/or existing buildings, may not be served by the project's recycled water network. However, at least some such buildings could potentially be linked to the City's recycled water system if that network is extended to the site. The potential extension of recycled water infrastructure to serve the project site would be installed primarily in existing roadways and utility rights-of-way.

[62] According to the *Google Downtown West Infrastructure Plan* (October 7, 2020), options for connecting to the existing system include connecting at Coleman Avenue, Autumn Parkway, and/or West Hedding Street. In addition to these connection(s) to the north of the project site, a loop system could also be considered between the Downtown pipeline terminating at South Fourth Street and East San Fernando Street, and the north connection point to improve reliability.

The project would connect into the existing storm drain mains in the public rights-of-way. New storm drain mains would be installed in proposed streets to serve new development, new streets, or streets with new stormwater treatment. In addition, new laterals would be added to connect project blocks to the storm drain system. New pipes would be designed for 10-year storm capacity in accordance with City of San José requirements.

Based on improvements identified in the City's ongoing storm drain master planning project, the applicant proposes to upgrade two storm drain trunk mains to serve the project site and the upstream watershed. The project would construct new larger storm drainage pipes in Cinnabar Street and North Montgomery Street in the northern portion of the site, to connect with a new storm drain installed in North Autumn Street in connection with the under-construction Platform 16 project.[63] These new storm drainage pipes would connect to an existing outfall east of the former Howard Street—to be increased in size by the City as part of its ongoing Capital Improvement Program—that drains into the Guadalupe River. In West Santa Clara Street, the project would replace an existing storm drain pipe with a larger pipe between Cahill Street and Los Gatos Creek; this new storm drain would discharge via a 33-inch outfall to Los Gatos Creek, replacing an existing 18-inch outfall. The new outfall would include a larger flap gate. The outfall and flap gate would be constructed according to San Francisco Bay Regional Water Quality Control Board and Santa Clara Valley Water District (Valley Water) requirements, as well as those of any other applicable agencies such as the U.S. Army Corps of Engineers and California Department of Fish and Wildlife.[64]

The proposed right-of-way vacations (discussed in Section 2.7, *Transportation and Circulation*) would necessitate the relocation or removal of some existing storm drain infrastructure, including an existing storm drain in South Montgomery Street. The existing pump station at the fire department training facility would need to be relocated to avoid conflicts with the proposed building design. This pump station may be relocated within the same parcel, or within the existing street right-of-way if space is available. The potential relocation site(s) would be evaluated further when building designs for this block reach a sufficient level of detail (e.g., actual building footprints) to allow consideration of more specific plans for the existing pump station. The project applicant would coordinate with the City of San José to determine acceptable approaches to and sites for such relocations.

Along with treating all runoff from impervious areas, the proposed project would slightly increase the quantity of pervious surfaces relative to existing conditions.[65] Proposed natural landscape areas would be planted with a wide variety of native species, with a focus on habitat creation and stormwater treatment functions.

63 In late April 2020, the Platform 16 developer announced that it would suspend construction pending further economic developments related to the COVID-19 pandemic.

64 In connection with the DSAP program, the City has identified three additional outfalls that must be upsized to 24 inches in diameter—from South Autumn Street and West San Carlos Street into Los Gatos Creek, and from West San Fernando Street into the Guadalupe River. These are separate from the proposed project.

65 As designed, the project proposes an approximately 9 percent net reduction in impervious surfaces on the site, compared to existing conditions.

2.8.14 Central Utility Plants and District Utilities

Fundamental to the concept of district-wide utility systems[66] would be the designation of two infrastructure zones and the construction and operation of two central utility plant areas within these zones. Two infrastructure zones are proposed: a Southern Infrastructure Zone in the southwest portion of the site (Blocks F1–F5 and G1) and a Northern Infrastructure Zone in the northern portion of the site (Block B1). In total, the central utility plants would occupy about 130,000 gsf. To provide for a conservative analysis, this EIR assumes that the proposed project would include central utility plants in both infrastructure zones, as denoted on **Figure 2-9**.

The infrastructure zones would house mechanical, thermal, and power equipment; a district water reuse facility or facilities (if included in the project); supporting equipment to service the project site; and potentially a solid waste collection terminal. Depending on the precise nature of development on the blocks in the infrastructure zones, one or both central utility plants could be developed as a stand-alone facility or in a building that would also contain other uses, such as office space. With the central utility plants and infrastructure zones, on-site utilities and services could be consolidated in central locations to enable local management of resource demands on the project site, thereby reducing burdens on existing municipal systems while increasing project resiliency. Consolidating utility services in the central plants would also increase spatial efficiency by eliminating areas for individual buildings that otherwise would have been dedicated to facilities and services.

Managing thermal, power, water, and waste services across the site at a district-wide scale is also anticipated to yield operational benefits over time. For example, consolidating the collection of solid waste through automated waste collection at two terminals would reduce the area required in each building for waste collection and storage. Furthermore, the terminals would reduce truck traffic on local streets to collect waste, compared to conventional systems in which waste collection trucks travel to each building.

A limited number of new buildings, particularly those at locations most distant from the central utility plant(s) and/or those built first, could have “business as usual” heating, ventilation, and air conditioning (HVAC) and other utility systems installed in place of connection to district systems to accommodate the opening of certain buildings before completion of the first central utility plants, and/or because some new on-site residential buildings would be built by different developers. For example, an affordable housing developer may elect to forgo the added cost and complexity of linking to district utility systems. Should such individual building systems be installed, they would be electrically powered, not fueled by natural gas or other fossil fuels. Existing buildings adaptively reused may also employ conventional heating and cooling systems; these buildings are considerably smaller than the proposed new construction.

[66] If included in the project, on-site wastewater treatment and generation of non-potable (recycled) water for reuse would also be considered a district utility. However, the project may also be served by the San José–Santa Clara Regional Wastewater Facility for both purposes. Sanitary sewer and recycled water are discussed in Section 2.8.11 and Section 2.8.12, respectively.

Hot/Chilled Water Network

The proposed project would develop a district-wide network of hot and chilled water mains for building heating and cooling, instead of using individual boilers and chillers with cooling towers in most of the buildings. Thermal energy would be provided by the central utility plants, which would deliver hot water and chilled water via thermal mains across the district to heat exchangers and/or in-building pumps that would distribute directly to the building. Where appropriate, temporary thermal service may be located at blocks with a connection to the central utility plants replacing the temporary service when appropriate. The central utility plant(s) would provide thermal heating and cooling to most of the buildings within the project site; however, as noted, business-as-usual systems may be installed in a limited number of buildings. Where business-as-usual systems are installed for heating and cooling, they would include water-cooled or refrigerant-based HVAC systems for cooling, and air-source heat pumps or refrigerant-based systems within the specific buildings for heating.

The district-wide thermal network, thermal equipment at the central utility plants, and business-as-usual systems would be consistent with the City's Climate Smart plan and Reach Code,[67] enabling the project to be combustion-free by providing heating and cooling only through electric equipment. Equipment would be selected to comply with California Energy Code requirements and would support achievement of a LEED ND Gold rating for the project.

The primary system serving heating and cooling at the central utility plants would consist of a heat recovery chiller and water-source heat pumps to provide base-load heating and cooling. These would be connected to a horizontal ground loop and energy piles installed within the mat foundation and structural bores of the subterranean parking structures. To avoid potential cross-contamination of aquifers, piles would be specially designed and installed with casings to prevent communication between the penetrated aquifers. Peak heating would be provided by air-source heat pumps located on the roofs of the central utility plants. Centrifugal chillers and cooling towers would provide peak cooling. Cooling in residential buildings may be supplemented by small localized heat pumps or chiller units to maximize the efficiency of the overall system.

The project applicant would own and manage the central utility plants and distribution of heating hot water and chilled water. Pipes to distribute hot and chilled water would be either located in the proposed utilidor or direct buried. The ground-source heating and cooling network may also require a condenser water pipe between buildings connecting ground loops or piles.

Electrical Distribution/On-Site Generation

Electricity at distribution voltage and sub-distribution voltage (12.47 kilovolts [kV] and 4.16 kV) is currently provided to the project area by two substations: San Jose A and San Jose B. The San Jose A substation is located adjacent to Diridon Station within the project boundary, while

[67] The San José Reach Code, adopted in 2019, encourages building electrification and energy efficiency, requires that non-residential buildings be solar-ready, and requires electric vehicle (EV) readiness and installation of EV equipment. The City has also prohibited natural gas in certain new buildings; however, the ban does not apply to residential buildings taller than three stories or to hotels or commercial buildings, and therefore would likely not apply to buildings constructed as part of the proposed project.

San Jose B is located approximately one-quarter mile northeast of the project site, at Coleman Avenue between the Guadalupe River and SR 87.

In addition to serving customers in the project area, the San Jose A substation provides distribution service through the project area to customers outside the proposed development boundary. At a transmission level, San Jose A receives high-voltage (115 kV) transmission power from PG&E substation San Jose B and the utility's El Patio substation, located in Campbell near the SR 17/Hamilton Avenue interchange. Existing 115 kV lines that serve San José are present within the project site; in particular, high-voltage lines that link substations San Jose A and B follow the Guadalupe River and Los Gatos Creek and cut through the project site along West San Fernando Street.

Electrical delivery for the proposed project is expected to be served by PG&E at transmission voltage (115 kV) from a new PG&E-owned switching station in the project's Southern Infrastructure Zone to a new enclosed customer substation within the project site. The project applicant would provide land for the switching station consistent with PG&E's requirements, estimated at 15,000 gsf. The switching station and customer substation may be separate buildings or built as a single 40-foot-tall building of up to about 12,000 gsf.

Alternatively, the switching station may be located within the San Jose A substation, allowing for direct PG&E distribution service from San Jose A. In this option, the project would not require a new on-site substation and switching station, and would be served with 12 kV supplies directly from San Jose A. San Jose A would be upgraded to accommodate direct distribution needs for the project.

The project applicant has requested that PG&E underground approximately 1,300 feet of the El Patio-Station A 115 kV line, beginning just north of West San Carlos Street along the project site's western edge and into Station A. A "loop" line providing power to the switching station would also be located underground. To accommodate this, PG&E would install a steel transition pole north of West San Carlos Street and transition the circuit underground. The circuit would be routed north for about 1,000 feet in the same alignment as the overhead line and across Park Avenue and turn east and into the new switching station. The other part of the loop would exit the switching station and travel west to Station A. The project would construct new electrical distribution lines on the project site, which may be placed underground within the utilidor. Existing PG&E transmission and distribution lines that cross the project site may also be placed underground. Under the scenario in which the San Jose A substation is upgraded for direct 12 kV distribution to the project site, PG&E would construct up to four underground circuits between Station A and the site. Each circuit would be approximately 500 to 1,000 feet long.

The project applicant is also proposing the option of providing localized electric distribution lines from a dedicated transmission substation to connect some or all buildings in a microgrid. The microgrid option would include controls to share power between buildings across the microgrid distribution network, and controls to operate any sub-transmission generation and storage within the microgrid area disconnected from the grid in the event of an outage. In another scenario, the

City of San José could own and operate the on-site electrical distribution system under a municipal power authority; this option may not include the switching station.

The project applicant is considering various technologies for renewable power generation, including solar PV arrays that may be located on building rooftops and façades. The project applicant anticipates at least 7.8 megawatts (MW) of on-site solar PV panels. In addition, storage technologies such as batteries may be installed to provide power to key site facilities in the event of a utility-wide grid outage, and to allow renewable energy to be shared between buildings connected to the microgrid. The project applicant proposes to install approximately 10 MW of batteries with 2 hours of storage. On-site energy generation and storage would allow the realization of project benefits such as providing power to key project area loads in the event of a utility-wide grid outage, allowing renewable energy to be shared between buildings, and allowing the generation and storage technologies to provide grid services.

The project would include emergency power diesel-fired electrical generators as required by the California Fire Code. For purposes of this analysis, this is assumed to include no more than 47 generators (one per building proposed to have a finished floor more than 75 feet above grade), with an average size of 650 kilowatts per generator. The emergency generators are assumed to operate only during standard monthly testing and in the event of an outage, and all generators are assumed to be vented at roof level.[68]

Natural Gas

The project would primarily use electricity throughout the site. For purposes of this analysis, it is assumed that natural gas would be available only to approximately 20,000 square feet of restaurant kitchen space. Water heating would be provided via heat pump or electric resistance water heaters. Cooking loads in office and residential spaces would be via electrical or induction cooking. Space heating and cooling would be by electricity.

Telecommunications

The telecommunications serving the project area consist of above-ground and buried telecommunications circuits from several providers, primarily AT&T and Comcast. There is a combination of coaxial cables and strand-mounted active equipment for Comcast service. Medium-count copper cables provide voice services to businesses and residents in the area; fiber-optic cables provide high-speed data service; and train signaling cables are present in the project area.

The proposed improvements for communications and data infrastructure include:

- Single-mode fiber-optic cabling to each new building with diverse routing to provide resiliency; based on previous campus projects, this could take the form of multiple self-healing rings based on geographic zones;
- Undergrounding or removal of existing telecommunications fiber and copper in the project area;

[68] The Bay Area Air Quality Management District typically limits diesel generator testing to no more than 50 hours per year.

- Infrastructure to provide communications connectivity to residential areas of the project, including data connectivity and connectivity for cable television and voice services. Connections to residences would likely be provided by fiber-optic cable, regardless of who provides the service. In the residences, this may transition to coaxial cable or remain on fiber; and
- Future installation of 5G cellular service. The trajectory of 5G service is being developed and will remain under study, but the timing of this project and the rollout of 5G services nationwide would indicate a substantial 5G infrastructure, including fiber backhaul.

City fiber in the project area would be protected or rerouted based on site conditions.

The project applicant intends to work with the City to develop an appropriate intelligent transportation system infrastructure, including fiber-optic connections to traffic signals to assist with improved traffic and pedestrian flow in the project area.

2.8.15 Solid Waste Collection and Transport

The project would include a centralized solid waste collection system, including on-site collection and sorting of solid waste, recyclables, and other discarded material before off-hauling. The applicant is considering strategies to manage solid waste, including an automated waste collection system, which is assumed to be part of the project analyzed in this EIR to ensure that potential impacts are addressed. Such an automated system would consist of a pressurized below-grade pneumatic pipe, primarily within the proposed utilidor.

As with other utilities, individual buildings would be connected to pressurized pipe via below-grade laterals, and waste inlets that could be selected for the deposit of various waste streams would be distributed in buildings and at some exterior locations. A pneumatic vacuum would pull the waste to the central terminal(s) within the central utility plants, where each waste stream would be deposited into the appropriate container. Trucks would collect the waste from the central terminal(s). Select materials unsuitable for the pneumatic system, such as grease and cardboard, would be required to be conveyed via traditional means.

2.8.16 Project Site Security

In addition to improvements to physical utilities, the project would include an on-site security plan to minimize potential additional demand for service calls by San José police. The security operations program for a campus-like development is generally determined by factors such as the overall size of the development, nearby land uses, the number of on-site employees, and the presence of company executives.

Based on the project's anticipated number of office employees and the scale of the proposed project, the security program would likely include the following full-time employees:

- One Cluster Security Manager (manages large single campuses or multiple smaller campuses within a subregion or zone);
- Two to three Campus Security Managers (manage single campuses or zones within a large single campus); and

- Two to three Campus Security Supervisors (coordinate field security operations at the guard level and work with stakeholders across cross functional groups at their assigned campuses or zones).

These employees would oversee and manage an officer security program that would consist of 24/7 coverage of the campus with three daily shifts. The security operations program would provide the following services:

- Security patrols on foot and by vehicle
- Alarm response
- Incident response
- Escort request response
- Support for access control as needed
- First aid/automatic external defibrillator emergency response

2.9 Project Features to Minimize Greenhouse Gas Emissions

The proposed project is proceeding under the Jobs and Economic Improvement through Environmental Leadership Act of 2011 (AB 900, as amended by SB 743 and SB 734, and AB 246), and the Governor of California has certified that the project would not result in any net additional GHG emissions. Therefore, the project applicant has committed to include a number of GHG reduction measures in the proposed project. These measures include but are not necessarily limited to the following:

- Providing a minimum of 10 percent of the parking spaces for EV charging (this commitment would increase to 15 percent with the mitigation measures included in Section 3.1, *Air Quality*, of this EIR);
- Using all-electric heating systems;
- Meeting or exceeding the standards of the 2019 American Society of Heating, Refrigeration and Air Conditioning Engineers with respect to energy use by building equipment;
- Installing a 7.8 MW solar PV system, using both building-integrated PV and rooftop arrays;
- Obtaining LEED ND Gold certification for the project as a whole and LEED Gold certification for all individual office buildings;
- Implementing a transportation demand management program (refer to Section 2.7.4, *Transportation Demand Management*);
- Using recycled water for all non-potable demands identified by the project, including toilet and urinal flushing, irrigation, and cooling;
- Using Tier 4 Final (or equivalent) and electric construction equipment (Mitigation Measure AQ-2a in Section 3.1, *Air Quality*, would provide for monitoring and enforcement);
- Implementing all applicable regulatory requirements, such as the 2019 Title 24 Building Standards and the San José Reach Code;

- Employing proven solid waste reduction techniques already in use at other Google campuses, which are projected to result in the diversion of approximately 84 percent of solid waste from landfills through recycling and composting;
- Purchasing carbon offsets to bring remaining GHG emissions to zero after implementation of all project measures;
- Potentially incorporating additional efficiency improvements including:
  - Improving the insulation of building envelopes;
  - Reducing the plug load in buildings;
  - Using occupancy-controlled light-emitting diode (LED) lighting fixtures; and
  - Installing heat recovery chillers and thermal storage;
- Potentially developing an on-site district wastewater collection system and water reuse facility;
- Potentially developing a private, low-pressure sanitary sewer collection network integrated into the proposed utilidor alignment; and
- Potentially including small-scale anaerobic digestion and/or wastewater recovery systems.

Mitigation Measure GR-1 in Section 3.6, *Greenhouse Gas Emissions*, would provide for monitoring and enforcement of measures required to comply with AB 900.

2.10 On-Site Logistics

To improve the efficiency of the supply chain compared to a typical grouping of unaffiliated office buildings, the proposed project would include on-site logistics operations (receiving, warehouse, and distribution) to serve the commercial uses and potentially other project uses. Under this concept, the project applicant would construct on-site logistics hubs; two hubs are anticipated, each approximately 50,000 square feet in floor area. At these logistics hubs, inbound materials and supply deliveries directed to the site's commercial office buildings and other commercial uses could be received from off-site locations, inventoried, and stored before being distributed to on-site offices in small-scale natural gas– or electric-powered trucks. The logistics hubs are anticipated to be located within the Northern Infrastructure Zone (north of West Julian Street) and the Southern Infrastructure Zone (between West San Fernando Street and West San Carlos Streets).

2.11 Flood Control Improvements

Based on best available modeling from Valley Water, portions of the project site are within the 100-year floodplain of Los Gatos Creek, while other areas are subject to a lesser risk of flooding from both Los Gatos Creek and the Guadalupe River.

The currently preferred option is for the project applicant, as an off-site improvement proposed as part of the project, to replace the existing West San Fernando Street bridge over Los Gatos Creek with a new bridge in approximately the same location. The existing bridge is supported by

abutments founded on the creek banks and columns in the creek itself. The improvements would modify or replace the existing bridge with a clear-span bridge that would allow greater flood flows to pass beneath the bridge, thereby avoiding potentially hazardous flooding on the project site and east of the creek, outside of the project site.

The new bridge would cross Los Gatos Creek with an 85-foot-long clear span without any piers in the creek. The proposed bridge structure would be supported on an abutment on each side of the creek. The abutments themselves would be supported on piles. In addition to carrying vehicle and pedestrian traffic, the box girder structure would be used to support the utilidor to serve project sites on either side of Los Gatos Creek with district systems. The bridge would also be designed to accommodate the existing utilities that would be relocated to the new structure.

A vertical profile would be incorporated into the bridge superstructure so that the bridge soffit would be no lower than the 100-year flood elevation. To satisfy ADA access requirements, a maximum slope of 5 percent would be used at the bridge approaches.

Removal of the existing bridge and construction of the replacement bridge would require diverting vehicular and pedestrian/bicycle traffic from West San Fernando Street to alternate east-west routes, such as to West Santa Clara Street to the north or Park Avenue to the south. The West San Fernando Street bridge replacement would also require temporarily relocating existing utilities attached to the bridge to avoid a disruption of service. Utilities would then be re-installed across the new bridge.

In addition to the West San Fernando Street bridge replacement, the applicant proposes a creek restoration project with ongoing maintenance within Los Gatos Creek to remove the debris, logjams, invasive species, and dead trees in the channel to improve floodwater conveyance. Engineered log structures or other equivalent bioengineered features would be installed in the waterway for fish habitat enhancement to improve ecological function.[69] Ongoing periodic stream maintenance activities would also occur as part of the proposed project, in conjunction with Valley Water, to maintain the creek's capacity for conveying floodwaters. These improvements would require collaboration with and approval by other landowners and regulatory agencies.

Alternatively, if a new bridge is not constructed and/or creek restoration and maintenance is not undertaken as under the project's preferred option, the project applicant could raise the ground elevation of portions of the project site by as much as 2.8 feet so that the ground floors of buildings would be located above the modeled flood level, or flood gates may be used to prevent floodwaters from entering ground-floor levels or subsurface parking in accordance with FEMA guidelines for dry flood-proofing. (Even if the bridge replacement and creek restoration were to proceed, some structures on the project site would remain in Zone A of the 100-year floodplain, and floodproofing would be required for those blocks.)[70] Excavation is proposed to allow subsurface parking on the

[69] Engineered fish habitat enhancement log structures are human-made structures introduced into a waterway to mimic the function of logs and logjams that provide refuge for migrating steelhead. Unlike logs and logjams, these structures can be maintained over time to ensure continuing habitat provision while avoiding increased flood risk.

[70] The City of San José does not permit dry flood-proofing for residential units at grade or for subgrade parking in 100 percent residential buildings; however, the project's Hydrology and Flood Control analysis (Schaaf & Wheeler, August 2020) indicates that none of the project's proposed fully residential buildings would be subject to flooding.

project site (refer to Section 2.13.8, *Demolition, Grading, and Site Preparation*). Thus, excavation spoils would potentially be available for on-site fill to raise the existing ground elevation, assuming that any known and potential contamination could be resolved.

2.12 Downtown West Design Standards and Guidelines

As part of the proposed project, the project applicant is proposing the adoption of detailed design standards and guidelines that would apply to development on the project site. These enforceable Downtown West Design Standards and Guidelines, a draft of which is provided in Appendix M, would be approved as part of the Planned Development Permit. In addition to the project-specific Downtown West Design Standards and Guidelines, the Downtown Design Guidelines and the Complete Streets Standards and Guidelines would continue to apply to development of the project unless a standard or guideline under the Downtown Design Guidelines or the Complete Streets Standards and Guidelines is expressly superseded by the Downtown West Design Standards and Guidelines. The site-specific Downtown West Design Standards and Guidelines would specify which of the existing standards and guidelines in the Downtown Design Guidelines and Complete Streets Design Standards and Guidelines continue to apply to the project and which are superseded by the Downtown West Design Standards and Guidelines. Because they would be adopted as part of permit approval, the Downtown West Design Standards and Guidelines would impose mandatory standards—enforceable by the City—on the project's design and implementation with respect to land use, open space, building design, public rights-of-way, sustainability, and lighting and signage.[71] In this way, the Downtown West Design Standards and Guidelines would ensure compliance with the City-adopted program for the project site. In addition to the mandatory standards, the Downtown West Design Standards and Guidelines would contain subjective guidelines that would encourage or discourage certain design treatments and approaches but would not be mandatory.

Each of the project's subsequent improvements (buildings and their uses, and open spaces) on the site would be evaluated by the City Planning, Building, and Code Enforcement Department for conformity with the new standards in the Downtown West Design Standards and Guidelines, which would address land uses, building design, building heights, setbacks, open space program and character, the public realm (including rights-of-way, lighting, and signage), as well as other aspects of development within the project site.[72] As shown in Appendix M, specific topics include:

- Priority active use frontage locations;
- Allowed land uses by block;
- Block size and structure, with streets, mid-block passages, and open spaces between built areas;

[71] The parcels owned by VTA at the southeast corner of West Santa Clara and Cahill Streets (comprising Block D1) are not included in the Downtown West Design Standards and Guidelines. A subsequent planned development permit would be required to implement the Planned Development Zoning District in relation to the VTA parcels. Any subsequent planned development permit for the VTA parcels must conform with this project's General Development Plan and the specific development standards for Block D1.

[72] So-called horizontal improvements, including but not limited to streets, utilities, and grading, would be approved by the Director of Public Works or the Director's designee.

- Massing and architecture relationships to sensitive location-specific edge conditions, including existing neighborhoods, the creek, open spaces, and historical resources;
- Treatment of historical resources to be retained as part of the project;
- A toolkit of measurable design strategies for massing and architecture for buildings longer than 350 feet, with attention to bulk and articulation controls;
- Human-scale design strategies for the pedestrian and podium level of buildings, particularly along active frontage;
- Transparency requirements of the ground floor along active uses and office space;
- Residential design, including ground-floor units and balconies;
- Preferred building material palette;
- Contextual considerations for building and public realm design that reflect immediate adjacencies and the character of San José;
- Skyline-level building separation and massing reduction requirements;
- District systems (inclusive of Central Utility Plants), logistics, and parking design requirements;
- Bird-safe design;
- Open-space quantity, location, and uses;
- Scale, character, planting palette, materials, and furnishings of open spaces and streetscape;
- Performance/dimensions for trails, bicycle facilities, and pedestrian facilities;
- Parking and loading design and access;
- Sustainability performance requirements and building design strategies; and
- Lighting and signage design requirements.

The Downtown West Design Standards and Guidelines (refer to Appendix M) includes an introductory chapter that also contains a users' guide to the document. Additional chapters cover Land Use, Open Space, Buildings, Mobility, Sustainability, and Lighting and Signage:

- The *Land Use* chapter builds upon the General Plan and zoning guidance and presents the land use diagram (which appears in this project description as Figure 2-3). This chapter also presents direction and guidance for allowed uses by block required frontages for active use, and guidance for applicable design standards and guidelines for interim uses.
- The *Open Space* chapter sets forth a planning context and enumerates open space goals and a design vision. This chapter presents the Project-Wide Requirements (standards and guidelines for design of publicly accessible open space, mid-block passages, and public art) and Location-Specific Requirements (standards and guidelines for relationships to riparian edges, trails, and the adjacent Caltrain and VTA tracks). In addition, the Open Space chapter presents the project's proposed open space network (shown on Figure 2-7 of this EIR chapter) and sets forth standards and guidelines for each of 10 discrete open spaces proposed as part of the project; and presents standards and guidelines for vegetation, stormwater management, materials, and site furnishings.

- The *Buildings* chapter opens with the project's design intent, including context, approach, and design themes. The chapter presents design standards and guidelines with respect to four general categories:
  - Building Envelope (buildable zones and building heights).
  - Project-wide standards and guidelines (with respect to Streetwall, Building Variety and Materials, Pedestrian-Level Design, Podium Design, Skyline Design, Long Façade Design, Residential Design, Sustainability Strategies, District Systems, District Infrastructure, and Logistics and Parking).
  - Location-specific standards and guidelines (Adaptive Reuse, Historical Resources, Non-Historic Height Reference, and Open Space Façades). This section of the chapter includes site-wide standards and guidelines for new construction adjacent to historical resources and specific standards for the buildings at 374 West Santa Clara Street (San Jose Water Company), 40 South Montgomery Street (Kearney Pattern Works and Foundry), and 150 South Montgomery Street (Hellwig Iron Works), as well as standards for the adjacent Lakehouse Historic District, Southern Pacific Depot District Historic Landmark, and 160 North Montgomery Street residence). Refer to Section 3.3, *Cultural Resources and Tribal Cultural Resources*, for additional information.
- The *Mobility* chapter provides a hierarchy of project site streets and their character; sets forth the project's proposed street, trail, pedestrian, and bicycle/scooter, transit, and vehicular networks; describes proposed private shuttle service; and describes intersections, network adaptability, accessibility, streetscape, and street plantings. The chapter also provides an overview of on-street stormwater management and utilities; discusses paving materials and street furniture; examines parking, loading, and ride-sharing; and presents direction and guidance with respect to all of the above.
- The *Sustainability* chapter focuses on overall environmental sustainability, features for the project, followed by references to the sustainability-related commitments made by the applicant.
- The *Lighting and Signage* chapter describes the context for the project's lighting plan and provides direction and guidance for site-wide lighting, lighting of open spaces, building lighting, and street lighting, as well as building signage and signs for wayfinding and interpretive signs (such as for historical and ecological features).

The final, adopted development standards would be mandatory, with measurable prescriptive or performative design performance criteria. The guidelines would set forth the design intent, design expectations, and encouraged or discouraged features, which would be more qualitative and subjective. The City would evaluate subsequent building, open space, and other project implementation plans for consistency with the standards and guidelines, which also establish the process for such review and approval of individual project components.

2.12.7 Renderings of the Proposed Project

To provide illustrative examples of the scale of the proposed development, the project applicant has prepared a series of before-and-after renderings of the proposed project, some at a sketch level and some photography-based, that provide examples of how the project form and massing

could be realized.[73] These images are presented as **Figures 2-11 through 2-17** at the end of this chapter, following page 2-8180. These figures are intended to illustrate the general scale of development, but not to depict actual proposed building forms. Individual building designs would be consistent with the Downtown West Design Standards and Guidelines and would be presented for review and approval by the City before the issuance of building permits. At that time, building-specific renderings would be available for review by City staff and the public, providing greater detail regarding the appearance and materials of each proposed structure.

2.13 Project Construction and Phasing

2.13.7 Construction Phases

If approved, construction of the project's proposed buildings, street network changes, and infrastructure would occur in three primary phases.[74] Construction is anticipated to begin in 2021 and is conservatively assumed to continue through 2031. This assumption provides for a conservative analysis, because it compresses construction activities that might otherwise occur sequentially, and because near-term construction activities would not benefit from changes in technology and/or lower emissions standards that will reduce emissions over time. The duration of each phase of construction would vary, with the end of one phase and the start of the subsequent phase sometimes overlapping one another.[75] Actual phased implementation could be constrained by external factors such as market forces and construction staging for the BART Downtown extension, and thus could extend over a longer period. The timing of construction of buildings and other project components within each phase may shift due to market conditions or other external factors without exceeding the program assumptions per year. The specific type of construction work would also vary by phase, but would generally consist of the following sequence for each of the three phases:

1. Demolition and site clearance
2. Excavation and soils removal (and remediation, as needed)
3. Foundation and/or basement level/garage work; utilities and subsurface infrastructure
4. Vertical construction
5. Surface street/right-of-way work
6. Streetscape and open space improvements

Table 2-3 illustrates the proposed project's program by phase, and **Figure 2-10** illustrates the proposed phasing.

---

[73] Consistent with standard practice, a project under construction is considered part of a proposed project's existing condition in evaluation of visual changes and the like, because the under-construction building would be present in at least substantially completed form before the proposed project begins substantial construction activities. Accordingly, on Figure 2-12, the existing view from West Julian Street includes a rendering of one portion of the under-construction Platform 16 project at 440 West Julian Street and Autumn Parkway.

[74] Phase 2 is analyzed with respect to air quality purposes as having two distinct subphases because of the spatial orientation of development within that phase (four non-contiguous areas of the site), as shown on Figure 2-10.

[75] The phasing assumed in this EIR takes into account reasonable (but slightly conservative) assumptions for development, including practical constraints posed by other projects, such as BART station construction.

Phase 1 (2021 through 2027)

Phase 1 generally consists of the project area south of West Santa Clara Street, except for some blocks on the south side of West Santa Clara Street (Blocks D1 and D4) and some blocks south of Los Gatos Creek (Blocks H2, H4, and a portion of Block H3). Refer to **Figure 2-10** for the approximate boundaries of Phase 1.

TABLE 2-3
PROJECT PHASING

Development Program [a]	Phase 1	Phase 2	Phase 3	Total
Land Uses				
Residential (dwelling units)	3,130	1,410	1,360	***5,900***
Active Uses (e.g., retail) (gsf)	370,000	107,000	23,000	***500,000***
Hotel (rooms)	0	0	300	***300***
Limited-Term Corporate Accommodation (rooms)	530	190	80	***800***
Office (gsf)	4,170,000	2,465,000	665,000	***7,300,000***
Event/Conference Center (gsf)	100,000	0	0	***100,000***
Central Utility Plants	87,000	43,000	0	***130,000***
Logistics/Warehouse	50,000	50,000	0	***100,000***
Parking and Loading				
Public/Commercial Parking[b]	2,800	1,600	400	4,800
Residential Parking	1,575	685	100	2,360
Total Automobile Parking Spaces	**4,375**	**2,285**	**500**	**7,160**
Bicycle Parking	3,292 spaces at a minimum (total)			
Open Space				
Open Space	10 acres	3 acres	2 acres	**15 acres**

NOTES:
gsf = gross square feet

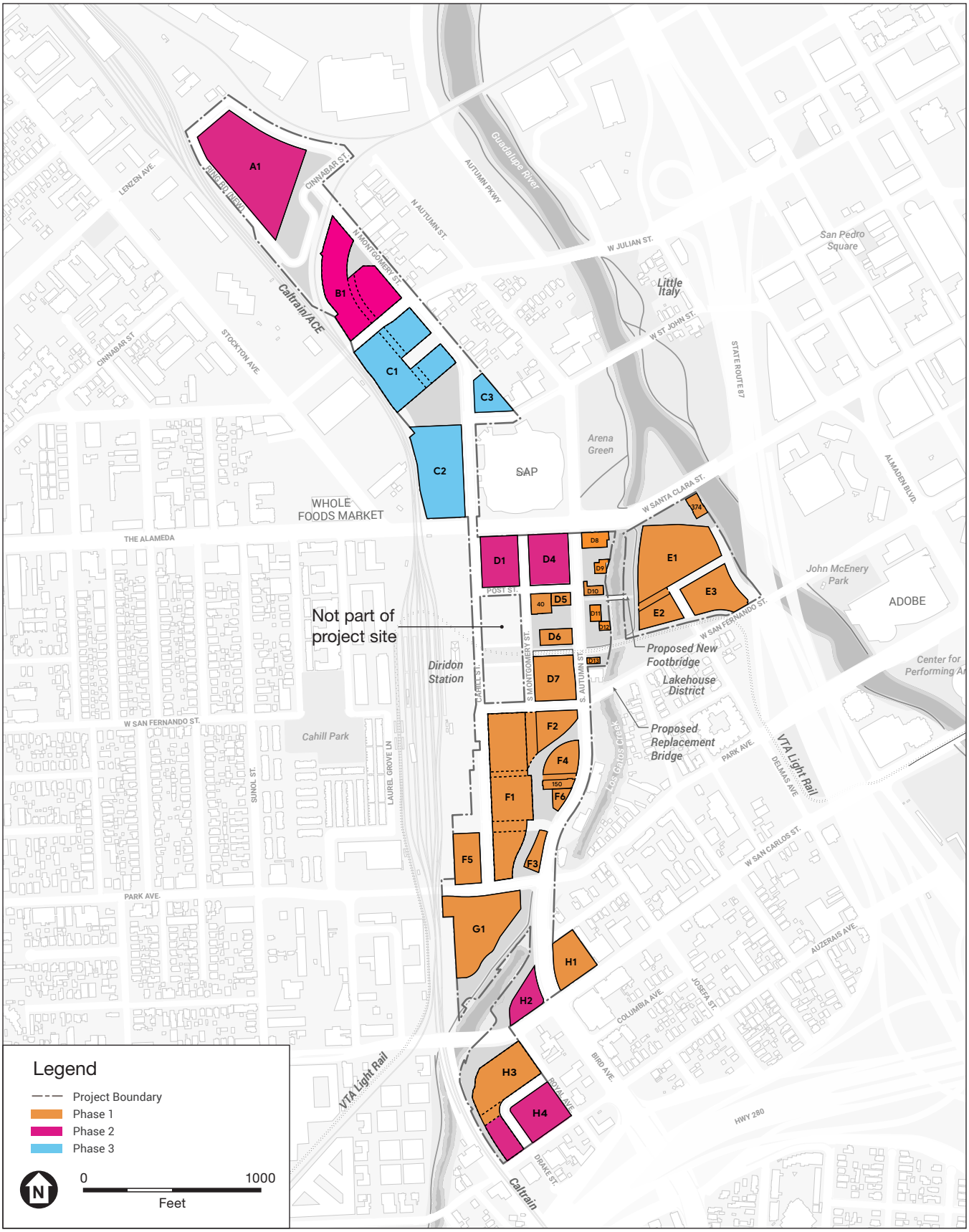
[a] Represents maximum development program.

[b] Includes a portion of the residential spaces could be available for shared use by office employees. Some commercial parking could also be provided at off-site location(s), should such off-site parking be developed separately from the project in the future.

SOURCE: Downtown West Design Standards and Guidelines (Appendix M of this EIR); Development by phase provided by Google LLC in 2020.

Phase 1 would begin in 2021, and would extend through much of 2027. Initial work during the first phase would include preparing a site near Park Avenue and Cahill Street for construction of utility plant areas that would accommodate an electrical substation, switching station, thermal heating and cooling, power, and potentially a district water reuse facility and/or automated solid waste collection facilities.

Phase 1 would include approximately 4.17 million gsf of office and 3,130 residential units, all in multiple buildings, many of which could also include ground or second-floor active uses. New construction would include foundation work and/or excavation for basements and vertical construction. Within this same time frame, approximately 370,000 gsf of active uses are anticipated to be developed on the site in ground-floor or second floor spaces in mixed-use building or freestanding buildings and in pavilions and kiosks located within the project open



SOURCES: Google LLC and SITELAB urban studio, 2020

Downtown West Mixed-Use Plan

Figure 2-10
Proposed Project Development Phasing

spaces, along with the project's 100,000 gsf of event/conference space. Phase 1 would also include 87,000 gsf of utilities (central utility plant) in the Southern Infrastructure Zone, and 50,000 gsf of logistics/warehouse space. In addition, Phase 1 would include development of 530 rooms of limited-term corporate accommodations.

Up to 103,000 gsf of building space in existing structures along South Montgomery and Autumn Streets would be retained, rehabilitated, renovated, or rebuilt, and ultimately reoccupied with new uses as part of the proposed project (the floor area is included in the active use square footages given in the paragraph above). Construction work is anticipated to be more limited at such adaptive reuse sites than at sites where demolition and new construction is proposed. Specific activities would vary based on site-specific program details, but are anticipated to include construction work to expand or modify existing building envelopes and to upgrade building interiors and finishes.

Work to remove and replace the San Fernando Street bridge would also occur during Phase 1. This would likely require detouring vehicular traffic from San Fernando Street to alternate east-west routes, such as to West Santa Clara Street immediately to the north or Park Avenue to the south. Alternatively, the feasibility of constructing the bridge in two halves to facilitate keeping one lane open at a time is being considered. Work on the replacement West San Fernando Street bridge would require temporarily relocating existing utilities currently attached to the bridge to ensure that electrical, water, and sanitary sewer service to communities east of Los Gatos Creek would not be disrupted. Utilities would be re-installed across the new bridge, also in Phase 1.

Open space adjacent to office and residential buildings is anticipated to be constructed in conjunction with or after the completion of adjacent building construction. As indicated in Table 2-3, two-thirds of the on-site open space—some 10 acres—would be developed in Phase 1.

Certain modifications to the street network would also be completed during the first phase of project construction. These changes would include:

- Converting Autumn Street between West Santa Clara Street and Park Avenue from one-way to two-way operation;
- Closing South Montgomery Street between West San Fernando Street and Park Avenue;
- Closing Otterson Street west of South Montgomery Street;
- Closing Delmas Avenue to through traffic and converting a portion to a private street providing access and egress to and from parking on that portion of the site; and
- Constructing a one-block extension of Post Street (between West Santa Clara and West San Fernando Streets) from South Montgomery Street to South Autumn Street. In addition, as noted above, Phase 1 would include the temporary closure and diversion of traffic from San Fernando Street to accommodate the proposed removal and new construction of the West San Fernando Street bridge.

Construction staging would occur throughout the Phase 1 development area, likely adjacent to or near each structure being built.

Potential interim uses, as described previously, could also occur during Phase 1.

Phase 2 (2025 through 2031)

Phase 2 development would occur in four discrete areas of the project site:

- North of West Julian Street up to the northernmost site boundary (Blocks A1 and B1);
- Along the south side of West Santa Clara Street between the Caltrain right-of-way and South Autumn Street (Blocks D1 and D4);
- On Block H2 at the northwest corner of West San Carlos and South Autumn Streets; and
- On the southernmost Block H4 and part of Block H3 on the north size of Auzerais Avenue and on Block H2 at the northwest corner of West San Carlos Street and Bird Avenue.

Phase 2 work is anticipated to begin in 2025 and would extend through 2031. Because this phase would include work in disparate areas of the project site, and because of the anticipated BART extension that would be constructed through the center of the site, Phase 2 would be developed in subphases. The anticipated initial portion of this phase would involve the northern and southern blocks (Blocks A1, B1, H2, H3, and H4) to avoid the construction staging area for the Diridon BART station (Blocks D1 and D4). The project applicant anticipates that above-ground construction work would be completed on the Diridon BART station around 2029, allowing project construction to begin on Blocks D1 and D4. The second of the project's two logistics facilities would also be constructed in Phase 2, adding an additional 50,000 gsf of logistics/warehouse space.

Approximately 2.47 million gsf of office space would be developed in this phase. Most of this office development would be clustered in the site's northern area, north of Julian Street. Roughly 107,000 gsf of active uses, which would include commercial retail and other publicly accessible uses, would be completed during the project's second phase, in ground-floor or second floor spaces in mixed-use buildings or freestanding buildings and in pavilions and kiosks located within the project open spaces. In addition, Phase 2 would include development of 190 rooms of limited-term corporate accommodations. Open space and streetscape improvements would be made once the vertical construction was substantially complete, including an additional 3 acres of open space. If final design includes two Central Utilities Plants, then approximately 43,000 gsf of program will be added in this phase.

Approximately 1,410 housing units are anticipated to be completed in multi-family, mixed-use buildings during the project's second phase.

Changes to the street network during this period would include closure of street segments in the northern portion of the project site. This would affect Cinnabar Street at its intersection with North Montgomery Street.

Construction staging would occur near building sites throughout the Phase 2 development area.

Phase 3 (2029 through 2031)

Phase 3 is generally bounded by West Santa Clara Street to the south, the SAP Arena and North Montgomery Street to the east, West Julian Street to the north, and the rail right-of-way to the west.

The third phase of the proposed project would overlap with the latter portion of Phase 2. This phase would entail construction of the remaining office, residential, and active program (Blocks C1, C2, and C3) and a hotel (southeast corner of Block C1). This phase would consist of up to 1,360 dwelling units in multiple buildings that could also include ground- or second-floor active uses and about 665,000 gsf of office space.

A triangular open space/plaza would be developed between the office and residential buildings once the uses surrounding the plaza are completed and operational. In this area, the project applicant would also construct a 300-room hotel and the remaining 23,000 gsf of space to accommodate active uses, which are anticipated to be delivered within the ground or second levels of the residential and hotel buildings. Phase 3 would also include 80 rooms of limited-term corporate accommodations and the project's final 2 acres of open space.

Construction staging for Phase 3 is anticipated to occur in a central location within the Phase 3 development area.

2.13.8 Demolition, Grading, and Site Preparation

Demolition of existing buildings, except those to be retained (described in Section 2.3, *Development Program*), would also occur in phases. Demolition (and site remediation where necessary) would occur at specific locations shortly before new construction at the same locations.

The site is generally flat, with an average downward slope from south to north of 0.5 percent. Existing elevations range from approximately 79 to 103 feet. Proposed grading would provide ADA–accessible pathways throughout and adjacent to the blocks. The pathways would be designed on a block-by-block basis and would meet California and San José Building Code accessibility standards. New occupied building space would be designed to be above, or flood-proofed to the elevation of, the existing 100-year floodplain, as designated by FEMA in the 2009 Flood Insurance Rate Map and a Letter of Map Revision Document dated March 7, 2019, and the 100-year Los Gatos Creek floodplain model from Valley Water. Refer to Section 2.11, *Flood Control Improvements*, for additional detail.

The project applicant would be responsible for the design and construction of all proposed site grading. Proposed grading designs would generally match the existing south-to-north drainage pattern. Activities would be limited to the development blocks and would conform to existing grades at the edge conditions along the block boundaries and rights-of-way. Although the streetscapes would undergo improvements, the project applicant intends to minimize elevation changes within the existing street rights-of-way. The applicant would complete grading in phases as needed to enable development of each individual building site. Interim grading may occur and be maintained as necessary to maintain access to existing facilities.

Excavation for subgrade parking, building foundations, utilities (including the utilidor and central utility plants), and streets and open space would involve removing about 1.6 million cubic yards of soil. As described previously (refer to Section 2.11, *Flood Control Improvements*), the potential exists to use some of the excavation spoils as on-site fill to raise the existing ground

elevation, assuming that any known and potential soil contamination issues can be resolved. (Soil and groundwater contamination is discussed in Section 3.7, *Hazards and Hazardous Materials*.)

Other site preparation activities would involve removing vegetation, which is conservatively assumed to include all existing trees. (There are no City-designated Heritage Trees on the project site, although removal of ordinance-size trees as defined in Chapter 13.32 of the San José Municipal Code, *Tree Removal Controls*, would require that tree removal be included in the Planned Development permit.[76]) Site preparation activities would also involve grading and, where necessary, site remediation. (Refer to Section 3.7, *Hazards and Hazardous Materials*.) Based on the proposed project's preliminary Stormwater Management Plan included in the *Google Downtown West Infrastructure Plan*, development of the proposed project would reduce the percentage of the site that consists of impervious areas from approximately 97 percent at present to about 88 percent (refer to Section 3.8, *Hydrology and Water Quality*).[77]

Construction techniques could involve the use of steel-frame, poured-in-place reinforced concrete, and wood-frame construction. High-rise structures would likely be supported on concrete mat foundations, supported as necessary by deeper foundation systems such as drilled, driven, or poured concrete. Smaller structures could be built on other types of foundations such as grade beams or spread footings.

The proposed project would entail 24-hour (overnight) construction activities for, at a minimum, continuous pouring of concrete foundations for certain buildings, and potentially for other structures and horizontal infrastructure. Other construction activities are proposed to comply with work-hour limitations specified in the City of San José's noise ordinance. Work outside the City's standard permitted construction hours of 7 a.m. to 7 p.m., Monday through Friday, would require City approval and may be approved through a development permit based on a site-specific "construction noise mitigation plan" and a finding by the Director of Planning, Building and Code Enforcement that the construction noise mitigation plan is adequate to prevent noise disturbance of affected residential uses.

Because it is anticipated that certain construction activities (such as continuous pours of concrete foundations) may require work outside normally permitted construction hours, the project's Planned Development Permit would allow for such construction activities, subject to conditions of approval, including performance standards, imposed by the City to limit noise impacts.

2.13.9 Construction Equipment

As part of the proposed project, the project applicant has committed to the use of heavy diesel-powered construction equipment with engines certified as Tier 4 final by the California Air Resources Board and U.S. Environmental Protection Agency. Compared to emissions from equipment with less stringent controls, using this equipment would reduce construction-generated emissions of diesel particulate matter (a toxic air contaminant) and of criteria air pollutants,

[76] Although some existing trees might be retained, this EIR assumes a worst-case scenario in which all existing trees on the project site would be removed as part of the proposed project.
[77] Arup, Lendlease & Sherwood Design Engineers, *Google Downtown West Infrastructure Plan*, October 7, 2020.

including oxides of nitrogen. In addition, some construction equipment, including tower cranes and aerial lifts, and certain other equipment such as compressors would be electrically powered and thus would generate no localized emissions. For more details regarding construction equipment proposed for use during project development, refer to Section 3.1, *Air Quality*.

2.14 Project Objectives

2.14.7 Project Applicant Objectives

Building on a decade of engagement and planning that the City of San José initiated with the Strong Neighborhoods Initiative in 2009 and development of the DSAP adopted in 2014, the project applicant began its community engagement program in spring 2018 to further identify and prioritize community interests to inform the project objectives. The applicant participated in 10 neighborhood walks with member representatives of the Diridon Station Area Advisory Group (SAAG) and in more than three dozen meetings with the SAAG group and individual members in 2018, which helped to lay the groundwork for engagement with the greater community.

Throughout 2019, the project applicant conducted a robust community engagement program. Ongoing stakeholder meetings and outreach were conducted at 14 neighborhood parks and at citywide events throughout summer 2019, and two open houses were held in fall 2019. The project applicant also held dozens of meetings with neighborhood associations and a noticed community meeting co-hosted with the City of San José. Community input continued to inform the development of the project objectives and framework plan.

From December 2019 to February 2020, the project applicant hosted seven design engagement workshops. In March 2020, the applicant began preparing for online engagements that began in May 2020, to ensure that engagement would continue during the period covered by shelter-in-place and social distancing orders related to COVID-19.

In total, the project applicant has so far gathered more than 10,000 data points and engaged with more than 3,000 people in more than 120 meetings and engagement sessions since 2018. According to the applicant, this outreach effort assisted it in developing its project objectives.

By undertaking the proposed project, the project applicant, Google LLC, seeks to achieve the objectives listed below.

Overarching Objectives

- The project applicant's key objective is to provide sufficient high-quality office space to accommodate the long-term expansion of its workforce and business operations in a Bay Area location that is anchored by public transportation.
- Deliver community benefits consistent with the terms of the MOU.
- Provide this new office space in a vibrant mixed-use neighborhood centered around Diridon Station that includes not only new workplaces, but also housing and active commercial and open spaces with the amenities and services necessary to support a diverse, thriving community of residents and workers.

Establish Diridon Station as a New Regional Job Center

- Deliver a critical mass of new office space consistent with the goals and objectives of the Diridon Station Area Plan.
- Encourage a significant shift to public transportation by leveraging existing and planned local, regional, and statewide transportation facilities at the site by developing a high-density mix of office and residential uses.
- Create a dense commercial center that is designed to anticipate and adapt to changing business needs and growth over several decades, with floorplates large enough to provide horizontally connected workplaces.
- Group office uses contiguously while creating a mixed-use environment in order to take advantage of operational efficiencies, such as the ability to share amenity spaces.

Develop Housing, Including Affordable Housing, Alongside Jobs

- Deliver thousands of units of new, high-quality housing.
- Construct housing with sufficient density to maintain day and evening, weekday and weekend activities in Downtown West.
- Offer a mix of unit types, sizes, and levels of affordability to accommodate a range of potential residents.
- Deliver affordable housing consistent with the goals set forth in the MOU.

Create Opportunity Pathways

- Develop commercial retail spaces on the project site that would attract diverse tenants, adapt to future needs, integrate local small businesses, stimulate local economic activity, serve the neighborhood, and complement adjacent public spaces.
- Promote learning and career opportunities from retail, to food service, to professional and tech jobs.

Build a Place that is of San José

- Incorporate high-quality urban design, architecture, and open spaces with varied form, scale, and design character to enliven San José's downtown.
- Preserve and adapt landmark historic resources and assets where feasible to foster a place authentic to San José, and foster contemporary relations to San José's history.
- Develop key public spaces at the core of the project site as an extension to Downtown.
- Build upon the project's location at the convergence of a significant regional and statewide transportation hub and the city's Downtown to create a world-class, architecturally iconic civic/cultural center for the City of San José, particularly through the combination and juxtaposition of historic and contemporary design elements.
- Optimize environmental performance and comfort within buildings and adjacent public spaces through orientation, massing, and building technology.
- Create a place that fosters arts and cultural uses, especially through the provision of dedicated spaces for the arts, and as part of a larger suite of community benefits.

Connect People to Nature and Transit

- Connect people with nature along Los Gatos Creek and the Guadalupe River.
- Create myriad opportunities for passive recreation in new public open spaces, while improving access to active recreation by significantly augmenting a multi-use trail.
- Improve pedestrian, bicycle, and transit connectivity within the project area, as well as between the project area and existing adjacent neighborhoods, in order to create a highly active and lively pedestrian and bicycle friendly environment.
- Consistent with the MOU, develop a project with minimal parking and robust Transportation Demand Management measures in order to encourage active transportation and public transit use, and to support implementation of the City's Climate Smart plan.
- Provide a model of 21st century sustainable urban development by implementing shared infrastructure and logistics systems across the Project, significantly reducing energy and water demand, vehicle miles traveled, and greenhouse gas emissions.

Vibrant Public Realm

- Create a network of connected plazas, green spaces, streetscapes, and trails to link office and residential uses with retail, cultural, hotel, and other active uses and provide a range of publicly accessible amenities that create attractive, vibrant and safe experiences.

2.14.8 City Objectives

The City of San José seeks to achieve the following objectives by approving the proposed project:

- Ensure development of the project site consistent with policies in the General Plan, Downtown Strategy 2040, and Diridon Station Area Plan, that encourages ambitious job creation, promotes development of Downtown as a regional job center and a world-class urban destination, and supports transit ridership.
- Align the Diridon Station Area Plan with the Downtown Strategy 2040, specifically with regard to the increase in office development capacity.
- Ensure that development advances the City's progress toward the following goals and policies, as reflected in and implemented through the Downtown Strategy 2040 and Diridon Station Area Plan:
  - Manage land uses to enhance employment lands to improve the balance between jobs and workers residing in San José. To attain fiscal sustainability for the City, strive to achieve a minimum ratio of 1.1 jobs per employed resident by 2040. In the near term, strive to achieve a minimum ratio of 1 job per employed resident by 2025. (General Plan Policy IE-1.4)
  - Promote the intensification of employment activities on sites in close proximity to transit facilities and other existing infrastructure, in particular within the Downtown, North San José, the Berryessa International Business Park, and Edenvale. (General Plan Policy IE-1.5)
  - Advance the Diridon Station Area as a world-class transit hub and key transportation center for Northern California. (General Plan Policy IE-1.7)

- Foster development patterns that will achieve a complete community in San José, particularly with respect to increasing jobs and economic development and increasing the City's jobs-to-employed resident ratio while recognizing the importance of housing a resident workforce. (General Plan Policy LU-1.1)
- Provide maximum flexibility in mixing uses throughout the Downtown area. Support intensive employment, entertainment, cultural, public/quasi-public, and residential uses in compact, denser forms to maximize social interaction; to serve as a focal point for residents, businesses, and visitors; and to further the Vision of the *Envision General Plan*. (General Plan Policy LU-3.1)

2.14.9 Objectives of the City and Google Memorandum of Understanding

- Implement the vision statement in the MOU dated December 4, 2018, by (1) creating a vibrant, welcoming, and accessible urban destination on the project site consisting of land uses that are well-integrated with the intermodal transit station, adjacent neighborhoods, and Downtown; (2) demonstrating a commitment to place making, social equity, economic development, environmental sustainability, and financially viable private development; and (3) collaborating with the project applicant to innovate in the development of an urban destination that will bring opportunity to the local community and create new models for urban and workplace design and development.
- Deliver community benefits including, but not limited to, achieving the following goals in the MOU:
  - Grow and preserve housing, including affordable housing.
  - Create broad job opportunities for San José residents of all skill and educational levels.
  - Enhance and connect the public realm.
  - Pay construction workers a prevailing hourly wage and benefit rate for Office and Research and Development building construction.
  - Increase access to quality education, enrichment opportunities, internships, and pathways to careers in science, technology, engineering, and mathematics (STEM) fields.
  - Support the timely delivery of substantial jobs and housing in the area surrounding Diridon Station to maximize integration with planned transit projects and successful implementation of the Diridon Station Area Plan.
- Support San José's economic growth by adding economic vitality to downtown and enhancing the property tax base.

2.15 Uses of the EIR and Required Project Approvals

2.15.7 City of San José

The City of San José is the lead agency under CEQA for preparation of the project's environmental analysis. This EIR is intended to provide the City, other public agencies, and the general public with the relevant environmental information needed to consider the proposed project. The City

anticipates that the project addressed in this EIR will require discretionary and non-discretionary City approvals that will include but not be limited to the following:

- Certification of the EIR
- Development Agreement, including community benefits package, and a parkland agreement between the project applicant and the City to meet Municipal Code requirements (San Jose Municipal Code Chapters 14.25 and 19.38)
- Approval of the *Downtown West District Infrastructure Plan* (as part of the Development Agreement)
- General Plan amendments and General Plan text amendments, including changes to the Land Use Diagram, Transportation Network Diagram, growth reallocation (Appendix 5, *Growth Areas Planned Capacity by Horizon*) and policy clarifications
- DSAP amendments, including amendments to text and figures to expand the DSAP boundary; changes to land use designations; and revisions to provisions for open space, circulation, public art, and parking
- Midtown Specific Plan amendment to adjust the specific plan boundary to conform with the General Plan and DSAP[78]
- Municipal Code amendments
- Planned Development rezoning, including a General Development Plan that includes, as applicable:
  - Maps delineating permitted land uses; landscape and open space areas; public and private streets and driveways, both on and adjacent to the site; and public and private easements for parking, access, utilities, and pedestrian use
  - Zoning regulations that specify permitted, conditional, and special use allowances; development standards (in this case, the Downtown West Design Standards and Guidelines; refer to the discussion of Planned Development permit[s], below) setting forth required setbacks, maximum building heights, parking, and lot sizes; landscaping concepts; descriptions of any required off-site work to accommodate the project; noise attenuation requirements, if any; environmental mitigation pursuant to CEQA; and any other appropriate conditions of approval
  - Additional applicable maps depicting adjacent buildings; existing structures to be retained; important existing natural features, including trees, waterways, and other such features; the location and required height of sound walls; topography; and proposed grading, if greater than 18 inches
  - Illustrative depictions of the project
- Planned Development permit(s), which would include:
  - Approval of Downtown West Design Standards and Guidelines
  - Downtown West Improvement Standards (horizontal infrastructure improvements, such as utilities, streets, streetscapes, and the like)
  - Infrastructure Plan Sheets (anticipated floodplains, grading, utility layout and stormwater improvements within the public realm)

[78] This amendment would be required only if the City does not process conforming amendments to the Midtown Specific Plan prior to consideration of the proposed project.

  - Approval for construction outside the City's standard permitted construction hours of 7 a.m. to 7 p.m., Monday through Friday
  - Approval of tree removal and replacement
  - Findings for demolition permit(s)
  - Approval of reduction in base riparian setbacks
  - Approval of all conditions of approval as may be imposed by the City Council
- Subsequent design conformance review for consistency with the Downtown West Design Standards and Guidelines
- Vesting Tentative Maps/Tentative Maps/Final Maps, pursuant to Title 19 of the Municipal Code and ordinances governing subdivisions and improvements
- Design review of horizontal infrastructure (streets, utilities)
- Demolition permits
- Historic Preservation permits
- City Historic Landmark Amendments
- Storm water pollution prevention plans
- An Obstruction Evaluation/Airport Airspace Analysis
- Building permits
- Grading permits
- Vacation and dedication of public right-of-way
- Major Encroachment Agreement(s) for utilities crossing public rights-of-way, including for the project's proposed utilidor
- Encroachment permits and other Department of Public Works clearances, including for work in the public right-of-way
- Solid waste facility permit
- Special event and entertainment permits, as may be required

Under the project's proposed Planned Development Zoning District controls, all public and private activities or undertakings pursuant to or furthering the proposed project would constitute a single project, to the extent that they conform with the adopted Downtown West Design Standards and Guidelines.

Subsequent Review by the City of San José of Project Components

Relationship to Relevant Planning Documents

The Planned Development Zoning and accompanying General Development Permit would constitute the zoning for the project site. The Planned Development Permit, including the Downtown West Design Standards and Guidelines, would serve to implement the zoning, along with non-conflicting provisions of the existing DSAP design standards, Downtown Design Guidelines, and the City's Complete Streets Design Standards and Guidelines.

Downtown West PD Zoning/Design Conformance Review

The General Development Plan would establish a Downtown West PD Zoning/Design Conformance Review (Conformance Review) process to ensure that development within the project site substantially conforms with the requirements of the Plan, the Downtown West Design Standards and Guidelines, applicable provisions of the Municipal Code, and the other applicable standards and guidelines noted above.

The project applicant would be required to submit a Conformance Review application to the City's Department of Planning, Building and Code Enforcement for vertical improvements and open space. The application would have to include information specified in the General Development Plan, including, as applicable:

- Proposed land uses and allocation of square footage for each;
- Building heights; and
- Requests for minor modifications to and other authorized relief from the Planned Development Permit, if sought.

The Director of Planning, Building and Code Enforcement or the Director's designee would evaluate the Conformance Review application on the basis of a Conformance Checklist to be submitted by the applicant and/or developer of a particular building, structure, or physical improvement (refer to Appendix M for the Conformance Checklist). The Conformance Checklist would describe the criteria established in the General Development Plan and the Downtown West Design Standards and Guidelines against which a determination of conformity can be made by the Director. Compliance with clear and quantitative mandatory standards in the Planned Development Permit and Downtown West Design Standards and Guidelines would be required; however, compliance with non-mandatory guidelines, while encouraged, would not be required.

Horizontal Improvements

Plans for so-called horizontal improvements, including but not limited to streets, utilities, and grading, would be reviewed and approved by the Director of Public Works or the Director's designee.

2.15.8 Other State, Regional, and Local Entities

Other public agencies and private service providers may act as responsible, trustee, or consulting agencies under CEQA, and their review and approval could be required for certain aspects of the proposed project. Those agencies and service providers include but are not necessarily limited to the following entities, listed here along with their roles:

- **California Department of Fish and Wildlife:** Streambed Alteration Agreement for work in Los Gatos Creek, and specifically for creek enhancement/rehabilitation activities, replacement of the West San Fernando Street bridge and, potentially, the new footbridge across Los Gatos Creek and/or horizontal drilling/jack-and-bore activities; in addition, a California Department of Fish and Wildlife permit could be required if any trails or pathways were to be developed within the riparian habitat of Los Gatos Creek.

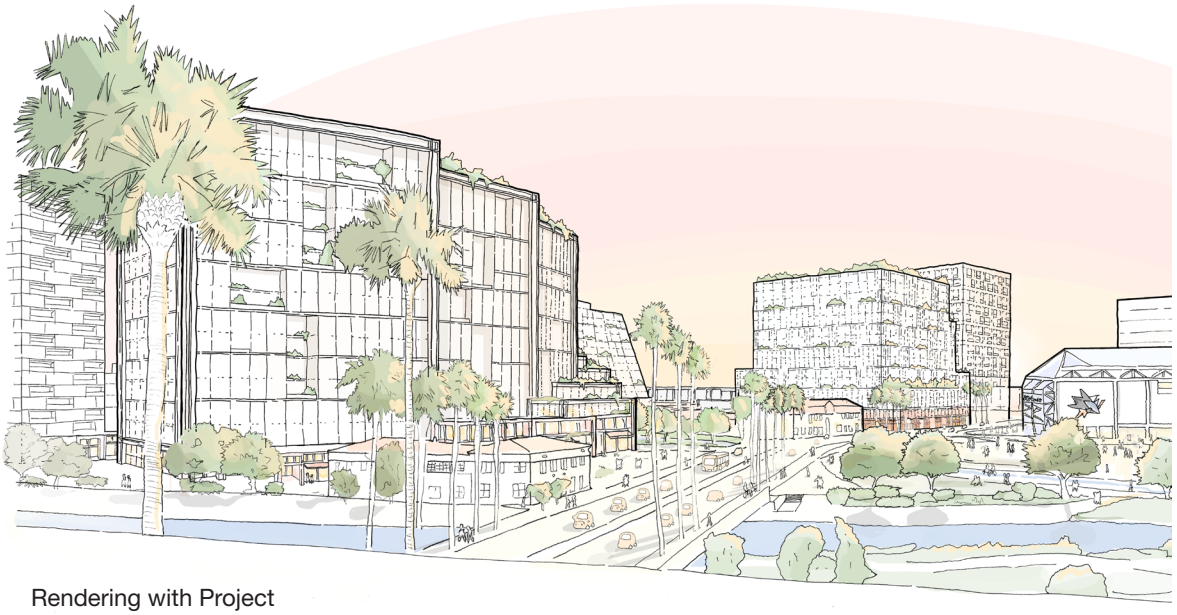
- **California Department of Toxic Substances Control:** Amendment of land use covenant(s) prohibiting residential development and site-disturbance activities on Lots A, B, and C, and potentially other approvals.
- **California Department of Transportation (Caltrans):** Granting of access easement(s) for construction of an access road on a portion of Caltrans property at the southeastern portion of Block E3.
- **California Public Utilities Commission:** Approval of one or more at-grade rail crossings of the UPRR tracks adjacent to the northern portion of the project site, if applicable, and approval(s) to the extent required for the potential new substation and microgrid electric distribution network.
- **Bay Area Air Quality Management District:** Permit to construct and authority to operate backup diesel generators, district water reuse facilities, and any other stationary sources of emissions proposed as part of the project.
- **County of Santa Clara Department of Environmental Health:** Removal of deed restriction(s) prohibiting certain uses on one or more parcels on the project site.
- **County of Santa Clara Airport Land Use Commission:** Consistency determination with respect to the *Comprehensive Land Use Plan for Norman Y. Mineta San José International Airport*.
- **Peninsula Corridor Joint Powers Board (Caltrain):** Granting of an access easement for construction of a portion of the southerly extension of Cahill Street on Caltrain property.
- **Pacific Gas & Electric Co.:** Granting of an access easement for construction of a portion of the southerly extension of Cahill Street on PG&E property.
- **San Jose Water Company:** Will-serve authorization to provide potable water.
- **VTA:** Potential approval of a ground lease or sale to the project applicant of VTA-owned properties near Diridon Station, and potential approvals related to development on VTA-owned properties.
- **Valley Water:** Encroachment permit for any work on Valley Water lands, including along Los Gatos Creek; any approvals for new stormwater outfalls; review and approval of construction of work in Los Gatos Creek, including the proposed new footbridge, the West San Fernando Street bridge replacement, any work on other bridges, and creek enhancement/rehabilitation work. Potential permit and review of any wells for a ground-based heating system (horizontal ground loop and energy piles).
- **San Francisco Bay Regional Water Quality Control Board:** Clean Water Act Section 401 certification for work in Los Gatos Creek, including the proposed new footbridge, the West San Fernando Street bridge replacement, any work on other bridges, and potentially permit approval if any trails or pathways were to be developed within the riparian habitat of Los Gatos Creek. The district water reuse facility or facilities would require approval from the San Francisco Bay Regional Water Quality Control Board under current regulations for on-site treatment and use of non-potable water.
- **State Water Resource Control Board:** Review of the engineering report by the Division of Drinking Water, with technical comments provided on tertiary filtration and disinfection unit processes as part of the operational permit of the water reuse facility.
- **Santa Clara County Department of Public Health:** Potential advisory role for obtaining the operational permit for the water reuse facility.

2.15.9 Federal Agencies

In addition, approval by the following federal agencies could be required for certain aspects of the proposed project, although they are not responsible agencies under CEQA. Those agencies include but are not necessarily limited to the following entities, listed here along with their roles:

- **Federal Aviation Administration:** Airspace safety review determination for each proposed building or structure that would exceed the Federal Aviation Regulations/Part 77 notification surface for Norman Y. Mineta San José International Airport, or that would otherwise stand 200 or more feet in height above ground.
- **Federal Energy Regulatory Commission:** Potential approval of elements of proposed microgrid distribution network and on-site generation and storage facilities.
- **Federal Railroad Administration:** Potential approval of new at-grade rail crossings, if applicable.
- **National Marine Fisheries Service:** Potential review of any work in Los Gatos Creek, including informal or formal consultation under Section 7(c) of the Federal Endangered Species Act.
- **U.S. Fish and Wildlife Service:** Potential review of any work that may affect federally listed species, or in waters under the jurisdiction of the U.S. Army Corps of Engineers.
- **U.S. Army Corps of Engineers:** Potential Clean Water Act Section 404 permitting for work in Los Gatos Creek.

Existing



Rendering with Project

SOURCES: Google LLC, 2020

Downtown West Mixed-Use Plan

Figure 2-11
Illustrative Rendering of Proposed Project from State Route 87
Looking Southwest Illustrating Proposed Building Form and Massing

Existing

Rendering with Project

Note: 'Existing' view above includes approximate location and scale of foreseeable projects in the surrounding area.

SOURCES: Google LLC, 2020

Downtown West Mixed-Use Plan

Figure 2-12
Illustrative Rendering of Proposed Project from West Julian Street Looking Southwest Illustrating Proposed Building Form and Massing

Existing

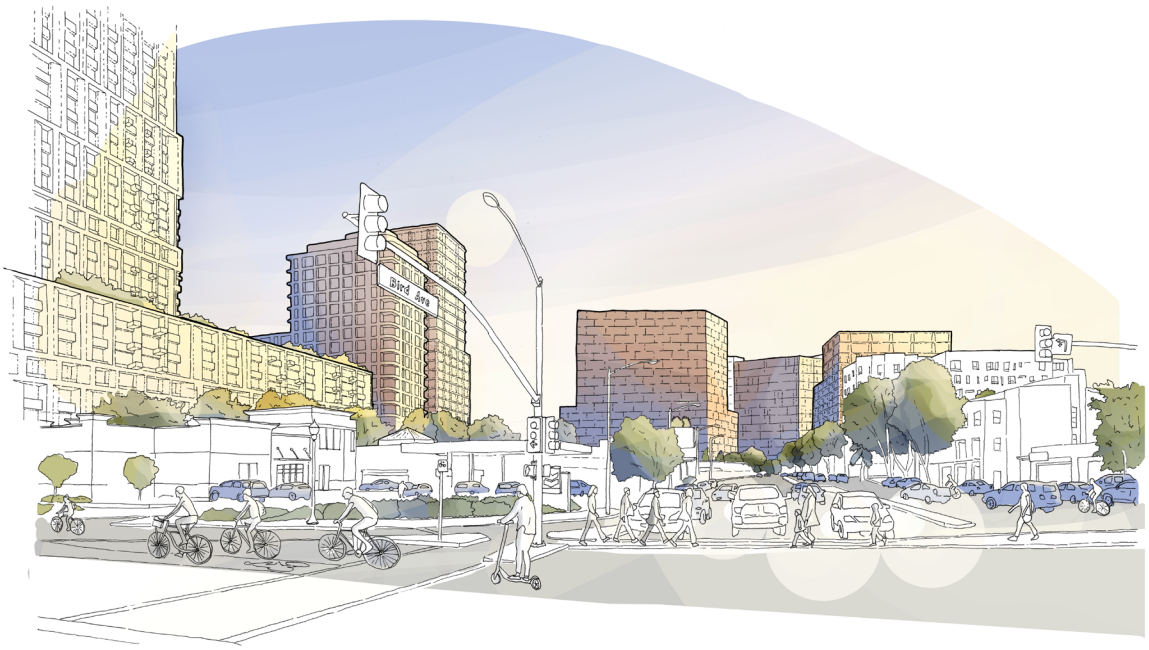
Rendering with Project

SOURCES: Google LLC, 2020

Downtown West Mixed-Use Plan

Figure 2-13
Illustrative Rendering of Proposed Project from Bird Avenue at I-280 Looking Northwest Illustrating Proposed Building Form and Massing

Existing



Rendering with Project

SOURCES: Google LLC, 2020

Downtown West Mixed-Use Plan

Figure 2-14
Illustrative Rendering of Proposed Project from Bird Avenue at Auzerais Avenue Looking North-Northwest Illustrating Proposed Building Form and Massing

Existing

Rendering with Project

SOURCES: Google LLC, 2020

Downtown West Mixed-Use Plan

Figure 2-15
Illustrative Rendering of Proposed Project from Cahill Park
Looking East Illustrating Proposed Building Form and Massing

Existing

Rendering with Project

SOURCES: Google LLC, 2020

Downtown West Mixed-Use Plan

Figure 2-16
Illustrative Rendering of Proposed Project from Proposed Creekside Walk at South Autumn Street Looking West Towards Diridon Station Illustrating Proposed Building Form and Massing

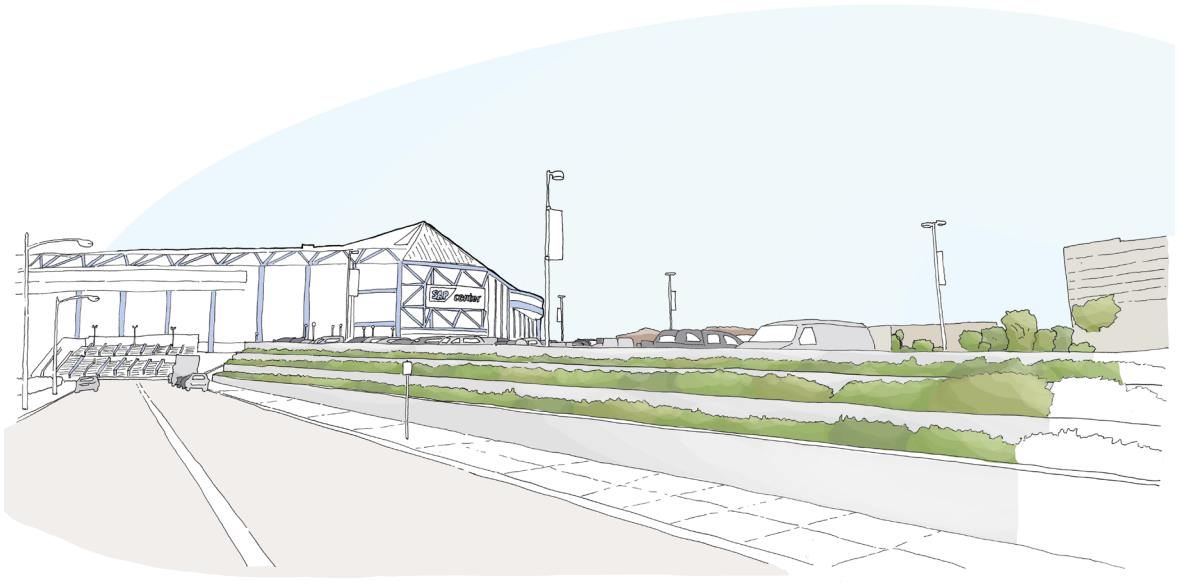
Existing

Rendering with Project

SOURCES: Google LLC, 2020

Downtown West Mixed-Use Plan

Figure 2-17
Illustrative Rendering of Proposed Project from the Proposed Meander Looking North Illustrating Proposed Building Form and Massing



Existing

Rendering with Project

SOURCES: Google LLC, 2020

Downtown West Mixed-Use Plan

Figure 2-18
Illustrative Rendering of Proposed Project from North Montgomery Street Looking South Illustrating Proposed Building Form and Massing

This page intentionally left blank

CHAPTER 3
Environmental Setting, Impacts, and Mitigation

Introduction

This chapter describes the physical and regulatory context, or "setting," of the Downtown West Mixed-Use Plan (proposed project) described in Chapter 2, *Project Description*, and analyzes the potential physical environmental impacts of implementing the proposed project at a project level. Mitigation measures are identified where necessary to reduce the severity of potentially significant impacts. This Environmental Impact Report (EIR) evaluates the maximum environmental impact that could result from the implementation of all components and phases of the proposed project.

Scope and Organization of Analysis

The information and analysis in this chapter are organized by environmental resource topics as follows:

- 3.1 Air Quality
- 3.2 Biological Resources
- 3.3 Cultural Resources and Tribal Cultural Resources
- 3.4 Energy
- 3.5 Geology, Soils, and Paleontological Resources
- 3.6 Greenhouse Gas Emissions
- 3.7 Hazards and Hazardous Materials
- 3.8 Hydrology and Water Quality
- 3.9 Land Use
- 3.10 Noise and Vibration
- 3.11 Population and Housing
- 3.12 Public Services and Recreation
- 3.13 Transportation
- 3.14 Utilities and Service Systems

On September 27, 2013, Governor Jerry Brown signed Senate Bill (SB) 743, which became effective on January 1, 2014. Among other things, SB 743 added Section 21099 to the California Public Resources Code, which states that "[a]esthetic and parking impacts of a residential, mixed-

use residential, or employment center project on an infill site located within a transit priority area shall not be considered significant impacts on the environment." The proposed project meets the definition of a mixed-use residential project on an infill site located within a transit priority area as specified by California Public Resources Code Section 21099. Accordingly, this EIR does not contain a separate discussion of the topics of aesthetics or parking, which can no longer be considered under CEQA in determining the proposed project's physical environmental effects.

The EIR nonetheless provides illustrative drawings of the proposed project for informational purposes as part of Chapter 2, *Project Description*, and provides a discussion in Section 3.13, *Transportation*, regarding the project's consistency with applicable plans and policies regarding transportation impacts, including the *City of San José Envision 2040 General Plan* (General Plan), which includes policies concerning parking. In addition, the topic of parking is addressed in the Local Transportation Analysis, which is an evaluation of non-CEQA transportation impacts included for informational purposes in Appendix J2.

With regard to aesthetics, it should be noted that the project area includes two "Civic Icons" identified in the City's 2019 Downtown Design Guidelines: the SAP Center and Diridon Station. In accordance with SB 743, this EIR does not address potential aesthetic impacts on these two "icons," including views of the buildings and the design of nearby structures and open spaces. Instead, this EIR describes any direct and indirect physical changes to these buildings and their setting in evaluating the environmental resource topics listed above, such as historic and architectural resources (in the case of Diridon Station) and emergency access (in the case of the SAP Center). While not a CEQA issue, aesthetics can be considered by the City during its consideration of project approvals, including adoption of the proposed Downtown West Design Standards and Guidelines, which would guide proposed new construction and site improvements during build-out of the project. See Section 2.12, *Design Standards and Guidelines*, for more information.

The information and discussion for each environmental topic analyzed in this chapter include the following subsections, which are described below:

- Environmental Setting
- Regulatory Framework
- Impacts and Mitigation Measures
- Cumulative Impacts

Chapter 7, *References*, lists all references used for the analysis, including all persons and documents consulted or relied on by the EIR preparers. All references cited in this draft EIR constitute part of the administrative record and are provided on the City of San José website for public reference, with the exception of documents that are confidential or copyright-protected. An index of these confidential or copyright-protected materials is available on the website, and printed copies can be requested via Shannon Hill, Environmental Project Manager (for contact information, see Chapter 1, *Introduction*).

Environmental Setting

This subsection describes the baseline physical conditions or point of reference from which the environmental impacts of the proposed project and the alternatives to the project are measured to determine whether an impact is significant. CEQA Guidelines Section 15360 defines the environment (or the setting) as "the physical conditions which exist within the area which will be affected by a proposed project."

Generally, the EIR sections describe the environmental setting or baseline conditions as they existed when the notice of preparation (NOP) was published (in this case, October 2019). However, CEQA also states that, when necessary, the environmental setting and/or baseline conditions may be described by historic conditions, conditions expected when the project becomes operational, or projected future conditions when supported by substantial evidence (CEQA Guidelines Section 15125[a][1]). Where the analysis for a particular topic has used a baseline other than the existing environmental setting, an explanation supported by substantial evidence is provided.

Since publication of the NOP, the COVID-19 pandemic has introduced a substantial amount of uncertainty to human lives. The pandemic has directly affected human behavior, requiring people to shelter in place, implement social distancing, and make other changes to the manner in which they live. Indirectly, COVID-19 has affected the economy by resulting in reduced consumer spending, business closures, and widespread unemployment. Some of these trends are considered short-term and are expected to reverse; however, there likely will be more permanent changes in the ways people live and behave in the post-pandemic world. Some EIR sections note the recent changes to behavior and the economy resulting from COVID-19 for informational purposes; however, the EIR analysis is based on an environmental baseline without COVID-19, and it would be speculative to identify long-term consequences of the pandemic at this time.

Regulatory Framework

The regulatory framework subsection presents relevant information about federal, state, regional, and/or local laws, regulations, and plans or policies that pertain to the environmental topic addressed in the section. These include relevant General Plan policies.

Impacts and Mitigation Measures

This subsection discusses the significance criteria, or thresholds of significance, for determining impacts, followed by an explanation of the approach to the analysis for the resource topic. The *Impact Analysis* subsection then describes the relationship of the proposed project to the thresholds of significance and evaluates the potential for the proposed project to result in direct and indirect adverse effects on the existing physical environment, with consideration of both short-term and long-term effects. Based on CEQA Guidelines Section 15382, an impact is considered significant if it would constitute "a substantial, or potentially substantial, adverse change in any of the physical conditions within the area affected by the project." Mitigation measures are identified where feasible for the impacts considered significant, consistent with CEQA Guidelines Section 15126.4, which states that an EIR "shall describe feasible measures

which could minimize significant adverse impacts …" CEQA Guidelines Section 15364 defines *feasible* as "capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, legal, social, and technological factors."

Significance Criteria

The thresholds of significance used in this EIR are those used by the City of San José Department of Planning, Building, and Code Enforcement and based on CEQA Guidelines Appendix G. The significance thresholds used to analyze each environmental resource topic are presented in each resource section of this chapter before the *Approach to Analysis* and *Impact Analysis* subsections. The categories used to designate impact significance are described as follows:

- **No Impact.** An impact is considered not applicable (no impact) if there is no potential for impacts, or the environmental resource does not occur within the project area or the area of potential effects—essentially, a project would result in no physical changes in the setting. For example, because the project area is not within the vicinity of a private airstrip, there would be no impacts related to exposure of people residing or working in the project area to excessive noise levels within the vicinity of a private airstrip. Many of the "no impact" conclusions are addressed below, at the end of this introductory section.
- **Less-than-Significant Impact.** This determination applies if there is potential for some limited effect, but not a substantial adverse effect that qualifies under the significance criterion as a significant impact. No mitigation is required for impacts determined to be less than significant.
- **Less-than-Significant Impact with Mitigation.** This determination applies if implementation of the project would result in an adverse effect that meets the significance criterion, but feasible mitigation is available that would reduce the impact to a less-than-significant level.
- **Significant Unavoidable Impact.** This determination applies if implementation of the project would result in an adverse effect that meets the significance criterion, but there appears to be no feasible mitigation available to reduce the impact to a less-than-significant level. In some cases, mitigation may be available to lessen a given impact, but the residual effects of that impact would continue to be significant even after implementation of the mitigation measure(s).

Approach to Analysis

The *Approach to Analysis* subsection describes the relevant features of the project for the impact particular analysis, followed by the methodology used to analyze potential environmental impacts based on the identified significance thresholds. Depending on the resource topic and applicable significance criteria, evaluations for topics may be quantitative or qualitative.

Impact Analysis

The *Impact Analysis* subsection evaluates the potential for the proposed project to result in direct and indirect adverse effects on the physical environment. The analysis covers all phases of the proposed project, including construction and operation, and is based on the significance criteria and the approach to analysis described in the previous subsection. Each impact is numbered to

correspond to the evaluation criterion or significance threshold identified at the start of the section. For example, Impact BI-1 corresponds with the first criterion listed in Section 3.2, *Biological Resources*. In some instances, multiple impacts may correspond to a single significance evaluation criterion. For example, Impact BI-1 addresses potential impacts on multiple species. Mitigation measures are also generally numbered to correspond to the impact they address. For example, Mitigation Measure BI-2 refers to the mitigation measure for the second impact in the *Biological Resources* section. (There are some exceptions, where mitigation measures appear under a more relevant impact and are numbered accordingly.) Where more than one mitigation measure addresses a given impact, letters are used to distinguish between measures (e.g., Mitigation Measures BI-2a, BI-2b, and BI-2c).

Purpose of This EIR and Basis of the Analysis

This document is a project-level EIR pursuant to CEQA Guidelines Section 15161. A project-level EIR focuses on the changes in the environment that would result from construction and operation of a specific development project. Thus, the primary purpose of this EIR is to assess the physical changes to the environment that could result from approval and implementation (construction and operation) of the project referred to as the Downtown West Mixed-Use Plan, and to provide this information to decision makers and the public before any decision regarding whether to proceed with the project. The EIR provides information and does not make a recommendation about whether to approve or not approve the project.

Chapter 2, *Project Description*, provides the foundation for the EIR's analysis and contains a description of the proposed project, including its development program and other physical characteristics, as well as the proposed General Plan amendment and other discretionary approval actions that would be required for the project to move forward. As discussed in that chapter, the project is being proposed as a Planned Development. Thus, the project would require City approval of a Planned Development rezoning for the project site, including a General Development Plan and a Planned Development permit. This would include the adoption of the proposed Downtown West Design Standards and Guidelines (refer to the draft in Appendix M), which describes the process for ministerial review of most subsequent project approvals.

The analysis of the physical effects of implementing the proposed project is based in part on growth assumptions (described further below under *Growth Projections*). Such assumptions are of primary relevance for the analysis of effects related to the intensity of development and associated activities, such as transportation, population and housing, air quality, and noise. For other effects on the physical realm, the analysis relies on the description and location of proposed project features. For example, the analysis considers maximum building heights and building envelopes, which reflect a maximum buildout of the project site if the proposed amendments to General Plan land use designations, zoning, and permitted height districts were to be adopted, along with other approvals listed in Section 2.15, *Uses of this EIR and Required Project Approvals*.

These assumptions provide a basis for the analysis and should not be understood as predicting how a particular site would look in the future. The Downtown West Design Standards and

Guidelines proposed as part of the project would shape the physical conditions on the project site (refer to Section 2.12, *Design Standards and Guidelines*).

Physical Environmental Impacts

CEQA directs lead agencies to identify the potential environmental effects of a project, to determine the significance of a project's environmental effects, and to identify feasible mitigation measures and/or alternatives that could avoid or minimize any adverse environmental effects. This EIR considers direct and indirect physical environmental effects that may be attributable to the proposed project. A *direct* physical change in the environment is "a physical change in the environment which is caused by and immediately related to the project" (CEQA Guidelines Section 15064(d)(1)). An *indirect* physical change in the environment is "a physical change in the environment which is not immediately related to the project, but which is caused indirectly by the project" (CEQA Guidelines Section 15064(d)(2)). An EIR would only consider indirect effects if the change "is a reasonably foreseeable impact which may be caused by the project. A change which is speculative or unlikely to occur is not reasonably foreseeable" (CEQA Guidelines Section 15064(d)(3)).

In general, economic and social changes resulting from a project are not treated as significant effects on the environment.[1] Social and economic effects are relevant under CEQA only if they would result in or are caused by an adverse physical impact on the environment. To the extent that social or economic changes associated with project implementation may engender secondary or indirect physical changes, such effects are addressed in this EIR.

Growth Projections

Citywide growth forecasts prepared by the City of San José Department of Planning, Building, and Code Enforcement are part of the basis of the analysis in this EIR. As part of the ongoing Diridon Station Area Plan (DSAP) update described in Chapter 2, *Project Description*, the City's ongoing process to update the DSAP is considering increasing the number of residential units and commercial/office uses projected in Downtown San José by the year 2040 by reallocating up to 12,619 housing units and 14,144,154 gross square feet (gsf) of commercial/office uses from other General Plan growth areas in the city to the Downtown. The additional 12,619 Downtown housing units would likely be transferred from Horizons 2 and 3 Urban Village growth areas.[2] The commercial/office uses would be shifted from other General Plan–designated employment areas, such as the North Coyote Valley growth area.[3] The final growth allocation, including the precise numbers of dwelling units and jobs transferred from each growth area, will be determined by the San José City Council via adoption of a General Plan amendment following a public planning process and a public hearing.

1 CEQA Guidelines Sections 15064(d)(1) through 15064(d)(3) and 15064(e).
2 Nearly half of the units would be moved from the Oakridge Mall and Vicinity urban village.
3 In November 2019, the City Council voted to purchase 937 acres of North Coyote Valley. The transaction, in which the Peninsula Open Space Trust and the Santa Clara Valley Open Space Authority also participated financially, involved most of the land in the North Coyote Valley employment growth area. With the purchase, the North Coyote Valley land will be preserved for open space and conservation purposes, rather than developed.

The General Plan amendment for the proposed project would reallocate a subset of the total reallocation being considered for the DSAP as a whole to ensure that Downtown San José has more than enough capacity for the project. Specifically, because the proposed project is anticipated to come before the City Council for approval in advance of the DSAP amendment, the project applicant proposes a project-specific General Plan amendment to reallocate up to 5,575 housing units and 6,306,000 gsf of commercial/office uses from other General Plan growth areas outside of Downtown to the Downtown. This proposed reallocation would be a subset of the overall DSAP reallocation described in the preceding paragraph and is also less than the overall development program for the proposed project because one portion of the project site—the former San Jose Water Company site (Blocks E1, E2, and E3 of the proposed project)—was entitled previously and because there is sufficient retail and hotel capacity within Downtown. With the reallocation, the total amount of growth anticipated under the General Plan would not change, but instead would shift to the more transit-rich Downtown area. See Section 3.11, *Population and Housing*, for more information.

Some development and growth within the DSAP and project site would occur even without implementation of the proposed project. In many cases, existing development does not reach its full potential under current building height limits, and those parcels could be developed regardless of future changes in land use policies and zoning controls. Development projected to occur on the project site without project implementation is described in the No Project Alternative/DSAP Development Alternative included in Chapter 5, *Alternatives*.

Cumulative Impacts

Cumulative impacts, as defined in CEQA Guidelines Section 15355, refer to two or more individual effects that, when taken together, are "considerable" or that compound or increase other environmental impacts. A cumulative impact from several projects is the change in the environment that would result from the incremental impact of the project when added to the impacts of other closely related past, present, or reasonably foreseeable future projects. Pertinent guidance for cumulative impact analysis is provided in CEQA Guidelines Section 15130:

- An EIR shall discuss cumulative impacts of a project when the project's incremental effect is "cumulatively considerable" (i.e., the incremental effects of an individual project are considerable when viewed in connection with the effects of past, current, and probable future projects, including those outside the control of the agency, if necessary).
- An EIR should not discuss impacts that do not result in part from the project evaluated in the EIR.
- A project's contribution is less than cumulatively considerable, and thus not significant, if the project is required to implement or fund its fair share of a mitigation measure or measures designed to alleviate the cumulative impact.
- The discussion of impact severity and likelihood of occurrence need not be as detailed as for effects attributable to the project alone.
- The focus of analysis should be on the cumulative impact to which the identified other projects contribute, rather than on attributes of the other projects that do not contribute to the cumulative impact.

An EIR must determine whether an individual project's contribution to a significant cumulative impact is *considerable*. This means that the project's proportional share is considered adverse in conjunction with other similar projects that may combine to result in physical impacts.

The cumulative impact analysis for each individual resource topic is described in the corresponding resource section of this chapter, immediately following the description of the project-specific impacts and mitigation measures.

Two approaches to a cumulative impact are articulated in CEQA Guidelines Section 15130(b)(1): (1) The analysis can be based on a list of past, present, and reasonably foreseeable probable future projects producing closely related impacts that could combine with those of a proposed project; or (2) a summary of projections contained in a general plan or related planning document can be used to determine cumulative impacts.

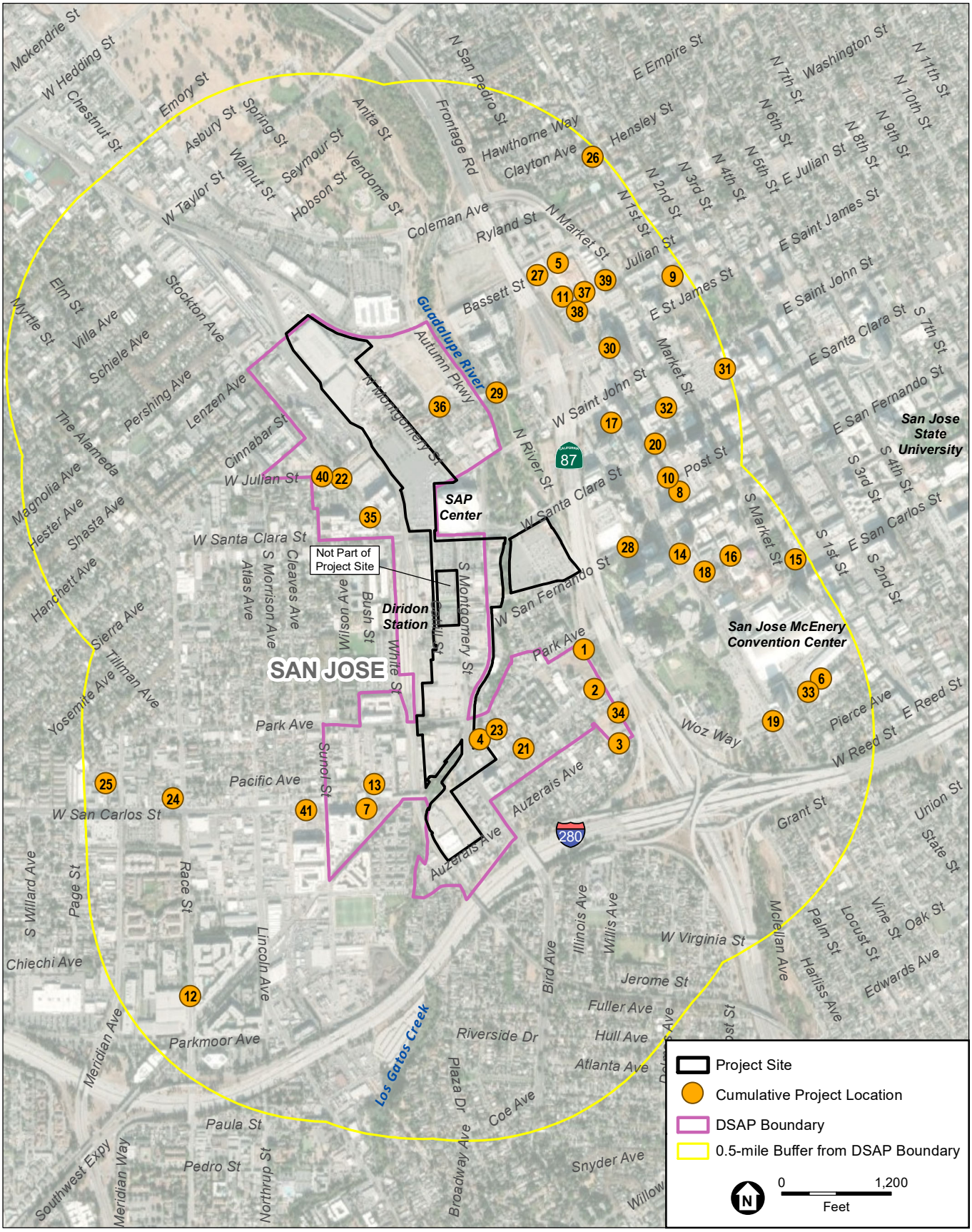
The analysis in this EIR employs both the list-based approach and a projections approach, depending on which approach best suits the individual resource topic being analyzed. For instance, Section 3.7, *Hazards and Hazardous Materials*, considers several large individual projects that are anticipated or approved in the project area and vicinity and takes into account that known hazardous materials issues are close or adjacent to the project site. By comparison, Section 3.13, *Transportation*, relies on the City of San José Travel Demand Forecasting Model, which encompasses growth projections to the year 2040.

The following factors were used to determine an appropriate list of individual projects to be considered in the cumulative impact analysis where the list-based approach is used:

- **Similar Environmental Impacts**—A relevant project contributes to effects on resources that are also affected by the proposed project. A relevant future project is defined as one that is "reasonably foreseeable," such as a proposed project for which an application has been filed with the approving agency or has approved funding.
- **Geographic Scope and Location**—A relevant project is located within the geographic area within which effects could combine. The geographic scope varies on a resource-by-resource basis. For example, the geographic scope for evaluating cumulative effects on regional air quality consists of the affected air basin.
- **Timing and Duration of Implementation**—Effects associated with activities for a relevant project (e.g., short-term construction or demolition, or long-term operations) would likely coincide in timing with the related effects of the proposed project.

For the resource topics using the list-based approach, **Figure 3-1** depicts nearby projects generally located within 0.5 miles of the DSAP boundary that are approved but not built, or were the subject of a pending development application at the time the NOP was issued. The projects shown on Figure 3-1 are keyed to a list that is provided in **Appendix B**.

In addition, three large-scale projects in and near the proposed project site are considered in the cumulative impact analysis where appropriate: the Bay Area Rapid Transit (BART) Silicon Valley Phase II Project, Peninsula Corridor Electrification Project, and DSAP amendments. These projects are described below.



SOURCES: Esri, 2019, City of San Jose, 2019, ESA, 2020

Downtown West Mixed-Use Plan

Figure 3-1
Cumulative Projects in the Project Vicinity

- **The Santa Clara Valley Transportation Authority (VTA) BART Silicon Valley Phase II Project** is a 6-mile, four-station extension that will bring BART train service from Berryessa/North San José through Downtown San José to the city of Santa Clara. The Phase II Project is planned to include an approximately 5-mile tunnel that would include three underground stations (Alum Rock/28th Street, Downtown San José, and Diridon), one ground-level station (Santa Clara), and general and maintenance facilities. Based on the Recommended Project Description approved by the VTA Board of Directors and the BART Board in April 2018, VTA's BART Diridon Station would be located adjacent to the south side of West Santa Clara Street, between Autumn Street and the San José Diridon Caltrain Station. This station would consist of a belowground concourse and boarding platform. The proposed underground station and system facilities would be located beneath Santa Clara Street, between the SAP Center and the current Diridon Station parking lot. Geotechnical and utility field investigations began in September 2018. Construction is anticipated for 2022 through 2028.
- **The Peninsula Corridor Electrification Project** is a key component of the Caltrain Modernization (CalMod) Program and will electrify the corridor from San Francisco's 4th and King Caltrain Station to the Tamien Caltrain Station, a distance of approximately 51 miles. Electrification improvements include converting diesel-hauled trains to electric trains, increasing service to six trains per peak hour per direction, and maintaining operating speed up to 79 miles per hour. The project would require the installation of 130–140 single-track miles of an overhead contact system for the distribution of electrical power to the electric rolling stock.

  Electrification of the corridor would require the construction or enhancement of overbridge protection barriers. Overbridge protection barriers would be 6.5 feet high above the sidewalk or pavement level, and placed along the parapet of the bridge at least 10 feet from the closest energized conductors crossing underneath. Two new barriers would be constructed at the following crossings in San José: Interstate 880, San Carlos Street, Almaden Expressway, and Curtner Avenue.

  Construction activities include locating underground utilities, testing soil conditions, inspecting signal/communications equipment, pruning/removing trees, and installing foundations in preparation for the installation and operation of the overhead contact system to power the new electric trains. Work will be performed during the day and at night. To limit the impact on regular train service, night work will occur between 8 p.m. and 6 a.m., when there are fewer regular service trains. Groundbreaking began in late 2017. Caltrain electrification crews have begun staging materials and equipment between the Santa Clara Station and the College Park Station in San José. Construction staging will occur along the Caltrain right-of-way south of the Santa Clara Station. Construction and system testing is expected to be completed in 2021.
- The **DSAP amendments**[4] include expansion of the DSAP boundary eastward to the Guadalupe River between West Santa Clara Street and the VTA tracks, and eastward to Los Gatos Creek between the VTA tracks and Park Avenue; this latter change would also allow for potential park and trail development along the creek. A long-term goal intended to support recreational uses in the city would be to include grade separations of trail crossings at San Carlos, San Fernando, and Santa Clara Streets. These grade separations would be the subject of a feasibility study and further environmental review if and when

[4] The DSAP amendments described herein are based on a conceptual DSAP project description that is subject to change between now and adoption of the amendments.

they proceed; thus, the impacts of the grade separations are not addressed with any specificity in this EIR.

In addition, the DSAP boundary would be extended eastward to the Guadalupe River between West Julian Street and West St. John Street.

The DSAP amendments would incorporate changes to development capacity; the current DSAP maximum buildout includes 5,387,500 square feet of commercial and 2,588 residential dwelling units. As part of its ongoing process to update the DSAP, the City is considering increasing the number of residential units and jobs projected in Downtown San José by the year 2040 by reallocating development from other General Plan growth areas in the city to Downtown. (See the discussion of growth projections above.) To account for the development capacity changes, the DSAP amendments would also include changes to the transportation network, parks and open space, and parking.

SAP Center parking changes are described in Section 2.7.6, *Off-Site Transportation Improvements*, and are analyzed as a likely component of development in the DSAP area. There are several options for providing replacement parking, including a potential parking garage on a group of parcels known as "Lot E," immediately north of and across West St. John Street from SAP Center, or the so-called Milligan site one block farther east. Because the configuration and location of replacement parking is not known at this time, the analysis is provided at a programmatic or qualitative level, and replacement parking is considered in the context of the DSAP, which assumed a parking garage at this location, and as a project to be undertaken by other entities, not on the project site.

Under the DSAP amendments, land use and zoning designations would be changed to eliminate a previously proposed major league baseball ballpark; to accommodate the proposed Downtown West Mixed-Use Project; and, depending on the option selected, to allow residential use along the Guadalupe River between West Julian Street and West St. John Street or high-density residential development in the southwest corner of the DSAP area along Auzerais Avenue between the Caltrain tracks and Los Gatos Creek. High-density residential development is also proposed to be allowed in the southern DSAP triangle (the West San Carlos Street/McEvoy Street/Dupont Street area).

The DSAP amendments would evaluate whether to continue to pursue completion of the Autumn Parkway extension south of West Julian Street and accommodate the street network changes proposed by the Downtown West Mixed-Use Project.

Finally, the DSAP amendments would make certain adjustments to planned open spaces, including removing a portion of the San José Fire Department training center site (within the Downtown West project site); accommodating the Downtown West Mixed-Use Project's planned open spaces; and adding park sites at the northeast corner of Stockton Avenue and West Santa Clara Street, on a City-owned lot at Gifford and Park Avenues, and along the Guadalupe River and Los Gatos Creek.

In addition to the three major cumulative projects listed above, there are two other major projects that are not fully funded or approved, yet are relevant to sections of this EIR. Therefore, the current status and planning of the following other projects are discussed at a high level:

- The California High-Speed Rail Project plans to connect the Los Angeles metropolitan area, the Central Valley, and the San Francisco Bay Area, and is currently under construction in the Central Valley between Merced and Bakersfield. California High-Speed Rail plans to serve Diridon Station before continuing north to San Francisco. The

2020 Draft Business Plan[5] for the project does not currently identify a date for the beginning of operations at Diridon Station, but does indicate that service on the Central Valley segment is planned for 2028–2029.

In April 2020, the California High-Speed Rail Authority published the Draft EIS/EIR (DEIS/R) for that project's San Jose to Merced Project Section. The DEIS/R evaluated four alternatives in addition to a No Project Alternative. Three of the alternatives would entail construction of elevated tracks through the Diridon Station area and an elevated station. The Authority's Preferred Alternative, Alternative 4, envisions at-grade tracks through the Diridon Station area and an at-grade station. The Preferred Alternative, therefore, would not conform with the preferred Concept Layout that has been developed through the DISC planning process (discussed immediately below). As acknowledged in the DEIS/R, "The ongoing multi-agency Diridon Integrated Station Concept (DISC) planning process is a separate planning process and decisions about future changes to the Diridon station and the surrounding, Caltrain-owned rail infrastructure and corridor are the subject of multiple planning and agreement processes that are proceeding independently from this [High-Speed Rail] environmental process."[6]

- The DISC Plan is currently being prepared in a joint effort by the City of San José, the Peninsula Corridor Joint Powers Board (Caltrain), BART, VTA, and the California High-Speed Rail Authority. The DISC Plan will evaluate how to expand and redesign Diridon Station as a world-class transit center that provides for intermodal connections and integration with the surrounding neighborhoods. The DISC Plan will not propose any land use changes, but will focus on station design, including the spatial configuration that shows how the various track and station elements will fit together and relate to the surrounding neighborhood. In February, the City Council endorsed a conceptual layout for the DISC Plan.[7]

  The DISC process initially identified three conceptual layouts for the future Diridon Station: an at-grade station on West San Fernando Street, an elevated station on West Santa Clara Street, and an elevated station near West Stover Street. Through a community input process and ongoing technical work with the partner agencies, a fourth alternative was identified as the preferred Concept Layout for the DISC Plan, a preliminary alignment for elevated heavy rail tracks through Diridon Station. In February 2020, the San José City Council, the Caltrain board, and the California High-Speed Rail Authority board endorsed the Concept Layout, and the VTA board did so in June 2020. See Section 2.2.2, *Existing and Planned Transportation Facilities*, for more information.

The cumulative impact analyses for biological resources and hydrology also refer to projects and initiatives that are relevant to the watershed and San Francisco Bay.

5 California High-Speed Rail Authority, *2020 Business Plan: Delivering the Vision*, February 2020. Available at https://www.hsr.ca.gov/docs/about/business_plans/2020_Business_Plan.pdf. Accessed March 20, 2020.

6 California High-Speed Rail Authority, *California High-Speed Rail Project, San Jose to Merced Project Section, Draft Environmental Impact Report/Environmental Impact Statement, April 2020*. Available at https://hsr.ca.gov/programs/environmental/eis_eir/draft_san_jose_merced.aspx. Accessed July 7, 2020.

7 City of San José, City Council Meeting Minutes, February 4, 2020. Available at https://sanjose.legistar.com/MeetingDetail.aspx?ID=712175&GUID=42B7D295-2384-4896-AA46-B400D3F914C6&Options=info&Search=. Accessed March 20, 2020.

Effects Not Found to Be Significant

CEQA Guidelines Sections 15128 and 15143 require the identification of impacts of a project that were determined not to be significant and were not discussed in detail in the impact section of the EIR. The following subsections briefly describe the environmental issues for which impacts of the proposed project were not found to be significant, including agricultural resources, forestry resources, mineral resources, and wildfire. Implementation of the project would result in no impacts on these resources.

Agricultural Resources

The San José Zoning Ordinance identifies the City's zoning district designations. No portion of the project site is within the Agricultural zoning district.

The California Department of Conservation implements the Farmland Mapping and Monitoring Program, which produces maps and statistical data used for analyzing impacts on California's agricultural resources. The maps are updated every 2 years, and are used to rate agricultural land based on soil quality and irrigation status; the best quality land is referred to as Prime Farmland. According to the *Santa Clara County Important Farmland 2016* map, the entire project site is classified as "Urban and Built-up Land."[8] This category of land is not determined to be of particular importance to the local agricultural economy. No areas of the project site are designated as Prime Farmland by the California Department of Conservation or subject to a Williamson Act contract. For these reasons, the project would have no impact on agricultural resources.

Forestry Resources

California Public Resources Code Section 12220 defines forest land as "land that can support 10 percent native tree cover of any species, including hardwoods, under natural conditions, and that allows for management of one or more forest resources, including timber, aesthetics, fish and wildlife, biodiversity, water quality, recreation, and other public benefits."

The California Department of Forestry and Fire Protection (CAL FIRE) identifies forest land, timberland, and lands zoned for timberland production that can (or do) support forestry resources.[9] Programs such as CAL FIRE's Fire and Resource Assessment Program are used to identify whether forest land, timberland, or timberland production areas that could be affected are located on or adjacent to a project site.

Within the project site, only Los Gatos Creek and the Guadalupe River riparian corridors through the site could potentially be considered forest land; these corridors support native species and provide public benefits. Trees growing alongside the creek and river are considered part of San

[8] California Department of Conservation, Santa Clara County Important Farmland 2016, 2018. Available at ftp://ftp.consrv.ca.gov/pub/dlrp/FMMP/pdf/2016/scl16.pdf. Accessed September 10, 2019.

[9] Timberland is land not owned by the federal government or designated as experimental forest land that is available for, and capable of, growing a crop of trees used to produce lumber and other forest products, including Christmas trees (California Public Resources Code Section 4526). Timberland Production land is land devoted to and used for growing and harvesting timber and other compatible uses (Government Code Section 51104[g]).

José's Community Forest, as defined in the General Plan. However, the City does not consider any land on the project site or in Downtown San José to be "forest land" as that term is commonly understood. The project site also does not contain any areas with an "Open Space" zoning district classification. However, the site does contain approximately 5 acres that are designated as "Open Space, Parkland, and Habitat" on the General Plan's land use map. This 5-acre area is currently paved and is being used by the San José Fire Department as a training center. Rezoning this parcel as part of the proposed project's Planned Development Zoning District would not represent a conversion of forest land to non-forest use because it does not currently support habitat for biological communities.

Mineral Resources

Multiple sources of information were consulted to determine the presence of mineral resources within the project area. These included the Mineral Resources Data System (MRDS) administered by the U.S. Geological Survey (USGS), which provides data describing mineral resources (such as deposit name, location, commodity, deposit description, production status, and references). MRDS data can be used to confirm the presence or absence of existing surface mines, closed mines, occurrences/prospects, and unknown/undefined mineral resources. Maps created by the California Geological Survey, designed to protect mineral resources in California by classifying the regional significance of mineral resources, were also reviewed for this analysis.

The locations of past and current mining activity and the presence of geologic materials that can be mined can also be used to assess the potential for the presence of mineral resources or the existence of mineral resource recovery sites (mines). According to MRDS data available on the USGS website, there are no significant mineral resources in the project area.[10] As noted in the Envision San José 2040 General Plan EIR, the only area in the city of San José that is designated by the State Mining and Geology Board under the Surface Mining and Reclamation Act of 1975 as containing regionally significant mineral deposits is Communications Hill, which is more than 2 miles southeast of the Downtown area. For these reasons, the project would have no impact on mineral resources.

Wildfire

The project site is located in an urban area, and is not adjacent to a designated wildfire hazard area. Implementation of the proposed project would not expose any people or structures to risk from wildland fires due to the project's location within the city. The proposed project development would be subject to plan review and inspection by the City Fire Department and Department of Planning, Building, and Code Enforcement to ensure that the project meets all state and local Building and Fire Code requirements. For these reasons, no impacts from wildland fire would be expected from development of the proposed project, given the location of the project within the city.

[10] U.S. Geological Survey, Mineral Resources Data System database, 2019.

3.1 Air Quality

This section describes existing air quality in the project vicinity and the region and analyzes the proposed project's potential air pollutant emissions and resulting impacts. For more information regarding the analysis methods and assumptions, refer to **Appendix C1**.

CEQA requires the analysis of potential adverse effects of a project on the surrounding environment. A CEQA evaluation is generally not required to consider potential effects of the environment on a project's future users or residents, except when the project may exacerbate existing hazards or existing conditions.[1] The Bay Area Air Quality Management District (BAAQMD) *California Environmental Quality Act Air Quality Guidelines* recommend evaluating the potential effects of existing air quality conditions on the project to provide information to decision-makers and the public.[2] As such, this section analyzes both the proposed project's impacts on air quality and the potential adverse effects of existing air pollution on the proposed project and the surrounding community.

3.1.1 Environmental Setting

Topography and Climate

Climate and meteorological conditions such as wind speed, wind direction, and air temperature gradients interact with the physical features of the landscape to determine the movement and dispersal of air pollutants. The project site is located in the city of San José and is within the boundaries of the San Francisco Bay Area Air Basin (SFBAAB). The SFBAAB encompasses the nine-county region including all of Alameda, Contra Costa, Santa Clara, San Francisco, San Mateo, Marin, and Napa Counties, and the southern portions of Solano and Sonoma Counties.

The climate of the Bay Area is determined largely by a high-pressure system that is often present over the eastern Pacific Ocean off the west coast of North America. During winter, the Pacific high-pressure system shifts southward, allowing an increased number of storms systems to pass through the region. During summer and early fall, when fewer storms pass through the region, emissions generated in the Bay Area accumulate as a result of the more stable conditions. The combination of abundant sunshine and the restraining influences of topography and subsidence inversions creates conditions conducive to the formation of photochemical pollutants, such as ground-level ozone and secondary particulates, including nitrates and sulfates.

Existing Air Quality

Air Monitoring Data

BAAQMD operates a regional monitoring network that measures the ambient concentrations of the six criteria air pollutants. The BAAQMD monitoring station closest to the project site is the

[1] *California Building Industry Association v. Bay Area Air Quality Management District* (December 17, 2015) 62 Cal.4th 369.

[2] Bay Area Air Quality Management District, *California Environmental Quality Act Air Quality Guidelines*, May 2017. Available at http://www.baaqmd.gov/~/media/files/planning-and-research/ceqa/ceqa_guidelines_may2017-pdf.pdf?la=en. Accessed February 6, 2020.

San José–Jackson station, approximately 0.95 miles northeast of the project site. The San José–Jackson station monitors ozone, oxides of nitrogen (NO_X), sulfur dioxide (SO_2), carbon monoxide (CO), particulate matter 10 microns or less in diameter (PM_{10}), particulate matter 2.5 microns or less in diameter ($PM_{2.5}$) (measured using both a filter-based sampler and a continuous monitor), speciated $PM_{2.5}$, toxics, and lead.[3]

Pollutants of concern in the Bay Area include ozone and particulate matter (PM); the SFBAAB is in non-attainment with respect to the federal and state standards for these pollutants. **Table 3.1-1** provides a summary of maximum air pollutant concentrations for ozone, CO, nitrogen dioxide (NO_2), PM_{10}, and $PM_{2.5}$ measured at BAAQMD's San José–Jackson monitoring station for the years 2014–2018. Because of the proximity of the project site to the San José–Jackson monitoring station, air quality measurements collected at this station are understood to be generally representative of conditions in the project vicinity.

TABLE 3.1-1
HIGHEST MEASURED AIR POLLUTANT CONCENTRATIONS AT THE SAN JOSÉ–JACKSON MONITORING STATION (2014–2018)

			Measured Air Pollutant Levels				
Pollutant	**Time Period**	**Standard[a]**	**2014**	**2015**	**2016**	**2017**	**2018**
Ozone	1-hour (ppm)	0.090 ppm	0.089	**0.094**	0.087	**0.121**	0.078
	8-hour (ppm)	0.070 ppm	0.066	**0.081**	0.066	**0.098**	0.061
Carbon Monoxide	1-hour (ppm)	20 ppm	2.4	2.4	2.0	2.1	2.5
	8-hour (ppm)	9.0 ppm	1.9	1.8	1.4	1.8	2.1
Nitrogen Dioxide	1-hour (ppm)	0.18 ppm	0.058	0.049	0.051	0.068	0.088
Particulate Matter (PM_{10})	24-hour (µg/m^3)	50 µg/m^3	**55**	**58**	41	**70**	**122**
Fine Particulate Matter ($PM_{2.5}$)	24-hour (µg/m^3)	35 µg/m^3	**60.4**	**49.4**	22.6	**49.7**	**133.9**
	Annual (µg/m^3)	12 µg/m^3	8.4	10.0	8.4	9.5	12.8

NOTES:
µg/m^3 = micrograms per cubic meter; $PM_{2.5}$ = particulate matter 2.5 microns or less in diameter; PM_{10} = particulate matter 10 microns or less in diameter; ppm = parts per million
Bold indicates values that exceed the ambient air quality standard.
[a] Generally, national and state standards are not to be exceeded more than once per year.

SOURCES:
Bay Area Air Quality Management District, *Bay Area Air Pollution Summary—2014*, February 2020. Available at https://www.baaqmd.gov/~/media/Files/Communications%20and%20Outreach/Annual%20Bay%20Area%20Air%20Quality%20Summaries/pollsum2014.ashx?la=en. Accessed February 7, 2020;
———, *Bay Area Air Pollution Summary—2015*, May 2016. Available at https://www.baaqmd.gov/~/media/files/communications-and-outreach/annual-bay-area-air-quality-summaries/pollsum2015-pdf.pdf?la=en. Accessed February 7, 2020;
———, *Bay Area Air Pollution Summary—2016*, May 2017. Available at https://www.baaqmd.gov/~/media/files/communications-and-outreach/annual-bay-area-air-quality-summaries/pollsum2016-pdf.pdf?la=en. Accessed February 7, 2020;
———, *Bay Area Air Pollution Summary—2017*, April 2018. Available at https://www.baaqmd.gov/~/media/files/communications-and-outreach/annual-bay-area-air-quality-summaries/pollsum2017-pdf.pdf?la=en. Accessed February 7, 2020; and
———, *Bay Area Air Pollution Summary—2018*, May 2019. Available at Https://Www.Baaqmd.Gov/~/Media/Files/Communications-And-Outreach/Annual-Bay-Area-Air-Quality-Summaries/Pollsum2018-Pdf.Pdf?La=En. Accessed February 7, 2020.

As shown in Table 3.1-1, both the 1-hour and 8-hour ozone concentrations at the San José–Jackson monitoring station peaked in 2017 at 0.121 parts per million (ppm) and 0.098 ppm,

[3] Bay Area Air Quality Management District, *2018 Air Monitoring Network Plan,* July 1, 2019. Available at https://www.baaqmd.gov/~/media/files/technical-services/2018_network_plan-pdf.pdf?la=en. Accessed January 14, 2020.

respectively. PM concentrations at the San José–Jackson monitoring station peaked in 2018 with a 24-hour PM_{10} concentration of 122 micrograms per cubic meter ($\mu g/m^3$) and a $PM_{2.5}$ concentration of 133.9 $\mu g/m^3$.

Table 3.1-2 summarizes the number of days from 2014 through 2018 when the federal and/or state standards were exceeded. The results shown reflect measurements at the San José–Jackson station for ozone and PM, pollutants for which the SFBAAB is non-attainment; for NO_2, an ozone precursor; and for CO, for which the Bay Area has achieved attainment status. The California ambient air quality standards (CAAQS or "state standards") and the national ambient air quality standards (NAAQS or "national standards") are discussed further in Section 3.1.2, *Regulatory Framework*.

TABLE 3.1-2
AMBIENT AIR QUALITY STANDARD EXCEEDANCE DAYS AT THE SAN JOSÉ–JACKSON MONITORING STATION (2014–2018)

		Days Exceeding Standard				
Pollutant	**Standard[a]**	**2014**	**2015**	**2016**	**2017**	**2018**
Ozone	State 1-hour	0	0	0	3	0
	Federal 8-hour	0	2	0	4	0
	State 8-hour	0	2	0	4	0
Carbon Monoxide	Federal 8-hour	0	0	0	0	0
	State 8-hour	0	0	0	0	0
Nitrogen Dioxide	State 1-hour	0	0	0	0	0
	Federal 1-hour	0	0	0	0	0
Particulate Matter (PM_{10})	Federal 24-hour	0	0	0	0	0
	State 24-hour	1	1	0	6	4
Fine Particulate Matter ($PM_{2.5}$)	Federal 24-hour	2	2	0	6	15

NOTES:
$\mu g/m^3$ = micrograms per cubic meter; $PM_{2.5}$ = particulate matter 2.5 microns or less in diameter; PM_{10} = particulate matter 10 microns or less in diameter; ppm = parts per million
[a] Generally, national and state standards are not to be exceeded more than once per year.

SOURCES:
Bay Area Air Quality Management District, *Bay Area Air Pollution Summary—2014*, February 2020. Available at https://www.baaqmd.gov/~/media/Files/Communications%20and%20Outreach/Annual%20Bay%20Area%20Air%20Quality%20Summaries/pollsum2014.ashx?la=en. Accessed February 7, 2020;
———, *Bay Area Air Pollution Summary—2015*, May 2016. Available at https://www.baaqmd.gov/~/media/files/communications-and-outreach/annual-bay-area-air-quality-summaries/pollsum2015-pdf.pdf?la=en. Accessed February 7, 2020;
———, *Bay Area Air Pollution Summary—2016*, May 2017. Available at https://www.baaqmd.gov/~/media/files/communications-and-outreach/annual-bay-area-air-quality-summaries/pollsum2016-pdf.pdf?la=en. Accessed February 7, 2020;
———, *Bay Area Air Pollution Summary—2017*, April 2018. Available at https://www.baaqmd.gov/~/media/files/communications-and-outreach/annual-bay-area-air-quality-summaries/pollsum2017-pdf.pdf?la=en. Accessed February 7, 2020; and
———, *Bay Area Air Pollution Summary—2018*, May 2019. Available at Https://Www.Baaqmd.Gov/~/Media/Files/Communications-And-Outreach/Annual-Bay-Area-Air-Quality-Summaries/Pollsum2018-Pdf.Pdf?La=En. Accessed February 7, 2020.

As shown in Table 3.1-2, the San José–Jackson monitoring station recorded six exceedances of the federal 8-hour ozone standard, three exceedances of the state 1-hour ozone standard, and six exceedances of the state 8-hour ozone standard. The station also recorded 25 exceedances of the federal 24-hour $PM_{2.5}$ standard and 12 exceedances of the state 24-hour PM_{10} standard. Fifteen of these $PM_{2.5}$ standard exceedances occurred in 2018.

Types of Sources

As detailed in the air quality management plan (AQMP), the major sources of air pollution in the SFBAAB are classified into the following nine economic sectors: stationary (industrial) sources, transportation, energy, buildings, agriculture, natural and working lands, waste management, water, and super–greenhouse gas (GHG) pollutants:

- *Stationary sources* include oil refineries, cement, plants, natural gas distribution facilities, crude oil and natural gas production facilities, gas stations, dry cleaners, metal fabricators, chemical and pharmaceutical production facilities, diesel generators, and large boilers used in commercial and industrial facilities.
- *Transportation* includes on-road motor vehicles, such as light-duty automobiles or heavy-duty trucks; off-road vehicles, including airplanes, locomotives, ships, and boats; and off-road equipment, such as airport ground-support equipment, construction equipment, and farm equipment.
- *Energy* includes emissions from electricity generated and used in the Bay Area, as well as GHG emissions from electricity generated outside the Bay Area that is imported and used in the region.
- *Buildings* include residential, commercial, governmental, and institutional buildings. Emissions occur through energy use for building heating, cooling, and operation, and from the materials used for building construction and maintenance.
- *Agriculture* includes on- and off-road trucks and farming equipment, aircraft for crop spraying, animal waste, pesticide and fertilizer use, crop residue burning, travel on unpaved roads, and soil tillage.
- *Natural and working lands* include carbon sequestration and storage in forests, woodlands, shrub lands, grasslands, rangelands, and wetlands.
- *Waste management* includes GHG emissions from landfills and composting activities.
- *Water* includes indirect emissions associated with energy used to pump, convey, recycle, and treat water and wastewater throughout the Bay Area and direct emissions from the combustion of fossil fuels and digester gas for the operation of engines, boilers, and turbines at publicly owned treatment works.
- *Super GHGs* include methane, black carbon, and fluorinated gases.

Existing Health Risk in the Surrounding Area

As discussed below, the U.S. Environmental Protection Agency (EPA) and California Air Resources Board (CARB) recognize that exposure to elevated levels of ground-level ozone and PM can be a cause of respiratory and cardiovascular health effects. Respiratory health impacts include throat irritation, reduced lung function, emphysema, bronchitis, chronic obstructive pulmonary disease (COPD), and possibly lung cancer.

A strong correlation between long-term exposure to air pollutants, such as ozone and NO_2, to the aggravation of asthma is widely recognized; these pollutants are believed to be one of many causes of asthma development. Other common asthma triggers include indoor and outdoor allergens and irritants, such as tobacco smoke, mold, pets, dust, dust mites, NO_X and wood smoke, chemicals, and

cleaning solvents.[4,5] In response to the novel coronavirus 2019 disease (COVID-19) epidemic, research is studying the potential link between COVID-19 and air pollution. One recent study from Harvard University found a correlation between COVID-19 outcomes and exposure to elevated $PM_{2.5}$ concentrations.[6] The science on the relationship between COVID-19 outcomes and exposure to $PM_{2.5}$ concentrations and other forms of air pollution is extremely new and constantly evolving, and these results may be replaced with more robust and comprehensive scientific findings.

The Santa Clara County (County) Department of Public Health tracks many health indicators, such as the incidence of cancer, heart disease, and diabetes; the number of people who have experienced a heart attack or stroke; and the incidence of respiratory diseases, such as COPD and asthma.[7] These data represent occurrence rates and do not attribute causation to the incidence rate. Regardless of cause, the County's 2010 Health Profile Report indicates that in 2009, public health in Santa Clara County was largely at the same level as, or slightly better than, national and statewide norms for health indices such as mortality rate from lung and bronchus cancer, adults with heart disease, adults who have experienced a heart attack or stroke, adults diagnosed with diabetes, and adults with asthma.

The County Department of Public Health also tracks mortality rate statistics for individual cities in Santa Clara County. The department determined that San José's death rate per 100,000 people is 150.5 for cancer, 126.2 for heart disease, 30.5 for stroke, 29 for chronic lower respiratory disease, and 29.2 for diabetes.[8] These mortality rates are generally lower than the national death rates reported for 2017, with the exception of diabetes-related deaths. National death rates per 100,000 people were 183.9 for cancer, 198.8 for heart disease, 44.9 for stroke, 49.2 for chronic lower respiratory disease, and 25.7 for diabetes.[9]

Further, according to health surveys conducted in 2009, the rate of asthma in the adult population of Santa Clara County is 14 percent. The same survey reports the state's adult asthma incidence rate to be 14 percent and the national rate to be 14 percent;[10] however, the Centers for Disease Control and Prevention, relying on a different survey, reported the rate of asthma in adults to be

4 U.S. Environmental Protection Agency, *Asthma*, May 1, 2028. Available at https://www.epa.gov/asthma/asthma-triggers-gain-control. Accessed February 19, 2019.

5 Asthma and Allergy Foundation of America, Air Pollution, October 2015. Available at https://www.aafa.org/air-pollution-smog-asthma/. Accessed May 2020.

6 Wu, X., R. C. Nethery, B. M. Sabath, D. Braun, and F. Dominici, *Exposure to Air Pollution and COVID-19 Mortality in the United States*, April 24, 2020, medRxiv 2020.04.05.20054502. Available at https://doi.org/10.1101/2020.04.05.20054502. Note that this article has not yet been peer-reviewed.

7 Santa Clara County Public Health Department, *Santa Clara County 2010 Health Profile Report*, August 2010. Available at https://www.sccgov.org/sites/phd/hi/hd/Documents/Health%20Profile%20Report%202010/SCC_Health_Profile_Report_online_final_092410.pdf. Accessed in May 2020.

8 Santa Clara County Public Health Department, *Health Status Statistics–Cities*, last updated June 29, 2018. Available at https://data-sccphd.opendata.arcgis.com/datasets/health-status-statistics-cities?geometry=-123.594%2C36.842%2C-120.125%2C37.607. Accessed July 9, 2020.

9 U.S. Department of Health and Human Services, *National Vital Statistics Reports*, Volume 68, Number 9, Deaths: Final Data for 2017, June 24, 2019. Available at https://www.cdc.gov/nchs/data/nvsr/nvsr68/nvsr68_09-508.pdf. Accessed July 9, 2020.

10 Santa Clara County Public Health Department, *Santa Clara County 2010 Health Profile Report*, August 2010. Available at https://www.sccgov.org/sites/phd/hi/hd/Documents/Health%20Profile%20Report%202010/SCC_Health_Profile_Report_online_final_092410.pdf. Accessed May 2020.

approximately 8 percent nationwide.[11] The CDC does not have data for Santa Clara County specifically. A subset of these health indices is tracked at the sub-regional level. For example, the annual rate of chronic lower respiratory disease deaths in San José is 29.0 and 25.5 per 100,000 people in the county.[12]

Through its Community Air Risk Evaluation (CARE) program, BAAQMD compiled estimates of toxic air contaminant (TAC) emissions in the Bay Area for all major source categories including oil refineries, power plants, landfills, dry cleaners, gasoline stations, on-road vehicles, off-road vehicles and equipment, ships, and trains. BAAQMD's cancer-risk weighted emissions inventory shows that a small subset of TACs account for approximately 95 percent of the total cancer risk from air pollutants in the Bay Area, and that diesel particulate matter (DPM) in itself greatly dominates the cancer risk from TACs at 82 percent.[13] These estimates used the cancer risk calculation methods adopted by the California Environmental Protection Agency's Office of Environmental Health Hazard Assessment (OEHHA) in 2015. This methodology supersedes the 2003 guidelines and takes into account the sensitivity of children to TAC emissions, breathing rates, and time spent at home because children have higher breathing rates compared to adults and would likely spend more time at home, resulting in longer durations of exposure.[14]

The Bay Area has benefited from dramatic reductions in public exposure to TACs over time. Based on ambient air quality monitoring, the estimated lifetime cancer risk from all TACs for Bay Area residents declined from 4,100 cases per million in 1990 to 690 cases per million people in 2014. This represents an 83 percent decrease between 1990 and 2014. The cancer risk from DPM, which accounts for most of the cancer risk from TACs as discussed above, has declined substantially over the past 15 to 20 years as a result of CARB regulations and air district programs to reduce emissions from diesel engines. However, DPM still accounts for roughly 82 percent of the total cancer risk related to TACs.[15]

Air Pollutants of Concern

Criteria Air Pollutants

Carbon Monoxide

CO is an odorless, colorless gas usually formed as the result of the incomplete combustion of fuels. The single largest source of CO is motor vehicles, which have their highest emissions during low travel speeds, stop-and-go driving, cold starts, and hard acceleration. Ambient CO

[11] Centers for Disease Control and Prevention, *2018 National Health Interview Survey (NHIS) Data*, December 2019. Available at https://www.cdc.gov/asthma/nhis/2018/table4-1.htm. Accessed May 2020.

[12] Santa Clara County Public Health Department, *San Jose Profile 2016*, 2016. Available at https://www.sccgov.org/sites/phd/hi/hd/Pages/san-jose.aspx. Accessed May 2020.

[13] Bay Area Air Quality Management District, *Clean Air Plan, Spare the Air, Cool the Climate*, April 19, 2017. Available at https://www.baaqmd.gov/~/media/files/planning-and-research/plans/2017-clean-air-plan/attachment-a_-proposed-final-cap-vol-1-pdf.pdf?la=en. Accessed January 16, 2020.

[14] California Environmental Protection Agency, Office of Health Hazard Assessment, *Air Toxics Hot Spots Program, Guidance Manual for Preparation of Health Risk Assessments*, February 2015. Available at https://oehha.ca.gov/air/crnr/notice-adoption-air-toxics-hot-spots-program-guidance-manual-preparation-health-risk-0. Accessed May 2020.

[15] Bay Area Air Quality Management District, *Clean Air Plan, Spare the Air, Cool the Climate*, April 19, 2017. Available at https://www.baaqmd.gov/~/media/files/planning-and-research/plans/2017-clean-air-plan/attachment-a_-proposed-final-cap-vol-1-pdf.pdf?la=en. Accessed January 16, 2020.

concentrations normally are considered a local effect and typically correspond closely to the spatial and temporal distributions of vehicular traffic. Wind speed and atmospheric mixing also influence CO concentrations. Under inversion conditions,[16] CO concentrations may be distributed more uniformly over an area that may extend some distance from vehicular sources.

When inhaled at high concentrations, CO combines with hemoglobin in the blood and reduces the blood's oxygen-carrying capacity. This reduces the amount of oxygen that reaches the brain, heart, and other body tissues. This condition is especially critical for people with cardiovascular diseases, chronic lung disease, or anemia, and for fetuses. Very high levels of CO are not likely to occur outdoors; however, when CO levels are elevated outdoors, they can be of particular concern for people with some types of heart disease, because it is already more difficult for oxygenated blood to reach the hearts of these people, and they are especially vulnerable to the effects of CO when exercising or under increased stress. In these situations, short-term exposure to elevated CO may result in reduced oxygen to the heart, accompanied by chest pain, also known as angina.[17]

The most common effects of CO exposure are fatigue, headaches, confusion, and dizziness caused by inadequate oxygen delivery to the brain. For people with cardiovascular disease, short-term CO exposure can further reduce their body's already compromised ability to respond to the increased oxygen demands of exercise, exertion, or stress. Inadequate oxygen delivery to the heart muscle leads to chest pain and decreased exercise tolerance. Unborn babies, infants, elderly people, and people with anemia or with a history of heart or respiratory disease are most likely to experience health effects with exposure to elevated levels of CO.[18]

In the past few decades, CO concentrations in California have declined dramatically as a result of regulatory controls and programs. Most areas of the state, including the region encompassing the project site, are in full compliance with the federal and state CO standards. CO measurements and modeling were important in the early 1980s when CO levels were regularly exceeded throughout California. In more recent years, CO measurements and modeling have not been a priority for most California air districts because of the retirement of older polluting vehicles, lower emissions from new vehicles, and improvements in fuels.

Ozone

Ozone is a secondary air pollutant produced in the atmosphere through a complex series of photochemical reactions involving reactive organic gases (ROG) (also referred to by some regulatory agencies as volatile organic compounds [VOCs]) and NO_X in the presence of sunlight. The main sources of ROG and NO_X, often referred to as ozone precursors, are the evaporation of solvents, paints, and fuels and combustion processes (including motor vehicle engines). In the Bay Area, automobiles are the single largest source of ozone precursors. Ozone is referred to as a

16 "Inversion conditions" refer to temperature inversion, whereby cold air lies below warmer air at higher altitudes (i.e., temperature increases with height).

17 U.S. Environmental Protection Agency, Carbon Monoxide (CO) Pollution in Outdoor Air, 2016. Available at https://www.epa.gov/co-pollution/basic-information-about-carbon-monoxide-co-outdoor-air-pollution. Accessed April 2019.

18 California Air Resources Board, Carbon Monoxide & Health, 2019. Available at https://ww2.arb.ca.gov/resources/carbon-monoxide-and-health. Accessed April 2019.

regional air pollutant because its precursors are transported and diffused by wind concurrently with ozone production through the photochemical reaction process.

Ozone concentrations tend to be higher in the late spring, summer, and fall, when the long, sunny days combine with regional subsidence inversions to create conditions conducive to the formation and accumulation of secondary photochemical compounds, like ozone. Short-term exposure to ozone can irritate the eyes and constrict the airways. Besides causing shortness of breath, ozone can aggravate existing respiratory diseases such as asthma, bronchitis, and emphysema. Significant ozone production generally requires ozone precursors to be present in a stable atmosphere with strong sunlight for approximately 3 hours. The SFBAAB has been designated as non-attainment for the federal and state ozone standards. As a result, BAAQMD has implemented air quality plans, discussed below, to address ozone concentrations within the region.

According to EPA and CARB, ozone can cause the muscles in the airways to constrict, potentially leading to wheezing and shortness of breath. Exposure to ozone can:

- Make it more difficult to breathe deeply and vigorously;
- Cause shortness of breath and pain when taking a deep breath;
- Cause coughing and sore or scratchy throat;
- Inflame and damage the airways;
- Aggravate lung diseases such as asthma, emphysema, and chronic bronchitis;
- Increase the frequency of asthma attacks;
- Make the lungs more susceptible to infection;
- Continue to damage the lungs even when the symptoms have disappeared; and
- Cause COPD.

Long-term exposure to ozone is linked to aggravation of asthma and is likely to be one of many causes of asthma development. Exposure to higher concentrations of ozone may also be linked to permanent lung damage, such as abnormal lung development in children.[19,20] EPA states that the people most at risk from breathing air containing ozone include those with asthma, children, older adults, and people who are active outdoors, especially outdoor workers.[21]

Nitrogen Dioxide and Oxides of Nitrogen

NO_2 is a reddish brown gas that is a byproduct of combustion processes. Automobiles and industrial operations are the main sources of NO_2. NO_2 may be visible as a coloring component of a brown cloud on high-pollution days, especially in conjunction with high ozone levels. Nitrogen

19 U.S. Environmental Protection Agency, *Health Effects of Ozone Pollution*, October 10, 2018. Available at https://www.epa.gov/ground-level-ozone-pollution/health-effects-ozone-pollution. Accessed April 2019.
20 California Air Resources Board, Ozone & Health, *Health Effects of Ozone*, 2019. Available at https://ww2.arb.ca.gov/resources/ozone-and-health. Accessed April 2019.
21 U.S. Environmental Protection Agency, *Health Effects of Ozone Pollution*, October 10, 2018. Available at https://www.epa.gov/ground-level-ozone-pollution/health-effects-ozone-pollution. Accessed April 2019.

dioxide is a major component of the group of gaseous nitrogen compounds commonly referred to as NO_X, which also includes nitric oxide (NO).

Oxides of nitrogen are produced by fuel combustion in motor vehicles, industrial stationary sources (such as refineries and cement kilns), ships, aircraft, and rail transit. Typically, NO_X emitted from fuel combustion is in the form of NO and NO_2. NO is often converted to NO_2 when it reacts with ozone or undergoes photochemical reactions in the atmosphere. Therefore, NO_2 emissions from combustion sources are typically evaluated based on the amount of NO_X emitted from the source.

Nitrogen dioxide is of concern for air quality because it acts as a respiratory irritant and is a precursor of ozone.[22] Short-term exposures can aggravate respiratory diseases, particularly asthma, leading to respiratory symptoms such as coughing, wheezing, or difficulty breathing. Longer exposures to elevated concentrations of NO_2 may contribute to the development of asthma and potentially increase susceptibility to respiratory infections, requiring hospital admissions and visits to emergency rooms.

Controlled human exposure studies show that NO_2 exposure can intensify responses to allergens in allergic asthmatics. In addition, a number of epidemiological studies have demonstrated associations between NO_2 exposure and premature death, cardiopulmonary effects, decreased lung function growth in children, respiratory symptoms, emergency room visits for asthma, and intensified allergic responses. Infants and children are particularly at risk from exposure to NO_2 because of their more rapid breathing rate for their body weight and their typically greater duration of outdoor exposure. In adults, the greatest risk is to people who have chronic respiratory diseases, such as asthma and COPD.[23]

Much of the information on distribution in air, human exposure and dose, and health effects is specifically for NO_2 and only limited information is available for NO_X, and substantial uncertainty remains regarding the health effects of NO or NO_X exposure.[24] As discussed in Section 3.1.2, *Regulatory Framework*, the SFBAAB is in compliance with the federal and state NO_2 standards.

Particulate Matter

PM_{10} and $PM_{2.5}$ consist of particulate matter that is 10 microns or less in diameter and 2.5 microns[25] or less in diameter, respectively. PM_{10} and $PM_{2.5}$ represent fractions of PM that can be inhaled into the air passages and the lungs and can cause adverse health effects. Larger dust particles (diameter greater than 10 microns) settle out rapidly and are easily filtered by human breathing passages. This large dust is of more concern as a soiling nuisance than as a health hazard. The remaining fraction, PM_{10} and $PM_{2.5}$, are a health concern particularly at levels above the federal and state ambient air quality standards. Some sources of PM, such as wood burning in

[22] U.S. Environmental Protection Agency, Nitrogen Dioxide (NO_2) Pollution, September 8, 2016. Available at https://www.epa.gov/no2-pollution/basic-information-about-no2. Accessed April 2019.
[23] California Air Resources Board, Nitrogen Dioxide & Health, 2019. Available at https://ww2.arb.ca.gov/resources/nitrogen-dioxide-and-health. Accessed April 2019 and January 13, 2020.
[24] California Air Resources Board, Nitrogen Dioxide & Health, 2019. Available at https://ww2.arb.ca.gov/resources/nitrogen-dioxide-and-health. Accessed April 2019 and January 13, 2020.
[25] A micron is one-millionth of a meter.

fireplaces, demolition, and construction activities, are more local, while others, such as vehicular traffic, have a more regional effect.

Very small particles of certain substances (e.g., sulfates and nitrates) can cause lung damage directly, or can contain adsorbed gases (e.g., chlorides or ammonium) that may be injurious to health. $PM_{2.5}$ (including diesel exhaust particles) is thought to have greater effects on health because these particles are so small and thus can penetrate to the deepest parts of the lungs.

In 1999, the BAAQMD CEQA Guidelines reported that studies showed that elevated particulate levels contributed to the death of approximately 200 to 500 people per year in the Bay Area. Compelling evidence suggests that $PM_{2.5}$ is the most harmful air pollutant in the Bay Area's air in terms of the associated impact on public health. A large body of scientific evidence indicates that both long-term and short-term exposure to $PM_{2.5}$ can cause a wide range of health effects (e.g., aggravating asthma and bronchitis), causing visits to the hospital for respiratory and cardiovascular symptoms, and contributing to heart attacks and deaths.[26,27]

Scientific studies have suggested links between fine particulate matter and numerous health problems including asthma, bronchitis, and acute and chronic respiratory symptoms such as shortness of breath and painful breathing. Children are more susceptible to the health risks of PM_{10} and $PM_{2.5}$ because their immune and respiratory systems are still developing. Recent studies have shown an association between morbidity and mortality and daily concentrations of PM in the air.

According to CARB, both PM_{10} and $PM_{2.5}$ can be inhaled with some deposition throughout the airways. PM_{10} is more likely to deposit on the surfaces of the larger airways of the upper region of the lung, while $PM_{2.5}$ is more likely to travel into and deposit on the surface of the deeper parts of the lung, which can induce tissue damage, and lung inflammation. Short-term (up to 24 hours) exposure to PM_{10} has been associated primarily with worsening of respiratory diseases, including asthma and COPD, leading to hospitalization and emergency department visits. The effects of long-term (months or years) exposure to PM_{10} are less clear, although studies suggest a link between long-term PM_{10} exposure and respiratory mortality. The International Agency for Research on Cancer published a review in 2015 that concluded that particulate matter in outdoor air pollution causes lung cancer.[28]

Short-term exposure to $PM_{2.5}$ has been associated with premature mortality, increased hospital admissions for heart or lung causes, acute and chronic bronchitis, asthma attacks, emergency room visits, respiratory symptoms, and restricted activity days. Long-term exposure to $PM_{2.5}$ has been linked to premature death, particularly in people who have chronic heart or lung diseases, and reduced lung function growth in children. According to CARB, the populations most likely to

[26] Bay Area Air Quality Management District, *Air Quality Standards and Attainment Status*, updated January 5, 2017. Available at http://www.baaqmd.gov/research-and-data/air-quality-standards-and-attainment-status. Accessed April 2019.

[27] California Air Resources Board, *Inhalable Particulate Matter and Health ($PM_{2.5}$ and PM_{10})*, last reviewed August 10, 2017. Available at https://www.arb.ca.gov/research/aaqs/common-pollutants/pm/pm.htm. Accessed April 2019.

[28] Loomis, D., W. Huang, and G. Chen, The International Agency for Research on Cancer (IARC) Evaluation of the Carcinogenicity of Outdoor Air Pollution: Focus on China, *Chinese Journal of Cancer* 33(4):189–196. Available at https://www.ncbi.nlm.nih.gov/pubmed/24694836. Accessed March 2020.

experience adverse health effects with exposure to PM_{10} and $PM_{2.5}$ include older adults with chronic heart or lung disease, children, and asthmatics. Children and infants are more susceptible to harm from inhaling pollutants such as PM_{10} and $PM_{2.5}$ than healthy adults because they inhale more air per pound of body weight than do adults, they spend more time outdoors, and their developing immune systems are more susceptible to external toxins.[29]

Mortality studies conducted since the 1990s have shown a statistically significant direct association between mortality (premature deaths) and daily concentrations of PM in the air. Despite important gaps in scientific knowledge, a comprehensive evaluation of research findings provides persuasive evidence that exposure to fine particulate air pollution adversely affects cardiopulmonary health and can lead to premature death.[30]

The SFBAAB is designated as non-attainment for both the federal and state PM_{10} standards. In addition, the SFBAAB is not in compliance with either the federal 24-hour $PM_{2.5}$ standard or the state annual average $PM_{2.5}$ standard.

Sulfur Dioxide

SO_2 is a colorless, acidic gas with a strong odor. It is produced by the combustion of sulfur-containing fuels such as oil, coal, and diesel. SO_2 has the potential to damage materials and can cause health effects at high concentrations. According to EPA, short-term exposures to SO_2 can harm the human respiratory system and make breathing difficult.[31] It can irritate lung tissue and increase the risk of acute and chronic respiratory disease.[32]

According to CARB, health effects at levels near the state one-hour standard for SO_2 are those of asthma exacerbation, including bronchoconstriction accompanied by symptoms of respiratory irritation such as wheezing, shortness of breath and chest tightness, especially during exercise or physical activity. Exposure at elevated levels of SO_2 (above 1 ppm) results in increased incidence of pulmonary symptoms and disease, decreased pulmonary function, and increased risk of mortality.[33] Children, the elderly, and those with asthma, cardiovascular disease, or chronic lung disease (such as bronchitis or emphysema) are most likely to experience the adverse effects of SO_2.[34,35]

[29] California Air Resources Board, Inhalable Particulate Matter and Health ($PM_{2.5}$ and PM_{10}), last reviewed August 10, 2017. Available at https://www.arb.ca.gov/research/aaqs/common-pollutants/pm/pm.htm. Accessed April 2019.

[30] Dockery, D. W., and C.A. Pope III, Health Effects of Fine Particulate Air Pollution: Lines that Connect, *Journal of the Air & Waste Management Association*, June 2006, pp. 30–37.

[31] U.S. Environmental Protection Agency, Sulfur Dioxide (SO_2) Pollution, June 28, 2018. Available at https://www.epa.gov/so2-pollution/sulfur-dioxide-basics. Accessed April 2019.

[32] Bay Area Air Quality Management District, *California Environmental Quality Act Air Quality Guidelines*, May 2017, p. C-16. Available at https://www.baaqmd.gov/~/media/files/planning-and-research/ceqa/ceqa_guidelines_may2017-pdf.pdf?la=en. Accessed January 13, 2020.

[33] California Air Resources Board, Sulfur Dioxide & Health, 2019. Available at https://ww2.arb.ca.gov/resources/sulfur-dioxide-and-health. Accessed April 2019.

[34] California Air Resources Board, Sulfur Dioxide & Health, 2019. Available at https://ww2.arb.ca.gov/resources/sulfur-dioxide-and-health. Accessed April 2019.

[35] U.S. Environmental Protection Agency, Sulfur Dioxide (SO_2) Pollution, June 28, 2018. Available at https://www.epa.gov/so2-pollution/sulfur-dioxide-basics. Accessed April 2019.

SO_2 is also a precursor to the formation of atmospheric sulfate and PM, and contributes to potential atmospheric sulfuric acid formation that could precipitate downwind as acid rain. As discussed in Section 3.1.2, *Regulatory Framework*, the SFBAAB is in compliance with the federal and state SO_2 standards.

Lead

Lead has a range of adverse neurotoxin health effects, and was formerly released into the atmosphere primarily via leaded gasoline products. The phase-out of leaded gasoline in California reduced levels of lead in the atmosphere. In the Bay Area, high concentrations of lead are only a concern in areas close to general aviation airports. Ambient lead concentrations in the SFBAAB meet both the federal and state standards.

Lead can adversely affect the nervous system, kidney function, immune system, reproductive and developmental systems, and cardiovascular system, and affects the oxygen-carrying capacity of the blood.[36] The lead effects most commonly encountered in current populations are neurological effects in children, such as behavioral problems and reduced intelligence, anemia, and liver or kidney damage. Excessive lead exposure in adults can cause reproductive problems in men and women, high blood pressure, kidney disease, digestive problems, nerve disorders, memory and concentration problems, and muscle and joint pain.[37]

Existing structures on the project site may contain lead-based paint and other hazardous materials. The presence of hazardous materials, including lead-based paint, is discussed in Section 3.7, *Hazards and Hazardous Materials*, and is not evaluated further in this section.

Sulfates

Sulfates are formed in the atmosphere through a series of chemical reactions involving SO_2. The primary source of SO_2 emissions in California is the combustion of sulfur-containing compounds in gasoline and diesel fuels. Meteorological conditions in urban areas of California allow for the rapid conversion of emitted SO_2 to ambient sulfate, which can cause a variety of harmful effects.

Sulfates make up a portion of $PM_{2.5}$ and thus have health impacts similar to those associated with $PM_{2.5}$, including premature mortality, increased hospital admissions for heart- or lung-related causes, acute and chronic bronchitis, asthma attacks, emergency room visits, respiratory symptoms, and restricted-activity days. As is the case with $PM_{2.5}$, sulfate exposure poses greater health risk to sensitive populations such as children, the elderly, asthmatics, and others with underlying health conditions. In addition to adverse human health impacts, sulfates in the atmosphere degrade visibility and contribute to acid deposition, which is associated with a variety of harmful effects on property and ecosystems.[38]

---

[36] U.S. Environmental Protection Agency, Lead Air Pollution, last updated November 29, 2017. Available at https://www.epa.gov/lead-air-pollution/basic-information-about-lead-air-pollution. Accessed April 2019.

[37] California Air Resources Board, Lead & Health, 2019. Available at https://ww2.arb.ca.gov/resources/lead-and-health. Accessed April 2019.

[38] California Air Resources Board, *Sulfate & Health*. Available at https://ww2.arb.ca.gov/resources/sulfate-and-health. Accessed July 9, 2020.

Hydrogen Sulfide

Hydrogen sulfide is a colorless gas that smells of rotten eggs and is emitted from a variety of sources. Hydrogen sulfide occurs naturally in coal, natural gas, and oil and is emitted during extraction and processing of these materials. In addition, hydrogen sulfide is emitted from sewage treatment facilities from decomposition of organic matter. Other sources of hydrogen sulfide emissions include petrochemical plants, coke oven plants, and kraft paper mills.[39,40]

Hydrogen sulfide is a pollutant of concern and is considered a nuisance because of its strong smell that can induce headache, nausea, or vomiting. Greater exposure to hydrogen sulfide can cause eye irrigation and, in extreme cases, can cause serious adverse health impacts. Because hydrogen sulfide is emitted primarily by outdoor sources, it is rarely an issue indoors.[41]

Vinyl Chloride

Vinyl chloride is a flammable, colorless gas generally emitted by industrial processes, particularly from the process of making polyvinyl chloride (PVC) plastic and vinyl products. Low levels of vinyl chloride have been measured near landfills, sewage treatment plants, and hazardous waste sites, but vinyl chloride levels have not exceeded the state standards since the 1970s. Emissions of vinyl chloride are associated exclusively with occupational and industrial settings. Although ambient concentrations of vinyl chloride are generally low, high levels of vinyl chloride can cause serious health effects.[42,43]

Acute effects of vinyl chloride exposure include eye irritation and impacts on the central nervous system such as dizziness, drowsiness, headaches, and giddiness. Chronic exposure to vinyl chloride can cause liver damage; central nervous system effects including dizziness, drowsiness, fatigue, headache, visual/auditory disturbances, memory loss, and sleep disturbances; effects on the peripheral nervous system including peripheral neuropathy, tingling, numbness, weakness, and pain in fingers; reproductive and developmental effects; and increased cancer risk. EPA has classified vinyl chloride as a Group A human carcinogen.[44]

Toxic Air Contaminants, $PM_{2.5}$, and Health Risks

In addition to criteria air pollutants, individual projects may emit TACs, a diverse group of air pollutants that may cause chronic and acute adverse effects on human health, including carcinogenic effects. There are hundreds of different types of TACs with varying degrees of

39 California Air Resources Board, *Hydrogen Sulfide and Health*. Available at https://ww2.arb.ca.gov/resources/hydrogen-sulfide-and-health. Accessed July 9, 2020.
40 U.S. Environmental Protection Agency, *Environmental Health Effects Research Series: Hydrogen Sulfide*, February 1978. Available at https://nepis.epa.gov/Exe/ZyPDF.cgi/9100B2YD.PDF?Dockey=9100B2YD.PDF. Accessed July 9, 2020.
41 California Air Resources Board, *Hydrogen Sulfide and Health*. Available at https://ww2.arb.ca.gov/resources/hydrogen-sulfide-and-health. Accessed July 9, 2020.
42 California Air Resources Board, *Vinyl Chloride and Health.* Available at https://ww2.arb.ca.gov/resources/vinyl-chloride-and-health. Accessed July 9, 2020.
43 U.S. Environmental Protection Agency, *Vinyl Chloride*. Available at https://19january2017snapshot.epa.gov/sites/production/files/2016-09/documents/vinyl-chloride.pdf. Last updated January 2000. Accessed July 9, 2020.
44 U.S. Environmental Protection Agency, *Vinyl Chloride.* Available at https://19january2017snapshot.epa.gov/sites/production/files/2016-09/documents/vinyl-chloride.pdf. Last updated January 2000. Accessed July 9, 2020.

toxicity. Thus, the health risks of individual TACs vary greatly; at a given level of exposure, one TAC may pose a hazard that is many times greater than another.

The main TAC of concern is diesel particulate matter. The main sources of DPM emissions near the project site are heavy-duty truck activity along Interstates 880 and 280, as well as Amtrak trains, which operate directly west of the project site. Permitted stationary sources of TACs near the project site include auto body shops, a coffee roaster, backup generators, and gasoline dispensing facilities, but these are sources of TACs from ROGs in addition to DPM.

TACs are air pollutants that may lead to serious illness or increased mortality, even when present in relatively low concentrations. Potential human health effects of TACs include birth defects, neurological damage, cancer, and death. The State of California has identified more than 200 TACs with varying degrees of toxicity.[45]

The ambient background of TACs is the combined result of many diverse human sources and activities, including gasoline stations, automobiles, dry cleaners, industrial operations, solvent use, and painting operations. In general, mobile sources contribute more substantially than stationary sources to health risks. Both BAAQMD and CARB operate a network of monitoring stations that measure ambient concentrations of certain TACs that are associated with strong health-related effects and are present in appreciable concentrations in the Bay Area, as in all urban areas.

The most recent estimate (2011–2016) of cancer rates from all causes in the SFBAAB, presented by the Cancer Prevention Institute of California, shows cancer rates for males at 428 per 100,000 and for females at 382 per 100,000.[46] These levels are below the national average annual cancer rate of 442.0 new cases of cancer per 100,000 men and women per year.[47] This is the *rate* of new cancer cases per year per 100,000 individuals, not the lifetime risk of an individual to develop cancer.

In addition to exposure to ambient airborne sources of carcinogenic substances, individuals' lifetime risks of contracting cancer vary based on a wide number of factors, such as genetics, sex, age, diet, lifestyle (e.g., obesity, tobacco use, alcohol use), exposure to carcinogens, and pre-existing conditions. Approximately 38.7 percent of all females and 40.1 percent of all males in the United States will develop an invasive form of cancer in their lifetime.[48] Expressed as a chance of developing cancer, the population-averaged chance is 38.7 percent for women and 40.1 percent for men. These numbers are average risks for the overall U.S. population. An individual's risk may be higher or lower than these numbers, depending on particular risk factors.

[45] California Air Resources Board, Toxic Air Contaminant Identification List, July 2011. Available at https://www.arb.ca.gov/toxics/id/taclist.htm. Accessed January 13, 2020.

[46] Cancer Prevention Institute of California, *The Greater Bay Area Cancer Registry Annual Report: Incidence and Mortality Review, 1988–2016*, 2019. Available at https://cancerregistry.ucsf.edu/sites/g/files/tkssra1781/f/wysiwyg/Cancer%20Incidence%20and%20Mortality%20in%20the%20Greater%20Bay%20Area%202019_v6.21.2019.pdf. Accessed March 2020.

[47] National Cancer Institute, Cancer Stat Facts: Cancer of Any Site, 2020. Available at https://seer.cancer.gov/statfacts/html/all.html. Accessed April 2020.

[48] American Cancer Society, Lifetime Risk of Developing or Dying from Cancer, last updated January 13, 2020. Available at https://www.cancer.org/cancer/cancer-basics/lifetime-probability-of-developing-or-dying-from-cancer.html. Accessed March 2020.

Thus, the *average* individual lifetime cancer risk from all causes is 387,000 in 1 million for women and 401,400 in 1 million for men.

$PM_{2.5}$ is considered the most harmful air pollutant in the SFBAAB in terms of the associated impact on public health, and can result in a wide range of health effects, as discussed above. Consequently, it is regarded as a hazardous pollutant.

BAAQMD regulates TACs and $PM_{2.5}$ by using a risk-based approach, rather than establishing an ambient concentrations standard. This risk-based approach uses a health risk assessment (HRA) to determine the specific sources and TACs to control and the level of control necessary to reduce risks to acceptable levels. An HRA analyzes exposure to toxic substances and human health risks based on the dose and potency of the toxic substances.[49]

Diesel Particulate Matter

CARB identified DPM as a TAC in 1998, based primarily on evidence demonstrating cancer effects in humans. The exhaust from diesel engines includes hundreds of different gaseous and particulate components, many of which are toxic. Mobile sources such as trucks and buses are among the primary sources of diesel emissions, and concentrations of DPM are higher near heavily traveled highways. Health risks from ambient concentrations of DPM are much higher than the risks associated with any other TAC routinely measured in the region. The statewide risk from DPM, as determined by CARB, declined from 750 in 1 million in 1990 to 570 in 1 million in 1995; by 2012, CARB estimated the average statewide cancer risk from DPM at 520 in 1 million.[50,51] These rates have declined as a result of better emissions controls, statewide and local regulatory actions, and more fuel-efficient technology.

In 2000, CARB approved the comprehensive Diesel Risk Reduction Plan to reduce diesel emissions from both new and existing diesel-fueled vehicles and engines.[52] Many of the measures of the Diesel Risk Reduction Plan have been approved and adopted, including the federal on-road and non-road diesel engine emission standards for new engines, as well as adoption of regulations for low sulfur fuel in California. Subsequent regulations regarding on-road diesel truck retrofits with particulate matter controls, 2010 or later engine standards, and fleet average emission rate standards to increase turnover have resulted in much lower DPM and $PM_{2.5}$ emissions. With new

[49] An HRA is required for permit approval for a stationary source if BAAQMD concludes that projected emissions of a specific air toxic compound from a proposed new or modified source suggest a potential public health risk. In these instances, an HRA must be prepared for the source in question. Such an assessment generally evaluates acute (short-term) effects, chronic (long-term) effects, and the increased risk of cancer as a result of exposure to one or more TACs.

[50] California Air Resources Board, *California Almanac of Emissions and Air Quality—2009 Edition*, 2009, Table 5-44 and Figure 5-12. Available at https://www.cityofdavis.org/home/showdocument?id=4101. Accessed February 3, 2020.

[51] California Air Resources Board, Overview: Diesel Exhaust and Health, n.d. Available at https://ww2.arb.ca.gov/resources/overview-diesel-exhaust-and-health. Accessed January 14, 2020. This calculated cancer risk value from ambient air exposure in the Bay Area can be compared against the lifetime probability of being diagnosed with cancer in the United States, from all causes, which is approximately 40 percent, or greater than 400,000 in 1 million, according to the American Cancer Society (American Cancer Society, Lifetime Risk of Developing or Dying from Cancer, last updated January 13, 2020. Available at https://www.cancer.org/cancer/cancer-basics/lifetime-probability-of-developing-or-dying-from-cancer.html. Accessed March 2020).

[52] California Air Resources Board, *Risk Reduction Plan to Reduce Particulate Matter Emissions from Diesel-Fueled Engines and Vehicles*, 2000. Available at https://www.arb.ca.gov/diesel/documents/rrpfinal.pdf. Accessed January 14, 2020.

controls and fuel requirements, 60 trucks built in 2007 would have the same particulate exhaust emissions as one truck built in 1988.[53] The regulation is anticipated to result in an 80 percent decrease in statewide diesel health risk in 2020 as compared with the diesel risk in 2000.[54]

Despite notable emission reductions, CARB recommends considering proximity to sources of DPM emissions in the siting of new sensitive land uses. CARB notes that the siting guidelines are advisory and should not be interpreted as defined "buffer zones," and that local agencies must balance other considerations, including transportation needs, the benefits of urban infill, community economic development priorities, and other quality of life issues. With careful evaluation of exposure, health risks, and affirmative steps to reduce risk where necessary, CARB's position is that infill development, mixed-use, higher-density, transit-oriented development, and other concepts that benefit regional air quality can be compatible with protecting the health of individuals at the neighborhood level.[55]

$PM_{2.5}$

Although not technically a TAC, $PM_{2.5}$ is a complex mix of materials and substances that include carbon, metals, nitrates, organics, sulfates, diesel exhaust, and wood smoke. $PM_{2.5}$ can both be directly emitted into the atmosphere through disturbance (such as road dust) and indirectly through secondary formation through reactions among different pollutants in the atmosphere.

Compelling evidence suggests that $PM_{2.5}$ is by far the most harmful air pollutant in the SFBAAB in terms of the associated impact on public health.[56] As discussed above, the scientific consensus is that both long-term and short-term exposure to $PM_{2.5}$ can cause a wide range of health effects, including premature mortality, increased hospital admissions for heart or lung causes, acute and chronic bronchitis, asthma attacks, emergency room visits, respiratory symptoms, premature death, heart attacks, and reduced lung function growth in children.[57] $PM_{2.5}$ (including diesel exhaust particles) is thought to have greater effects on health because these particles are very small and thus can penetrate to the deepest parts of the lungs.

For additional discussion of the health effects of $PM_{2.5}$, refer to the *Particulate Matter* section above.

Asbestos

Asbestos is also a TAC of concern, particularly in association with the demolition of older buildings and structures. Asbestos is a fibrous mineral that both naturally occurs in ultramafic rock (a rock type commonly found in California) and was formerly used as a processed

53 Pollution Engineering, New Clean Diesel Fuel Rules Start, July 2006.
54 California Air Resources Board, *Air Quality and Land Use Handbook: A Community Health Perspective*, April 2005. Available at http://www.arb.ca.gov/ch/handbook.pdf. Accessed April 2019 and January 14, 2020.
55 California Air Resources Board, *Air Quality and Land Use Handbook: A Community Health Perspective*, April 2005. Available at http://www.arb.ca.gov/ch/handbook.pdf. Accessed April 2019 and January 14, 2020.
56 Bay Area Air Quality Management District, *California Environmental Quality Act Air Quality Guidelines*, May 2017. Available at https://www.baaqmd.gov/~/media/files/planning-and-research/ceqa/ceqa_guidelines_may2017-pdf.pdf?la=en. Accessed February 7, 2020.
57 California Air Resources Board, *Inhalable Particulate Matter and Health ($PM_{2.5}$ and PM_{10})*, 2020. Available at https://www.arb.ca.gov/research/aaqs/common-pollutants/pm/pm.htm. Accessed May 2020.

component of building materials. Asbestos is strictly regulated because it has been proven to cause serious adverse health effects, including asbestosis and lung cancer.

Existing structures on the project site may contain asbestos. The presence of hazardous materials, including asbestos, is discussed in Section 3.7, *Hazards and Hazardous Materials*, and is not evaluated further in this air quality analysis.

Visibility-Reducing Particles

Visibility-reducing particles are any particles in the atmosphere that obstruct the range of visibility by creating haze.[58] These particles vary in shape, size, and chemical composition, and come from a variety of natural and human-made sources including windblown metals, soil, dust, salt, and soot. Other haze-causing particles are formed in the air from gaseous pollutants (e.g., sulfates, nitrates, organic carbon particles), which are the major constituents of fine PM, such as $PM_{2.5}$ and PM_{10}, and are caused from the combustion of fuel. CARB's standard for visibility-reducing particles is not based on health effects, but rather on welfare effects, such as reduced visibility and damage to materials, plants, forests, and ecosystems. The health impacts associated with $PM_{2.5}$ and PM_{10} are discussed above under *Particulate Matter*.

Sensitive Receptors

As discussed previously, air quality does not affect every individual in the population in the same way, and some groups are more sensitive to adverse health effects than others. More sensitive population groups include the elderly and the young; those with higher rates of respiratory disease, such as asthma and COPD; and those with other environmental or occupational health exposures (e.g., indoor air quality) that affect cardiovascular or respiratory diseases. BAAQMD defines sensitive receptors as children, adults, and seniors occupying or residing in residential dwellings, schools, childcare centers, hospitals, and senior-care facilities. Workers are not considered sensitive receptors because they have other legal protections; specifically, employers must follow regulations set forth by the Occupational Safety and Health Administration to ensure the health and well-being of their employees.[59]

The reasons for greater-than-average sensitivity may include age, pre-existing health problems, proximity to emissions sources, or duration of exposure to air pollutants. Schools, hospitals, and residential care centers are considered relatively sensitive to poor air quality because children, elderly people, and the infirm are more susceptible to respiratory distress and other air quality–related health problems than the general public. Residences are considered sensitive to poor air quality because people usually are present in their home for many hours per day over extended periods of time, resulting in longer exposure to ambient air. In addition, the susceptible individuals listed above could be present at a residence. Recreational uses are considered

[58] California Air Resources Board, Visibility Reducing Particles and Health, October 2016. Available at https://ww2.arb.ca.gov/resources/vinyl-chloride-and-health. Accessed December 2019.

[59] Bay Area Air Quality Management District, *Recommended Methods for Screening and Modeling Local Risks and Hazards*, May 2012. Available at http://www.baaqmd.gov/~/media/files/planning-and-research/ceqa/risk-modeling-approach-may-2012.pdf?la=en. Accessed January 14, 2020.

sensitive because of the greater exposure to ambient air, because vigorous exercise places a high demand on the human respiratory system.

Existing sensitive receptors evaluated in this draft EIR include a representative sample of known residents (child and adult) in the surrounding neighborhood, and other sensitive receptors (e.g., school children, childcare facilities) in the surrounding community and along the expected travel routes of the on-road delivery and haul trucks in the project vicinity. The HRA also includes discrete receptors in schools and childcare centers located up to 2,500 feet from the project site, which goes beyond the requirement in the BAAQMD guidelines to analyze health risks within a 1,000-foot "zone of influence."[60]

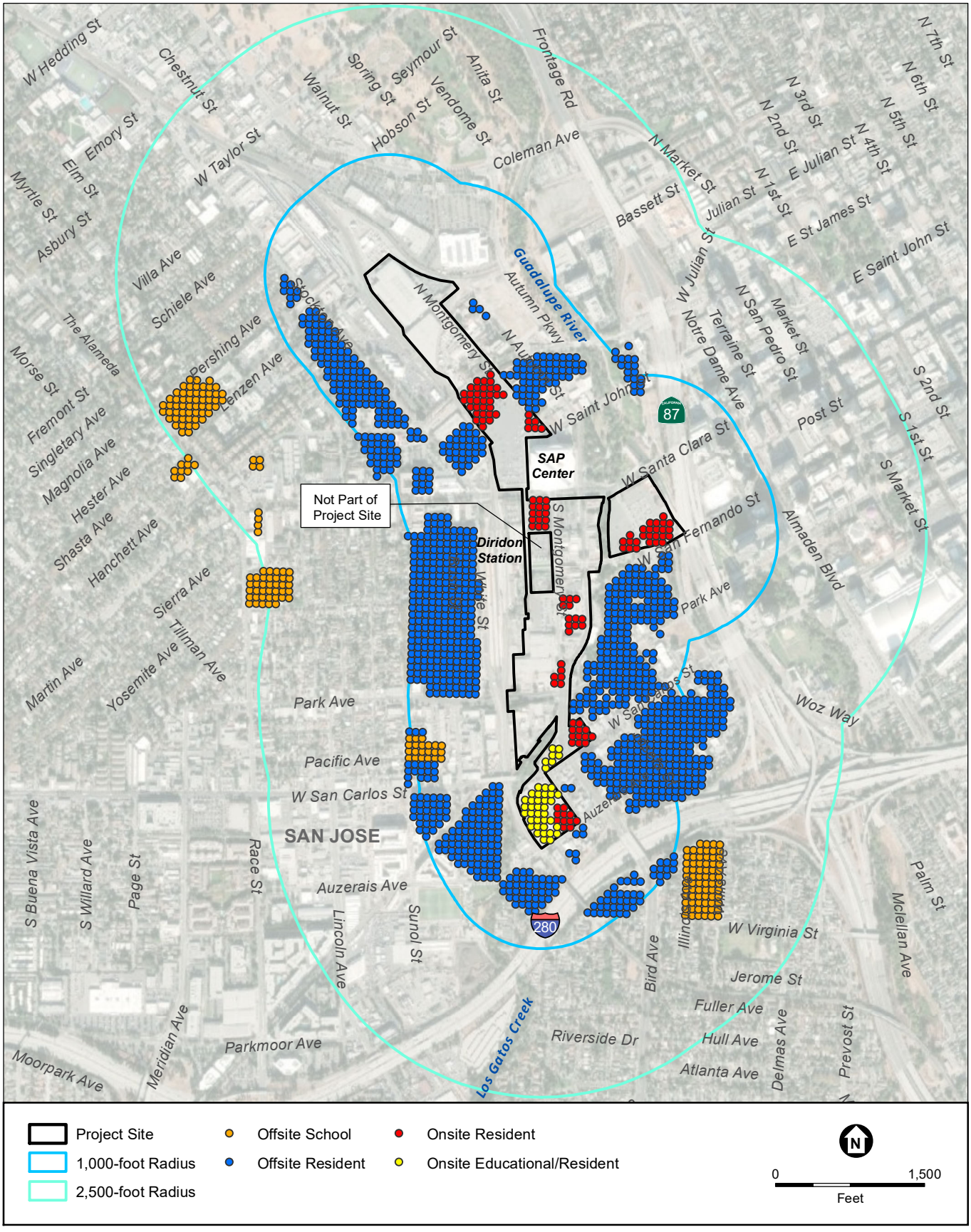
Based on the location of the proposed project in San José, the 1,000-foot zone of influence was conservatively extended to ensure that the HRA would include all nearby schools and childcare centers with the potential to be negatively affected by the project, especially since all schools and daycares are located more than 1,000 feet from the project site. Schools and childcare centers located within 2,500 feet of the project site include the Santa Clara County Community School (Sunol Community School), Gardner Elementary School, St. Leo the Great School, Park Avenue Preschool, Back to Basics Montessori Christian Preschool and Kindergarten, Carden Preparatory Preschool, and the Hester School. Residential areas in the vicinity of the project site are also considered sensitive receptors.

Figure 3.1-1 shows the locations of sensitive land uses planned on site, as well as existing sensitive receptors located within 2,500 feet of the project boundary.

Odors

Although offensive odors from stationary sources rarely cause any physical harm, they remain unpleasant and can lead to public distress, generating complaints by residents to local governments. The occurrence and severity of odor impacts depend on the nature, frequency, and intensity of the source; wind speed and direction; and the sensitivity of receptors. The CEQA Guidelines recommend considering odor impacts for any new odor sources proposed near existing receptors, and for any new sensitive receptors located near existing odor sources. BAAQMD provides examples of odor sources, which include wastewater treatment plants, landfills, confined animal facilities, composting stations, food manufacturing plants, refineries, and chemical plants. Generally, increasing the distance between the receptor and the odor source would mitigate odor impacts.

[60] Bay Area Air Quality Management District, *California Environmental Quality Act Air Quality Guidelines.* May 2017. Available at http://www.baaqmd.gov/~/media/files/planning-and-research/ceqa/ceqa_guidelines_may2017-pdf.pdf?la=en. Accessed February 6, 2020.



SOURCES: Esri, 2019, City of San Jose, 2019, ESA, 2020

Downtown West Mixed-Use Plan

Figure 3.1-1
Existing and New Sensitive Receptors

Odors are generally regarded as an annoyance rather than a health hazard. Manifestations of a person's reaction to odors can range from psychological (e.g., irritation, anger, or anxiety) to physiological (e.g., circulatory and respiratory effects, nausea, vomiting, and headache). Odor characterization can depend on a number of variables, including:

- Nature of the odor source (e.g., wastewater treatment plant, food processing plant);
- Frequency and duration of odor generation (e.g., daily, seasonal, activity-specific);
- Intensity of the odor (e.g., concentration);
- Distance of the odor source from sensitive receptors;
- Physical barriers (e.g., walls, buildings, trees);
- Wind direction (e.g., upwind or downwind); and
- Sensitivity of the receptor.

Odors can be generated and released from virtually all phases of wastewater collection, treatment, and disposal. Most odor-producing compounds found in domestic wastewater and in the removed solids result from anaerobic biological activity that consumes organic material, sulfur, and nitrogen found in wastewater. These odor-producing compounds can be organic or inorganic molecules. The two major inorganic odors are hydrogen sulfide and ammonia. Organic odors are usually the result of biological activity that decomposes organic matter and forms a variety of odors.

Hydrogen sulfide, which has a characteristic rotten-egg odor, is the most common odorous compound found in wastewater collection and treatment systems. Hydrogen sulfide monitoring can be considered a surrogate for the dilution-to-threshold ratio (D/T) measurements and thus provides useful information on the performance of odor control systems. Hydrogen sulfide is corrosive, toxic, and soluble in water. Sulfate is reduced to hydrogen sulfide by bacteria under anaerobic (or septic) conditions.

Other wastewater odorants that contribute to odors are organic sulfur compounds (e.g., methyl mercaptan and dimethyl sulfide), ammonia and nitrogen compounds (e.g., amines—dimethylamine and trimethylamine), volatile fatty acids, aldehydes, musty odorants (e.g., 2-methylisoborneol), fecal odorants (e.g., skatole), and ketones. Because these latter constituents are more costly and difficult to monitor, hydrogen sulfide has become the key compound targeted for removal and for monitoring. Ammonia and organic odors are also common.

Odors from wastewater and its residuals become much more intense and develop much higher concentrations of odorous compounds when the oxygen in the waste is consumed and anaerobic conditions develop. For this reason, most of the odor generated in wastewater collection and treatment is caused by the anaerobic conditions that can develop in wastewater collection systems, and by treatment plant unit processes where anaerobic conditions are likely to develop (e.g., clarifiers, gravity thickeners, and sludge storage tanks). Odor problems can be controlled through proper design, adequate ventilation, vapor-phase treatment, operational practices including process control and chemical treatment, and facility maintenance.

3.1.2 Regulatory Framework

Federal

Clean Air Act and National Ambient Air Quality Standards

The federal Clean Air Act (CAA) requires EPA to establish national ambient air quality standards to protect public health and the environment. NAAQS are classified as either primary or secondary. Primary standards are meant to provide public health protection, including protecting the health of sensitive populations such as asthmatics, children, and the elderly. Secondary standards provide public welfare protection, including protection against decreased visibility and damage to animals, crops, vegetation, and buildings.

EPA has set NAAQS for several criteria air pollutants: ozone, NO_2, SO_2, CO, PM, and lead. PM includes $PM_{2.5}$, which is 2.5 microns or smaller in diameter, and PM_{10}, which is 10 microns or smaller in diameter. **Table 3.1-3** summarizes the current NAAQS and CAAQS and indicates the principal sources for each of these pollutants.

EPA classifies geographic areas as either attainment or non-attainment for each criteria air pollutant, based on whether the NAAQS have been achieved. Air districts in areas that are designated non-attainment must prepare regional air quality plans, discussed in further detail below, to be included in the overall State Implementation Plan. Areas that have a "maintenance" designation have been non-attainment for a certain criteria pollutant but have been re-designated as attainment. As shown in Table 3.1-3, the SFBAAB has been classified as non-attainment for ozone and $PM_{2.5}$.

Hazardous Air Pollutants

Federal law uses the term "hazardous air pollutants" (HAPs) to refer to the same types of compounds that are referred to as TACs under state law; refer to the discussion of state-identified TACs, below. Currently, 187 substances are regulated as HAPs. The federal CAA requires EPA to identify the National Emission Standards for Hazardous Air Pollutants (NESHAPs) to protect public health and welfare. More than 125 types of stationary sources are regulated under the NESHAPS, while mobile-source emissions of HAPs are regulated through vehicle and fuel standards.

Light-Duty Vehicle Greenhouse Gas and Corporate Average Fuel Economy Standards

On May 19, 2009, President Barack Obama announced a national policy for fuel efficiency and emissions standards in the U.S. auto industry. The adopted federal standard applied to passenger cars and light-duty trucks for model years 2012 through 2016. The rule surpassed the prior Corporate Average Fuel Economy (CAFE)[61] standards and required an average fuel economy standard of 35.5 miles per gallon (mpg) and 250 grams of carbon dioxide (CO_2) per mile by model year 2016, based on EPA calculation methods. These standards were formally adopted on April 1, 2010. In August 2012, standards were adopted for model year 2017 through 2025

[61] The CAFE standards are regulations in the United States, first enacted by Congress in 1975, to improve the average fuel economy of cars and light trucks. The U.S. Department of Transportation has delegated the National Highway Traffic Safety Administration as the regulatory agency for the CAFE standards.

TABLE 3.1-3
STATE AND NATIONAL AMBIENT AIR QUALITY STANDARDS AND THE SAN FRANCISCO BAY AREA AIR BASIN'S ATTAINMENT STATUS

		National Standards		California Standards	
Pollutant	**Averaging Time**	**Concentration**	**Attainment Status**	**Concentration**	**Attainment Status**
Ozone	1 hour	—	—	0.09 ppm	Nonattainment
	8 hours	0.07 ppm	Nonattainment	0.070 ppm	Nonattainment
Carbon Monoxide	1 hour	35 ppm	Attainment	20 ppm	Attainment
	8 hours[a]	9.0 ppm	Attainment	9.0 ppm	Attainment
Nitrogen Dioxide	1 hour	0.100 ppm	Unclassified	0.18 ppm	Attainment
	Annual Avg.	0.053 ppm	Attainment	0.030 ppm	Attainment
Sulfur Dioxide	1 hour	0.075 ppm	Attainment	0.25 ppm	Attainment
	24 hours	0.14 ppm	Attainment	0.04 ppm	Attainment
	Annual Avg.	0.030 ppm	Attainment	—	—
Respirable Particulate Matter (PM_{10})	24 hours	150 µg/m^3	Nonattainment	50 µg/m^3	Nonattainment
	Annual Avg.	—	—	20 µg/m^3	Nonattainment
Fine Particulate Matter ($PM_{2.5}$)	24 hours	35 µg/m^3	Nonattainment	—	—
	Annual Avg.	12 µg/m^3	Unclassified/ Attainment	12 µg/m^3	Nonattainment
Lead	Monthly Avg.	—	—	1.5 µg/m^3	Attainment
	Quarterly	1.5 µg/m^3	Attainment	—	—
Hydrogen Sulfide	1 hour	—	—	0.03 ppm	Unclassified
Sulfates	24 hours	—	—	25 µg/m^3	Attainment
Visibility-Reducing Particles	8 hours	—	—	Extinction of 0.23/km; visibility of 10 miles or more	Unclassified
Vinyl Chloride	24 hours	—	—	0.01 ppm	—

NOTES:
µg/m^3 = micrograms per cubic meter; Avg. = Average; $PM_{2.5}$ = particulate matter 2.5 microns or less in diameter; PM_{10} = particulate matter 10 microns or less in diameter; ppb = parts per billion; ppm = parts per million
[a] A more-stringent 8-hour carbon monoxide state standard exists around Lake Tahoe (6 ppm).

SOURCE: Bay Area Air Quality Management District, *Air Quality Standards and Attainment Status*, updated January 5, 2017. Available at https://www.baaqmd.gov/about-air-quality/research-and-data/air-quality-standards-and-attainment-status. Accessed January 2, 2020.

passenger cars and light-duty trucks. By 2020, new vehicles were projected to achieve 41.7 mpg (if GHG reductions were achieved exclusively through fuel economy improvements) and 213 grams of CO_2 per mile (Phase II standards). By 2025, vehicles are projected to achieve 54.5 mpg (if GHG reductions are achieved exclusively through fuel economy improvements) and 163 grams of CO_2 per mile. According to EPA, under these standards, a model year 2025 vehicle would emit half the GHG emissions of a model year 2010 vehicle.[62] In 2017, EPA recommended no change to the GHG standards for light-duty vehicles for model years 2022–2025.

[62] U.S. Environmental Protection Agency and National Highway Traffic Safety Administration, *Light-Duty Vehicle Greenhouse Gas Emission Standards and Corporate Average Fuel Economy Standards; Final Rule*, May 5, 2010. Available at https://www.govinfo.gov/content/pkg/FR-2010-05-07/pdf/2010-8159.pdf. Accessed January 10, 2020.

In August 2018, EPA and the U.S. Department of Transportation's National Highway Traffic Safety Administration (NHTSA) proposed the Safer Affordable Fuel-Efficient (SAFE) Vehicles Rule. If adopted, the SAFE Vehicles Rule would maintain the CAFE and CO_2 standards applicable in model year 2020 for model years 2021–2026. The estimated CAFE and CO_2 standards for model year 2020 are 43.7 mpg and 204 grams of CO_2 per mile for passenger cars and 31.3 mpg and 284 grams of CO_2 per mile for light trucks, projecting an overall industry average of 37 mpg, as compared to 46.7 mpg under the standards issued in 2012. In September 2019, EPA published the final rule in the *Federal Register*.[63] EPA also published the final rule for the One National Program on Federal Preemption of State Fuel Economy Standards, which finalizes critical parts of the SAFE Vehicles Rule, making clear that federal law preempts state and local standards for tailpipe GHG emissions as well as zero-emission vehicle mandates.

Although these emissions standards are focused on reducing GHG emissions, they will also reduce emissions of criteria pollutants including ROG, NO_X, PM, and ozone, because increased fuel efficiency will result in fewer combustion emissions associated with the use of gasoline and diesel fuel.

State

California Clean Air Act and California Ambient Air Quality Standards

At the state level, CARB oversees California air quality policies and regulations. California has adopted its own air quality standards, known as CAAQS, as shown in Table 3.1-3. California's ambient standards are at least as protective as the NAAQS and are often more stringent.

In 1988, California enacted the California Clean Air Act (California Health and Safety Code Section 39600 et seq.), which called for the designation of areas as attainment or non-attainment based on state ambient air quality standards (i.e., the CAAQS), rather than the federal standards. The California Clean Air Act requires each air district in which CAAQS are exceeded to prepare a plan that documents reasonable progress toward attainment. If an air basin (or portion thereof) exceeds the CAAQS for a particular criteria air pollutant, it is considered to be non-attainment for that criteria air pollutant until the area can demonstrate compliance. As indicated in Table 3.1-3, the SFBAAB is classified as non-attainment for 8-hour ozone, 1-hour ozone, annual average PM_{10}, 24-hour PM_{10}, and annual average $PM_{2.5}$.

With respect to the criteria air pollutants identified only by the State of California (sulfates, visibility-reducing particles, and vinyl chloride), either the proposed project would not use materials that generate these pollutants during construction or day-to-day operations, and therefore would not emit those pollutants; or such emissions would be accounted for as part of the pollutants estimated in this analysis (visibility-reducing particles are associated with PM emissions and sulfates are associated with SO_2). Vinyl chloride is used when making PVC plastic and vinyl products and is emitted primarily by industrial processes.[64] Vinyl chloride would not be emitted directly during project construction or operations; therefore, the proposed project would

[63] *Federal Register*, Vol. 84, No. 188, pp. 51310–51363, Friday, September 27, 2019.
[64] California Air Resources Board, *Vinyl Chloride & Health*. Available at https://ww2.arb.ca.gov/resources/vinyl-chloride-and-health. Accessed May 2020.

not emit vinyl chloride. In addition, CARB determined that the scientific evidence available is insufficient to support identifying a threshold exposure level for vinyl chloride; therefore, CARB does not monitor or make status designations for this pollutant.[65] Consequently, this EIR does not analyze project emissions of sulfates, visibility-reducing particles, and vinyl chloride.

The project may emit hydrogen sulfide through the operation of the water reclamation facilities. This topic is addressed below in Impact AQ-5.

Mobile-Source Regulations

Because the transportation sector accounts for a large percentage of California's CO_2 emissions, Assembly Bill (AB) 1493 (Health and Safety Code Sections 42823 and 43018.5) (also referred to as the "Pavley standards"), enacted on July 22, 2002, required CARB to set GHG emissions standards for passenger vehicles, light-duty trucks, and other vehicles manufactured in and after 2009 whose primary use is non-commercial personal transportation. The federal CAA ordinarily preempts state regulation of motor vehicle emissions standards; however, California is allowed to set its own standards with a federal CAA waiver from EPA. In June 2009, EPA granted California the waiver.

The EPA and the U.S. Department of Transportation adopted federal standards for model year 2012–2016 light-duty vehicles, which corresponds to the vehicle model years regulated under the state's Pavley Phase I standards. In August 2012, EPA and the U.S. Department of Transportation adopted GHG emissions standards for model year 2017–2025 vehicles; however, these standards were rescinded and replaced under the SAFE Vehicles Rule as discussed above.

In September 2019, in response to the SAFE Vehicles Rules and the One National Program on Federal Preemption of State Fuel Economy Standards, California and 22 other states and environmental groups filed lawsuits in the U.S. District Court in Washington, D.C., challenging the federal determination that California cannot set vehicle emissions standards and zero-emission vehicle mandates.

Although these emissions standards are focused on reducing GHG emissions, they will also reduce emissions of criteria pollutants including ROG, NO_X, PM, and ozone because increased fuel efficiency will result in fewer combustion emissions associated with the use of gasoline and diesel fuel.

Toxic Air Contaminants

The California Health and Safety Code defines TACs as air pollutants that may cause or contribute to an increase in mortality or in serious illness, or that may pose a present or potential hazard to human health. The State Air Toxics Program was established in 1983 under AB 1807. A total of 243 substances have been designated TACs under California law; they include the 187 (federal) HAPs adopted in accordance with state law. The Air Toxics "Hot Spots" Information

[65] California Air Resources Board, *Toxic Air Contaminant Identification List*, July 2011. Available at https://www.arb.ca.gov/toxics/id/taclist.htm. Accessed May 2020.

and Assessment Act of 1987 (AB 2588) seeks to identify, quantify, and evaluate risks from air toxics sources; however, AB 2588 does not regulate air toxics emissions.

In August 1998, CARB identified DPM emissions from diesel-fueled engines as a TAC.[66] Following this designation, in 2000, CARB approved its comprehensive Diesel Risk Reduction Plan to reduce diesel emissions from both new and existing diesel-fueled vehicles and engines. Further regulations of diesel emissions by CARB include the On-Road Heavy Duty Diesel Vehicle (In-Use) Regulation, the On-Road Heavy Duty (New) Vehicle Program, the In-Use Off-Road Diesel Vehicle Regulation, and the New Off-Road Compression Ignition Diesel Engines and Equipment Program. All of these regulations and programs have timetables by which manufacturers must comply and existing operators must upgrade their diesel-powered equipment (refer to the detailed discussion below).

California Air Resources Board On-Road and Off-Road Vehicle Rules

In 2004, CARB adopted an Airborne Toxic Control Measure (ATCM) to limit idling by heavy-duty diesel motor vehicles to reduce public exposure to DPM and other TACs. The measure applies to diesel-fueled commercial vehicles with gross vehicle weight ratings greater than 10,000 pounds that are licensed to operate on highways, regardless of where they are registered. This measure prohibits such vehicles from idling for more than 5 minutes at any given time.

In 2008 CARB approved the Truck and Bus Regulation to reduce NO_X, PM_{10}, and $PM_{2.5}$ emissions from existing diesel vehicles operating in California. The requirements, amended in December 2010, apply to nearly all diesel-fueled trucks and buses with a gross vehicle weight rating greater than 14,000 pounds. For the largest trucks in the fleet (those with a gross vehicle weight rating greater than 26,000 pounds), fleet owners could choose one of two methods to comply with the Truck and Bus Regulation's requirements:

- *Method 1:* The fleet owner could retrofit or replace engines, starting with the oldest engine model year, to meet 2010 engine standards or better. These retrofits or replacements are phased over 8 years, starting in 2015, and the entire fleet would be retrofitted or replaced by 2023. Thus, all trucks operating in California for fleet operators choosing this option must meet or exceed the 2010 engine emissions standards for NO_X and PM by 2023.
- *Method 2:* Starting in 2012, fleet owners choosing this option were required to retrofit a portion of their fleet with diesel particulate filters achieving at least 85 percent removal efficiency, so that by January 1, 2016, their entire fleet would be equipped with diesel particulate filters. However, diesel particulate filters do not typically lower NO_X emissions. Thus, fleet owners choosing this method would still have to comply with the 2010 engine emission standards for their trucks and buses by 2020. As of January 1, 2020, this requirement is enforced by the California Department of Motor Vehicles (DMV) through the vehicle registration process.

Senate Bill (SB) 1, the Road Repair and Accountability Act of 2017, was signed into law on April 28, 2017. SB 1 authorizes the DMV to check that vehicles are compliant with or exempt

[66] California Air Resources Board, Overview: Diesel Exhaust and Health. Available at https://ww2.arb.ca.gov/resources/overview-diesel-exhaust-and-health. Accessed January 14, 2020.

from CARB's Truck and Bus Regulation. As of January 1, 2020, if a vehicle is not compliant with the rule, DMV will no longer register that vehicle.

In addition to limiting exhaust from idling trucks, CARB promulgated emission standards for off-road diesel construction equipment of greater than 25 horsepower such as bulldozers, loaders, backhoes and forklifts, as well as many other self-propelled off-road diesel vehicles. The regulation adopted by CARB on July 26, 2007, aims to reduce emissions by calling for installation of diesel soot filters and encouraging the retirement, replacement, or repower of older, dirtier engines with newer emission-controlled models. Implementation is staggered based on fleet size (the total of all off-road horsepower under common ownership or control). The largest fleets were to begin compliance by January 1, 2014. Each fleet must demonstrate compliance through one of two methods:

- *Method 1:* Calculate and maintain fleet-average emissions targets. This method encourages the retirement or repowering of older equipment and rewards the introduction of newer cleaner units into the fleet.
- *Method 2:* Meet the Best Available Control Technology (BACT) requirements by turning over or installing Verified Diesel Emission Control Strategies (e.g., engine retrofits) on a certain percentage of the total fleet horsepower. The compliance schedule requires full implementation of BACT turn-overs or retrofits by 2023 in all equipment in large and medium fleets and across 100 percent of small fleets by 2028.

Sustainable Communities and Climate Protection Act of 2008 (Senate Bill 375)

SB 375 directs CARB to set regional targets for reducing GHG emissions from cars and light trucks.[67] As part of the transportation planning process, each region's Metropolitan Planning Organization is responsible for preparing a Sustainable Communities Strategy that integrates transportation, land use, and housing policies to plan for achievement of the emissions target for their region. Specifically, SB 375 focuses on reducing vehicle miles traveled (VMT) and encouraging more compact, complete, and efficient communities. Further, SB 375 established CEQA streamlining and relevant exemptions for projects that are determined to be consistent with the land use assumptions and other relevant policies of an adopted Sustainable Communities Strategy.

Assembly Bill 900

AB 900, signed by Governor Jerry Brown in September 2011, established specified judicial review procedures for judicial review of EIRs and approvals granted for leadership projects related to the development of residential, retail, commercial, sports, cultural, entertainment, or recreational use projects, or clean renewable energy or clean energy manufacturing projects. The law authorizes the governor to certify a leadership project for streamlining if certain conditions are met. To qualify for certification as an environmental leadership development project, the project must:

- Exceed $100 million in investment in California;
- Satisfy the prevailing and living wage requirements of Public Resources Code Section 21183(b);

[67] Governor's Office of Planning and Research, *Senate Bill 375 CEQA Provision Flow Charts*, February 2011.

- Achieve Leadership in Energy and Environmental Design (LEED) Gold certification;
- Result in "no net additional" GHG emissions; and
- Achieve at least 15 percent greater transportation efficiency than comparable projects.

The proposed project sought AB 900 certification and obtained the certification as of December 30, 2019. This certification is voluntary and provides streamlined CEQA judicial review.[68]

Through the AB 900 certification process, CARB confirmed that the various project commitments to reduce GHG emissions, including the acquisition of carbon credits, will result in "no net additional" GHG emissions for the life of the project. In making this determination, CARB has required the project applicant to purchase GHG offset credits to fully offset the projected net increase in GHG emissions attributable to the proposed project on a prorated basis at the time each phase is permitted by the lead agency (the City of San José). The City has committed to monitor and enforce the applicant's commitment that the project result in no net additional GHG emissions for the life of the obligation, including the extent to which the applicant relies on GHG offsets, as a condition of project approval.

These reductions in GHG emissions will result in the co-benefit of reducing emissions of criteria pollutant and TACs, given that many of the processes that result in GHG emissions (e.g., fuel combustion) also emit criteria pollutants and TACs.

California Building and Energy Efficiency Standards (Title 24)

The California Energy Commission first adopted Energy Efficiency Standards for Residential and Nonresidential Buildings (California Code of Regulations Title 24, Part 6) in 1978 in response to a legislative mandate to reduce energy consumption in the state. Although not originally intended to reduce emissions of criteria pollutants or TACs, increased energy efficiency and reduced consumption of natural gas and other fuels would result in fewer criteria pollutant and TAC emissions from residential and non-residential buildings subject to the standard. The standards are updated periodically (typically every three years) to allow for the consideration and inclusion of new energy efficiency technologies and methods.[69]

The Title 24, Part 6, standards (2016 standards) became effective on January 1, 2017. The most recent update to the Title 24 energy efficiency standards (2019 standards) went into effect on January 1, 2020. The proposed project would adhere to the applicable version of Title 24 as conditions of approval for subdivision maps, site development and planned development permits, grading permits, and demolition permits.

[68] Governor's Office of Planning and Research, *Downtown West Mixed-Use Plan*, 2019. Available at http://opr.ca.gov/ceqa/california-jobs.html. Accessed February 4, 2020.

[69] California Energy Commission, *California's 2016 Building Energy Efficiency Standards for Residential and Nonresidential Buildings*, 2016. Available at http://www.energy.ca.gov/2015publications/CEC-400-2015-037/CEC-400-2015-037-CMF.pdf. Accessed March 5, 2019.

California Green Buildings Standards Code

Part 11 of the Title 24 Building Energy Efficiency Standards is referred to as the California Green Building Standards (CALGreen) Code. The CALGreen Code is intended to encourage more sustainable and environmentally friendly building practices, require low-pollution emitting substances that cause less harm to the environment, conserve natural resources, and promote the use of energy-efficient materials and equipment.

Since 2011, the CALGreen Code has been mandatory for all new residential and non-residential buildings constructed in the state. Such mandatory measures include energy efficiency, water conservation, material conservation, planning and design, and overall environmental quality. The CALGreen Code was most recently updated in 2019 to include new mandatory measures for residential and non-residential uses; the new measures took effect on January 1, 2020.[70]

Regional

BAAQMD has jurisdiction over the SFBAAB and monitors and regulates air quality in the region by inspecting and issuing permits for stationary sources of air pollution, responding to citizen complaints, and executing programs to reduce air pollution throughout the region.

BAAQMD Air Quality Plans

As demonstrated in Table 3.1-3, the SFBAAB is designated as nonattainment for both the federal and state ozone standards. As a result, BAAQMD is required to prepare air quality plans under the CAA and the California Clean Air Act to meet the federal and state air quality standards in areas that are designated non-attainment. Maintenance plans are required for attainment areas that had previously been designated non-attainment to ensure continued attainment of the standards. Because of the SFBAAB's classification as "serious" non-attainment for the 1-hour ozone standard, BAAQMD is required to update its Clean Air Plan every three years to reflect progress toward meeting attainment status. The SFBAAB currently has four air quality plans in place, discussed below.

2001 Ozone Attainment Plan. The 2001 Ozone Attainment Plan was developed for compliance with the NAAQS for the 1-hour ozone standard. In June 2005, EPA revoked the standard for 1-hour ozone; however, the state standard for 1-hour ozone remains. Therefore, BAAQMD continues to implement the strategies outlined in the 2001 Ozone Attainment Plan.

2005 Bay Area Ozone Strategy. The 2005 Bay Area Ozone Strategy served as an update to the 2001 Ozone Attainment Plan and expanded on strategies to achieve compliance with the state 1-hour ozone standard.

2010 Clean Air Plan. The 2010 Clean Air Plan addresses various pollutants including ozone, PM, and air toxics, as well as GHGs within the SFBAAB.

[70] As adopted by the San José City Council in October 2019, the 2019 California Building Standard Codes, including CALGreen, do not apply to already filed building permits. The new codes do, however, apply to projects that have filed for planning permits but not building permits.

Clean Air Plan. In April 2017, BAAQMD adopted the *2017 Clean Air Plan*, whose primary goals are to protect public health and to protect the climate.[71] The *2017 Clean Air Plan* updates the *Bay Area 2010 Clean Air Plan* and complies with state air quality planning requirements, as codified in the California Health and Safety Code (although the 2017 plan was delayed beyond the three-year update requirement of the code). State law requires the Clean Air Plan to include all feasible measures to reduce emissions of ozone precursors and to reduce the transport of ozone precursors to neighboring air basins.

The 2017 Clean Air Plan contains 85 measures to address reduction of several pollutants: ozone precursors, PM, air toxics, and GHGs. Other measures focus on a single type of pollutant: super GHGs such as methane and black carbon that consist of harmful fine particles that affect public health. These control strategies are grouped into the following categories:

- Stationary Source Measures
- Transportation Control Measures
- Energy Control Measures
- Building Control Measures
- Agricultural Control Measures
- Natural and Working Lands Control Measures
- Waste Management Control Measures
- Water Control Measures
- Super GHG Control Measures

BAAQMD CEQA Guidelines and Thresholds of Significance

The *BAAQMD CEQA Air Quality Guidelines* is an advisory document that provides lead agencies, consultants, and project proponents with procedures for assessing air quality impacts and preparing environmental review documents. The document describes the criteria that BAAQMD uses when reviewing and commenting on the adequacy of environmental documents. It recommends thresholds for use in determining whether projects would have significant adverse environmental impacts, identifies methods for predicting project emissions and impacts, and identifies measures that can be used to avoid or reduce air quality impacts.

BAAQMD updated the 1999 CEQA Air Quality Guidelines in 2010. In May 2011, BAAQMD adopted an updated version of its thresholds of significance for use in determining the significance of projects' environmental effects under CEQA (Thresholds), and published its CEQA Guidelines for consideration by lead agencies. The 2011 CEQA Guidelines Thresholds lowered the previous (1999) thresholds of significance for annual emissions of ROG, NO_X, and PM_{10}, and set a standard for $PM_{2.5}$ and fugitive dust. The 2011 CEQA Guidelines also include methods for evaluating risks and hazards for the siting of stationary sources and of sensitive receptors.

[71] Bay Area Air Quality Management District, *Clean Air Plan, Spare the Air, Cool the Climate*, April 19, 2017. Available at https://www.baaqmd.gov/~/media/files/planning-and-research/plans/2017-clean-air-plan/attachment-a_-proposed-final-cap-vol-1-pdf.pdf?la=en. Accessed January 16, 2020.

The BAAQMD resolution adopting the significance thresholds in 2010 and 2011 was set aside by the Alameda County Superior Court on March 5, 2012. On August 13, 2013, the California Court of Appeals issued a full reversal of the Superior Court's judgment, and on December 17, 2015, the California Supreme Court reversed in part the appellate court's judgment and remanded the case for further consideration consistent with the Supreme Court opinion. The California Supreme Court ruled unanimously that CEQA review is focused on a project's impact on the environment "and not the environment's impact on the project" (*California Building Industry Association v. Bay Area Air Quality Management District* [December 17, 2015] 62 Cal.4th 369). The Supreme Court confirmed that "agencies subject to CEQA generally are not required to analyze the impact of existing environmental conditions on a project's future residents or users." The Court also held that when a project has "potentially significant exacerbating effects on existing environmental hazards" those impacts are properly within the scope of CEQA because they can be viewed as impacts of the project on "existing conditions" rather than impacts of the environment on the project.

BAAQMD most recently updated its *CEQA Air Quality Guidelines* in May 2017. These guidelines provide recommend quantitative significance thresholds along with direction on recommended analysis methods. BAAQMD states that the quantitative significance thresholds are "advisory and should be followed by local governments at their own discretion," and that lead agencies are fully within their authority to develop their own thresholds of significance. However, BAAQMD offers these thresholds for lead agencies to use in order to inform environmental review for development projects in the Bay Area. Lead agencies may also reference the *CEQA Thresholds Options and Justification Report* developed by BAAQMD staff in 2009. This option provides lead agencies with a justification for continuing to rely on the BAAQMD 2011 thresholds.

Bay Area Air Quality Management District Rule 1-301

BAAQMD regulates odorous emissions that could be generated by wastewater treatment plants. Rule 1-301 (Public Nuisance) states that sources cannot emit air contaminants that cause nuisance to a considerable number of persons. Nuisance is defined as three or more violation notices validly issued in a 30-day period to a facility for public nuisance.

Bay Area Air Quality Management District Regulation 2, Rules 1, 2, and 5

BAAQMD regulates stationary-source emissions of TACs through Regulation 2, Rule 1 (General Permit Requirements), Rule 2 (New Source Review), and Rule 5 (New Source Review of Toxic Air Contaminants). Under these rules, all stationary sources that have the potential to emit TACs above a certain level are required to obtain permits from BAAQMD. These rules provide guidance for the review of new and modified stationary sources of TAC emissions, including evaluation of health risks and potential mitigation measures.

The regulation also reduces health risks by requiring improved pollution control when existing sources are modified or replaced. If it is determined that a facility's emissions would exceed BAAQMD's threshold of significance for TACs, the source would then be required to implement BACT for Toxics to reduce emissions. Sources of HAPs may also be required to implement Maximum Achievable Control Technology.

Bay Area Air Quality Management District Regulation 6, Rule 2

BAAQMD reduces emissions from commercial cooking equipment through Regulation 6, Rule 2 (Commercial Cooking Equipment). This rule applies to operators of both chain-driven and under-fired charbroilers; it includes requirements for the installation of emission control devices and imposes emissions limits for PM_{10} and organic compounds per pounds of beef cooked. This rule also includes requirements for the maintenance of emissions control devices installed or operated under this rule.

Bay Area Air Quality Management District Regulation 6, Rule 6

BAAQMD regulates the quantity of PM in the atmosphere through Regulation 6, Rule 6 (Prohibition of Trackout). This measure controls trackout of solid material onto public paved roads from three types of sites: large bulk material sites, large construction sites, and large disturbed area sites. Under this regulation, the owners and operators of a construction site are required to clean up trackout on public roadways within four hours of identification and at the conclusion of each workday. The rule also includes requirements regarding the emission of fugitive dust during cleanup of trackout, and requirements for monitoring and reporting trackout at regulated sites.

Bay Area Air Quality Management District Regulation 7

Regulation 7 (Odorous Substances) specifies limits for the discharge of odorous substances where BAAQMD receives complaints from 10 or more complainants within a 90-day period. Among other things, Regulation 7 prohibits the discharge of an odorous substance that causes the ambient air at or beyond the property line to be odorous after dilution with four parts of odor-free air (i.e., 5 D/T), and specifies maximum limits on the emission of certain odorous compounds.

Bay Area Air Quality Management District Regulation 8, Rule 3

Through Regulation 8, Rule 3 (Architectural Coatings), BAAQMD regulates the quantity of VOCs in architectural coatings supplied, sold, offered for sale, applied, solicited for application, or manufactured. This rule imposes VOC content limits on architectural coatings and includes requirements for painting practices, solvent usage and storage, and compliance monitoring and reporting practices.

Bay Area Air Quality Management District Regulation 8, Rule 8

BAAQMD regulates emissions of organic compounds from wastewater collection and separation systems through Regulation 8, Rule 8 (Wastewater Collection and Separation Systems). This rule requires that wastewater separators be operated within their maximum allowable capacity and that separators be outfitted with certain equipment. The rule also includes equipment requirements for certain types of accessory devices and units to reduce emissions of organic compounds.

Bay Area Air Quality Management District Regulation 9, Rule 2

BAAQMD regulates ground-level concentrations of hydrogen sulfide through Regulation 9, Rule 2 (Inorganic Gaseous Pollutants: Hydrogen Sulfide). Regulation 9, Rule 2 requires that hydrogen sulfide emissions not result in ground-level concentrations in excess of 0.06 ppm averaged over three consecutive minutes or 0.03 ppm averaged over any 60 consecutive minutes.

Bay Area Air Quality Management District Regulation 9, Rule 3

BAAQMD regulates NO_X emissions from heat transfer operations through Regulation 9, Rule 3 (Nitrogen Oxides from Heat Transfer Operations). This rule sets limits on emissions of NO_X from new heat transfer operations by requiring that heat transfer operations designed for a maximum heat output of 264 gigajoules per hour not exceed 125 ppm of NO_X when burning gaseous fuel, and not exceed 225 ppm of NO_X when burning liquid fuel.

Bay Area Air Quality Management District Regulation 9, Rule 8

BAAQMD regulates emissions of NO_X and CO from stationary internal combustion engines through Regulation 9, Rule 8 (Nitrogen Oxides and Carbon Monoxide from Stationary Internal Combustion Engines). The rule imposes emissions limits on spark-ignited engines powered by waste and fossil-derived fuels, compression-ignited engines, and dual fuel pilot compression-ignited engines. The rule also limits the hours of operation for emergency standby engines, which must be equipped with a non-resettable totalizing meter that measures either hours of operation or fuel usage. Usage records must be kept for two years and be available for inspection by BAAQMD.

Bay Area Air Quality Management District Regulation 11, Rule 1

BAAQMD controls emissions of lead into the atmosphere through Regulation 11, Rule 1 (Lead). This rule limits emissions of lead to 6.75 kilograms per day and prohibits the discharge of lead that would result in ground-level concentrations greater than 1.0 $\mu g/m^3$ averaged over 24 hours.

Bay Area Air Quality Management District Regulation Rule 11-2

BAAQMD controls emissions of asbestos to the atmosphere during demolition, renovation, milling, and manufacturing through Regulation 11, Rule 2 (Asbestos Demolition, Renovation, and Manufacturing). This rule prohibits the use of asbestos on certain roadways, in molded insulating materials, and on buildings during construction, alteration, and/or repair.

The rule also prohibits visible emissions from any operation involving the demolition, renovation, removal, manufacture, or fabrication of asbestos-containing products. During demolition, renovation, or removal of any asbestos-containing materials, the responsible party must implement procedures that may specify the following details:

- The wetting method
- The exhaust and collection method
- Certain scheduling of demolition activities
- Procedures for removal in units
- Removal by chute or container
- Fulfillment of the containment requirement
- Fulfillment of the clean work site requirement
- Required surveys
- Inclusion of an on-site representative
- Procedures for regulated asbestos-containing material discovered after demolition

- Procedures for ordered demolition
- Procedures for intentional burning
- Procedures for emergency renovation

This rule also includes required procedures for waste disposal and requirements for waste disposal sites to prevent emissions from asbestos-containing materials.

Bay Area Air Quality Management District Regulation 14, Rule 1

BAAQMD improves air quality, reduces emissions of GHGs and other air pollutants, and decreases traffic congestion in the SFBAAB through Regulation 14, Rule 1 (Bay Area Commuter Benefits Program). This program encourages employees to commute to work using alternative transportation modes by requiring employers to offer commuter benefits to all covered employees. Employers comply with this rule by offering a pre-tax benefit, and employer-paid benefit, or employer-provided transit. Alternatively, employers can comply with this rule through an alternative commuter benefit program that must be proposed in writing, must comply with the guidelines issued by the Air Pollution Control Officer, and must be approved in writing by the Air Pollution Control Officer. Employers are required to notify employees of which benefits will be offered and how to obtain these benefits.

Planning Healthy Places

In 2016, BAAQMD prepared its *Planning Healthy Places* guidebook to assist local governments, planners, elected officials, developers, community groups, and other parties in addressing and minimizing potential air quality issues associated with local sources of air pollutants, especially TACs and PM. The guidebook provides best management strategies to reduce emissions and human exposure to pollutants that can be implemented in city or county general plans, neighborhood or specific plans, land use development ordinances, or individual projects.

BAAQMD has developed a map identifying areas where best management practices should be applied, and where further study is needed.[72] As shown on the Planning Healthy Places map, the project site is located in an area where the recommended best management practices should be applied to reduce exposure and subsequent health impacts associated with air pollution. Best management practices recommended by the Planning Healthy Places guidebook include a number of emissions reduction strategies, some of which have been incorporated into the *Envision San José 2040 General Plan* (General Plan), discussed in further detail below.

Community Air Risk Evaluation Program

Under the CARE program, BAAQMD has identified areas with high TAC emissions (referred to in this context as "priority" or "impacted" communities) and sensitive populations that could be affected by them, and to uses this information to establish policies and programs to reduce TAC

[72] Bay Area Air Quality Management District, *Planning Healthy Places. Interactive Map of Location of Communities and Places Estimated to Have Elevated Levels of Fine Particulates and/or Toxic Air Contaminants*, May 20, 2016. Available at https://www.arcgis.com/home/webmap/viewer.html?webmap=9b240e706e6545e0996be9df227a5b8c&extent=-122.5158,37.5806,-122.0087,37.8427. Accessed January 21, 2020.

emissions and exposures.[73,74] To date, BAAQMD has identified Concord, Richmond/San Pablo, central San José, eastern San Francisco, western Alameda County, Vallejo, San Rafael, and Pittsburg/Antioch as CARE-impacted communities where TACs, $PM_{2.5}$, and ozone have the greatest impact on human health.[75] The main objectives of the program are:

- Evaluate potential health risks associated with exposure to TACs from both stationary and mobile sources.
- Assess potential exposures to sensitive receptors and identify impacted communities.
- Prioritize TAC reduction measures for significant TAC sources in impacted communities.
- Develop and implement mitigation measures—such as grants, guidelines, or regulations—to improve air quality, focusing initially on priority communities.

Metropolitan Transportation Commission/Association of Bay Area Governments Sustainable Communities Strategy

The Metropolitan Transportation Commission (MTC) is the federally recognized Metropolitan Planning Organization for the nine-county Bay Area, which includes Santa Clara County and the city of San José. On July 18, 2013, *Plan Bay Area* was jointly approved by the Association of Bay Area Governments' Executive Board and by MTC.[76] The plan includes the region's Sustainable Communities Strategy, as required under SB 375, and the 2040 Regional Transportation Plan.

The Sustainable Communities Strategy lays out how the region will meet GHG emissions reduction targets set by CARB. CARB's current targets call for the region to reduce per capita vehicular GHG emissions 10 percent by 2020 and 19 percent by 2035 from a 2005 baseline.[77]

A central GHG reduction strategy of *Plan Bay Area* (2013) is the concentration of future growth within Priority Development Areas and Transit Priority Areas. To be eligible for designation as a Priority Development Area, an area must be within an existing community, near existing or planned fixed transit or served by comparable bus service, and planned for more housing. A Transit Priority Area is an area within one-half mile of an existing or planned major transit stop such as a rail transit station, a ferry terminal served by transit, or the intersection of two or more

73 Bay Area Air Quality Management District, CARE Program, 2014. Available at http://www.baaqmd.gov/plans-and-climate/community-air-risk-evaluation-care-program. Accessed January 21, 2020.

74 Bay Area Air Quality Management District, *Identifying Areas with Cumulative Impacts from Air Pollution in the San Francisco Bay Area, Version 2*, March 2014. Available at http://www.baaqmd.gov/~/media/Files/Planning%20and%20Research/CARE%20Program/Documents/ImpactCommunities_2_Methodology.ashx?la=en. Accessed January 21, 2020.

75 Bay Area Air Quality Management District, Community Air Risk Evaluation Program, 2020. Available at https://www.baaqmd.gov/community-health/community-health-protection-program/community-air-risk-evaluation-care-program. Accessed February 3, 2020.

76 Metropolitan Transportation Commission and Association of Bay Area Governments, *Plan Bay Area: Strategy for a Sustainable Region*, adopted July 18, 2013. Available at http://files.mtc.ca.gov/pdf/Plan_Bay_Area_FINAL/Plan_Bay_Area.pdf, accessed June 2020.

77 California Air Resources Board, *SB 375 Regional Greenhouse Gas Emissions Reduction Targets*, 2018. Available at https://www.arb.ca.gov/cc/sb375/finaltargets2018.pdf. Accessed June 2020.

major bus routes.[78] The project site is located within both a Priority Development Area and a Transit Priority Area.

On July 26, 2017, MTC adopted *Plan Bay Area 2040*, a focused update that builds upon the growth pattern and strategies developed in the original *Plan Bay Area* (2013), but with updated planning assumptions that incorporate key economic, demographic, and financial trends since the original plan was adopted.[79]

Local

City of San José Municipal Code

Per Chapter 17.84.220, Green Building Compliance Requirements, of the City of San José Municipal Code[80]:

A. No building permit shall be issued for a tier one project unless the application for building permit contains a completed GreenPoint Rated Checklist or LEED Checklist.

B. All tier two commercial industrial projects for which this chapter is applicable must receive the minimum green building certification of LEED Silver and tier two residential projects shall receive the minimum green building certification of LEED Certified or GreenPoint Rated.[81]

C. High-rise residential projects for which this chapter is applicable shall receive certification as the minimum green building performance requirement of USGBC [U.S. Green Building Council] LEED™ Certified.

D. Mixed-use new construction projects, for which this chapter is applicable, must submit a checklist and receive the minimum green building new construction certification designation for the portion of the building under the requirements of the applicable subsections of this section above.

These green building requirements are further regulated through the San José Reach Code, which is a building code that is more advanced than those required by the state. The Reach Code encourages building electrification and energy efficiency, requires solar readiness on non-residential buildings, and requires electric vehicle (EV) readiness and installation of EV equipment.

As of October 2019, Chapter 24 (24.10.200) of the City's Municipal Code requires that for all new high-rise and low-rise multifamily buildings, 10 percent of the total number of parking spaces on a building site provided for all types of parking facilities shall be EV supply equipment spaces, 20 percent of the total number of parking spaces provided for all types of parking facilities shall be EV Ready spaces, and 70 percent of the total number of parking spaces for all

[78] Metropolitan Transportation Commission and Association of Bay Area Governments, *Plan Bay Area*, adopted July 18, 2013. Available at http://files.mtc.ca.gov/pdf/Plan_Bay_Area_FINAL/Plan_Bay_Area.pdf, accessed June 2020.

[79] Metropolitan Transportation Commission and Association of Bay Area Governments, *Plan Bay Area 2040*, adopted July 26, 2017. Available at https://www.planbayarea.org/, accessed March 6, 2019. Accessed June 2020.

[80] City of San José, *San José Municipal Code*, Chapter 17.84, Green Building Regulations for Private Development. Available at https://library.municode.com/ca/san_jose/codes/code_of_ordinances?nodeId=TIT17BUCO_CH17.84GRBUREPRDE.

[81] A tier two commercial/industrial project is a non-residential building of 25,000 gsf or more and not a high-rise building (i.e., less than 75 feet in height), in accordance with San José Municipal Code Sections 17,81.112 and 17.84.121.

types of parking facilities shall be EV Capable spaces. For all non-residential buildings, 10 percent of total parking spaces shall be EV supply equipment spaces and an additional 40 percent shall be EV Capable spaces. The new requirements are designed to accelerate the installation of vehicle chargers to address demand. The replacement of gasoline and diesel vehicles with electric vehicles will reduce criteria air pollutant emissions associated with traditional vehicle fuel combustion.

In November 2019, the City of San José adopted Municipal Code Chapter 17.845, also known as Ordinance No. 30330. Chapter 17.845 prohibits natural gas infrastructure in newly constructed single-family dwellings, low-rise residential buildings (three stories or less), and detached accessory dwelling units. This requirement became effective on January 1, 2020.[82]

Other relevant regulations that would reduce emissions include: water efficient landscape standards for new and rehabilitated landscaping (Chapter 15.10), transportation demand management programs for employers with more than 100 employees (Chapter 11.105), construction and demolition diversion deposit program (Chapter 9.10), and wood burning ordinance (Chapter 9.10).

Envision San José 2040 General Plan

The General Plan, adopted November 1, 2011, and amended on March 16, 2020, lays out 12 interrelated, mutually supportive major strategies that provide a basis for the City's vision for future development. The strategies relate to economic development through job creation, providing more housing so that people who work in San José will also reside there, and developing Downtown as a social and cultural center. The General Plan also describes five major strategies directly related to air quality:

- **Major Strategy #3, Focused Growth**, aims to focus significant growth "in areas surrounding the City's regional Employment Center… and to maximize the use of transit systems within the region."
- **Major Strategy #5, Urban Villages**, aims to create Urban Villages that are walkable, bike friendly, transit accessible, and located near existing infrastructure and facilities.
- **Major Strategy #6, Streetscapes for People**, aims to increase the walkability of the city through maintenance of "a land use and transportation network and transportation facilities that promote increased walking, bicycling, and public transit use."
- **Major Strategy #7, Measurable Sustainability/Environmental Stewardship**, aims to support environmental best practices to "minimize waste, efficiently use its natural resources, and manage and conserve resources for use by present and future generations" including participation in "regional efforts intended to improve the quality of air."
- **Major Strategy #11, Design for a Healthful Community**, aims to support the health of the community by promoting alternative modes of transportation, including walking and bicycling which will support healthful air quality within the community.

The General Plan includes policies to minimize impacts on environmental resources, including air quality. To achieve goals related to reduction of air pollutant emissions, TACs, objectionable

[82] City of San José, Ordinance No. 30330, 2019. Available at https://records.sanjoseca.gov/Ordinances/ORD30330.pdf.

odors, and construction air pollutant emissions, the General Plan has outlined various policies and actions to be implemented by the City and project proponents. **Table 3.1-4** summarizes the General Plan policies that address air quality.

TABLE 3.1-4
ENVISION SAN JOSÉ 2040 GENERAL PLAN POLICIES PERTAINING TO THE PROJECT'S AIR QUALITY

Environmental Resource Policy	Description
Green Building	
Policy MS-1.2	Continually increase the number and proportion of buildings within San José that make use of green building practices by incorporating those practices into both new construction and retrofit of existing structures.
Policy MS-1.7	Encourage retrofits for existing buildings throughout San José to use green building principles in order to mitigate the environmental, economic, and social impact of those buildings, to achieve greenhouse gas reductions, and to improve air and water quality.
Policy MS-1.8	Document and report on green building new construction and retrofits as a means to show progress toward the Green Vision Goal of 50 million square feet of green buildings in San José by 2022 and 100 million square feet by 2040.
Policy MS-2.6	Promote roofing design and surface treatments that reduce the heat island effect of new and existing development and support reduced energy use, reduced air pollution, and a healthy urban forest. Connect businesses and residents with cool roof rebate programs through City outreach efforts.
Policy MS-2.12	Update the Green Building Ordinance to require use of energy efficient plumbing fixtures and appliances that are WaterSense certified, Energy Star rated, or equivalent, in new construction and renovation projects.
Policy MS-5.5	Maximize recycling and composting from all residents, businesses, and institutions in the City.
Policy MS-5.6	Enhance the construction and demolition debris recycling program to increase diversion from the building sector.
Healthful Indoor Environment	
Policy MS-4.1	Promote the use of building materials that maintain healthful indoor air quality in an effort to reduce irritation and exposure to toxins and allergens for building occupants.
Policy MS-4.2	Encourage construction and pre-occupancy practices to improve indoor air quality upon occupancy of the structure.
Action MS-4.3	Develop and implement policies and ordinances to promote the use of building materials, furniture and paint that maintain healthful indoor air quality and to discourage the use of materials that degrade indoor air quality.
Action MS-4.4	Develop and implement policies and ordinances to promote beneficial construction and pre-occupancy practices such as sealing of the HVAC system during construction, air flush-outs prior to occupancy, and/or air quality testing and corrections prior to occupancy.
Air Quality	
Policy MS-10.1	Assess projected air emissions from new development in conformance with the Bay Area Air Quality Management District (BAAQMD) CEQA Guidelines and relative to state and federal standards. Identify and implement feasible air emission reduction measures.
Policy MS-10.2	Consider the cumulative air quality impacts from proposed developments for proposed land use designation changes and new development, consistent with the region's Clean Air Plan and state law.
Policy MS-10.3	Promote the expansion and improvement of public transportation services and facilities, where appropriate, to both encourage energy conservation and reduce air pollution.
Policy MS-10.4	Encourage effective regulation of mobile and stationary sources of air pollution, both inside and outside of San José. In particular, support federal and state regulations to improve automobile emission controls.
Policy MS-10.5	In order to reduce vehicle miles traveled and traffic congestion, require new development within 2,000 feet of an existing or planned transit station to encourage the use of public transit and minimize the dependence on the automobile through the application of site design guidelines and transit incentives.

TABLE 3.1-4
ENVISION SAN JOSÉ 2040 GENERAL PLAN POLICIES PERTAINING TO THE PROJECT'S AIR QUALITY

Environmental Resource Policy	Description
Policy MS-10.6	Encourage mixed land use development near transit lines and provide retail and other types of service oriented uses within walking distance to minimize automobile dependent development.
Policy MS-10.7	Encourage regional and statewide air pollutant emission reduction through energy conservation to improve air quality.
Policy MS-10.8	Minimize vegetation removal required for fire prevention. Require alternatives to discing, such as mowing, to the extent feasible. Where vegetation removal is required for property maintenance purposes, encourage alternatives that limit the exposure of bare soil.
Policy MS-10.9	Foster educational programs about air pollution problems and solutions
Action MS-10.10	Actively enforce the City's ozone-depleting compound ordinance and supporting policy to ban the use of chlorofluorocarbon compounds (CFCs) in packaging and in building construction and remodeling. The City may consider adopting other policies or ordinances to reinforce this effort to help reduce damage to the global atmospheric ozone layer.
Action MS-10.11	Enforce the City's wood-burning appliance ordinance to limit air pollutant emissions from residential and commercial buildings.
Action MS-10.12	Increase the City's alternative fuel vehicle fleet with the co-benefit of reducing local air emissions. Implement the City's Environmentally Preferable Procurement Policy (Council Policy 4-6) and Pollution Prevention Policy (Council Policy 4-5) in a manner that reduces air emissions from municipal operations. Support policies that reduce vehicle use by City employees.
Action MS-10.13	As a part of City of San José Sustainable City efforts, educate the public about air polluting household consumer products and activities that generate air pollution. Increase public awareness about the alternative products and activities that reduce air pollutant emissions.
Action MS-10.14	Review and evaluate the effectiveness of site design measures, transit incentives, and new transportation technologies and encourage those that most successfully reduce air pollutant emissions.
Policy MS-11.1	Require completion of air quality modeling for sensitive land uses such as new residential developments that are located near sources of pollution such as freeways and industrial uses. Require new residential development projects and projects categorized as sensitive receptors to incorporate effective mitigation into project designs or be located an adequate distance from sources of toxic air contaminants (TACs) to avoid significant risks to health and safety.
Policy MS-11.2	For projects that emit toxic air contaminants, require project proponents to prepare health risk assessments in accordance with BAAQMD-recommended procedures as part of environmental review and employ effective mitigation to reduce possible health risks to a less than significant level. Alternatively, require new projects (such as, but not limited to, industrial, manufacturing, and processing facilities) that are sources of TACs to be located an adequate distance from residential areas and other sensitive receptors.
Policy MS-11.3	Review projects generating significant heavy duty truck traffic to designate truck routes that minimize exposure of sensitive receptors to TACs and particulate matter.
Policy MS-11.4	Encourage the installation of appropriate air filtration at existing schools, residences, and other sensitive receptor uses adversely affected by pollution sources.
Policy MS-11.5	Encourage the use of pollution absorbing trees and vegetation in buffer areas between substantial sources of TACs and sensitive land uses.
Action MS-11.6	Develop and adopt a comprehensive Community Risk Reduction Plan that includes: baseline inventory of toxic air contaminants (TACs) and particulate matter smaller than 2.5 microns ($PM_{2.5}$), emissions from all sources, emissions reduction targets, and enforceable emission reduction strategies and performance measures. The Community Risk Reduction Plan will include enforcement and monitoring tools to ensure regular review of progress toward the emission reduction targets, progress reporting to the public and responsible agencies, and periodic updates of the plan, as appropriate.
Action MS-11.7	Consult with BAAQMD to identify stationary and mobile TAC sources and determine the need for and requirements of a health risk assessment for proposed developments.
Action MS-11.8	For new projects that generate truck traffic, require signage which reminds drivers that the State truck idling law limits truck idling to five minutes.

TABLE 3.1-4
ENVISION SAN JOSÉ 2040 GENERAL PLAN POLICIES PERTAINING TO THE PROJECT'S AIR QUALITY

Environmental Resource Policy	Description
Policy MS-12.1	For new, expanded, or modified facilities that are potential sources of objectionable odors (such as landfills, green waste and resource recovery facilities, wastewater treatment facilities, asphalt batch plants, and food processors), the City requires an analysis of possible odor impacts and the provision of odor minimization and control measures as mitigation.
Policy MS-12.2	Require new residential development projects and projects categorized as sensitive receptors to be located an adequate distance from facilities that are existing and potential sources of odor. An adequate separation distance will be determined based upon the type, size and operations of the facility.
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.
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 toxics control measures (ATCMs) for Construction, Grading, Quarrying, and Surface Mining Operations.
Policy MS-13.3	Require subdivision designs and site planning to minimize grading and use landform grading in hillside areas.
Action MS-13.4	Adopt and periodically update dust, particulate, and exhaust control standard measures for demolition and grading activities to include on project plans as conditions of approval based upon construction mitigation measures in the BAAQMD CEQA Guidelines.
Action MS-13.5	Prevent silt loading on roadways that generates particulate matter air pollution by prohibiting unpaved or unprotected access to public roadways from construction sites.
Action MS-13.6	Revise the grading ordinance and condition grading permits to require that graded areas be stabilized from the completion of grading to commencement of construction.
Action MS-15.9	Train City code enforcement and development review staff in state-of-the-art renewable energy installations, Heating, Ventilation, and Air Conditioning (HVAC) and insulation industry standards, best practices, and resources to ensure buildings are constructed in compliance with those industry standards and best practices.
Extractive Resources	
Policy ER-11.4	Carefully regulate the quarrying of commercially usable resources, including sand and gravel, to mitigate potential environmental effects such as dust, noise and erosion.
Environmental Contamination	
Action EC-7.10	Require review and approval of grading, erosion control and dust control plans prior to issuance of a grading permit by the Director of Public Works on sites with known soil contamination. Construction operations shall be conducted to limit the creation and dispersion of dust and sediment runoff.
Wastewater Treatment and Water Reclamation	
Policy IN-4.4	Maintain and operate wastewater treatment and water reclamation facilities in compliance with all applicable local, State and federal clean water, clean air, and health and safety regulatory requirements.
General Plan Annual Review and Measure Sustainability	
Policy IP-3.8	Consistent with the City's Green Vision, evaluate achievement of the following goals for environmental sustainability as part of each General Plan annual review process: Continue to increase the City's alternative fuel vehicle fleet with the co-benefit of reducing local air emissions and continue to implement the City's environmentally Preferable Procurement Policy (Council Policy 4-6) and Pollution Prevention Policy (Council Policy 4-5) in a manner that reduces air emissions from municipal operations. Continue to support policies that reduce vehicle use by City employees. (Air Pollutant Emission Reduction Action MS-10.12)

TABLE 3.1-4
ENVISION SAN JOSÉ 2040 GENERAL PLAN POLICIES PERTAINING TO THE PROJECT'S AIR QUALITY

Environmental Resource Policy	Description
Policy IP-17.1	Use San José's adopted Green Vision as a tool to advance the General Plan Vision for Environmental Leadership. San José's Green Vision is a comprehensive fifteen-year plan to create jobs, preserve the environment, and improve quality of life for our community, demonstrating that the goals of economic growth, environmental stewardship and fiscal sustainability are inextricably linked. Adopted in 2007, San José's Green Vision establishes the following Environmental Leadership goals through 2022: Receive 100 percent of our electrical power from clean renewable sources; The liabilities of fossil fuel usage are increasingly plain; in contrast, pursuing electrical power from clean, renewable sources is projected to reduce harmful air pollutants, long-term operating costs, and carbon emissions for the entire community.

In addition to the policies directly related to air quality, the General Plan includes the following measures that would indirectly reduce emissions and associated health risks through increased energy efficiency, encouraging alternative modes of transportation, and increased water efficiency: MS-1.1, MS-2.2, MS-2.3, MS-2.8, MS-2.11, MS-3.1, MS-3.3, MS-14.4, LU-1.1, LU-1.2, LU-1.3, LU-1.7, LU-3.5, LU-5.1, LU-9.1, LU-9.3, LU-10.3, LU-10.4, TR-1.1, TR-1.2, TR-1.3, TR-4.1, TR-4.3, and TR-9.1. For further discussion of these policies, refer to Section 3.4, *Energy*; Section 3.8, *Hydrology and Water Quality*; and Section 3.13, *Transportation*.

The General Plan also includes the following policies that address potentially airborne hazardous materials: EC-6.4, EC-6.6, EC-6.8, EC-6.9, EC-7.2, EC-7.4, EC-7.5, EC-7.8, and EC-7.10. For further discussion of these policies, refer to Section 3.7, *Hazards and Hazardous Materials*.

3.1.3 Impacts and Mitigation Measures

Significance Criteria

For the purposes of this EIR, an air quality impact would be significant if implementing the project would:

- Conflict with or obstruct implementation of the applicable air quality plan;
- Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard;
- Expose sensitive receptors to substantial pollutant concentrations; or
- Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people.

As discussed in CEQA Guidelines Section 15064(b), the determination of whether a project may have a significant effect on the environment calls for careful judgment on the part of the lead agency and must be based on scientific and factual data to the extent possible. The City of San José has determined that the BAAQMD significance thresholds for air quality, as described in the *CEQA Air Quality Guidelines* from May 2017, would be appropriate for the project. **Table 3.1-5** summarizes the significance thresholds used in this analysis.

TABLE 3.1-5
BAY AREA AIR QUALITY MANAGEMENT DISTRICT CEQA AIR QUALITY SIGNIFICANCE THRESHOLDS

Pollutant	Construction Thresholds Average Daily Emissions (pounds per day)	Operational Thresholds	
		Average Daily Emissions (pounds per day)	Maximum Annual Emissions (tons per year)
ROG	54	54	10
NO_X	54	54	10
PM_{10}	82 (exhaust)	82	15
$PM_{2.5}$	54 (exhaust)	54	10
Fugitive Dust	Construction Dust Ordinance or other best management practices	Not applicable	
CO	Not applicable	9.0 ppm (8-hour average) or 20.0 ppm (1-hour average)	
Risks and Hazards for New Sources and Receptors (Project)	Same as operational thresholds	• Increased cancer risk of > 10.0 in 1 million • Increased non-cancer risk of > 1.0 Hazard Index (chronic or acute) • Ambient $PM_{2.5}$ increase: > 0.3 µg/m^3 annual average (Zone of influence: 1,000-foot radius from property line of source or receptor)	
Risks and Hazards for New Sources and Receptors (Cumulative)	Same as operational thresholds	• Increased cancer risk of > 100 in 1 million • Increased non-cancer risk of > 10.0 Hazard Index (chronic or acute) • Ambient $PM_{2.5}$ increase: > 0.8 µg/m^3 annual average (Zone of influence: 1,000-foot radius from property line of source or receptor)	
Odors	Same as operational thresholds	5 confirmed complaints per year averaged over three years	

NOTES:
µg/m^3 = micrograms per cubic meter; BAAQMD = Bay Area Air Quality Management District; CEQA = California Environmental Quality Act; CO = carbon monoxide; NO_X = oxides of nitrogen; $PM_{2.5}$ = particulate matter 2.5 microns or less in diameter; PM_{10} = particulate matter 10 microns or less in diameter; ppm = parts per million; ROG = reactive organic gases

SOURCE: Bay Area Air Quality Management District, *CEQA Air Quality Guidelines*, May 2017. Available at https://www.baaqmd.gov/~/media/files/planning-and-research/ceqa/ceqa_guidelines_may2017-pdf.pdf?la=en. Accessed February 7, 2020.

Criteria Pollutant Emissions

Except for impacts related to TACs, localized CO, and odors, air quality impacts are by their nature cumulative impacts; one project by itself generally cannot generate air pollution in a mass and volume that would violate regional air quality standards. The proposed project's emissions are compared to specific, quantitative thresholds for criteria pollutants as presented above. Potential resulting health risks associated with criteria pollutants are discussed in accordance with the recent California Supreme Court decision in *Sierra Club v. County of Fresno*.[83]

As noted in Section 3.1.2, *Regulatory Framework*, in March 2012 the Alameda County Superior Court issued a judgment finding that BAAQMD had failed to comply with CEQA when the thresholds were adopted. In August 2013 the California Court of Appeal reversed the Superior Court's decision. Pursuant to CEQA, lead agencies must apply appropriate thresholds based on substantial evidence in the record. Use of these thresholds is consistent with and authorized by

[83] *Sierra Club v. County of Fresno* (*Friant Ranch*), S219783, Fifth Appellate District, F066798, Fresno County Superior Court (2018) 6 Cal.5th 502.

CEQA Guidelines Section 15064. Best practice dictates that the methods for assessing air quality impacts (e.g., calculating air pollution emissions and potential health impacts) should be based on the latest version of BAAQMD's CEQA Guidelines and guidelines published by other federal, state, and regional regulatory agencies.[84]

Project-Level Risks and Hazards

Incremental Increase in Lifetime Cancer Risk

The incremental increase in lifetime cancer risk is estimated as the upper-bound incremental probability that an individual will develop cancer over a lifetime as a direct result of exposure to carcinogens. The risk is expressed as a unitless probability. BAAQMD established its threshold of 10 in 1 million to ensure that no source creates, or receptor endures, a significant adverse impact from any individual project.[85] This threshold for a single source is supported by EPA's guidance for conducting air toxics analyses and making risk management decisions at the facility and community-scale level. It is also the level set by the Project Risk Requirement in BAAQMD's Regulation 2, Rule 5, New and Modified Stationary Sources of TACs, which states that the Air Pollution Control Officer shall deny an Authority to Construct or Permit to Operate for any new or modified source of TACs if the project risk exceeds a cancer risk of 10.0 in 1 million.

To provide perspective on the 10 in 1 million threshold established by BAAQMD for incremental increase in lifetime cancer risk:

- When compared to the *average* individual lifetime cancer risk from all causes, 387,000–401,400 in 1 million, 10 in 1 million represents a 0.0025 percent increase in lifetime cancer risk.
- When compared to the average individual lifetime cancer risk from exposure to DPM statewide, 520 in 1 million, 10 in 1 million represents a 1.9 percent increase in lifetime cancer risk.
- When compared to the average individual lifetime cancer risk from exposure to DPM within the area of BAAQMD jurisdiction, 690 in 1 million, 10 in 1 million represents a 1.4 percent increase in lifetime cancer risk.

The State of California recognizes that "Risk estimates generated by an HRA should not be interpreted as the expected rates of disease in the exposed population but rather as estimates of potential for disease, based on current knowledge and a number of assumptions."[86]

[84] Bay Area Air Quality Management District, *California Environmental Quality Act Air Quality Guidelines*, May 2017. Available at http://www.baaqmd.gov/~/media/files/planning-and-research/ceqa/ceqa_guidelines_may2017-pdf.pdf?la=en. Accessed February 6, 2020.

[85] Bay Area Air Quality Management District, *California Environmental Quality Act Air Quality Guidelines*, May 2017. Available at http://www.baaqmd.gov/~/media/files/planning-and-research/ceqa/ceqa_guidelines_may2017-pdf.pdf?la=en. Accessed February 6, 2020.

[86] Office of Environmental Health Hazard Assessment, *Air Toxics Hot Spots Program Guidance Manual for the Preparation of Health Risk Assessments*, February 2015. Available at http://oehha.ca.gov/air/hot_spots/hotspots2015.html. Accessed February 5, 2020.

Chronic Health Impacts

Chronic health impacts refer to non-cancer effects of chronic (i.e., long-term) exposure to DPM and other TACs. These include things such as birth defects, neurological damage, asthma, bronchitis, or genetic damage. Non-cancer health hazards for chronic diseases are expressed in terms of a hazard index (HI), a ratio of TAC concentration to a reference exposure level (REL), below which no adverse health effects are expected, even for sensitive individuals. As such, OEHHA has defined acceptable concentration levels, and also significant concentration increments, for compounds that pose non-cancer health hazards. If the HI for a compound is less than one, non-cancer chronic health impacts have been determined to be less than significant.[87]

RELs for DPM and TACs were obtained from OEHHA and BAAQMD. For example, OEHHA has recommended an ambient concentration of 5 $\mu g/m^3$ as the chronic inhalation REL for DPM exhaust. Chronic inhalation RELs for TACs associated with tailpipe and evaporative total organic gases (TOGs) were based on BAAQMD's weighted toxicity calculation methods and the latest data in CARB's Hotspots Analysis and Reporting Program database.

Acute Health Impacts

Acute health impacts include short-term acute affects such as eye watering, respiratory irritation (a cough), running nose, throat pain, and headaches. Similar to chronic health impacts, non-cancer health hazards for acute diseases are also expressed in terms of an HI. If the HI for a compound is less than one, non-cancer acute health impacts have been determined to be less than significant.

Acute health impacts of short-term exposure to TACs (such as 1-hour and 8-hour exposures) are expected to be minor compared to cancer risks and chronic health impacts. DPM does not have an acute REL, and the acute health risks of exposure to TAC emissions from diesel exhaust are already accounted for in the assessment of DPM as the primary TAC of concern.[88,89,90] For organic TACs which are components of TOG emissions from light-duty gasoline vehicles traveling during project operations, acute health impacts are not considered a risk driver.[91] Therefore, the HRA does not assess acute health risks, but instead evaluates cancer risk, $PM_{2.5}$ concentrations, and chronic risk.

Annual Average $PM_{2.5}$ Concentrations

For $PM_{2.5}$ emissions, BAAQMD established its threshold of an ambient increase of 0.3 $\mu g/m^3$ annual average to ensure that no source will create, and no receptor will endure, a significant

87 Bay Area Air Quality Management District, *California Environmental Quality Act Air Quality Guidelines*, Appendix D (Threshold of Significance Justification), June 2010. Available at http://www.baaqmd.gov/~/media/files/planning-and-research/ceqa/ceqa_guidelines_may2017-pdf.pdf?la=en. Accessed May 2020.

88 Bay Area Air Quality Management District, *Regulation 2 Permits Rule 5 New Source Review of Toxic Air Contaminants*, December 7 2016. Available at http://www.baaqmd.gov/~/media/dotgov/files/rules/reg-2-rule-5-new-source-review-of-toxic-air-contaminants/documents/rg0205_120716-pdf.pdf?la=en. Accessed May 2019.

89 California Air Resources Board, *Consolidated Table of OEHHA/ARB Approved Risk Assessment Health Values*, August 2018. Available at https://www.arb.ca.gov/toxics/healthval/contable.pdf. Accessed April 2019.

90 Allen, Carol, Assistant Manager, Engineering Division, Bay Area Air Quality Management District, email correspondence with Environmental Science Associates on November 29, 2018.

91 Bay Area Air Quality Management District, *Recommended Methods for Screening and Modeling Local Risks and Hazards*, May 2012. Available at http://www.baaqmd.gov/~/media/files/planning-and-research/ceqa/risk-modeling-approach-may-2012.pdf?la=en. Accessed April 2019.

adverse impact from any individual project. Like the cancer risk threshold, the $PM_{2.5}$ threshold for a single source is based on EPA guidance for conducting air toxics analyses and making risk management decisions at the facility and community levels. The thresholds consider reviews of recent health-effects studies that link increased concentrations of fine particulate matter to increased mortality, and apply to both siting new sources and siting new receptors. For new sources of $PM_{2.5}$, the thresholds are designed to ensure that $PM_{2.5}$ concentrations are maintained below federal and state standards in all areas where sensitive receptors or members of the public live or may foreseeably live, even if at the local or community scale where sources of TACs and PM may be nearby.[92]

The specific $PM_{2.5}$ threshold, an ambient increase of 0.3 $\mu g/m^3$ annual average, is based on the lower range of an EPA-proposed Significant Impact Level (SIL).[93] The SIL is a threshold that would be applied to individual facilities that apply for a permit to emit a regulated pollutant in an area that meets the NAAQS. EPA interprets the SIL to be the level at which a $PM_{2.5}$ increment represents a "significant contribution" to regional non-attainment.

Although SIL options were not designed to be thresholds for assessing community risk and hazards, they are being considered to protect public health regionally by helping an area to maintain the NAAQS. Furthermore, because BAAQMD's goal is to achieve and maintain the NAAQS and CAAQS at both the regional and local scales, the SILs may be reasonably be considered as thresholds of significance under CEQA for local-scale increments of $PM_{2.5}$.

Cumulative Risks and Hazards

Cumulative health risk thresholds are designed so that the risk and hazard from an individual new source, when combined with the total of all nearby directly emitted risk and hazard emissions, does not pose a significant adverse impact. The criterion of 100 per 1 million persons is based on EPA guidance for conducting air toxic analyses and making risk management decisions at the facility and community-scale levels.[94]

As described by BAAQMD, EPA considers a cancer risk of 100 per 1 million or less to be within the "acceptable" range of cancer risk. The criterion for $PM_{2.5}$ of an ambient increase of 0.8 $\mu g/m^3$ annual average is also based on EPA guidance for conducting air toxics analyses, and represents the middle range of an EPA SIL,[95] which, as mentioned above, is the level of ambient impact that is considered to represent a significant contribution to regional non-attainment.

In December 2015, the California Supreme Court issued an opinion in *California Building Industry Association v. Bay Area Air Quality Management District* (December 17, 2015), 62 Cal.4th 369, holding that CEQA is concerned primarily with the impacts of a project on the environment and

92 Bay Area Air Quality Management District, *California Environmental Quality Act Air Quality Guidelines*, Appendix D (Threshold of Significance Justification), June 2010. Available at http://www.baaqmd.gov/~/media/files/planning-and-research/ceqa/ceqa_guidelines_may2017-pdf.pdf?la=en. Accessed May 2020.

93 *Federal Register*, 40 CFR Parts 51 and 52, September 21, 2007.

94 Bay Area Air Quality Management District, *California Environmental Quality Act Air Quality Guidelines*, May 2017. Available at http://www.baaqmd.gov/~/media/files/planning-and-research/ceqa/ceqa_guidelines_may2017-pdf.pdf?la=en. Accessed February 6, 2020.

95 In Class II and Class III areas, a $PM_{2.5}$ concentration of 0.3, 0.8, and 1 $\mu g/m^3$ has been proposed as a SIL. 0.8 $\mu g/m^3$ falls in the middle of this range.

generally does not require agencies to analyze the impact of existing conditions on a project's future users or residents unless the project's risks exacerbate those environmental hazards or risks that already exist. However, the Supreme Court upheld "evaluating a project's potentially significant exacerbating effects on existing environmental hazards… Because this type of inquiry still focuses on the project's impacts on the environment—how a project might worsen existing conditions—directing an agency to evaluate how such worsened conditions could affect a project's future users or residents is entirely consistent with this focus and with CEQA as a whole."

Consequently, because the proposed project could worsen existing conditions by producing new TAC emissions to which future new on-site sensitive receptors would be exposed, this analysis quantifies the project-level and background health risks for new residential receptors as well as existing receptors.

Approach to Analysis

Construction and operation of the proposed project would result in emissions of criteria air pollutants, which are generally regional in nature. Construction-related and operational TAC emissions, including DPM, can result in a localized health impact, expressed as $PM_{2.5}$ annual average concentrations and the increased probability of contracting cancer per 1 million persons exposed to TAC concentrations.

The following assessment of criteria air pollutant impacts addresses the significance criteria presented above in Table 3.1-5 for ROG, NO_X, $PM_{2.5}$, PM_{10}, and CO. The assessment of localized health risk and exposure to $PM_{2.5}$ concentrations addresses the significance criteria, also presented in Table 3.1-5, for risks and hazards for new sources and receptors.

With respect to odors, BAAQMD's 2017 CEQA Guidelines provide guidance in the form of screening distances, to help evaluate potential odor impacts. They identify potential odor sources of particular concern, such as wastewater treatment plants, oil refineries, asphalt plants, chemical manufacturing, painting/coating operations, coffee roasters, food processing facilities, recycling operations, and metal smelters, and recommend buffer zones around them to avoid potential odor conflicts.

The air quality analysis conducted for this impact assessment uses the emissions factors, models, and tools distributed by a variety of industry experts and agencies including CARB, the California Air Pollution Control Officers Association, the OEHHA, and EPA. The analysis also uses methods identified in BAAQMD's *CEQA Air Quality Guidelines*.[96] The air district is currently developing an update to its *CEQA Air Quality Guidelines*, which will likely include changes to its thresholds of significance; however, no draft has yet been made public. Therefore, this analysis applies the most recent guidance available, and deemed relevant and applicable by the City of San José.

[96] In Class II and Class III areas, a $PM_{2.5}$ concentration of 0.3, 0.8, and 1 $\mu g/m^3$ has been proposed as a SIL. 0.8 $\mu g/m^3$ falls in the middle of this range.

As noted previously, in the *California Building Industry Association v. Bay Area Air Quality Management District* case decided in 2015,[97] the California Supreme Court held that CEQA does not generally require lead agencies to consider how existing environmental conditions might affect a project's users or residents, except where the project would exacerbate an existing environmental condition. Accordingly, the significance criteria above related to exposure of new sensitive receptors to substantial pollutant concentrations are applicable only to the extent that the proposed project would exacerbate existing air quality conditions. An impact would be significant if the project would exacerbate existing or future air quality conditions.

Consistency with Applicable Air Quality Plans

The applicable air quality plan is BAAQMD's 2017 Clean Air Plan. Consistency with the Clean Air Plan can be determined if the project supports the goals of the plan, includes applicable control measures from the plan, and would not disrupt or hinder implementation of any plan control measures. Consistency with the Clean Air Plan and air quality–related policies of the *Envision San José 2040 General Plan* is the primary basis for determining whether the proposed project would conflict with or obstruct implementation of an applicable air quality plan, the first bulleted significance criterion identified above.

Project Features Incorporated into the Analysis

The following design features have been included in the modeling for the proposed project, and are discussed in greater detail below. These features would be included as conditions of approval so that they will be enforceable by the City:

- Construction:
  - Certification of all diesel-powered construction equipment to Tier 4 Final emission standards; and
  - Use of electric equipment for concrete/industrial saws, sweepers/scrubbers, aerial lifts, welders, and air compressors.
- Operations:
  - LEED for Neighborhood Development (ND) Gold Certification (which requires that at least one building in each phase be certified LEED Gold), construction of all office buildings to meet LEED Gold standards, and compliance with the City's New Construction Green Building Requirements;
  - Electrification (no natural gas use) of all buildings at the site, including all office space, all residential space, and all retail space, with the exception of 20,000 square feet of restaurant kitchens;
  - Constrained parking (less parking than required by the City code, based both on the base parking requirement and the Code-permitted reductions in parking for transit-accessible and Downtown projects available in Municipal Code Section 20.90.220 and 20.70.330, respectively), with no more than 4,800 spaces for commercial uses (including potential access to a portion of the residential spaces that could be shared with office uses);

[97] *California Building Industry Association v. Bay Area Air Quality Management District* (December 17, 2015) 62 Cal.4th 369.

- On-site solar photovoltaic system achieving at least 7.8 megawatts of electricity production;
- Installation of electric vehicle supply equipment for a minimum of 10 percent of parking spaces;
- Installation of Minimum Efficiency Reporting Value (MERV) 13 filtration for all new on-site buildings;
- Use of recycled water for all non-potable water demands for the project including toilet flushing, irrigation, and cooling; and
- A potential district water reuse facility that would treat wastewater to California Code of Regulations Title 22 disinfected tertiary (unrestricted reuse) recycled-water standards.

In addition, the modeling for the proposed project assumes transportation activity consistent with the project's location in a transit-accessible area with bike and pedestrian street improvements and implementation of all applicable regulatory requirements (such as 2019 Title 24 Building Standards, including the CALGreen Code, American Society of Heating, Refrigerating and Air-Conditioning Engineers [ASHRAE] 2019 energy efficiency standards, and the San José Reach Code).

Construction Activities

Construction of the proposed project has the potential to create air quality impacts through the use of heavy-duty construction equipment, construction workers' vehicle trips, truck hauling trips, and vendor truck trips. In addition, fugitive dust emissions would result from site disturbance, including grading and asphalt recycling, and fugitive ROG emissions would result from application of architectural coatings and paving.

Mobile equipment such as excavators, graders, backhoes, loaders, pile-driving rigs, crushing equipment, pavers, water trucks, and forklifts would be used for demolition, geotechnical work, excavation, and grading, but also for building construction and hardscape and landscape materials installation. Track/tire-mounted cranes and tower cranes would be used for building construction, including but not limited to steel and precast erection and building façades. Miscellaneous stationary equipment would include generators and air compressors, and possibly crushing and processing equipment and cement/mortar mixers. A variety of other smaller mechanical equipment would also be used at the project site during the construction period, such as saw cutters, cutting/chopping saws, tile saws, stud impact guns, welding machines, and concrete boom pumps. Construction of the proposed project would also require some pile driving.

The project applicant has committed to requiring that all diesel-powered construction equipment be certified to Tier 4 Final emission standards, as commercially available. In addition, certain pieces of equipment would be electrically powered, as specified in the construction equipment lists provided by the project applicant. However, given that some Tier 4 Final off-road equipment may not be available during all phases of construction, the analysis presented below conservatively assumes that some equipment may only meet Tier 4 Interim or Tier 3 engine standards. Refer to Appendix C1 for the complete construction equipment mix.

Project Operations, Stationary Sources, and Transportation Sources

The proposed project would generate operational emissions from a variety of sources:

- Stationary sources (diesel emergency generators and restaurant charbroilers);
- Energy sources (natural gas combustion cooking in restaurant kitchens);
- Area sources (consumer products, architectural coatings, and landscape equipment); and
- Mobile sources (daily automobile and truck trips).

The project is expected to require up to 47 diesel backup generators. All diesel backup generator exhaust must be vented on the rooftops of each building where the generators are located. This could be achieved by either placing the diesel backup generators themselves on the rooftops, or by constructing exhaust stacks from the diesel backup generator locations to the rooftops. This was included in the HRA modeling.

Except for 20,000 square feet of commercial kitchens in restaurants throughout the proposed project site, all buildings at the project site would be 100 percent electric; this includes all office space, all residential space, and all retail space. As such, no natural gas combustion was assumed for these uses. Restaurants were assumed to be scattered across the project site, but mainly concentrated in the central zone. Up to five charbroilers were modeled, which would emit VOCs and PM. In addition, an on-site solar photovoltaic system achieving at least 7.8 megawatts of electricity production was included in the modeling. These features were quantified for the air quality analysis.

Recycled water would be used for all non-potable water demands for the project including toilet flushing, irrigation, and cooling. In addition, potential district water reuse facility(s) would treat wastewater to California Code of Regulations Title 22 disinfected tertiary (unrestricted reuse) recycled-water standards. No criteria pollutant or TAC emissions are associated with the district water reuse facility(s), only GHG emissions.

Finally, the modeling considers constrained parking with no more than 4,800 spaces for commercial uses (including potential access to a portion of the residential parking spaces that could be shared with office uses).

LEED Certification

The proposed project would include measures necessary to qualify for LEED ND Gold certification, and would also achieve LEED Gold certification for all new office buildings. As part of the project's LEED ND Gold certification, at least one building in each phase would be certified LEED Gold.

Not all of the measures that would be used to achieve these certifications have been identified; however, the project's construction methods and operational characteristics would be sufficient to meet these standards or the comparable GreenPoint rating, including meeting sustainability standards for access to quality transit. At a minimum, the project would comply with the City's New Construction Green Building Requirements.

The primary air quality benefit of LEED certification is a reduction in natural gas use through energy efficiency and building design features. However, because the project would be almost entirely electric (and electricity use does not produce local air pollutants), and because LEED certification can be obtained through a variety of means outside of energy efficiency, this feature was not quantified in the air quality analysis.

Minimum Efficiency Reporting Value 13 Air Filtration

To comply with the California Energy Code, the proposed project must install a mechanical ventilation system at all on-site residential and childcare buildings at the project site capable of achieving protection from particulate matter ($PM_{2.5}$) equivalent to that associated with a MERV 13 filtration (as defined by ASHRAE Standard 52.2). As part of this action, an ongoing maintenance plan for the building's heating, ventilation, and air conditioning (HVAC) air filtration system is required. Health risks for residential and childcare receptors evaluated in the project's HRA were estimated assuming the implementation of MERV 13 filters in all residential and childcare receptor locations.

Electric Vehicle Chargers

As discussed in Section 3.1.2, *Regulatory Framework*, the City of San José Reach Code requires the installation of EV supply equipment on 10 percent of all parking spaces for new multi-family and non-residential buildings. As such, project parking would be equipped with EV chargers at 10 percent of the total number of parking spaces.[98] This would encourage the use of EVs at the project site and discourage the use of gasoline and diesel passenger vehicles, thus reducing mobile-source emissions associated with vehicle travel to and from the project site.

Cooling Towers

Cooling towers would be required to service the on-site central utility plants. Cooling towers emit PM when the total dissolved solids in the circulating water that are carried out with the water are entrained in the air discharged from the tower. The cooling tower capacity was determined from four potential central utility plant scenarios:

- One central utility plant in the Southern Infrastructure Zone
- Two central utility plants, one in the Northern Infrastructure Zone and one in the Southern Infrastructure Zone
- The business-as-usual setback with one central utility plants
- The business-as-usual setback with two central utility plants[99]

In the most conservative scenario—the business-as-usual setback with one central utility plant—a total of 18,920 HVAC tons located in the Southern Infrastructure Zone, Blocks C1, D1, E1, E3, and H1 would be required to service the project. To control the PM emissions from these

[98] Note that Mitigation Measure AQ 2g (Electric Vehicle Charging) goes beyond city code by requiring that the project applicant install EV charging equipment on 15 percent or more of all parking spaces at the project site.

[99] In the business-as-usual setback scenarios, a number of buildings would have independent district systems because of physical or phasing considerations.

locations, drift eliminators would be installed at all cooling towers. These drift eliminators reduce drift loss to 0.005 percent, far below the uncontrolled drift loss value.

Transportation Management Plan and Transportation Demand Management

The proposed project's VMT and trips were calculated using the City of San José Travel Demand Forecasting Model for the base year (2015), interim year (2026, coinciding with the first full calendar year of project operations), and future buildout year (2040). The resulting VMT and trips data reflect the project's location in a transit-served area, as well as the proposed density of development, and limited parking. To provide for a conservative analysis, however, the data do not include the project's commitment to implement a transportation demand management (TDM) program sufficient to meet the 15 percent improvement in transportation efficiency required by AB 900 (refer to the discussion in Section 3.13, *Transportation*). A 15 percent improvement in transportation efficiency means a reduction in total vehicle trips and VMT by 15 percent, compared to the proposed project without a TDM program. It should be noted that because the proposed project is located in a transit-rich infill area with many mixed land uses, and because it includes both residential and employment opportunities, the proposed project would inherently result in fewer vehicle trips than a hypothetical project in a different location.

Mitigation Measure AQ-2h, Enhanced Transportation Demand Management Program, detailed further below, would provide for monitoring and enforcement of this requirement, and would increase the efficiency of the TDM program well beyond 15 percent.

Existing Conditions

As described in Chapter 2, *Project Description*, the approximately 81-acre project site currently contains approximately 100 individual assessor's parcels. The built environment of the project site and vicinity is characterized by a pattern of one- and two-story buildings that cover only portions of their lots, with the remaining unbuilt lot space used as surface parking. The total floor area of buildings currently on the project site accounts for approximately 755,00 square feet, although only approximately 480,000 gross square feet is currently occupied. In all, approximately 40 percent of the project site is currently devoted to parking lots.

In the northern portion of the project site, a variety of light and heavy industrial uses are present, including a food wholesale warehouse, along with one occupied residential property. In the central portion of the project site, immediately north and south of the SAP Center, surface parking lots provide parking for surrounding uses that serve Diridon Station and the SAP Center. Adjacent to the surface parking lots south of the SAP Center are a variety of light industrial and commercial uses, a church, and food-related uses. Immediately south of West San Fernando Street is a Pacific Gas and Electric Company substation. South of Park Avenue, existing uses include a San José Fire Department training facility (to be relocated at lease expiration in 2022), retail, and vacant properties.

Operation of these existing on-site businesses emits air pollutants during vehicle trips to and from the project site, on-site combustion of natural gas for cooking, and fugitive emissions of VOCs from the use of aerosol products and coatings and landscaping. However, data were not readily available regarding the exact activity level (i.e., utility consumption) at each business, so existing emissions

were based on default values. Air pollutant emissions associated with these existing activities were estimated using the California Emissions Estimator Model software (CalEEMod) (Version 2016.3.2), a California-based computer model designed to calculate emissions typically generated by various land uses. This model is designed to provide a uniform platform for government agencies, land use planners, and environmental professionals to quantify potential emissions of criteria air pollutants and GHGs from land use projects of various types and in various air basins. CalEEMod was developed in collaboration with California's air districts and is recommended by BAAQMD for evaluating projects' GHG emissions under CEQA.[100] Regional data (e.g., emissions factors, trip lengths, meteorology, source inventory) were provided by the various California air districts to account for local requirements and conditions. According to the California Air Pollution Control Officers Association, the model is an established, accurate, and comprehensive tool for quantifying air quality and GHG impacts from land use projects throughout California.[101]

CalEEMod was used to estimate the existing on-site emissions from natural gas appliances and equipment, as well as fugitive emissions. Default electricity and natural gas usage rates were used based on building land use and square footage.[102] Mobile-source emissions associated with existing operations were not separately calculated and are not considered in the analysis, consistent with the project transportation analysis, which did not deduct trips from the relatively few existing uses operating on the project site. However, as discussed in Impact AQ-2 below, these emissions are effectively netted out in the transportation modeling on which project mobile-source emissions are based. Emissions from existing conditions are presented in Impact AQ-2 below.

Existing uses may continue to operate throughout part of construction. To determine the net new impact of the proposed project in this EIR analysis, existing non-mobile-source emissions of criteria pollutants were subtracted from the total new emissions associated with the proposed project starting in 2029. This is highly conservative because it is likely that most existing sources would cease operations well before 2029. For exposure to TAC emissions, which is analyzed locally in the project-level HRA, this EIR *does not* subtract the health risks associated with exposure to existing TAC emissions from the proposed project's contribution to health risks, with the exception of mobile sources. This is because existing non-mobile emissions sources are not anticipated to result in substantial TAC emissions (these activities consist primarily of energy use, which has negligible TAC emissions).

Construction Emissions Methods

As described in Chapter 2, *Project Description*, the proposed project would be developed in three phases. Although market demand and other factors would ultimately determine how long it would

[100] Bay Area Air Quality Management District, *Tools and Methodologies*, 2012. Available at https://www.baaqmd.gov/plans-and-climate/california-environmental-quality-act-ceqa/ceqa-tools. Accessed February 2020.
[101] California Air Pollution Control Officers Association, *California Emissions Estimator Model*, 2017. Available at http://www.aqmd.gov/caleemod/. Accessed May 2020.
[102] California Air Pollution Control Officers Association, *California Emissions Estimator Model User's Guide*, 2017. http://www.aqmd.gov/docs/default-source/caleemod/01_user-39-s-guide2016-3-2_15november2017.pdf?sfvrsn=4, Accessed May 2020.

take to develop each phase, this analysis conservatively assumes an aggressive schedule that construction would be completed by the end of 2031 as follows:

- Phase 1 would start in 2021 and end in 2027.
- Phase 2 is split into Phases 2a and 2b. Phase 2a would start in 2025 and end in 2029. Phase 2b would start in 2027 and end in 2031.
- Phase 3 would start in 2027 and end in 2032.

This schedule results in conservative air quality impacts from construction emissions because emission factors generally improve with time as stricter standards become applicable.

Phase 2 was separated into two sub-phases to more accurately capture construction activity and detailed schedules of equipment operation. Total construction emissions by phase and sub-phase were calculated using the estimated duration of each construction phase for comparison against the significance thresholds. Unique schedules for demolition, excavation, and vertical construction were provided by the project applicant. Because there would be overlapping construction and operational activities during Phase 1 buildout and after Phase 1 is complete (starting in 2025), both average daily and total annual construction emissions were estimated for comparison to the BAAQMD significance thresholds.

It was conservatively assumed that construction activities would occur over 11 years total, which is the fastest potential period over which the proposed project could be constructed; if construction were to occur over a longer time frame, actual average daily or maximum annual emissions could be less than those estimated in this analysis.[103] For the purposes of this analysis, the proposed project is assumed to be developed in three phases, although actual phasing may be in two or more phases or sub-phases.

This analysis also assumes that the buildings constructed in each phase of the construction program (i.e., Phase 1 or Phase 2) would be occupied and fully operational as soon as construction of each phase is completed. This is conservative because occupancy and operation of each phase would likely ramp up over time, rather than immediately upon completion of construction. Also, because operation of Phase 1 is anticipated to occur during construction of Phase 2 (starting in 2025), the operational analysis (refer to Impact AQ-2) accounts for Phase 1 operational emissions that would occur simultaneously with construction of Phase 2, and Phase 2 operational emissions that would occur simultaneously with construction of Phase 3. This allows for an analysis of the total emissions that would occur from construction activities and simultaneous operations during the 11-year construction period.

This analysis considers emissions of criteria air pollutants from project-related net increases in the use of gasoline and diesel fuel in both off-road equipment and on-road vehicles compared to

[103] The phasing of project implementation would be subject to change as a result of market conditions and other unanticipated factors. If construction is delayed or occurs over a longer period, extending beyond 2031, emissions could be reduced because of (1) newer and cleaner-burning construction equipment fleet mix and (2) a less intensive and overlapping buildout schedule (i.e., fewer daily emissions occurring over a longer period). Conversely, if construction is accelerated and occurs over a shorter period, average daily and total annual emissions could increase. However, the construction schedule represents an aggressive phasing schedule for the proposed project for the purposes of conservatively assessing impacts, so it is unlikely that construction would occur at a more rapid pace than is analyzed.

existing conditions. This includes emissions from heavy-duty off-road construction equipment during demolition, excavation, building construction, paving, construction of a replacement bridge over Los Gatos Creek, construction of the West San Fernando Street bridge, off-site transportation improvements, and landscaping, and from on-road haul, vendor, and worker mobile trips to and from the project site.

Construction equipment would vary by activity and may include but would not be limited to dump trucks, excavators, bulldozers, compactors, forklifts, and cranes. All diesel-powered construction equipment would be certified to Tier 4 Final emission standards. Certain pieces of equipment would be electrically powered, as specified in the construction equipment lists provided by the project applicant. A complete list of construction equipment, construction phasing, and detailed emission calculations is included in Appendix C1.

In addition, a number of federal and state regulations require increasingly cleaner off-road equipment. Specifically, both EPA and CARB have set emissions standards for new off-road equipment engines, ranging from Tier 1 to Tier 4. Tier 1 emissions standards were phased in from 1996 to 2000, and Tier 4 interim and final emission standards for all new engines were phased in between 2008 and 2015. To meet the Tier 4 Final emissions standards, engine manufacturers are required to produce new engines with advanced emission-control technologies. Although the full benefits of these regulations will not be realized for several years as Tier 4 Final equipment replaces older equipment, EPA estimates that implementing the federal Tier 4 Final standards will reduce NO_X and PM emissions by more than 90 percent. Furthermore, California regulations limit maximum idling times to 5 minutes, which further reduces public exposure to NO_X and PM emissions (California Code of Regulations, Title 13, Section 2485).

Construction emissions for demolition and bridge construction were estimated using methods consistent with CalEEMod. Construction emissions for vertical construction and excavation were based on calculation methods in CalEEMod, but performed separately in Excel workbooks. Emissions from construction equipment usage were estimated to occur for 8 hours per day, 6 days per week on average. This represents the proposed average construction activity over the course of the 11-year construction period. The City of San José restricts construction within 500 feet of residential units to between 7 a.m. and 7 p.m. on weekdays, with no construction on weekends, although overnight and weekend construction is permitted if expressly allowed in the development permit or other planning approval.

To provide a conservative analysis, the quantity of excavated material and the associated number of haul truck trips to export this material, as provided by the applicant, were adjusted upward slightly for residential building foundations, to allow flexibility of building footprints. Similarly, excavated material and associated haul truck trips required for parking structures, as provided by the applicant, were adjusted upward by 5 percent to provide additional contingency. For vertical construction associated with each project site parcel, slightly over a month of activity (38 days) was added to each parcel's construction schedule, as provided by the applicant, to provide both a conservative assessment of construction emissions and additional flexibility for building floor area.

Over the course of the construction schedule, the length of workdays would vary in range from 8 hours to 24 hours. Over the course of a day or shift, usage would vary depending on the equipment and type of work being performed. For example, during each 8-hour shift, equipment would operate for 7 hours per shift because the workday would include equipment downtime for lunch breaks and safety meetings. It is possible that occasional construction activities would occur for longer hours on certain days, including a few 24-hour concrete pours. The 24-hour workdays would be required for a number of reasons, including technical requirements of certain construction techniques, worker safety, labor rules, and avoidance of conflicts on city streets and highways in the vicinity. However, this is not anticipated to occur with enough frequency to materially affect average daily emissions associated with overall construction activities.

A few 24-hour concrete pours each year and a few 10- or 12-hour construction days each month would represent less than 1 percent of total construction equipment activity hours on an annual basis, and average daily emissions on an annual basis is the metric by which impacts are determined (based on BAAQMD's thresholds of significance for construction emissions). Because it is anticipated that certain construction activities may require work outside normally permitted construction hours, the project's Planned Development Permit would allow for such construction activities, subject to conditions of approval.

On-road mobile emissions for hauling, vendor, and worker trips were calculated separate from CalEEMod to enable the use of CARB's EMFAC2017 emission factors. In November 2019, CARB released off-model adjustment factors to EMFAC2017 to account for the SAFE Rule by EPA and the National Highway Traffic Safety Administration.[104] The SAFE Rule results in a 0 to 3 percent increase in emissions from light-duty vehicles compared to EMFAC2017 emission factors. These SAFE Rule adjustments were incorporated into the analysis. However, this adjustment does not alter any of the significance conclusions reached herein.

For on-road mobile-source emissions from hauling trips, up to approximately 172,450 cubic yards of Class 1 hazardous soil would be exported from the site to the Kettleman Hills Hazardous Waste Facility (170 miles from the project site), and 1,287,059 cubic yards of Class 2 non-hazardous soil would be exported to Republic's Newby Island Landfill or Waste Management's Kirby Canyon Landfill (approximately 15 miles from the project site). The number of hauling trips was determined based on estimated maximum soil off-haul volumes by phase as provided by the project applicant.[105] For worker and vendor trips, CalEEMod default trip distances and number of trips were used.

It is assumed that water trucks would water twice a day for off-road dust control during construction. This is consistent with BAAQMD best management practices for dust control.[106] Emissions from water truck operations were estimated using CalEEMod emission factors for

[104] California Air Resources Board, *EMFAC Off-Model Adjustment Factors to Account for the Safe Vehicle Rule Part One*. Available at https://ww3.arb.ca.gov/msei/emfac_off_model_adjustment_factors_final_draft.pdf?_ga=2.128974668.1790635815.1579730169-1794392908.1559174732. Accessed February 7, 2020.

[105] Google LLC, updated excavation quantities by phase, email to Environmental Science Associates, December 16, 2019.

[106] Bay Area Air Quality Management District, *CEQA Air Quality Guidelines*, May 2017. Available at https://www.baaqmd.gov/~/media/files/planning-and-research/ceqa/ceqa_guidelines_may2017-pdf.pdf?la=en. Accessed February 7, 2020.

"off-highway trucks," following the same methods as discussed above. For construction on-road and operational mobile-source emissions, a location-specific composite silt loading factor was used to determine the amount of road dust. Detailed calculations are included in Appendix C1.

As discussed in Chapter 2, *Project Description*, parking for the SAP Center that would be displaced by the proposed project would be replaced within the project vicinity, potentially including developing a group of assessor's parcels known as "Lot E." This could also take place elsewhere nearby or through a shared parking arrangement with other projects.

Providing replacement parking in the vicinity is considered a reasonably foreseeable, if indirect, future consequence of the proposed project; however, the details of the relocated parking are not known. Therefore, it is not possible to quantify construction emissions associated with providing replacement parking, whether through the development of Lot E or elsewhere. Associated emissions are discussed qualitatively in the context of cumulative impacts associated with buildout of the Diridon Station Area Plan (DSAP) amendments. Also, if the City provides replacement parking in a new parking structure in the future, such as on Lot E, such a project would undergo independent environmental review.

Operational Emissions Methods

Operation of the proposed project would result in emissions of criteria air pollutants from a variety of sources, including on-road mobile sources, stationary sources such as cooling towers, and other characteristics of proposed buildings and uses, as described further below. A variety of tools were used to quantify criteria air pollutant emissions; the methods used to estimate their emissions are also included below. Detailed calculations are included in Appendix C1.

Operational emissions were estimated starting when the first buildings are anticipated to be complete, occupied, and fully operational. This would begin in 2025 with the completion of the first buildings constructed during Phase 1, and would continue through 2032 at full buildout. Although Phase 1 would end in December 2027 (with complete annual operations starting in 2028), partial buildout of Phase 1 areas would occur from 2025 through 2027.

Consequently, operational emissions before 2028 from Phase 1 for all emissions sources (as described below) were scaled based on the anticipated partial buildout of the Phase 1 areas. The scaling factors for partial buildout are as follows: 20 percent in 2025, 60 percent in 2026, 90 percent in 2027, and 100 percent in 2028. From 2028 through 2032, 100 percent of Phase 1 operational emissions were assumed. Because the exact buildout of each individual parcel in Phase 1 in 2025–2027 is unknown, the scaling factors were applied evenly to all sources of emissions. In 2032, full-buildout emissions from Phases 1, 2, and 3 were assumed.

Mobile Sources

Emissions from mobile sources were calculated from project-specific total VMT and total trips based on the City of San José VMT Evaluation Tool and Travel Demand Model.[107] This VMT includes new VMT associated with the proposed project, modeled as the difference between future cumulative "with project" VMT and future cumulative "without project" VMT. Therefore,

[107] Fehr & Peers, RE: Spreadsheet, email to Environmental Science Associates, December 20, 2019.

mobile-source emissions for the proposed project net out VMT from existing conditions already. Both residents and employees would travel to, from, and within the project site. EMFAC2017 emission factors, average EMFAC2017 fleet mixes, and trip generation percentages by vehicle type were used to calculate mobile-source emissions for each year of analysis from 2021 to full buildout in 2032. Emissions are based on net new VMT and trips associated with the project compared to existing conditions.[108]

To provide for a conservative analysis, mobile-source emissions were calculated for an "unmitigated scenario" that captures the benefits of the site's proximity to transit and other compatible land uses, but does not include a project-specific TDM program. The "mitigated scenario" includes emissions reductions from vehicle trip reductions, as required by AB 900, and as monitored and enforced via implementation of Mitigation Measure AQ-2h, Enhanced Transportation Demand Management Program. Under this scenario, for interim project operations in 2025–2031, total vehicle trips and VMT were reduced by 24 percent (consistent with a non–single occupancy vehicle [SOV] mode share of 55 percent), and for full-buildout project operations in 2032, total vehicle trips and VMT were reduced by 27 percent (consistent with a non-SOV mode share of 65 percent).

Electric Vehicle Chargers

The analysis quantified the emissions benefit of providing on-site EV charging stations for 10 percent of the total number of parking spaces, which equals 656 spaces. Convenient access to EV chargers is expected to encourage EV use, thereby replacing emissions of criteria pollutants from conventional fossil-fueled vehicles.

The benefit of the project chargers was calculated by determining the average EV VMT charged per charger each day, and calculating the displaced VMT associated with gasoline light-duty vehicles that the EVs would replace. According to Chargepoint and the National Renewable Energy Laboratory, each charger has a charge rate of 6.25 kilowatt-hours (kWh) per hour[109] and the fuel economy of EVs is 0.25 kWh per mile,[110] resulting in 25 EV range miles per hour of charging.

It was assumed that each residential charger is used 2 hours per day (representing 50 EV miles traveled per day per home) for 365 days per year, and each non-residential charger is used 8 hours per day (representing 200 EV miles traveled per day per charging space) for 240 days per year. Total EV VMT was calculated using this method and compared to the project-level EV VMT assumed in the EMFAC2017 model through business-as-usual EV fleet penetration over time.

Only the net new EV VMT for the proposed project beyond the EMFAC business-as-usual EV fleet penetration was quantified for emission reductions. This approach only accounted for emissions reductions from EV charger use that would occur as a result of the project; it excluded the reductions from the charger use that would be expected to occur with default EV fleet

[108] The net new VMT is calculated as the difference between the future Project VMT and the future No-Build VMT.
[109] Chargepoint, *Level Up Your EV Charging Knowledge*, March 2017. Available at https://www.chargepoint.com/blog/level-your-ev-charging-knowledge/. Accessed May 2020.
[110] National Renewable Energy Laboratory, *California Plug-In Electric Vehicle Infrastructure Projections: 2017–2025* (Table C.1), August 2018. Available at https://www.nrel.gov/docs/fy18osti/70893.pdf. Accessed May 2020.

penetration, as embodied in the EMFAC2017 model. Refer to Appendix C1 for additional information on this quantification method.

Stationary Sources

Central Utility Plant

On-site central utility plants would be located within the infrastructure zones, as denoted in Chapter 2, *Project Description*, Figure 2-9. There would be two infrastructure zones, one in the southwest portion of the site and one in the northern portion of the site. The project's phasing strategy may require a satellite or temporary thermal-only central utility plant, to be included within the site northeast of Los Gatos Creek, and east of Santa Clara Street. The infrastructure zones would contain central utility plants that would provide heating and cooling through an on-site district systems approach. The utility plants would be operated on electricity from the grid and would, therefore, not be a direct source of air pollutant emissions. The utility plants would also house mechanical, thermal, power, water reuse, and supporting equipment to serve the project site using electricity from the grid.

Cooling towers would be required to service the central utility plants. Cooling towers emit PM when the total dissolved solids in the circulating water that are carried out with the water are entrained in the air being discharged from the tower. PM emissions were calculated based on the total full load flow of 30,272 gallons per minute (representing a cooling tower load of 18,920 HVAC tons) for all cooling towers at the project site (including those used outside of the CUPs), using the AP-42 and BAAQMD Permit Handbook emission calculation methods.[111,112]

PM emissions from the cooling towers were calculated assuming that the total dissolved solids in circulating water would be 166.7 ppm (based on a limit of 1,000 ppm after filtration and six cycles of concentration), the annual operating time at full load would be 2,100 hours per year, and the drift loss would be 0.005 percent. The low drift loss value assumes that drift eliminators would be installed at all cooling towers. The analysis conservatively assumes that both cooling towers would be operational in 2028 at the end of Phase 1.[113] The cooling towers are not expected to produce emissions of VOCs or other criteria pollutants.[114]

Additional Cooling Towers

In addition to the cooling towers at the central utility plants, four cooling towers at the project site would provide HVAC service on parcels C1, D1, E3, and F5 as well as a temporary cooling tower

111 U.S. Environmental Protection Agency, *AP 42, Fifth Edition, Volume I, Chapter 13: Miscellaneous Sources, Section 13.4 Wet Cooling Towers*, January 1995. Available at https://www3.epa.gov/ttn/chief/ap42/ch13/index.html. Accessed May 2020.

112 Bay Area Air Quality Management District, *Permit Handbook*, 11.4 Cooling Towers, October 23, 2018.

113 If additional cooling towers are required, the impact to air quality would not be substantial as emissions from cooling towers are minimal relative to total project emissions.

114 According to the South Coast Air Quality Management District, "VOC emissions typically result from the leakage from process heat exchangers that service hydrocarbon (HC) process streams as well as from chemical treatment with VOC containing material added to the circulating water. VOC emissions are expected from cooling towers used in refineries and chemical plants, where the circulating water is used to cool down the process stream. VOC emissions are not expected from cooling towers used in Heating, Ventilating, and Air Conditioning (HVAC) and other industries such as power plant facilities, high rise buildings, hotels, hospitals, etc.)." South Coast Air Quality Management District, *Guidelines for Calculating Emissions from Cooling Towers*, November 2019. Available at https://www.aqmd.gov/docs/default-source/planning/annual-emission-reporting/guidelines-for-calculating-emissions-from-cooling-towers---november-2017-final.pdf?sfvrsn=12. Accessed May 2020.

located on parcel E1. PM emissions from these cooling towers were estimated as described above. The total flow of all cooling towers, including those at the central utility plants, would be 30,272 gallons per minute (representing a total cooling tower load of 18,920 HVAC tons).

Wastewater Treatment Plant

The wastewater treatment plant would produce odors from the nature of the wastewater treatment processes. The two proposed water reuse facilities (WRFs) would be enclosed within the central utility plant, would be soundproofed to alleviate potential noise issues, and would include appropriate odor controls (air blowers and odor control units [e.g., carbon filters]) to manage any objectionable odors that may be experienced in the project vicinity. Further, wastewater treatment plant odors are subject to the jurisdiction of BAAQMD. Therefore, the analysis includes a qualitative discussion of potential odor impacts and any project design odor control features. The wastewater treatment plant would not produce emissions of criteria pollutants or TAC emissions, and was therefore not modeled as an air pollutant source.

Emergency Generators

The analysis assumes that there would be a total of 47 emergency diesel generators on the project site, or approximately one in each building more than 75 feet in height and would wither be roof-mounted or the exhaust would be vented to the building roof. Emergency generators would provide building electricity to life safety systems such as elevators and fire pumps in the event of a power outage. Phase 1 would include 26 generators, Phase 2a would have 9, Phase 2b would have 5, and Phase 3 would have 7 generators. Generators must be tested monthly, and would be permitted to operate annually for no more than 50 hours per year for testing and maintenance purposes, typically for 2 hours on one day each month. It was assumed that each generator would have a power rating of 650 kilowatts, or 872 horsepower and would operate for 50 hours each year. The project applicant would be required to obtain a permit from BAAQMD to operate each generator.

Charbroilers

Given the estimated 500,000 gross square feet of active uses, the project assumes the installation and operation of five restaurant charbroilers on Parcels F1, D10, H4, D4, and C1. VOC and PM emissions were calculated for commercial cooking operations using an estimated quantity of meats cooked per restaurant with charbroilers, based on restaurant survey data from the San Joaquin Valley Air Pollution Control District.[115] Commercial restaurant operations would be consistent with BAAQMD Regulation 6, Rule 2, Commercial Cooking Equipment, which regulates emissions of PM_{10} and organic compounds from charbroilers.

Area Sources

The development program proposes various land uses including offices, residential units, district systems and logistics, limited-term corporate accommodations, retail and other active uses, a hotel, and event/conference space. These uses would generate building-related operational emissions of criteria air pollutants from area sources including architectural coating, consumer products, and landscaping equipment. As described in Chapter 2, *Project Description*, the project

[115] San Joaquin Valley Air Pollution Control District, *Final Draft Staff Report: Rule 4692 (Commercial Charbroiling)*, 2002. Available at https://planning.lacity.org/eir/8150Sunset/References/4.B.%20Air%20Quality/AQ.14_SJVAPCD%20Charbroiling%20EF%20by%20Meat.pdf. Accessed March 2020.

is being planned and designed to achieve LEED ND Gold Certification. Although the exact strategies that would be used to accomplish this certification have not been identified with specificity, the project would integrate low-impact development, transportation demand management, energy efficiency, water conservation, and other green building practices.

Odors

As indicated in the significance criteria above, CEQA Guidelines Appendix G recommends the following significance threshold for odor impacts: *Would a project create objectionable odors affecting a substantial number of people?* The proposed project would include siting of a new source of potentially objectionable odors associated with the wastewater treatment facility. For this EIR, the analysis of the change in odor conditions associated with solids handling involved assessing whether the wastewater treatment facility and operations would generate objectionable odors and, if so, based on design features, whether the proposed project's odor conditions (a) would likely worsen or improve existing conditions and (b) would likely affect a substantial number of people. In addition, this analysis is necessary to comply with General Plan Policy MS-12.1, which requires "an analysis of possible odor impacts and the provision of odor minimization and control measures as mitigation."

Local Health Risk Methods

Provided as Appendix C2 to this EIR, the HRA prepared for the project focuses on $PM_{2.5}$ and TACs because these pollutants pose potential significant health impacts at the local level.[116] The methods for the TAC analysis were based on the most recent BAAQMD *Recommended Methods for Screening and Modeling Local Risks and Hazards*, which recommends the use of EPA's American Meteorological Society/EPA Regulatory Air Dispersion (AERMOD) model, along with the most recent BAAQMD *Health Risk Assessment Guidelines*.[117,118] The HRA also follows the most recent (2015) *Air Toxics Hot Spots Program Risk Assessment Guidelines* from OEHHA.[119]

This analysis calculates the incremental increase in lifetime cancer risk, chronic health impacts, and annual average $PM_{2.5}$ concentrations resulting from project construction and operations to estimate project-specific and cumulative health risks. These calculations are based on the emissions calculation methods identified above, annual average pollutant concentrations from AERMOD, and dose and risk calculations from OEHHA and BAAQMD, as discussed below.

The HRA examines all existing sensitive land uses, such as residences, within 1,000 feet of the project boundary and in the vicinity of nearby freeways, and, because of the sensitivity to TAC

---

116 Bay Area Air Quality Management District, *California Environmental Quality Act Air Quality Guidelines*, May 2017, p. C-16. Available at https://www.baaqmd.gov/~/media/files/planning-and-research/ceqa/ceqa_guidelines_may2017-pdf.pdf?la=en. Accessed January 13, 2020.

117 Bay Area Air Quality Management District, *Recommended Methods for Screening and Modeling Local Risks and Hazards*, May 2012. Available at http://www.baaqmd.gov/~/media/files/planning-and-research/ceqa/risk-modeling-approach-may-2012.pdf?la=en. Accessed January 14, 2020.

118 Bay Area Air Quality Management District, *BAAQMD Air Toxics NSR Program Health Risk Assessment Guidelines*, December 2016. Available at http://www.baaqmd.gov/~/media/files/planning-and-research/permit-modeling/hra_guidelines_12_7_2016_clean-pdf.pdf. Accessed March 2020.

119 Office of Environmental Health Hazard Assessment, *Air Toxics Hot Spots Program Guidance Manual for the Preparation of Health Risk Assessments*, February 2015. Available at http://oehha.ca.gov/air/hot_spots/hotspots2015.html. Accessed February 5, 2020.

exposure in early life, all existing schools and childcare centers within 2,500 feet of the project boundary. The project would create new sensitive receptors, primarily residential and childcare uses on-site, that would be exposed to TAC emissions from later phases of construction; these were also considered. Figure 3.1-1 presents the sensitive receptors considered as part of the HRA. For each exposure scenario (as described below) and health risk type (incremental increase in lifetime cancer risk, chronic health impacts, and annual average $PM_{2.5}$ exhaust concentrations), the HRA identifies the maximally exposed individual receptor (MEIR) for determining the impacts of the project. The MEIR represents the receptor location with the greatest health risk. Refer to Appendix C1 for specific locations of existing and proposed on-site residential uses.

Concentrations of Toxic Air Contaminants

The HRA evaluates health risks and effects of $PM_{2.5}$ concentrations resulting from the project on the surrounding community, as well as on receptors on the project site that would be occupied during construction of other phases. Emission sources would include construction emissions over the course of buildout, traffic from project operations, including heavy-duty delivery truck travel and idling, and stationary sources (emergency generators, transportation refrigeration units [TRUs], cooling towers, and charbroilers). All of these sources were modeled in the HRA. The methods used to evaluate emissions for the project and cumulative HRA are based on BAAQMD's most recent *Recommended Methods for Screening and Modeling Local Risks and Hazards* and the most recent *Air Toxics Hot Spots Program Risk Assessment Guidelines*.[120,121] The HRA modeling information is provided in detail in Appendix C1.

The cancer risk analysis in the HRA is based on construction DPM concentrations from off-road diesel construction equipment and on-road diesel haul trucks; operational DPM concentrations from the emergency generators; operational TAC emissions from the five restaurant charbroilers; and DPM concentrations from delivery truck travel and idling, including TRU operations. Construction haul routes were modeled within the modeling radius to capture impacts for all modeled receptors. The area along the haul route, nearest to the project site, would present the higher impact because of the contributions from both on-site and off-site project construction sources. The modeled haul routes are presented in **Figure 3.1-2**.

Volatile organic TAC emissions speciated from evaporative and exhaust TOGs from on-road emissions from gasoline vehicles during operations were also included in the cancer risk analysis. The speciation profiles were developed using CARB's databases.[122] TAC concentrations were estimated using EPA's preferred model, AERMOD.[123]

---

120 Bay Area Air Quality Management District, *Recommended Methods for Screening and Modeling Local Risks and Hazards*, May 2012. Available at http://www.baaqmd.gov/~/media/Files/Planning%20and%20Research/CEQA/Risk%20Modeling%20Approach%20May%202012.ashx?la=en. Accessed February 5, 2020.

121 Office of Environmental Health Hazard Assessment, *Air Toxics Hot Spots Program Guidance Manual for the Preparation of Health Risk Assessments*, February 2015. Available at http://oehha.ca.gov/air/hot_spots/hotspots2015.html. Accessed February 5, 2020.

122 California Air Resources Board, Speciation Profiles Used in ARB Modeling. Available at https://ww3.arb.ca.gov/ei/speciate/speciate.htm.

123 U.S. Environmental Protection Agency, Support Center for Regulatory Atmospheric Modeling (SCRAM), Air Quality Dispersion Modeling—Preferred and Recommended Models, 2019. Available at https://www.epa.gov/scram/air-quality-dispersion-modeling-preferred-and-recommended-models. Accessed February 5, 2020.

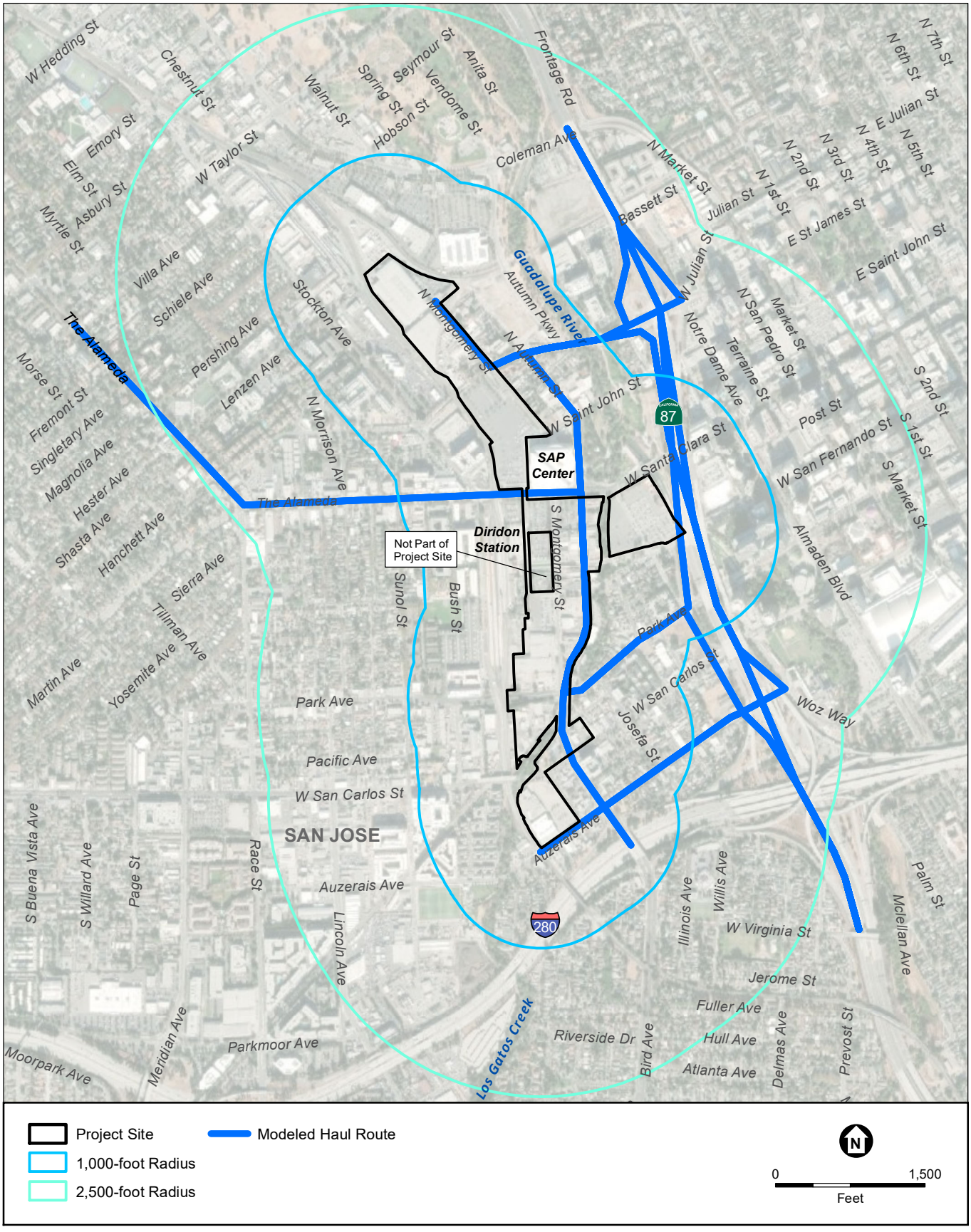


Figure 3.1-2
Modeled Construction Haul Routes

Annual average $PM_{2.5}$ concentrations for construction were estimated based on exhaust emissions from off-road diesel construction equipment and both exhaust emissions and fugitive dust emissions (road dust, tire wear, and brake wear) from on-road diesel haul trucks, vendor trucks, and worker trips. Annual average $PM_{2.5}$ concentrations for operations were estimated based on exhaust emissions from all fuel combustion sources, such as emergency generators, charbroilers, and delivery vehicles, as well as fugitive emissions from cooling towers, tire wear, brake wear, and road dust from mobile sources.

For details regarding terrain and land use considerations, emission rates, source parameters, and risk characterization methods applied in the assessment, refer to Appendix C1.

Sensitive Receptors

As discussed in Section 3.1.1, *Environmental Setting*, to evaluate health impacts on new on-site and existing off-site receptors, potential new on-site and nearby existing off-site sensitive receptor populations were identified. For new on-site sensitive receptors, it was assumed that any building or parcel identified as residential would have residential child receptors. Two parcels (H2 and H3) were assumed to have childcare receptors and are designated for this use in the Downtown West Design Standards and Guidelines. Existing off-site sensitive receptors included residences, schools, childcare centers, nursing homes, and hospitals near the project site. These locations were modeled as discrete locations.

Workers are not considered sensitive receptors because they have other legal protections, including regulations set forth by the Occupational Safety and Health Administration. These protections guarantee the health and safety of workers; therefore, potential worker health risks are not evaluated in the HRA, per the BAAQMD CEQA Guidelines.[124]

Homeless individuals who may be temporarily living in the project area were also not considered sensitive receptors for the purposes of this analysis. Because their locations are not known, it would be speculative to assume the long-term presence of individual homeless receptors at any given location in the modeling domain. In addition, cancer risk is evaluated over a lifetime exposure of 30 years, and it is unlikely that any homeless individual would remain present near the project site for a full 30 years.

The HRA does include numerous sensitive-receptor locations near and adjacent to the project site. These nearby locations would likely capture the worst-case exposure of any nearby sensitive receptor.

Existing sensitive receptors include residential locations modeled using fine-grid spacing of 66 feet (20 meters) within 1,000 feet of the project site, as well as discrete receptors placed at schools and childcare centers located up to 2,500 feet from the project site boundary. The areas of the project site that could potentially develop into residences were assessed as a potential sensitive receptor area using a fine receptor grid, consistent with the San Francisco Citywide

[124] Bay Area Air Quality Management District, *California Environmental Quality Act Air Quality Guidelines*, May 2017, p. C-16. Available at https://www.baaqmd.gov/~/media/files/planning-and-research/ceqa/ceqa_guidelines_may2017-pdf.pdf?la=en. Accessed January 13, 2020.

HRA database, as documented in the draft *San Francisco Citywide Health Risk Assessment: Technical Support Documentation*.[125,126]

Exposure Assessment

Exposure assessment guidance assumes that people in residences would be exposed to air pollution 24 hours per day, 350 days per year, for 30 years as the basis for calculating cancer risk in all HRAs. The child in childcare is assumed to be exposed for 6 years, 8 hours per day and 5 days per week. The schoolchild is assumed to be exposed for 9 years, 8 hours per day and 5 days per week.[127]

The exposure rate for the residential receptors is generally more conservative than those for other sensitive receptor types (i.e., schoolchildren, children in childcare, and patients) because residents have the highest exposure frequency, exposure time, and exposure duration.[128] Thus, the air pollutant exposure to residents typically results in the greatest adverse health outcome for all population groups. It also represents a highly conservative assessment, as the typical resident spends time away from the residence.

TAC exposure and resulting health risks were quantified for residents, childcare centers, and students for the project, using three exposure scenarios to determine the MEIR location. These three scenarios are needed to identify the sensitive receptor location where maximum health risk values would occur because TAC emissions vary substantially with each year of construction and operation. Each scenario was evaluated under a "worst-case" exposure start date.

A worst-case exposure start date represents the highest impact of construction emissions on the more sensitive age groups of third trimester to age 2. Therefore, for example, a receptor that starts its exposure in different years would experience different health risks, based on the amount of construction equipment in use, haul truck trips nearby, etc. These three exposure scenarios are as follows:

- **Scenario 1: Off-Site Receptors—Construction Plus Operations.** The analysis of Scenario 1 assumes that off-site receptors (residents, childcare centers, and schools) would be present near the project site. Consistent with OEHHA guidance, the cancer risk analysis for off-site receptors starts by assuming that a fetus in its third trimester could be

[125] San Francisco Department of Public Health, San Francisco Planning Department, and Ramboll, *Draft San Francisco Citywide Health Risk Assessment: Technical Support Documentation*, February 2020. Available at https://www.sfdph.org/dph/files/EHSdocs/AirQuality/Air_Pollutant_Exposure_Zone_Technical_Documentation_2020.pdf. Accessed March 2020.

[126] Modeling methods from the San Francisco Citywide HRA were used because these are the most recent and comprehensive HRA methods used for any jurisdiction within BAAQMD, and because they follow BAAQMD modeling and risk assessment protocol.

[127] Office of Environmental Health Hazard Assessment, *Air Toxics Hot Spots Program Guidance Manual for the Preparation of Health Risk Assessments*, February 2015. Available at http://oehha.ca.gov/air/hot_spots/hotspots2015.html. Accessed February 5, 2020.

[128] For example, residents are assumed to be exposed for 30 years, as compared to the child in childcare who is assumed to be exposed for 6 years; resident children are assumed to be exposed 24 hours a day, 7 days a week, as compared to the childcare child, who is assumed to be exposed 8 hours a day, 5 days a week.

present when construction begins for Phase 1.[129] Impacts under Scenario 1 were evaluated at different exposure start dates during the construction years to determine when maximum exposure would occur. For cancer risk, a total exposure of 30 years was evaluated, beginning at the "worst-case" start date,[130] and continuing through the remainder of the construction phases, plus the interim operational buildout years from 2028 to 2031 into the full operational conditions. For chronic HI and annual average $PM_{2.5}$ concentrations, the maximum annual values for each Scenario 1 off-site receptor location was identified.

- **Scenario 2: On-Site Receptors—Construction Plus Operations.** The analysis of Scenario 2 assumes that on-site receptors (residents) would be present at the project site after partial construction. For cancer risks, the analysis of on-site receptors starts by assuming that a fetus in its third trimester would be present when construction of any on-site residential uses is completed and occupancy can begin. This occurs throughout the construction duration starting in 2025. Similar to Scenario 1, impacts were evaluated at different exposure start dates during the construction years to determine when maximum (i.e., "worst-case") exposure would occur. For cancer risks, the duration of exposure to construction emissions would vary by unit, and then the on-site receptor would be exposed to operational emissions for a total exposure of 30 years beginning as early as 2028. For chronic HI and annual average $PM_{2.5}$ concentrations, the maximum annual values for each Scenario 2 on-site receptor location was identified.
- **Scenario 3: Off-Site and On-Site Receptors Operations.** The analysis of Scenario 3 assumes that off-site receptors (residents, childcare centers, and school) and on-site receptors (residents and childcare centers created as part of the project) would be present at the project site. For cancer risks, the analysis of receptors starts by assuming that a fetus in its third trimester would be present when construction for all phases concludes in 2032 and would be exposed to operational emissions for full project buildout (2032–2062), for a total exposure of 30 years. For cancer risks, Scenario 3 represents a full 30-year operational exposure to document lifetime exposure of residents to full project buildout emissions once construction is complete. For chronic HI and annual average $PM_{2.5}$ concentrations, the maximum annual values for each Scenario 3 off-site and on-site receptor location was identified.

As discussed above for criteria air pollutants, the TAC emissions (and exposure) provided in this analysis are based on generally conservative assumptions, including the expectation that a relatively large amount of construction would take place during a relatively intensive and overlapping schedule. Because of this conservative assumption, actual TAC emission rates and sensitive receptor exposure during construction could be less than those estimated in this analysis. Should construction be delayed or occur over a longer period, extending beyond 2031, TAC emissions could be reduced because of a newer and cleaner-burning construction equipment fleet mix. TAC exposure could be reduced because of a less intensive and overlapping buildout schedule (i.e., fewer daily TAC emissions occurring over a longer period, spreading exposure into less susceptible, older sensitive receptor age groups).

[129] Office of Environmental Health Hazard Assessment, *Air Toxics Hot Spots Program Guidance Manual for the Preparation of Health Risk Assessments*, February 2015. Available at http://oehha.ca.gov/air/hot_spots/hotspots2015.html. Accessed February 5, 2020.

[130] The "worst-case" start date was determined by calculating the maximum incremental increase in lifetime cancer risks for all receptors starting each year from the start of construction in 2021 through the end of construction. The exposure start year that produces the highest risk is presented in this EIR.

Health Risk Calculations

The health risk calculations used in the HRA for the project are summarized below. Refer to Appendix C1 for additional supporting technical information regarding the HRA.

Cancer Risk

The HRA evaluated the incremental increase in lifetime cancer risk as a result of exposure to both construction and operational emissions. These lifetime "excess" cancer risks were estimated as the upper-bound incremental probability that an individual will develop cancer over a lifetime as a direct result of exposure to potential carcinogens.

The estimated risk is expressed as a probability. The cancer risk of a specific chemical was calculated by multiplying the chemical intake or dose from human inhalation by the chemical's cancer potency factor. The incremental increase in lifetime cancer risk is based on DPM emissions from construction sources (off-road diesel construction equipment and on-road diesel hauling trucks) and operational sources (diesel emergency generators, TRU idling), and speciated TOG emissions from operational gasoline vehicles.[131] For operational traffic, TAC emissions were included for gasoline vehicles, including from running exhaust; fugitive fuel vapor sources, including running loss processes; and fugitive particulate sources, including tire wear, brake wear, and re-entrained road dust. Other operational sources of particulates include cooling towers and charbroilers. Under California regulatory guidelines, DPM is used as a surrogate measure of exposure for the mixture of chemicals that make up diesel exhaust as a whole. This analysis was based on the surrogate approach for DPM emissions, as recommended by the California Environmental Protection Agency.[132]

Lifetime excess cancer risk from exposure to DPM occurs exclusively through inhalation, so only the inhalation pathway was considered in the HRA. Other pollutants, such as toxic organic gases that result from the use of gasoline, were assessed through the inhalation pathway as well. Estimated excess cancer risks were calculated using the sensitivity factors and breathing rates recommended by OEHHA.[133]

For the purposes of this analysis, all off-site and on-site residents, adults and children, were assumed to be present at one location for 30 years, consistent with OEHHA guidance. Exposure assessment for childcare centers and schools followed OEHHA and BAAQMD guidance and methods.[134] The duration of exposure for childcare centers and schools is dependent on the age range of the students; for example, for a kindergarten to sixth grade school, exposure duration could be up to 8 years.

Chronic Health Impacts

The non-cancer effects of chronic (i.e., long-term) exposure to DPM and other TACs were evaluated using the HI approach, consistent with OEHHA guidance. The chronic HI is calculated

[131] Refer to Appendix C1 for a list of TACs.
[132] Refer to Appendix C1 for a list of TACs.
[133] Refer to Appendix C1 for a list of TACs.
[134] Bay Area Air Quality Management District, *Air Toxics NSR Program Health Risk Assessment Guidelines*, December 2016. Available at https://www.baaqmd.gov/~/media/files/planning-and-research/permit-modeling/hra_guidelines_12_7_2016_clean-pdf.pdf?la=en. Accessed February 5, 2020.

by dividing the maximum modeled annual average concentration at the maximum impacted receptor by the REL. The REL is the concentration at or below which no adverse health effects are anticipated.

RELs for DPM and TACs were obtained from OEHHA and BAAQMD. For example, OEHHA has recommended an ambient concentration of 5 $\mu g/m^3$ as the chronic inhalation REL for DPM exhaust. Chronic inhalation RELs for TACs from tailpipe and evaporative TOG emissions were based on BAAQMD's weighted toxicity calculation methods and the latest data in CARB's Hotspots Analysis and Reporting Program database.[135]

$PM_{2.5}$ Concentrations

The HRA also analyzes annual average $PM_{2.5}$ concentrations resulting from exposure to both construction-related and operational emissions. The exposure assessment considers $PM_{2.5}$ exhaust emissions from construction and $PM_{2.5}$ exhaust and fugitive emissions from operations. These concentrations represent the annual average concentration from all sources each year of project construction and operation at each sensitive receptor location. The $PM_{2.5}$ annual concentration presented is the highest annual year for the MEIR location.

Cumulative Health Risk Assessment Impacts

For each exposure scenario, the cumulative HRA tabulates the impact of project-related risks plus off-site sources (stationary and mobile) near the locations of the maximally impacted off-site and on-site sensitive receptors. BAAQMD recommends that the cumulative health risk analysis include other air emissions sources within a "zone of influence" of 1,000 feet surrounding the project site. As such, this evaluation identifies all sources within 1,000 feet of the project boundary. Because mobile sources follow pathways along the roadway network, some of the mobile-source links included in the modeling extend past the 1,000-foot zone of influence to ensure that their impacts would be captured for all receptor locations within the modeling domain. Additionally, since there are permitted stationary sources beyond the 1,000-foot zone of influence, the modeling includes permitted stationary sources at an approximate radius of 1,500 feet.

In addition to the evaluation of each single source, the combined health risks from all TAC and $PM_{2.5}$ sources were evaluated. Sources evaluated included any BAAQMD-permitted stationary source, roadways with more than 10,000 vehicles per day, and any other major source of emissions within the zone of influence such as railways.

BAAQMD provides tools for screening background health risk impacts for stationary sources, roadways and highways; however, these tools use emissions factors from EMFAC2014, which has been superseded by EMFAC2017. Because EMFAC2017 is more recent and often results in higher calculated emissions, it was used for the cumulative HRA instead of the BAAQMD screening tools.

The cumulative impact analysis specifically modeled the following off-site TAC emissions sources to determine health risks at the project-level MEIRs identified in the HRA: railyards and

[135] California Air Resources Board, *HARP Air Dispersion Modeling and Risk Tool*, May 2019. Available at https://ww2.arb.ca.gov/resources/documents/harp-air-dispersion-modeling-and-risk-tool. Accessed May 2015.

locomotives, including activity at the San José Diridon Station from Caltrain, Altamont Corridor Express (ACE), and Amtrak locomotives; permitted stationary sources, including auto body shops, a coffee roaster, backup generators, and gasoline dispensing facilities; and on-road mobile sources, including Interstate 280, State Route 87, and surface streets such as West Santa Clara Street.

Caltrain, ACE, and Amtrak emissions were estimated based on current public schedules and future projections.[136,137] Data on Union Pacific Railroad traffic through Diridon Station are less accessible by the public. Emissions were estimated using the 2018 fleet percentage, as reported to CARB under the Rail Emissions Reduction Agreement, and by acquiring information from the Peninsula Corridor Electrification Project EIR.[138,139] Mobile-source emissions from the rail routes and emissions from idling at Diridon Station were incorporated into the dispersion model and risk at the MEIRs was assessed.

Similarly, emissions from on-road mobile sources were estimated using traffic data for existing conditions and modeled in AERMOD to determine the impacts at the MEIR locations. Consistent with BAAQMD CEQA guidelines for cumulative analyses, emissions from roadways with an existing annual average daily traffic volume of 10,000 vehicles or roadways within 1,000 feet of the project site were calculated and subsequently modeled in AERMOD to determine associated TAC concentrations at MEIR locations. Existing conditions (2018) traffic volumes on all nearby roadway segments were used in the cumulative assessment. This traffic was assumed to remain constant through the entire exposure duration of 30 years for each modeled receptor. Mobile emission factors from EMFAC2017 for the year 2021 were used for all years of exposure through 2062. This is a simplified method for calculating the incremental increase in lifetime cancer risk and is highly conservative, because vehicle emission rates decline steadily over time due to fleet turnover, more stringent vehicle fleet emission standards, and technology improvements.

For permitted stationary sources, because of the variation in sources, and because data on source parameters are not readily available, an approach akin to the BAAQMD screening tools was implemented. Risk values for each permitted stationary source within 1,500 feet of the project boundary were provided by BAAQMD. BAAQMD's Health Risk Calculator with Distance Multipliers was used to determine the impact from each permitted station source onto the MEIRs.[140]

Cumulative major development projects (including Bay Area Rapid Transit [BART], Caltrain Modernization, and new development under the proposed DSAP Amendment) and other smaller nearby cumulative projects were evaluated to determine whether their health risk impacts would

[136] Capital Corridor Joint Powers Authority, *Capitol Corridor Train Schedule, Weekdays*, Effective October 28, 2019.
[137] Peninsula Corridor Joint Powers Board, *Peninsula Corridor Electrification Project EIR*, 2014, Section 3.2, *Air Quality*. Available at http://www.caltrain.com/Assets/Caltrain+Modernization+Program/FEIR/3.2+Air+Quality.pdf. Accessed June 2020.
[138] California Air Resources Board, *2018 UP Locomotive Summary*, 2018. Available at https://ww2.arb.ca.gov/resources/documents/rail-emission-reduction-agreements. Accessed February 2020.
[139] Peninsula Corridor Joint Powers Board, *Peninsula Corridor Electrification Project EIR*, 2014, Section 3.2, *Air Quality*. Available at http://www.caltrain.com/Assets/Caltrain+Modernization+Program/FEIR/3.2+Air+Quality.pdf. Accessed June 2020.
[140] Bay Area Air Quality District, *Health Risk Calculator with Distance Multipliers*, 2020. Available at https://www.baaqmd.gov/~/media/files/planning-and-research/ceqa/tools/baaqmd-health-risk-calculator-beta-4-0-xlsx.xlsx?la=en. Accessed June 2020.

contribute to the health risks of the project MEIR. For each cumulative project with available data, the individual project locations and MEIR health risk results (as reported in their respective CEQA documents) were scaled based on distance and added to the health risk results for the proposed project MEIR locations, where applicable. BAAQMD's Health Risk Calculator with Distance Multipliers was used to scale the cumulative project health risks to the project-level MEIR locations, to estimate the health risk from each cumulative project at the project-level MEIR locations.[141]

A cumulative analysis was completed for the MEIRs produced under mitigated conditions for all three scenarios.

Cancer Burden

As an informational assessment, this EIR includes a cancer burden analysis. The cancer burden is the estimated increase in the occurrence of total cancer cases in a population as a result of exposures to TAC emissions from the proposed project. Cancer burden analyses are commonly performed for industrial facilities subject to the State's Air Toxics "Hot Spots" Information and Assessment Act (AB 2588, 1987), and OEHHA has developed applicable guidelines. The BAAQMD does not have a regulatory procedure, specific requirements, or CEQA threshold for analyzing cancer burden resulting from mixed-use development projects. Nonetheless, this analysis was conducted to provide additional context to the health risk assessment results discussed above. An estimate of the number of people exposed at various cancer risk levels can provide perspective on the magnitude of the potential public health impact posed by a project or other TAC sources. A project in a sparsely populated area can have a public health impact different from the health impact of the same project in a highly populated area.

The purpose of a cancer burden analysis is to calculate population-wide total cancer cases. This differs from the individual incremental increase in lifetime cancer risk typically calculated as part of a standard HRA, which is generally reported in terms of risk per million individuals. In other words, the HRA identifies the MEI and presents the single worst-case incremental increase in cancer risk to one person, while cancer burden is the population-weighted cancer risk and represents the total anticipated cancer cases in an exposed population. The exposed population is defined as the number of persons within a facility's zone of impact (ZOI), which is defined as the area exposed to an incremental increase in lifetime cancer risk of one in a million from the project. Another difference between a cancer burden analysis and a probabilistic HRA is that OEHHA recommends cancer burden calculations provide an estimate of the increased number of total cancer cases in a given population as a result of exposures to TAC emissions over a 70-year duration.[142]

The total cancer burden is the product of the number of persons in a population area (such as a census tract) and the estimated maximum individual incremental increase in lifetime cancer risk

[141] Bay Area Air Quality District, *Health Risk Calculator with Distance Multipliers*, 2020. Available at https://www.baaqmd.gov/~/media/files/planning-and-research/ceqa/tools/baaqmd-health-risk-calculator-beta-4-0-xlsx.xlsx?la=en. Accessed June 2020.

[142] Because the ZOI is limited to those locations at which increased cancer risk due to the project over a 70-year lifetime would be one in million or greater, the geographic area of the ZOI encompasses only the project vicinity and does not extend to locations where increased cancer risk would be less than one in one million.

from TACs in that geographic boundary, summed over all of the population areas (or census tracts) studied.

The incremental increase in 70-year lifetime cancer risk from mitigated project-related TAC emissions was estimated at the geographical center (centroid) of census tracts. The census tract receptors have populations assigned to each based on census data.[143] The expected residential population growth associated with the proposed project is added to the census tract receptors located at the project site. The study area for the HRA, which represents the geographic resolution and potentially exposed population to the proposed project's TAC emissions, was determined based on a number of factors including the project site, the surrounding sensitive population locations, and professional judgment.[144] From the census data, the total population analyzed in the study area is currently 53,227 people. The expected population growth attributable to the proposed project is 12,958 people, for a total analyzed population of 66,185 at full project buildout within the HRA study area. The total population within the ZOI is somewhat less, with a total of 38,916 people at buildout, 33 percent of which is project-related growth in residential population.

The worst-case mitigated construction and operational emissions were used in the cancer burden analysis. Because proposed project construction spans a large period of time (approximately 11 years from 2021 through 2032), the incremental increase in lifetime cancer risk was evaluated with different exposure start years to determine each sensitive receptor's maximum cancer risk. As a conservative approach, full buildout operational emissions were applied starting in 2025 (the proposed project is anticipated to be fully built out in 2032). The maximum incremental increase in lifetime cancer risk for each receptor was applied to the total exposed population within the ZOI to calculate the worst-case mitigated cancer burden of the proposed project.

Minimum Efficiency Reporting Value (MERV) 13 Air Filtration

MERV 13 filters have a removal efficiency of 90 percent for particles ranging from 1 to 3 microns and less than 75 percent for particles ranging from 0.3 to 1 microns.[145,146] The BAAQMD's Planning Healthy Places guidance indicates that MERV 13 air filtration devices installed on an HVAC air intake system can remove 80 to 90 percent of indoor particulate matter (greater than 0.3 microns in diameter).[147] MERV 13 filters are required to be installed in new homes built on the project site per the 2019 California Energy Code.

---

143 California Air Resources Board, *HARP Air Dispersion Modeling Tool*, May 1, 2019. Available at https://ww2.arb.ca.gov/resources/documents/harp-air-dispersion-modeling-and-risk-tool. Accessed July 2020.

144 Office of Environmental Health Hazard Assessment, *Air Toxics Hot Spots Program Guidance Manual for the Preparation of Health Risk Assessments*, February 2015. Available at http://oehha.ca.gov/air/hot_spots/hotspots2015.html. Accessed July 4, 2020.

145 American Society of Heating, Refrigerating, and Air-Conditioning Engineers, Inc., *Method of Testing General Ventilation Air-Cleaning Devices for Removal Efficiency by Particle Size*, 2007. ANSI/ASHRAE Addendum b to Standard 52.2-2007.

146 United States Environmental Protection Agency, Residential Air Cleaners: A Technical Summary, 3rd edition, August 2018. U.S. EPA 402-F-09-002. Available at https://www.epa.gov/sites/production/files/2018-07/documents/residential_air_cleaners_-_a_technical_summary_3rd_edition.pdf. Accessed August 2020.

147 Bay Area Air Quality Management District, Planning Healthy Places *A Guidebook for addressing local sources of air pollutants in community planning.* May 2016. Available at: http://www.baaqmd.gov/~/media/files/planning-and-research/planning-healthy-places/php_may20_2016-pdf.pdf?la=en. Accessed August 2020.

Based evidence documented in Appendix C2, new on-site residential and childcare buildings at the project site with MERV 13 filters installed would significantly reduce outdoor DPM and $PM_{2.5}$ concentrations for indoor occupants. Based on a thorough literature review, as discussed above, it is expected that these concentrations would be reduced by a minimum of 65 to 70 percent, and a maximum of 85 to 95 percent. Consequently, it was conservatively assumed that MERV 13 filters would reduce the total exposure of new on-site receptors to DPM and $PM_{2.5}$ concentrations by 60 percent. This is a conservative assumption because it represents the low range of particulate removal efficiency evidenced by recent studies, and doesn't account for the extremely low particulate matter infiltration rates through the building envelope of new construction.

Health Effects Assessment for Criteria Air Pollutants

In a 2018 decision (*Sierra Club v. County of Fresno*, 6 Cal.5th 502, also referred to as *Friant Ranch*), the California Supreme Court decided that CEQA requires disclosure of the potential for a project's emissions to affect human health when the project's criteria air pollutant emissions exceed applicable thresholds and contribute considerably to a significant cumulative impact. The decision requires EIRs to either (1) make a "reasonable effort" to substantively connect the estimated amount of a given air pollutant a project will produce and the health effects associated with that pollutant, or (2) explain why such an analysis is infeasible.[148]

However, the Court also clarified that CEQA "does not mandate" that EIRs include "an in-depth risk assessment" that provides "a detailed comprehensive analysis … to evaluate and predict the dispersion of hazardous substances in the environment and the potential for exposure of human populations and to assess and quantify both the individual and population wide health risks associated with those levels of exposure."[149]

Typically, the health impact of a particular criteria pollutant is analyzed by air districts on a regional scale, based on how close the area is to attaining the NAAQS. Because air districts' attainment plans and supporting air model tools are regional in nature, they are not typically used to evaluate the impacts of individual projects on ambient concentrations of criteria air pollutants, or to correlate those impacts to potential resultant effects on public health. The complex nature of criteria air pollutants' dispersion and the complex atmospheric chemistry (especially in the case of ozone and fine particulate matter) limit the usefulness of applying the available models to predict health impacts on a project level.

The accumulation and dispersion of air pollutant emissions within an air basin depends on the size and distribution of emission sources in the region and meteorological factors such as wind, sunlight, temperature, humidity, rainfall, atmospheric pressure, and topography. Various air districts in California agree that it is very difficult to quantify health impacts and that the specific tools and methods to use are still under development.

[148] 6 Cal.5th at 510–511.
[149] 6 Cal.5th at 521.

Nonetheless, it is recognized, for example, that health effects from ozone are correlated with increases in the ambient level of ozone in the air a person breathes.[150] Thus, to correlate the proposed project–related change in regional air emissions with specific types of health effects, regional-level tools were integrated into a quantitative health impacts assessment (HIA), where feasible, to provide information on possible health effects that may result from the project's emissions of criteria air pollutants.

The regional-level tools used included the Comprehensive Air Quality Model with extensions (CAMx) model and EPA's Environmental Benefits Mapping and Analysis Program–Community Edition (BenMAP-CE) model.[151,152] The current version of EPA's BenMAP-CE model only has health impact functions associated with ozone and $PM_{2.5}$; therefore, the quantitative HIA analyzed only those two pollutants quantitatively, and the other criteria pollutants were evaluated qualitatively. For this reason, it was infeasible to perform a quantitative analysis of other criteria air pollutant emissions based on existing modeling tools.

The HIA for the proposed project analyzed five data sets:

- Future No Project (base case);
- Future with Project without mitigation: both Interim Year 2029 and First Operation Year 2032; and
- Future with Project with mitigation: both Interim Year 2029 and First Operation Year 2032.

The modeling domain used for the HIA is the same one used by the BAAQMD for the 2016 AQMP. Data from the final modeling grid used by BAAQMD was used for the CAMx run. This final grid covered an area 740 by 740 kilometers, using a 4 km grid size and 185 by 185 cells. Appendix C3 presents a figure of the modeling domain.

Rates of ozone precursor and $PM_{2.5}$ emissions from operation of the proposed project were distributed spatially and temporally in the photochemical grid model, CAMx, to estimate the small increases in ozone and $PM_{2.5}$ concentrations in the region that would result from the proposed project's emissions. Meteorological data for the year 2016 were used to evaluate the dispersion of criteria pollutant emissions that can be compared to and validated against the 2016 AQMP modeling performed by BAAQMD.

A "base case" CAMx photochemical model was run using emissions inventory data from BAAQMD's 2016 AQMP efforts to represent pollutant dispersion and the corresponding health

[150] U.S. Environmental Protection Agency, *Health Effects of Ozone in the General Population*, last updated September 12, 2016, Figure 9. The number of emergency or urgent daily respiratory admissions to acute care hospitals is related to estimated ozone exposure. Available at https://www.epa.gov/ozone-pollution-and-your-patients-health/health-effects-ozone-general-population.

[151] U.S. Environmental Protection Agency, CMAQ: The Community Multiscale Air Quality Modeling System, last updated March 18, 2019. Available at https://www.epa.gov/cmaq. Accessed July 22, 2019.

[152] U.S. Environmental Protection Agency, Environmental Benefits Mapping and Analysis Program—Community Edition (BenMAP-CE), last updated August 17, 2017. Available at https://www.epa.gov/benmap/benmap-ce-manual-and-appendices. Accessed July 22, 2019.

effects (e.g., asthma-related or respiratory-related hospital admissions) for the proposed project area only, but without the contribution of the proposed project.[153] The project's ozone precursor and $PM_{2.5}$ emissions were then combined spatially and temporally with the BAAQMD emission inventory data and run in a second modeling run, as described below. The two sets of results were then compared to analyze the difference in health impacts and the corresponding contribution from project operation.

Daily $PM_{2.5}$, NO_X, and VOC emissions profiles for a maximum annual period were established by analyzing the estimated worst-case annual construction emissions and operational emissions at the project site. Fugitive dust emissions from both on-road and off-road sources were included in the construction calculations provided in Appendix C1. Fugitive dust from off-road activities were estimated using CalEEMod default values during material movement and grading; fugitive dust emissions from on-road vehicle travel were estimated using EMFAC2017 tire wear and brake wear emission rates, along with re-entrained road dust using CARB methods.[154] The interim year 2029 study included combined construction and operational emissions, and the year 2032 study included operational emissions from the first year of operations to conservatively generate the worst-case incremental concentrations that could be induced by the proposed project.

This analysis used the comprehensive construction and operational data provided in **Appendix C3** for the project. Background regional emissions were obtained from the BAAQMD 2016 AQMP, as described above. The project's interim year 2029 is expected to generate the highest levels of emissions because it would include construction emissions, and emissions are expected to decline over time as vehicle emissions rates fall. Emissions from the proposed project were allocated spatially and temporally and then added to the BAAQMD inventories.

Next, the analyses used EPA's BenMAP-CE (version 1.5.0) model to estimate the resulting health impacts of minor changes in regional ambient $PM_{2.5}$ and ozone concentrations. BenMAP-CE uses the concentration estimates produced by CAMx, along with population and health effect concentration-response functions, to estimate various health effects of the concentration increases. BenMAP-CE outputs included ozone- and PM-related health endpoints such as mortality, hospital admissions, and emergency room visits.

The BenMAP-CE modeling used air quality grids that match the CAMx modeling grids, and used BenMAP-CE–ready population datasets (generated using EPA's PopGrid software based on 2010 U.S. Census data) corresponding to these modeling grids. Besides the model's default parameters, datasets, and EPA-standard health impact functions, region-specific data were used to the extent possible to obtain health endpoint results that reflect the population and demographic characteristics of the region around the project site. In addition, the default pooling method was applied to synthesize the estimated incidence changes predicted by several studies for the same pollutant-health endpoint group combination. The quantitative HIA results are presented in Appendix C3.

[153] 2016 was used as a modeling year basis because it allows for more reliable model performance verification against BAAQMD's AQMP modeling efforts to ensure that the results obtained are accurate.

[154] California Air Resources Board, *Miscellaneous Process Methodology 7.9: Entrained Road Travel, Paved Road Dust*, March 2018. Available at https://ww3.arb.ca.gov/ei/areasrc/fullpdf/full7-9_2018.pdf. Accessed May 2020.

The HIA for the project evaluated health impacts associated with ozone and $PM_{2.5}$, and did not assess CO and NO_2. Although exposures to high levels of CO and NO_2 are recognized to result in negative health effects, the applicable NAAQS are widely recognized to be designed to be protective of human health, even for sensitive populations. Moreover, as explained by CARB, "An air quality standard defines the maximum amount of a pollutant averaged over a specified period of time that can be present in outdoor air without any harmful effects on people or the environment."[155] That is, if a region is in compliance with the ambient air quality standards, its regional air quality can be considered protective of public health.

The NAAQS are statutorily required to be set by EPA at levels that are "requisite to protect the public health" (U.S. Code Title 42, Section 7409(b)(1)). The NAAQS and CAAQS have been set at levels considered safe to protect public health, including the health of sensitive populations such as asthmatics, children, and the elderly with a margin of safety; and to protect public welfare, including protection against decreased visibility and damage to animals, crops, vegetation, and buildings. Thus, the closer a region is to attaining a particular NAAQS or CAAQS, the lower the human health impact is from that pollutant. Generally, as non-reactive pollutants travel away from the source, they disperse and their concentrations diminish rather quickly.

As presented in Section 3.1.2, *Regulatory Framework*, and in Table 3.1-3, the SFBAAB is designated non-attainment for both the 1- and 8-hour state ozone standards and non-attainment for the federal 8-hour ozone standard. In terms of PM, the SFBAAB is non-attainment for both the annual and 24-hour state PM_{10} standards, and non-attainment for the annual state $PM_{2.5}$ standard and the 24-hour federal $PM_{2.5}$ standard. SO_2 and CO are not evaluated because of their small contribution to the formation of secondary $PM_{2.5}$ and ozone.

The health effects from ozone and $PM_{2.5}$ are examined for this project because EPA has developed tools such as BenMAP-CE that allow the numerical correlation of NO_X, VOCs, and $PM_{2.5}$ to potential effects on human health. The emissions of VOC and NO_X are analyzed because they contribute to the formation of ozone and secondary $PM_{2.5}$.

A number of conservative assumptions have been built into the HIA. Those assumptions include but are not limited to the following:

- Maximum annual average emissions were used in the modeling and were assumed to occur for the same year for each pollutant.
- Emissions from activities currently occurring on the project site were not removed from the model (although emissions from project-related VMT are effectively net of existing mobile-source emissions in the traffic study area).

[155] California Air Resources Board, California Ambient Air Quality Standards (CAAQS), 2019. Available at https://www.arb.ca.gov/research/aaqs/caaqs/caaqs.htm. Accessed December 2019.

- Health effects can occur at any concentration, including small incremental concentrations.[156]
- All $PM_{2.5}$, including fugitive dust and exhaust from fuel combustion, is of equal toxicity.[157]

As a result of the conservative assumptions presented above, the results of the modeling are intended to represent an upper boundary of potential impacts. In addition, the complex nature of criteria air pollutant dispersion and the atmospheric chemistry should be considered when interpreting the results. Even with the conservative assumptions noted above, the minor project emissions relative to background and the uncertainties inherent in the models correspond to health effects that would be small and may fall within the range of statistical uncertainty.

This EIR uses the thresholds of significance for mass emissions of criteria pollutants recommended by BAAQMD. The purpose of this health impact analysis is not to create a new threshold or establish new impacts, but rather to satisfy the direction of the California Supreme Court in *Sierra Club v. County of Fresno* to make a "reasonable effort" to substantively connect the estimated amount of a given air pollutant a project will produce and the health effects associated with that pollutant. Therefore, the analyses compared the BenMAP results to background health incident rates to estimate the health effects.[158] The predicted health effects are provided for informational purposes to enhance understanding of the effects of impacts determined to be significant (e.g., Impact AQ-2) based on other measurable criteria. The quantitative HIA results, along with detailed modeling methods, are presented in Appendix C1.

Impact Analysis

Impact AQ-1: The project would not conflict with or obstruct implementation of the applicable air quality plan. *(Less than Significant with Mitigation)*

Consistency with the BAAQMD Clean Air Plan

The most recently adopted air quality plan for the SFBAAB is the 2017 Clean Air Plan. The Clean Air Plan is a road map that demonstrates how the Bay Area will implement all feasible

[156] This presumes that impacts seen at large concentration differences can be linearly scaled down to small increases in concentration, with no consideration of potential thresholds below which health impacts may not occur. This method of linearly scaling impacts is broadly accepted for use in regulatory evaluations and is considered as being health protective. (U.S. Environmental Protection Agency, *Quantitative Health Risk Assessment for Particulate Matter*, EPA-452/R-10-005, June 2010. Available at https://www3.epa.gov/ttn/naaqs/standards/pm/data/PM_RA_FINAL_June_2010.pdf. Accessed September 2019.)

[157] EPA has stated that results from various studies have shown the importance of considering particle size, composition, and particle source in determining the health impacts of PM. (U.S. Environmental Protection Agency, *Integrated Science Assessment [ISA] For Particulate Matter [Final Report]*, December 2009, EPA/600/R-08/139F. Available at https://cfpub.epa.gov/ncea/risk/recordisplay.cfm?deid=216546. Accessed October 2019.) EPA also found that studies have reported that particles from industrial sources and from coal combustion appear to be the most significant contributors to PM-related mortality. This is particularly important to note here, as the majority of PM emissions generated by the proposed project would be from brake wear, tire wear, and entrained roadway dust, and not from combustion. Therefore, by not considering the relative toxicity of PM components, the results presented here are conservative. Refer to Appendix C3 for further discussion.

[158] The "background health incidence" is an estimate of the average number of people who suffer from some adverse health effect in a given population over a given period of time, in the absence of additional emissions from the project. Health incidence rates and other health data are typically collected by the government and the World Health Organization.

measures to reduce ozone in accordance with the requirements of the California Clean Air Act. It also provides a control strategy to reduce ozone, PM, air toxics, and GHGs. In determining consistency with the Clean Air Plan, this analysis considers whether the project would:

- Support the primary goals of the Clean Air Plan;
- Include applicable control measures from the Clean Air Plan; and
- Avoid disrupting or hindering implementation of control measures identified in the Clean Air Plan.

The Clean Air Plan recognizes that, to a great extent, community design[159] dictates individual travel modes, and that a key long-term control strategy for reducing emissions of criteria pollutants, air toxics, and GHGs from motor vehicles is to channel future Bay Area growth into communities where goods and services are located nearby and people have a range of viable transportation options. To this end, the Clean Air Plan includes 85 control measures aimed at reducing air pollutants and GHGs in the SFBAAB. Many of these measures address stationary sources and will be implemented by BAAQMD using its permit authority, and therefore, are not suited for implementation through local planning efforts or project approval actions.

Table 3.1-6 identifies the Clean Air Plan measures that may apply to the proposed project. This table identifies each control strategy and correlates it with specific elements of the proposed project or explains why the strategy does or does not apply to the proposed project.

TABLE 3.1-6
PROJECT CONSISTENCY WITH POTENTIALLY APPLICABLE 2017 CLEAN AIR PLAN CONTROL MEASURES

Control Measure	Measure Description	Existing or Proposed Implementation Mechanism	Project Consistent with Measure?
SS25—Coatings, Solvents, Lubricants, Sealants and Adhesives	SS25 will reduce emissions of ROG from architectural coatings and other materials by proposing more stringent ROG limits as appropriate.	The project would comply with all applicable BAAQMD rules and regulations regarding ROG emission limits. Additionally, the project would implement Mitigation Measure AQ-2d, Low-VOC Coatings, which would require the use of low VOC (i.e., ROG) coatings beyond the local requirements (i.e., Regulation 8, Rule 3: Architectural Coatings).	Yes, with implementation of Mitigation Measure AQ-2d

[159] For people who live (and/or work) in low-density, car-oriented developments, the motor vehicle is often the only viable transportation option. In such situations, even the most robust strategy to promote alternative modes of travel can have, at best, only a very modest effect. In contrast, in compact communities with a mixture of land uses, it is much easier to walk, cycle, or take transit for at least some daily trips.

TABLE 3.1-6
PROJECT CONSISTENCY WITH POTENTIALLY APPLICABLE 2017 CLEAN AIR PLAN CONTROL MEASURES

Control Measure	Measure Description	Existing or Proposed Implementation Mechanism	Project Consistent with Measure?
SS30—Residential Fan Type Furnaces	SS30 will reduce emissions of NOx by creating more stringent limits on new and replacement central furnace installations. Strategies may include regulations regarding sale of fossil fuel-based space and water heating systems for residential and commercial use.	The project would use all-electric space and water heating systems for residential and commercial use. Natural gas would be used only for 20,000 square feet of commercial kitchens. Additionally, the project would be subject to San José's Reach Code, which requires, among other things, that new residential and non-residential construction achieve increased energy efficiency, including for building heating, and provides incentivizes for all-electric construction.	Yes
SS32—Emergency Backup Generators	S32 will reduce emissions of DPM, TACs, and criteria pollutants from emergency backup generators by enforcing Rule 11-18, resulting in reduced health risks to impacted individuals. This measure will also have climate protection benefits through reduces GHG emissions.	All emergency backup generators would be compliant with the regulations set forth in Rule 11-18. Additionally, Mitigation Measure AQ-2e, Best Available Emissions Controls for Stationary Emergency Generators, states that all emergency generators shall use the best available technology controls and alternative fuels, such as renewable diesel or biodiesel, if feasible.	Yes, with implementation of Mitigation Measure AQ-2e
TR1—Clean Air Teleworking Initiative	The primary objective of TR1 is to increase the number of employees who telework in the Bay Area, especially on Spare the Air Days, by providing outreach and assistance to employees and employers. It directs MTC to provide support to employers for regional telecommuting programs in partnership with 511 Rideshare and the Bay Area Commuter Benefits Program and the Bay Area Air Quality Management District to include Spare the Air notifications to all Employer Program members that include the promotion of teleworking/telecommuting on Spare the Air Days.	As required by Mitigation Measure AQ-2h, Enhanced Transportation Demand Management Program, the project applicant would distribute information about Spare the Air Days in the SFBAAB as part of transportation welcome packets and ongoing transportation marketing campaigns. This information would encourage employers and employees, as allowed by their workplaces, to telecommute on Spare the Air Days.	Yes, with implementation of Mitigation Measure AQ-2h, with implementation of Mitigation Measure AQ-2h
TR2—Trip Reduction Programs	TR2 includes a mandatory and voluntary trip reduction program. The regional Commuter Benefits Program, resulting from SB 1339, and similar local programs in jurisdictions with ordinances that require employers to offer pre-tax transit benefits to their employees are mandatory programs. Voluntary programs include outreach to employers to encourage them to implement strategies that encourage their employees to use alternatives to driving alone.	With implementation of Mitigation Measure AQ-2h, Enhanced Transportation Demand Management Program, the project would include employer incentives to promote multimodal transportation. The strategies outlined in the TDM program include providing employee transit passes for the multiple transit options at Diridon Station and providing first- and last-mile employee subsidies to and from transit stations.	Yes, with implementation of Mitigation Measure AQ-2h

TABLE 3.1-6
PROJECT CONSISTENCY WITH POTENTIALLY APPLICABLE 2017 CLEAN AIR PLAN CONTROL MEASURES

Control Measure	Measure Description	Existing or Proposed Implementation Mechanism	Project Consistent with Measure?
TR5—Transit Efficiency and Use	TR5 will improve transit efficiency and make transit more convenient for riders through continued operation of 511 Transit, full implementation of Clipper® fare payment system and the Transit Hub Signage Program.	The project would be located adjacent to Diridon Station, where the Clipper® fare payment system can be used on various transit operators. It is noted that 511 no longer provides trip planner service or transit agency schedules.	Yes
TR7—Safe Routes to Schools and Safe Routes to Transit	TR7 will facilitate safe routes to schools and transit by providing funds and working with transportation agencies, local governments, schools, and communities to implement safe access for pedestrians and cyclists. Likely projects will include implementation of youth outreach and educational programs to encourage walking and cycling, the construction of bicycle facilities and improvements to pedestrian facilities.	The project would comply with this measure with implementation of Mitigation Measure AQ-2h, Enhanced Transportation Demand Management Program. The project's TDM program would prioritize pedestrian and bicycle access and implement measures to encourage alternative modes of transportation by building a dense, walkable, mixed-use, transit-oriented development, and would prioritize safety, especially for bicyclists and pedestrians.	Yes, with implementation of Mitigation Measure AQ-2h
TR8—Ridesharing	TR8 will promote ridesharing services and incentives through the implementation of the 511 Regional Rideshare Program, as well as local rideshare programs implemented by Congestion Management Agencies. These activities will include marketing rideshare services, operating a rideshare information call center and website, and provide vanpool support services. In addition, this measure includes provisions for encouraging car sharing programs.	The project would comply with this measure with implementation of Mitigation Measure AQ-2h, Enhanced Transportation Demand Management Program. Under the TDM program, the project would also include implementation of the 511 Regional Rideshare Program or its equivalent.	Yes, with implementation of Mitigation Measure AQ-2h

TABLE 3.1-6
PROJECT CONSISTENCY WITH POTENTIALLY APPLICABLE 2017 CLEAN AIR PLAN CONTROL MEASURES

Control Measure	Measure Description	Existing or Proposed Implementation Mechanism	Project Consistent with Measure?
TR9—Bicycle and Pedestrian Access and Facilities	The bicycle component of TR9 strives to expand bicycle facilities serving employment sites, educational and cultural facilities, residential areas, shopping districts, and other activity centers. Typical improvements include bike lanes, routes, paths, and bicycle parking facilities. The bicycle component also includes a bike share pilot project that was developed to assess the feasibility of bicycle sharing as a first- and last-mile transit option. The pedestrian component of this measure is intended to improve pedestrian facilities and encourage walking by funding projects that improve pedestrian access to transit, employment sites, and major activity centers. Improvements may include sidewalks/paths, benches, reduced street width and intersection turning radii, crosswalks with activated signals, curb extensions/bulbs, buffers between sidewalks and traffic lanes, and street trees.	The project would include an on-site pedestrian and bicycle network that includes Class I, II, III, and IV bicycle facilities. The project proposes to build a footbridge over Los Gatos Creek south of West Santa Clara Street; add mid-block passages at several locations to facilitate pedestrian and bicycle access through the site; and improve bicycle and pedestrian linkages to Downtown, adjacent neighborhoods, and regional trails. In addition, the central portion of the project site, near Diridon Station, would contain a pedestrian-focused mix of the project's program uses and would contain a variety of civic-oriented uses. The project would encourage pedestrian movement through improvements to public areas through sidewalk widening, construction of plazas, and inclusion of street trees.	Yes
TR10—Land Use Strategies	This measure supports land use patterns that reduce VMT and associated emissions and exposure to TACs, especially within infill locations and impacted communities.	The project would comply with this measure by being a dense, transit-oriented, mixed use project in an infill location. It would increase residential density; include up to 7.3 million gsf of office combined with up to 5,900 dwelling units and other retails, arts, and cultural spaces in a mixed-use development. The program development would place a mix of land uses including residential, office, and retail uses in close proximity, thereby reducing the number of VMT and trips. The project site is also located in a Priority Development Area and Transit Priority Area. The project site is adjacent to Diridon Station, a central passenger rail hub that is served by Caltrain, ACE, VTA light rail, Amtrak Capitol Corridor, and Amtrak Coast Starlight.	Yes

TABLE 3.1-6
PROJECT CONSISTENCY WITH POTENTIALLY APPLICABLE 2017 CLEAN AIR PLAN CONTROL MEASURES

Control Measure	Measure Description	Existing or Proposed Implementation Mechanism	Project Consistent with Measure?
TR13—Parking Policies	This control measure outlines how MTC and the Air District, in cooperation with regional agency partners, will (1) take actions at the regional level to implement parking policies that will benefit air quality, and (2) encourage and support local agency parking policies to reduce motor vehicle travel and promote focused growth.	The project would comply with this measure with implementation of Mitigation Measure AQ-2h, Enhanced Transportation Demand Management Program. The TDM program would include market-rate pricing and unbundled parking for market-rate residential units. It would also include a limited parking supply (i.e., less than the code requirement) and implement strategies to drive down the demand for parking, including providing Google employees with pre-tax commuter benefits.	Yes, with implementation of Mitigation Measure AQ-2h
TR14—Cars and Light Trucks	This control measures summarizes actions by the Air District, MTC, local businesses, city and county governments, and state and federal agencies to expand the use of Zero Emission Vehicles and Plug-in Electric passenger vehicles and light-duty trucks within the Bay Area.	The project would designate a minimum of 10 percent of total parking spaces for EV charging to promote the use of zero-emission vehicles and plug-in electric passenger vehicles. Implementation of Mitigation Measure AQ-2g, Electric Vehicle Charging, would increase this percentage to 15 percent. Additionally, the project would be subject to San José's Reach Code, which requires, among other things, that new residential and non-residential construction provide additional electric vehicle charging readiness and/or electric vehicle service equipment.	Yes
TR15—Public Outreach and Education	TR15 includes activities to encourage Bay Area residents to make choices that benefit air quality. This measure includes various public outreach campaigns to educate the public about the health effects of air pollution and the air quality benefits of reducing motor-vehicle trips and choosing transportation modes that reduce motor vehicle emissions. The measure includes outreach and education regarding electric vehicles, smart driving, carpooling, vanpooling, taking public transit, biking, walking, and telecommuting.	As required by Mitigation Measure AQ-2h, Enhanced Transportation Demand Management Program, and as part of a broader transportation marketing campaign, the project would provide new residents and employees with a transportation welcome packet upon move-in or upon starting work at the site. These informational packets would be continuously updated as local transportation options change.	Yes, with implementation of Mitigation Measure AQ-2h

TABLE 3.1-6
PROJECT CONSISTENCY WITH POTENTIALLY APPLICABLE 2017 CLEAN AIR PLAN CONTROL MEASURES

Control Measure	Measure Description	Existing or Proposed Implementation Mechanism	Project Consistent with Measure?
TR 19—Medium and Heavy Duty Trucks	TR19 would reduce emissions by providing incentives for purchase of (1) new trucks with engines that exceed ARB's 2010 NOx emission standards for heavy-duty engines, (2) new hybrid trucks, and (3) new zero-emission trucks. The Air District will work with truck owners, industry, ARB, the California Energy Commission, and others to demonstrate additional battery-electric and hydrogen fuel cell zero-emission trucks.	With Implementation of Mitigation Measure AQ-2f, Operational Diesel Truck Emissions Reduction, refrigerated delivery trucks serving the project site would not need to operated diesel-powered transportation refrigeration units during loading or unloading activities. Additionally, the project would reduce truck traffic and associated emissions by improving the efficiency of deliveries to the project site and distributing materials using small-scale natural gas or electric-powered trucks, thereby reducing emissions.	Yes, with implementation of Mitigation Measure AQ-2f
TR22—Construction, Freight and Farming Equipment	TR22 directs the Bay Area Air Quality Management District to work to reduce emissions from off-road equipment used in the construction, freight handling and farming industries by pursuing the following strategies: (1) offering financial incentives between 2017 and 2030 to retrofit engines with diesel particulate filters or upgrade to equipment with electric or Tier IV off-road engines; (2) work with the California Air Resources Board, the California Energy Commission and others to develop more fuel-efficient off-road engines and drive trains; and (3) work with local communities to encourage use of renewable electricity and fuels.	The project would reduce emissions from off-road construction equipment through the implementation of Mitigation Measure AQ-2a, Construction Emissions Minimization Plan, and Mitigation Measure AQ-2b, Construction Equipment Maintenance and Tuning. These measures would include the implementation of a construction emissions minimization plan that would include dust control requirements, consistent with the San José Downtown Strategy, and ensure that engines on construction vehicles are property maintained. Additionally, all construction equipment would be certified to Tier 4 Final emission standards or electric as specified in the construction equipment lists in Appendix C1. Finally, with implementation of Mitigation Measure AQ-2c, Heavy-Duty Truck Model Year Requirement, all on-road heavy-duty trucks with a gross vehicle weight rating of 33,000 pounds or greater (EMFAC2007 Category HDDT) used at the project site (such as haul trucks, water trucks, dump trucks) would be model year 2014 or newer.	Yes, with implementation of Mitigation Measures AQ-2a, AQ-2b, and AQ-2c

TABLE 3.1-6
PROJECT CONSISTENCY WITH POTENTIALLY APPLICABLE 2017 CLEAN AIR PLAN CONTROL MEASURES

Control Measure	Measure Description	Existing or Proposed Implementation Mechanism	Project Consistent with Measure?
EN1—Decarbonize Electricity Production	EN1 focuses on lowering carbon emissions by switching the fuel sources used in electricity generation. The measure would promote and expedite a transition away from fossil fuels used in electricity generation (i.e., natural gas) to a greater reliance on renewable energy sources (e.g., wind, solar). In addition, this measure would promote an increase in cogeneration, which results in useful heat in addition to electricity generation from a single fuel source.	The project's districtwide thermal network would be consistent with the City's Climate Smart plan, enabling the project to be combustion-free by providing heating and cooling only through electric equipment. The project applicant is considering various technologies for renewable power generation, including solar photovoltaic arrays that may be located on building rooftops and facades. The project anticipates 7.8 MW of on-site solar PV panels.	Yes
EN2—Decrease Electricity Demand	EN2 would decrease electricity demand through the adoption of additional energy efficiency policies and programs.	The project would reduce energy use as necessary to obtain LEED ND Gold Certification and by implementing all applicable regulatory requirements included in the 2019 Title 24 Building Standards and the San José Reach Code. The project would also meet or exceed the standards of the 2019 American Society of Heating, Refrigeration and Air Conditioning Engineers with respect to building equipment energy use.	Yes
BL1—Green Buildings	BL1 seeks to increase energy efficiency and the use of on-site renewable energy—as well as decarbonize existing end uses—for all types of existing and future buildings. The measure includes policy assistance, incentives, diffusion of public information, and targeted engagement and facilitation of partnerships in order to increase energy efficiency and on-site renewable energy in the buildings sector.	The project would reduce energy use through renewable power generation features exceeding Title 24 Green Building Requirements, all buildings would comply with the City's New Construction Green Building Requirements, and all office buildings would meet LEED Gold standards. The project would also include shared infrastructure and logistics systems to reduce energy demand, therefore, the project would be consistent with this policy. The project would also incorporate on-site PV generation by using both building integrated and PV and rooftop arrays.	Yes

TABLE 3.1-6
PROJECT CONSISTENCY WITH POTENTIALLY APPLICABLE 2017 CLEAN AIR PLAN CONTROL MEASURES

Control Measure	Measure Description	Existing or Proposed Implementation Mechanism	Project Consistent with Measure?
BL2—Decarbonize Buildings	BL2 seeks to reduce greenhouse gas emissions, criteria pollutants and TACs by limiting the installation of space- and water-heating systems and appliances powered by fossil fuels. This measure is to be implemented by developing model policies for local governments that support low- and zero-carbon technologies as well as potentially developing a rule limiting the sale of natural-gas furnaces and water heaters.	The proposed project would reduce greenhouse gas emissions, criteria pollutants and TACs through the use of all-electric heating systems. Additionally, the project would be subject to San José's Reach Code, which requires, among other things, that new residential and non-residential construction achieve increased energy efficiency, including for building heating, requires electrification-readiness for new buildings that use natural gas. along with solar readiness for non-residential construction, and provides incentivizes for all-electric construction.	Yes
BL4—Urban Heat Island	This control measure aims to reduce the "urban heat island" phenomenon by increasing the application of "cool roofing" and "cool paving" technologies, as well as increasing the prevalence of urban forests and vegetation, through voluntary approaches and educational outreach.	In accordance with the City's Green Stormwater Infrastructure and the Santa Clara Valley Urban Runoff Pollution Prevention Programs, the project is anticipated to include pervious paving and green roofs. The project would also include landscaping and new planting on an aggregate 15 acres of new park and open space on the project site.	Yes
NW2—Urban Tree Planting	NW2 promotes the planting of trees in urbanized settings to take advantage of the myriad benefits provided by these trees, including: shading to reduce both the "urban heat island" phenomenon and the need for space cooling, and the absorption of ambient criteria air pollutants as well as carbon dioxide.	The project would include planting of new street trees to improve pedestrian spaces in compliance with City regulations.	Yes
WA3—Green Waste Diversion; and WA4—Recycling and Waste Reduction	WA3 seeks to reduce the total amount of green waste being disposed in landfills by supporting the diversion of green waste to other uses, while WA4 seeks to reduce greenhouse gas emissions by diverting recyclables and other materials from landfills.	The proposed project would achieve 84 percent waste diversion (27 percent compost, 13 percent recycling, 44 percent other recoverables, and 16 percent landfill). Other recoverables typically include the following: metal, foam, wood, e-waste, paper (shredded), cardboard, and kitchen grease; refer to Section 3.14, *Utilities and Service Systems*, for more information. The proposed project would also comply with diversion targets in accordance with the City's Zero Waste Strategic Plan 2022. Other types of diversion would include donating edible food to local charitable organizations for redistribution.	Yes

TABLE 3.1-6
PROJECT CONSISTENCY WITH POTENTIALLY APPLICABLE 2017 CLEAN AIR PLAN CONTROL MEASURES

Control Measure	Measure Description	Existing or Proposed Implementation Mechanism	Project Consistent with Measure?
WR2—Support Water Conservation	WR2 seeks to promote water conservation, including reduced water consumption and increased on-site water recycling, in residential, commercial and industrial buildings for the purpose of reducing greenhouse gas emissions.	The project would use recycled water, whether generated by the on-site water treatment plants or obtained from the City's recycled water system, for toilet flushing, irrigation, and as a make-up supply to evaporative cooling tower use for building air conditioning systems.	Yes

NOTES:
ACE = Altamont Corridor Express; Air District, BAAQMD = Bay Area Air Quality Management District; ARB = California Air Resources Board (CARB); City = City of San José; DPM = diesel particulate matter; EMFAC2007 = Emission Factor Model for On-Road Emissions, 2007; EV = electric vehicle; GHG = greenhouse gas; gsf = gross square feet; LEED ND = Leadership in Energy and Environmental Design for Neighborhood Development; MTC = Metropolitan Transportation Commission; MW = megawatts; NO_X = oxides of nitrogen; $PM_{2.5}$ = particulate matter 2.5 microns or less in diameter; PV = photovoltaic; ROG = reactive organic gas; SB = Senate Bill; TAC = toxic air contaminant; TDM = transportation demand management; TOG = total organic gas; VMT = vehicle miles traveled; VOC = volatile organic compound; VTA = Santa Clara Valley Transportation Authority

SOURCE: Bay Area Air Quality Management District, *Clean Air Plan, Spare the Air, Cool the Climate*, April 19, 2017. Available at https://www.baaqmd.gov/~/media/files/planning-and-research/plans/2017-clean-air-plan/attachment-a_-proposed-final-cap-vol-1-pdf.pdf?la=en. Accessed January 21, 2020.

As shown in Table 3.1-6, certain mitigation measures proposed for adoption as part of the project to reduce the effects described under Impacts AQ-2 and AQ-3 support applicable control measures from the 2017 Clean Air Plan. With implementation of these mitigation measures, the proposed project would comply with applicable control strategies contained in the 2017 Clean Air Plan for the basin, and the impact would be **less than significant with mitigation incorporated**. Specifically, the project would implement the following mitigation measures:

- **Mitigation Measure AQ-2a, Construction Emissions Minimization Plan**
- **Mitigation Measure AQ-2b, Construction Equipment Maintenance and Tuning**
- **Mitigation Measure AQ-2c, Heavy-Duty Truck Model Year Requirement**
- **Mitigation Measure AQ-2d, Super-Compliant VOC Architectural Coatings during Operations**
- **Mitigation Measure AQ-2e, Best Available Emissions Controls for Stationary Emergency Generators**
- **Mitigation Measure AQ-2f, Operational Diesel Truck Emissions Reduction**
- **Mitigation Measure AQ-2g, Electric Vehicle Charging**
- **Mitigation Measure AQ-2h, Enhanced Transportation Demand Management Program**

Implementing these mitigation measures would reduce this impact to a **less-than-significant** level. (These measures are discussed in detail under Impact AQ-2 below.)

As discussed in Impact AQ-2 below, the proposed project would result in a net increase in emissions of criteria air pollutants that would exceed significance thresholds for ROG, NO_X,

PM_{10}, and $PM_{2.5}$, even after mitigation. This would result in a significant and unavoidable impact with regard to regional criteria pollutant emissions. However, these emissions—and the conclusion that a significant impact would result—do not in and of themselves indicate a conflict with the Clean Air Plan, with its emphasis on reducing VMT, reducing energy demand, encouraging smart land use and building design, and other objectives.

Examples of a project that could cause the disruption or delay of Clean Air Plan control measures are projects that would preclude the extension of a transit line or bike path or projects that propose excessive parking beyond City parking requirements. The project proposes a development that would be a dense, walkable urban area near a concentration of regional and local transit services, including Diridon Station, which is currently served by Caltrain, ACE, Santa Clara Valley Transportation Authority (VTA) light rail, Amtrak, and bus services. Furthermore, Diridon Station is planned for BART service following the completion of the Silicon Valley BART extension, as well as high-speed rail service to San José.

In addition, the project site is designated as a Priority Development Area pursuant to the Association of Bay Area Governments' Sustainable Communities Strategy: *Plan Bay Area 2040*. This designation applies to new development areas that would support the day-to-day needs of residents and workers in a pedestrian-friendly environment served by transit. The project would include bike lanes, bike safety–oriented street design, and bike-parking facilities to promote bicycling on and around the project site. It would not preclude the extension of a transit line or a bike path or any other transit improvement. Thus, the proposed project would not disrupt or hinder implementation of control measures identified in the Clean Air Plan.

The project would include rezoning of the entire site to the Planned Development Zoning District, which would allow for site-specific development through the approval of a Planned Development Permit. According to the City's Zoning Code, "each structure or facility used for off-street parking and off-street loading shall have the exact number of off-street parking and off-street loading spaces, and other areas, specified for it" in the applicable Planned Development Permit. The project plans to provide up to 4,800 parking spaces for public and/or commercial use, and up to 2,360 spaces for residential uses, for approximately 7,160 total parking spaces on-site.[160] These parking spaces would be required by City-issued Planned Development Permits; therefore, the project would not provide excessive parking beyond the City's requirements.

Consistency with the Envision San José 2040 General Plan

The General Plan includes various goals, policies, and actions to address air quality issues and reduce pollutant emissions. **Table 3.1-7** summarizes the proposed project's consistency with the applicable General Plan policies and actions.

[160] As noted previously, a portion of the residential spacers could be available for shared use by office employees, and some commercial parking could be provided at off-site location(s), should such off-site parking be developed separately from the project in the future.

TABLE 3.1-7
ENVISION SAN JOSÉ 2040 GENERAL PLAN AIR QUALITY POLICIES

Policies and Actions		Project Consistency Measures
Air Pollutant Emission Reduction		
MS-10.1	Assess projected air emissions from new development in conformance with the Bay Area Air Quality Management District (BAAQMD) CEQA Guidelines and relative to state and federal standards. Identify and implement feasible air emission reduction measures.	The project would include feasible mitigation measures to reduce air quality impacts: Mitigation Measures AQ-2a, AQ-2b, AQ-2c, AQ-2d, AQ-2e, AQ-2f, AQ-2g, and AQ-2h. Therefore, the project would be consistent with this policy.
MS-10.3	Promote the expansion and improvement of public transportation services and facilities, where appropriate, to both encourage energy conservation and reduce air pollution.	Under the strategies of the TDM program and Mitigation Measure AQ-2h, the project would undertake public/private partnerships with transit providers to improve the frequency and range of transit services. Therefore, the project would be consistent with this policy.
MS-10.5	In order to reduce vehicle miles traveled and traffic congestion, require new development within 2,000 feet of an existing or planned transit station to encourage the use of public transit and minimize the dependence on the automobile through the application of site design guidelines and transit incentives.	The project is located adjacent to Diridon Station; the project's TDM plan and Mitigation Measure AQ-2h would provide transit incentives, including providing employee transit passes for transit options at Diridon Station and providing first- and last-mile employee subsidies to and from transit stations. Therefore, the project would be consistent with this policy.
MS-10.6	Encourage mixed land use development near transit lines and provide retail and other types of service oriented uses within walking distance to minimize automobile dependent development.	The project would include office, residential, and hotel land uses, as well as active land uses such as retail, arts, cultural, educational, and institutional facilities. This mixed-use development would be located adjacent to Diridon Station, which is a major transit hub served by Caltrain, ACE, VTA light rail, Amtrak, and various bus lines. Therefore, the project would not be an automobile-dependent development and would be consistent with this policy.
MS-10.7	Encourage regional and statewide air pollutant emission reduction through energy conservation to improve air quality	The project would reduce energy use by obtaining LEED ND Gold Certification and implementing all applicable regulatory requirements included in the 2019 Title 24 Building Standards and the San José Reach Code. The project would also meet or exceed the standards of the 2019 American Society of Heating, Refrigeration and Air Conditioning Engineers with respect to building equipment energy use.
MS-10.10	Actively enforce the City's ozone-depleting compound ordinance and supporting policy to ban the use of chlorofluorocarbon compounds (CFCs) in packaging and in building construction and remodeling. The City may consider adopting other policies or ordinances to reinforce this effort to help reduce damage to the global atmospheric ozone layer.	The project would comply with the ozone-depleting compound ordinance. Therefore, the project would be compliant with this policy.
MS-10.11	Enforce the City's wood-burning appliance ordinance to limit air pollutant emissions from residential and commercial buildings.	The project would be compliant with the City's wood-burning ordinance to limit emissions.
MS-10.14	Review and evaluate the effectiveness of site design measures, transit incentives, and new transportation technologies and encourage those that most successfully reduce air pollutant emissions.	The project would be compliant with this program with implementation of Mitigation Measure AQ-2h. The project's TDM program would include site design measures and transit incentives to encourage the use of public transit and reduce air pollutant emissions. In addition, there would be ongoing monitoring of the TDM, with additional measures if vehicle trip reduction targets are not met.

TABLE 3.1-7
ENVISION SAN JOSÉ 2040 GENERAL PLAN AIR QUALITY POLICIES

Policies and Actions		Project Consistency Measures
Toxic Air Contaminants		
MS-11.1	Require completion of air quality modeling for sensitive land uses such as new residential developments that are located near sources of pollution such as freeways and industrial uses. Require new residential development projects and projects categorized as sensitive receptors to incorporate effective mitigation into project designs or be located an adequate distance from sources of toxic air contaminants (TACs) to avoid significant risks to health and safety.	Air quality modeling for sensitive land uses, and impacts of the project on sensitive receptors, including proposed new residential development, are discussed in the evaluation of Impact AQ-3. The project would implement Mitigation Measures AQ-2a, AQ-2b, AQ-2c, AQ-2d, AQ-2e, AQ-2f, AQ-2g, AQ-2h, and AQ-3 to minimize risks to health and safety.
MS-11.2	For projects that emit toxic air contaminants, require project proponents to prepare health risk assessments in accordance with BAAQMD-recommended procedures as part of environmental review and employ effective mitigation to reduce possible health risks to a less than significant level. Alternatively, require new projects (such as, but not limited to, industrial, manufacturing, and processing facilities) that are sources of TACs to be located an adequate distance from residential areas and other sensitive receptors.	Air quality modeling for sensitive land uses, and the results of the HRA are discussed in the evaluation of Impact AQ-3. The project would implement Mitigation Measures AQ-2a, AQ-2b, AQ-2c, AQ-2d, AQ-2e, AQ-2f, AQ-2g, AQ-2h, and AQ-3 to minimize risks to health and safety.
MS-11.3	Review projects generating significant heavy duty truck traffic to designate truck routes that minimize exposure of sensitive receptors to TACs and particulate matter.	The project would designate operational truck routes to minimize exposure of sensitive receptors to TACs and particulate matter through implementation of Mitigation Measure AQ-2f. In addition, the project would reduce waste collection truck traffic by consolidating waste to one or more centralized collection terminal(s), compared to a conventional system in which waste collection trucks travel to each building. Finally, the project would reduce truck traffic and associated emissions by improving the efficiency of deliveries to the project site and distributing materials using small-scale natural gas or electric-powered trucks. Therefore, the project would reduce emissions of TACs and PM from truck traffic and would be consistent with this policy.
MS-11.4	Encourage the installation of appropriate air filtration at existing schools, residences, and other sensitive receptor uses adversely affected by pollution sources.	Consistent with California Energy Code, the project would install MERV 13 air filtration systems at all on-site buildings. Therefore, the project would be consistent with this policy.
MS-11.5	Encourage the use of pollution absorbing trees and vegetation in buffer areas between substantial sources of TACs and sensitive land uses.	The project would include new street trees, parks, and riparian buffers throughout the project site, which would provide a buffer between sources of TACs and sensitive land uses. Therefore, the project would be consistent with this policy.
MS-11.7	Consult with BAAQMD to identify stationary and mobile TAC sources and determine the need for and requirements of a health risk assessment for proposed developments.	The project has identified stationary and mobile sources of TACs, and an HRA was completed. The results of the HRA and the project's impact on sensitive receptors are evaluated in the discussion of Impact AQ-3.
MS-11.8	For new projects that generate truck traffic, require signage which reminds drivers that the State truck idling law limits truck idling to five minutes.	The project would include signage to remind truck drivers that the state idling law limits truck idling to five minutes. Mitigation Measure AQ-2a requires a maximum idling time of two minutes for all construction trucks and equipment, and Mitigation Measure AQ-2f requires a maximum idling time of two minutes for all operational trucks. Therefore, the project would be consistent with this policy.

TABLE 3.1-7
ENVISION SAN JOSÉ 2040 GENERAL PLAN AIR QUALITY POLICIES

Policies and Actions		Project Consistency Measures
Objectionable Odors		
MS-12.1	Require new facilities that are potential sources of odors to prepare an analysis of possible odor impacts and the provision of odor minimization and control measures as mitigation.	The project's potential water reuse (wastewater treatment) facility(s) would be a potential odor source. Odor impacts are discussed below under Impact AQ-5. The facility would have odor controls to manage any objectionable odors. In addition, Mitigation Measure AQ-5b would require that air blowers and odor control units (e.g., carbon filters) be incorporated into the wastewater treatment design. Also, the automatic waste collection system terminal(s) would have air filtration and odor point controls in place for pneumatic exhaust.
MS-12.2	Require new residential development projects and projects categorized as sensitive receptors to be located an adequate distance from facilities that are existing and potential sources of odor. An adequate separation distance will be determined based upon the type, size and operations of the facility.	The project's potential water reuse (wastewater treatment) facility(s) would be a potential odor source. However, Mitigation Measure AQ-5b would require best management practices and emissions controls to address objectionable odors. Also, the automatic waste collection system terminal(s) would have air filtration and odor point controls in place for pneumatic exhaust.
Construction Air Emissions		
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.	As described in Mitigation Measure AQ-2a, the project would include a construction emission minimization plan that would include dust control requirements, consistent with the San José Downtown Strategy. Additionally, all construction equipment would be certified to Tier 4 Final emission standards or electric, as feasible. Therefore, the project would be consistent with this 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 toxics control measures (ATCMs) for Construction, Grading, Quarrying, and Surface Mining Operations.	The project applicant would determine the presence of hazardous building materials, including asbestos, prior to receipt of demolition permits. The project would comply with all requirements of CARB's ATCMs for all construction/demolition activities that have the potential to disturb asbestos.
MS-13.3	Require subdivision designs and site planning to minimize grading and use landform grading in hillside areas.	The project would limit grading to development blocks and would conform to existing grades at the edge conditions along the block boundaries and rights-of-way. The project applicant would minimize elevation changes within the existing street rights-of-way. Therefore, the project would be compliant with this policy.
MS-13.4	Adopt and periodically update dust, particulate, and exhaust control standard measures for demolition and grading activities to include on project plans as conditions of approval based upon construction mitigation measures in the BAAQMD CEQA Guidelines.	The project would comply with all applicable dust, particulate, and exhaust control measures for demolition and grading activities as a condition of project approval. Therefore, the project would be compliant with this policy.
MS-13.5	Prevent silt loading on roadways that generates particulate matter air pollution by prohibiting unpaved or unprotected access to public roadways from construction sites.	The project would prohibit unpaved and unprotected access to public roadways from construction sites. In addition, the water trucks would water twice a day for off-road dust control during project construction. Therefore, the project would be compliant with this policy.

TABLE 3.1-7
ENVISION SAN JOSÉ 2040 GENERAL PLAN AIR QUALITY POLICIES

Policies and Actions		Project Consistency Measures
MS-13.6	Revise the grading ordinance and condition grading permits to require that graded areas be stabilized from the completion of grading to commencement of construction.	The project would comply with all requirements set forth in the grading ordinance; therefore, the project would be compliant with this policy.

NOTES:
ATCM = air toxics control measure; BAAQMD = Bay Area Air Quality Management District; CARB = California Air Resources Board; CEQA = California Environmental Quality Act; HRA = health risk assessment; LEED ND = Leadership in Energy and Environmental Design for Neighborhood Development; MERV = Minimum Efficiency Reporting Value; PM = particulate matter; TAC = toxic air contaminant; TDM = transportation demand management; VTA = Santa Clara Valley Transportation Authority

SOURCE: City of San José, *Envision San José 2040 General Plan*, adopted November 2011 (amended December 2018). Available at https://www.sanjoseca.gov/home/showdocument?id=22359. Accessed January 7, 2020.

In addition, the General Plan includes policies to promote reductions in VMT and energy use, which contribute to emissions reductions. These policies and actions are described in Section 3.4, *Energy*; Section 3.6, *Greenhouse Gas Emissions*; and Section 3.13, *Transportation*.

Health Risks for New On-site Receptors

Although not a CEQA issue, the San José 2040 General Plan Policy MS-11.1 states that projects that site new residential receptors must "incorporate effective mitigation into project designs or be located an adequate distance from sources of TACs to avoid significant risks to health and safety." As indicated in Tables 3.1-22 and 3.1-23 later in this EIR section (under Impact C-AQ-2), the maximum mitigated total cumulative health risks, which represent project-level risks plus background cumulative risks, for all new on-site sensitive receptors would be less than BAAQMD's cumulative threshold of significance. Consequently, the proposed project complies with General Plan Policy MS-11.1.

As described above, without the mitigation measures identified in this EIR, the proposed project would support most but not all of the primary goals of the Clean Air Plan, and would not interfere with, disrupt, or hinder implementation of the Clean Air Plan. However, with implementation of the mitigation measures identified in this EIR and compliance with applicable regulations as described in Table 3.1-6, the project would include applicable control measures from the Clean Air Plan. As a result, the proposed project would support the primary goals of the Clean Air Plan and would not interfere with, disrupt, or hinder implementation of the Clean Air Plan. Furthermore, the project would be consistent with the applicable policies set forth in the General Plan, described in Table 3.1-7. Therefore, this impact would be **less than significant with mitigation incorporated**.

Mitigation Measures

Mitigation Measure AQ-2a: Construction Emissions Minimization Plan (refer to Impact AQ-2)

Mitigation Measure AQ-2b: Construction Equipment Maintenance and Tuning (refer to Impact AQ-2)

Mitigation Measure AQ-2c: Heavy-Duty Truck Model Year Requirement (refer to Impact AQ-2)

Mitigation Measure AQ-2d: Super-Compliant VOC Architectural Coatings during Operations (refer to Impact AQ-2)

Mitigation Measure AQ-2e: Best Available Emissions Controls for Stationary Emergency Generators (refer to Impact AQ-2)

Mitigation Measure AQ-2f: Operational Diesel Truck Emissions Reduction (refer to Impact AQ-2)

Mitigation Measure AQ-2g: Electric Vehicle Charging (refer to Impact AQ-2)

Mitigation Measure AQ-2h: Enhanced Transportation Demand Management Program (refer to Impact AQ-2)

Mitigation Measure AQ-3: Exposure to Air Pollution—Toxic Air Contaminants (refer to Impact AQ-3)

Mitigation Measure AQ-5: Hydrogen Sulfide and Odor Management Program for the Potential Water Reuse Facility(s) (refer to Impact AQ-5)

Significance after Mitigation: Less than significant.

Impact AQ-2: The proposed project would result in a cumulatively considerable net increase of a criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard. ***(Significant and Unavoidable)***

Project construction would emit air pollutants for which the SFBAAB is non-attainment, through the use of heavy-duty construction equipment, from truck trips hauling materials, and from construction workers traveling to and from the project site:

- Mobile-source emissions, primarily NO_X, would be generated by equipment such as excavators, bulldozers, loaders, drill rigs, graders, and trenchers during the demolition and excavation construction phases.
- During the building construction phases, emissions would be generated by equipment such as pile driving rigs, forklifts, excavators, cranes, saws, air compressors, pavers, and water trucks.
- During the finishing phases, paving operations and the application of asphalt, architectural coatings (i.e., paints) and other building materials would release ROG.
- Project-related demolition, excavation, grading, and other construction activities may cause wind-blown dust that could contribute particulate matter into the local atmosphere.

The assessment of construction air quality impacts considers each of these sources and recognizes that construction emissions can vary substantially from day to day, depending on the level of activity, the specific type of operation, and for dust, the prevailing weather conditions.

Operation of the proposed project would also cause an increase in emissions of criteria air pollutants and precursors for which the air basin is non-attainment, including ROG, NO_X, PM_{10}, and $PM_{2.5,}$ from a variety of emissions sources:

- On-site stationary sources (emergency generators);

- On-site energy sources (e.g., natural gas combustion for cooking in restaurant kitchens);
- On-site area sources (e.g., landscape maintenance, architectural coatings, use of consumer products such as hairsprays, deodorants, cleaning products); and
- Mobile on-road sources.

As discussed above under *Approach to Analysis*, these operational emissions associated with the proposed project were calculated using methods consistent with the CalEEMod land use emissions model. Impacts were determined by subtracting existing emissions from proposed project emissions to determine the net new emissions associated with the proposed project.

Existing Emissions

As described in Chapter 2, *Project Description*, the project site is an 81-acre area in Downtown San José that is mostly vacant. The built environment on the site and in its vicinity is characterized by a pattern of one- and two-story buildings that cover only portions of their lots, with the remainder of the unbuilt lot space used as surface parking. **Table 3.1-8** provides the approximate ROG, NO_X, PM_{10}, and $PM_{2.5}$ emissions for activities associated with the existing site, excluding mobile sources. The data is presented in this format because only emissions from non-mobile sources were subtracted from the proposed project's emissions to determine the net new emissions associated with the proposed project, consistent with the project transportation analysis, which did not deduct trips from existing uses on the project site. It is noted that the transportation modeling on which project mobile-source emissions are based effectively nets out existing mobile-source emissions because inputs to the City of San José traffic model replace existing uses with proposed uses.

TABLE 3.1-8
AVERAGE DAILY AND TOTAL ANNUAL OPERATIONAL CRITERIA POLLUTANT EMISSIONS ASSOCIATED WITH EXISTING (2019) CONDITIONS

Average Daily (Pounds per Day)				Annual (Tons per Year)			
ROG	NO_X	PM_{10} Total	$PM_{2.5}$ Total	ROG	NO_X	PM_{10} Total	$PM_{2.5}$ Total
12	2	0.2	0.2	2	0.4	<0.1	<0.1

NOTES:

Emissions exclude mobile sources.

NO_X = oxides of nitrogen; $PM_{2.5}$ = particulate matter 2.5 microns or less in diameter; PM_{10} = particulate matter 10 microns or less in diameter; ROG = reactive organic gases; VMT = vehicle miles traveled

The existing emissions include area sources and energy. Mobile-source emissions were not separately calculated but, as explained above, are effectively netted out in the transportation modeling on which mobile-source emissions are based.

SOURCE: Data compiled by Environmental Science Associates in 2019 (refer to Appendix C1).

Construction Emissions

Project construction would generate emissions of criteria air pollutants from heavy-duty construction equipment, architectural coating, paving, and on-road mobile sources from hauling, vendor, and worker trips. Criteria air pollutants emitted would include ROG, NO_X, PM_{10}, and $PM_{2.5}$. As discussed above under *Construction Emissions Methods*, emissions from construction equipment usage were estimated to occur for 8 hours per day, 6 days per week on average (312 days per year). Although it is possible that construction may occasionally occur beyond

these days and hours, this is not anticipated to occur with enough frequency to materially affect average daily emissions associated with overall construction activities.

Table 3.1-9 presents the proposed project's average daily and total annual unmitigated emissions of construction-related criteria air pollutants by year. This table also compares emissions to BAAQMD's significance thresholds.

TABLE 3.1-9
AVERAGE DAILY AND TOTAL ANNUAL UNMITIGATED CONSTRUCTION CRITERIA POLLUTANT EMISSIONS BY YEAR

	Average Daily Emissions (Pounds per Day)[a,b,c]				Annual Emissions (Tons per Year)[c,d]			
Year	ROG	NO_X	PM_{10} Exhaust	$PM_{2.5}$ Exhaust	ROG	NO_X	PM_{10} Exhaust	$PM_{2.5}$ Exhaust
2021	5	**59**	1	1	1	9	<1	<1
2022	6	**85**	1	1	1	13	<1	<1
2023	7	**82**	1	1	1	13	<1	<1
2024	11	**106**	2	1	2	17	<1	<1
2025	**77**	**139**	2	2	12	22	<1	<1
2026	**161**	**122**	2	1	25	19	<1	<1
2027	**151**	**71**	1	1	23	11	<1	<1
2028	34	**43**	1	1	5	7	<1	<1
2029	**77**	**93**	1	1	12	15	<1	<1
2030	30	**103**	1	1	5	16	<1	<1
2031	**72**	**54**	1	1	11	8	<1	<1
2032	**78**	5	<1	<1	12	1	<1	<1
Threshold	**54**	**54**	**82**	**54**	N/A	N/A	N/A	N/A
Exceeds Threshold?	**Yes**	**Yes**	No	No				

NOTES:
N/A = not applicable; NO_X = oxides of nitrogen; $PM_{2.5}$ = particulate matter 2.5 microns or less in diameter; PM_{10} = particulate matter 10 microns or less in diameter; ROG = reactive organic gases
[a] **Bold values** = threshold exceedance.
[b] Average daily construction emissions represent total annual emissions divided by 312 work days per year.
[c] Emissions presented in this table include Tier 4 Final engines on all off-road equipment (as available) and certain electric equipment pieces. Emissions also assume that 3% of horsepower-hours for all phases of construction would be associated with Tier 4 interim off-road equipment engines, 1% of horsepower-hours would be associated with Tier 3 off-road equipment engines plus Level 4 diesel particulate filters, and 1% of horsepower-hours would be associated with Tier 3 off-road equipment engines. This is because Tier 4 Final and electric off-road equipment may not be available during certain phases of construction.
[d] Total annual construction emissions are shown because construction and operational emissions overlap for some years. There is no significance threshold for annual construction emissions.
SOURCE: Data compiled by Environmental Science Associates in 2020 (refer to Appendix C1).

Unmitigated project construction emissions would exceed BAAQMD's CEQA thresholds of significance for average daily ROG emissions during 2025–2027, 2029, and 2031–2032, and for average daily NO_X emissions during 2021–2027 and 2029–2031. PM_{10} and $PM_{2.5}$ exhaust emissions would be below the applicable thresholds of significance for all years of construction. Thus, construction impacts would be **potentially significant** for ROG and NO_X.

Operational Emissions

Operation of the proposed project would result in an increase in emissions of criteria air pollutants and precursors, including NO_X, PM_{10}, and $PM_{2.5}$ from a variety of emissions sources:

- On-site stationary sources (emergency generators)
- On-site energy sources (e.g., limited natural gas combustion for cooking in restaurant kitchens)
- On-site area sources (e.g., landscape maintenance, architectural coatings, and use of consumer products such as hairsprays, deodorants, and cleaning products)
- Mobile on-road sources

As discussed above under *Operational Emissions Methods*, these operational emissions associated with the proposed project were calculated either using methods consistent with the CalEEMod land use emissions model program, or using CalEEMod itself. Impacts were determined by subtracting existing emissions from project emissions to determine the net new emissions associated with the proposed project and (in the case of mobile emissions) using transportation modelling. Emissions from operations were assumed to occur for 365 days per year (i.e., annual emissions were divided by 365 days to arrive at average daily emissions).

Table 3.1-10 presents the proposed project's average daily and total annual unmitigated operational emissions of criteria air pollutants by year. Emissions are also compared to significance thresholds from the BAAQMD CEQA Guidelines. Table 3.1-10 assumes that Phase 1 would become fully operational in 2028; that Phase 2a would become fully operational in 2031; and that Phases 2b and 3 would become fully operational in 2032. However, emissions are also estimated for partial Phase 1 operations from 2024–2027. The project's operational emissions would exceed BAAQMD's mass daily and annual significance thresholds for ROG, NO_X, PM_{10}, and $PM_{2.5}$ for all years except for 2025 for PM_{10} and 2025–2026 for $PM_{2.5}$. Thus, the proposed project would result in **potentially significant** impacts with respect to operational emissions of ROG, NO_X, PM_{10}, and $PM_{2.5}$.

Net New Combined Construction and Operational Emissions

The net increase in criteria air pollutant emissions was derived by adding the construction-related and operational emissions for each calendar year and subtracting existing emissions. **Table 3.1-11** shows that the net increase in emissions attributable to implementation of the proposed project would exceed the significance thresholds for ROG from 2025 to 2032, NO_X from 2021 to 2032, PM_{10} from 2025 to 2032, and $PM_{2.5}$ from 2027 to 2032. Thus, the proposed project would result in **potentially significant** impacts with respect to operational emissions of ROG, NO_X, PM_{10}, and $PM_{2.5}$. Consequently, implementation of Mitigation Measures AQ-2a through AQ-2h is required.

TABLE 3.1-10
AVERAGE DAILY AND TOTAL ANNUAL UNMITIGATED OPERATIONAL CRITERIA POLLUTANT EMISSIONS BY YEAR

	Average Daily Emissions (Pounds per Day)[a,b]				Annual Emissions (Tons per Year)			
Year	**ROG**	**NO_X**	**PM_{10} Total**	**$PM_{2.5}$ Total**	**ROG**	**NO_X**	**PM_{10} Total**	**$PM_{2.5}$ Total**
2025 [c]	**66**	**55**	53	12	**11**	9	8	2
2026 [c]	**198**	**165**	**158**	37	**34**	**26**	**25**	6
2027 [c]	**296**	**248**	**237**	**56**	**51**	**40**	**37**	9
2028 [d]	**329**	**276**	**263**	**62**	**57**	**44**	**42**	**10**
2029 [d]	**329**	**276**	**263**	**62**	**57**	**44**	**42**	**10**
2030 [d]	**391**	**284**	**264**	**63**	**68**	**46**	**42**	**10**
2031	**391**	**284**	**264**	**63**	**68**	**46**	**42**	**10**
2032+[e]	**471**	**306**	**327**	**77**	**83**	**49**	**52**	**12**
Threshold	**54**	**54**	**82**	**54**	**10**	**10**	**15**	**10**
Exceeds Threshold?	**Yes**	**Yes**	**Yes**	**Yes**	**Yes**	**Yes**	**Yes**	**Yes**

NOTES:
NO_X = oxides of nitrogen; $PM_{2.5}$ = particulate matter 2.5 microns or less in diameter; PM_{10} = particulate matter 10 microns or less in diameter; ROG = reactive organic gases; VMT = vehicle miles traveled

[a] **Bold values** = threshold exceedance

[b] Average daily construction emissions represent total annual emissions divided by 312 work days per year.

[c] Emissions for 2024–2027 are calculated assuming partial buildout scaling factors as follows: 20% in 2025, 60% in 2026, 90% in 2027, and 100% in 2028.

[d] Emissions for 2028–2030 are the same because the modeling assumes that the same VMT and mobile emissions factors would remain constant during these years. This is likely an overestimate because emission factors would decrease over time as a result of vehicle fleet turnover and technology improvements.

[e] Emissions reported for "2032+" would occur at full buildout in 2032 and each subsequent year of project operations.

SOURCE: Data compiled by Environmental Science Associates in 2020 (refer to Appendix C1).

TABLE 3.1-11
AVERAGE DAILY AND TOTAL ANNUAL UNMITIGATED NET NEW CONSTRUCTION AND OPERATIONAL CRITERIA POLLUTANT EMISSIONS BY YEAR

	Average Daily Emissions (Pounds per Day) [a,b,c]				Annual Emissions (Tons per Year) [a,b,c]			
Year	**ROG**	**NO_X**	**PM_{10} Total**	**$PM_{2.5}$ Total**	**ROG**	**NO_X**	**PM_{10} Total**	**$PM_{2.5}$ Total**
Existing Conditions								
Including Mobile	70	124	66	16	11	20	10	3
Excluding Mobile	12	2	0.2	0.2	2	0.4	<0.1	<0.1
Net New Emissions								
2021	5	**59**	1	1	1	9	0	0
2022	6	**85**	1	1	1	**13**	0	0
2023	7	**82**	1	1	1	**13**	0	0
2024	11	**106**	2	1	2	**17**	0	0
2025	**143**	**194**	55	14	**23**	**31**	9	2
2026	**358**	**287**	**159**	39	**59**	**45**	**25**	6
2027	**447**	**319**	**238**	**57**	**74**	**51**	**38**	9
2028	**363**	**318**	**264**	**63**	**62**	**51**	**42**	**10**
2029	**395**	**367**	**264**	**63**	**67**	**58**	**42**	**10**
2030	**410**	**385**	**265**	**64**	**71**	**61**	**42**	**10**
2031	**452**	**336**	**265**	**64**	**77**	**54**	**42**	**10**
2032+	**537**	**309**	**327**	**77**	**93**	**50**	**52**	**12**
Threshold	**54**	**54**	**82**	**54**	**10**	**10**	**15**	**10**
Exceeds Threshold?	**Yes**	**Yes**	**Yes**	**Yes**	**Yes**	**Yes**	**Yes**	**Yes**

NOTES:
NO_X = oxides of nitrogen; $PM_{2.5}$ = particulate matter 2.5 microns or less in diameter; PM_{10} = particulate matter 10 microns or less in diameter; ROG = reactive organic gases

[a] **Bold values** = threshold exceedance.

[b] Net new emissions = construction + operation – existing conditions. Existing uses are assumed to operate on-site through 2028. Existing-condition emissions for non-transportation sources were subtracted in 2029–2032.

[c] Construction emissions presented in this table include Tier 4 Final engines on all off-road equipment (as available) and certain electric equipment pieces.

[e] The operational emissions component of those emissions reported for "2032+" would occur at full buildout in 2032 and each subsequent year of project operations. Note that a portion of these emissions include construction in 2032 (see Table 3.1-9), which would cease in 2033 and subsequent years.

SOURCE: Data compiled by Environmental Science Associates in 2020 (refer to Appendix C1).

Mitigation Measures

Mitigation Measure AQ-2a: Construction Emissions Minimization Plan

To ensure that the project features assumed in the analysis of air pollutant emissions are implemented, and to further reduce criteria pollutant emissions from construction activities, the project applicant shall implement the following measures prior to the issuance of any demolition, grading, or building permits for each phase of the project:

1. *Engine Requirements.*

    a. As part of the project design, all off-road construction equipment with engines greater than 25 horsepower must adhere to Tier 4 Final off-road emissions standards, if commercially available (refer to Item #2, *Engine Requirement Waivers*, below, for the definition of "commercially available"). This adherence shall be verified through submittal of an equipment inventory and Certification Statement to the Director of Planning, Building and Code Enforcement or the Director's designee. The Certification Statement must state that each contractor agrees to compliance and acknowledges that a significant violation of this requirement shall constitute a material breach of the contractor's agreement and/or the general contract with the project applicant.

    b. The project applicant shall use alternative fuels as commercially available, such as renewable diesel, biodiesel, natural gas, propane, and electric equipment. The applicant must demonstrate to the satisfaction of the Director of Planning, Building and Code Enforcement, or the Director's designee, that any alternative fuels used in any construction equipment, such as biodiesel, renewable diesel, natural gas, or other biofuels, reduce ROG, NO_X, and PM emissions compared to traditional diesel fuel.

    c. The project applicant shall use electricity to power off-road equipment, specifically for all concrete/industrial saws, sweepers/scrubbers, aerial lifts, welders, air compressors, fixed cranes, forklifts, and cement and mortar mixers, along with 90 percent of pressure washers and 70 percent of pumps, in all but isolated cases where diesel powered equipment is used as an interim measure prior to the availability of grid power at more remote areas of the site. Portable equipment shall be powered by grid electricity or alternative fuels (i.e., not diesel) instead of by diesel generators.

2. *Engine Requirement Waivers.*

    If engines that comply with Tier 4 Final off-road emission standards are not commercially available for specific off-road equipment necessary during construction, the project applicant shall provide the next cleanest piece of off-road equipment, as provided by the step-down schedule identified in Table M-AQ-2a. The project applicant shall provide to the Director of Planning, Building and Code Enforcement, or the Director's designee, for review and approval documentation showing that engines that comply with Tier 4 Final off-road emission standards are not commercially available for the specific off-road equipment necessary during construction.

TABLE M-AQ-2A
OFF-ROAD EQUIPMENT COMPLIANCE STEP-DOWN SCHEDULE

Compliance Alternative	Engine Emissions Standard	Emissions Control
1	Tier 4 Interim	N/A
2	Tier 3	CARB Level 3 VDECS
3	Tier 2	CARB Level 3 VDCES

NOTES: CARB = California Air Resources Board; N/A = not applicable; VDECS = Verified Diesel Emissions Control Strategies

How to use the table: If engines that comply with Tier 4 Final off-road emission standards are not commercially available, the project applicant shall meet Compliance Alternative 1. If off-road equipment meeting Compliance Alternative 1 is not commercially available, the project applicant shall meet Compliance Alternative 2. If off-road equipment meeting Compliance Alternative 2 is not commercially available, the project applicant shall meet Compliance Alternative 3.

For purposes of this mitigation measure, "commercially available" shall take into consideration the following factors: (i) potential significant delays to critical-path timing of construction and (ii) the geographic proximity to the project site of Tier 4 Final equipment.

The project applicant shall maintain records of its efforts to comply with this requirement.

3. *Additional Exhaust Emissions Control Measures*.

The Emissions Plan (described in greater detail under Item #5, *Construction Emissions Minimization Plan*, below) shall include the applicable measures for controlling criteria air pollutants and toxic air contaminants during construction of the proposed project. Control measures shall include but are not limited to the following:

a. Idling times on all diesel-fueled commercial vehicles weighing more than 10,000 pounds shall be minimized either by shutting equipment off when not in use or by reducing the maximum idling time to two minutes, exceeding the five-minute limit required by the California airborne toxics control measure (California Code of Regulations Title 13, Section 2485s). Clear signage to this effect shall be provided for construction workers at all access points.

b. Idling times on all diesel-fueled off-road vehicles exceeding 25 horsepower shall be minimized either by shutting equipment off when not in use or by reducing the maximum idling time to two minutes. Fleet operators must develop a written policy as required by California Code of Regulations Title 23, Section 2449 ("California Air Resources Board Off-Road Diesel Regulations").

c. Portable equipment shall be powered by grid electricity if available, instead of diesel generators. If grid electricity is not available, batteries or fuel cell systems or other non-diesel fuels shall be used for backup power.

d. The project applicant shall use super-compliant volatile organic compound (VOC) architectural coatings during construction for all interior and exterior

spaces and shall include this requirement on plans submitted for review by the City's building official. "Super-compliant" coatings are those that meet a limit of 10 grams VOC per liter (http://www.aqmd.gov/home/regulations/compliance/architectural-coatings/super-compliant-coatings).

e. All equipment to be used on the construction site shall comply with the requirements of California Code of Regulations Title 13, Section 2449 ("California Air Resources Board Off-Road Diesel Regulations"). This regulation imposes idling limits; requires that all off-road equipment be reported to California Air Resources Board and labeled; restricts adding older vehicles to fleets starting January 1, 2014; and requires fleets to reduce their emissions by retiring, replacing, or repowering older engines, or installing Verified Diesel Emissions Control Strategies. Upon request by the City (and Bay Area Air Quality Management District if specifically requested), the project applicant and/or its contractor shall provide written documentation that fleet requirements have been met.

f. Truck routes shall be established to avoid both on-site and off-site sensitive receptors. A truck route program, along with truck calming, parking, and delivery restrictions, shall be implemented. This program must demonstrate how the project applicant will locate the truck routes as far from on-site receptors as possible and how truck activity (travel, idling, and deliveries) will be minimized. The Construction Emissions Minimization Plan must include the location of construction truck routes and must demonstrate that routes have been established as far as possible from the locations of all on-site and off-site sensitive receptors.

g. The project applicant shall encourage walking, bicycling, and transit use by construction employees by offering incentives such as on-site bike parking, transit subsidies, and additional shuttles. The project shall achieve a performance standard of diverting at least 50 percent of construction employee trips from single-occupant vehicles. This may include the use of carpools and vanpools for construction workers.

4. *Dust Control Measures*.

The project applicant shall implement the following dust control requirements during construction of the project, consistent with the San José Downtown Strategy:

a. All exposed surfaces shall be watered at a frequency adequate to maintain minimum soil moisture of 12 percent (verified by lab samples or moisture probe).

b. All excavation, grading, and/or demolition activities shall be suspended when average wind speeds exceed 20 miles per hour (mph).

c. All trucks and equipment, including tires, shall be washed off before they leave the project site.

d. All haul trucks transporting soil, sand, or other loose material off-site shall be covered.

e. All visible mud or dirt track-out onto adjacent public roads shall be removed using wet power vacuum street sweepers at least once per day. The use of dry power sweeping is prohibited.

f. All vehicle speeds on unpaved roads shall be limited to 15 mph.

g. All roadways, driveways, and sidewalks to be paved shall be completed as soon as possible. Building pads shall be laid as soon as possible after grading unless seeding or soil binders are used.

h. A publicly visible sign shall be posted, listing the telephone number and person to contact at the lead agency (the City) regarding dust complaints. This person shall respond and take corrective action within 48 hours. The sign shall also include the telephone number of the on-site construction manager. BAAQMD's phone number shall also be visible to ensure compliance with applicable regulations.

i. Wind breaks (e.g., trees, fences) shall be installed on the windward side(s) of actively disturbed areas of construction. Wind breaks should have at maximum 50 percent air porosity.

j. Vegetative ground cover (e.g., fast-germinating native grass seed) shall be planted in disturbed areas as soon as possible and watered appropriately until vegetation is established.

k. Site accesses to a distance of 100 feet from the paved road shall be treated with a 6- to 12-inch compacted layer of wood chips, mulch, or gravel.

l. Sandbags or other erosion control measures shall be installed to prevent silt runoff to public roadways from sites with a slope greater than 1 percent.

5. *Construction Emissions Minimization Plan*.

Before starting each phase of on-site ground disturbance, demolition, or construction activities, the project applicant shall submit a Construction Emissions Minimization Plan (Emissions Plan) to the Director of the City of San José Department of Planning, Building and Code Enforcement, or the Director's designee, for review and approval. The Emissions Plan shall state, in reasonable detail, how the project applicant and/or its contractor shall meet the requirements of Section 1, Engine Requirements; Section 3, Additional Exhaust Emissions Control Measures; and Section 4, Dust Control Measures.

a. The Emissions Plan shall include estimates of the construction timeline, with a description of each piece of off-road equipment required. The description shall include but not be limited to equipment type, equipment manufacturer, engine model year, engine certification (tier rating), horsepower, and expected fuel usage and hours of operation.

b. For off-road equipment using alternative fuels, the description shall also specify the type of alternative fuel being used.

c. The project applicant shall ensure that all applicable requirements of the Emissions Plan have been incorporated into the contract specifications. The plan shall include a certification statement that each contractor agrees to comply fully with the plan.

d. The Emissions Plan shall be verified through an equipment inventory and Certification Statement submitted to the Director of Planning, Building and

Code Enforcement or the Director's designee. The Certification Statement must state that the project applicant agrees to compliance and acknowledges that a significant violation of this requirement shall constitute a material breach of the contractor's agreement with the project applicant and/or the general contractor.

e. The project applicant and/or its contractor shall make the Emissions Plan available to the public for review on-site during working hours. The project applicant and/or its contractor shall post at the construction site a legible and visible sign summarizing the Emissions Plan. The sign shall also state that the public may ask to inspect the project's Emissions Plan at any time during working hours and shall explain how to request to inspect the Emissions Plan. The project applicant and/or its contractor shall post at least one copy of the sign in a visible location on each side of the construction site facing a public right-of-way. The sign shall include contact information for an on-site construction coordinator if any member of the public has complaints or concerns.

6. *Monitoring*.

   After the start of construction activities, the project applicant and/or its contractor shall submit annual reports to the Director of the City of San José Department of Planning, Building and Code Enforcement, or the Director's designee, documenting compliance with the Emissions Plan. The reports shall indicate the actual location of construction during each year and must demonstrate how construction of each project component is consistent with the Emissions Plan.

Mitigation Measure AQ-2b: Construction Equipment Maintenance and Tuning

Prior to the issuance of any demolition, grading, or building permits for each phase, the project applicant shall implement the following measures:

1. Instruct all construction workers and equipment operators on the maintenance and tuning of construction equipment and require such workers and operators to properly maintain and tune equipment in accordance with the manufacturers' specifications. All equipment shall be checked by a certified mechanic and determined to be running in proper condition before operation. Equipment check documentation shall be kept at the construction site and be available for review by the City and Bay Area Air Quality Management District as needed.
2. Implement the construction minimization requirements of Mitigation Measure AQ-2a Item #5, *Construction Emissions Minimization Plan*.
3. Implement the monitoring requirements of Mitigation Measure AQ-2a Item #6, *Monitoring*.

Mitigation Measure AQ-2c: Heavy-Duty Truck Model Year Requirement

Prior to the issuance of any demolition, grading, or building permits for each phase, the project applicant shall ensure that all on-road heavy-duty trucks with a gross vehicle weight rating of 33,000 pounds or greater used at the project site during construction (such as haul trucks, water trucks, dump trucks, and vendor trucks) have engines that are model year 2014 or newer. This assurance shall be included in the construction contracts for all contractors and vendors using heavy-duty trucks for any construction-related activity.

Mitigation Measure AQ-2d: Super-Compliant VOC Architectural Coatings during Operations

Prior to the issuance of any building permits, the project applicant shall set an enforceable protocol for inclusion in all lease terms and/or building operation plans for all non-residential and residential developed blocks requiring all future interior and exterior spaces to be repainted only with "super-compliant" VOC (i.e., ROG) architectural coatings beyond BAAQMD requirements (i.e., Regulation 8, Rule 3: Architectural Coatings). "Super-compliant" coatings meet the standard of less than 10 grams VOC per liter (http://www.aqmd.gov/home/regulations/compliance/architectural-coatings/super-compliant-coatings). The Director of the City of San José Department of Planning, Building and Code Enforcement, or the Director's designee, shall review the mandatory protocol to ensure that this requirement is included, and shall mandate that this requirement be added if not included.

Mitigation Measure AQ-2e: Best Available Emissions Controls for Stationary Emergency Generators

To reduce emissions of criteria pollutants and TACs associated with operation of the proposed project, the project applicant shall implement the following measures. These features shall be submitted to the Director of the Department of Planning, Building and Code Enforcement, or the Director's designee, for review and approval, and shall be included on the project drawings submitted for the construction-related permit(s) or on other documentation submitted to the City prior to the issuance of any building permits:

1. Permanent stationary emergency generators installed on-site shall have engines that meet or exceed CARB Tier 4 Off-Road Compression Ignition Engine Standards (California Code of Regulations Title 13, Section 2423), which have the lowest NO_X and PM emissions of commercially available generators. If the California Air Resources Board adopts future emissions standards that exceed the Tier 4 requirement, the emissions standards resulting in the lowest NO_X emissions shall apply.
2. As non-diesel-fueled emergency generator technology becomes readily available and cost effective in the future, and subject to the review and approval of the City fire department for safety purposes, non-diesel-fueled generators shall be installed in new buildings, provided that alternative fuels used in generators, such as biodiesel, renewable diesel, natural gas, or other biofuels or other non-diesel emergency power systems, are demonstrated to reduce ROG, NO_X, and PM emissions compared to diesel fuel.
3. Permanent stationary emergency diesel backup generators shall have an annual maintenance testing limit of 50 hours, subject to any further restrictions as may be imposed by Bay Area Air Quality Management District (BAAQMD) in its permitting process.
4. For each new diesel backup generator permit submitted to BAAQMD for the proposed project, the project applicant shall submit the anticipated location and engine specifications to the Director of the City of San José Department of Planning, Building and Code Enforcement, or the Director's designee, for review and approval prior to issuance of a permit for the generator. Once operational, all diesel backup generators shall be maintained in good working order for the life of the equipment, and any future replacement of the diesel backup generators must be consistent with these emissions specifications. The operator of the facility at

which the generator is located shall maintain records of the testing schedule for each diesel backup generator for the life of that diesel backup generator and shall provide this information for review to the Director of the City of San José Department of Planning, Building and Code Enforcement, or the Director's designee, within three months of requesting such information.

Mitigation Measure AQ-2f: Operational Diesel Truck Emissions Reduction

The project applicant shall incorporate the following measures into the project design and construction contracts (as applicable) to reduce emissions associated with operational diesel trucks, along with the potential health risk caused by exposure to toxic air contaminants. These features shall be submitted to the Director of Planning, Building and Code Enforcement, or the Director's designee, for review and approval prior to the issuance of any building permits, and shall be included on the project drawings submitted for the construction-related permit or on other documentation submitted to the City. Emissions from project-related diesel trucks shall be reduced by implementing the following measures:

1. Equip all truck delivery bays with electrical hook-ups for diesel trucks at loading docks to accommodate plug-in electric truck transportation refrigeration units (TRUs) during project operations. Ensure that intra-campus delivery vehicles traveling within the project site to serve the project applicant are all electric or natural gas.
2. Encourage the use of trucks equipped with TRUs that meet U.S. Environmental Protection Agency Tier 4 emission standards.
3. Prohibit TRUs from operating at loading docks for more than thirty minutes by posting signs at each loading dock presenting this TRU limit.
4. Prohibit trucks from idling for more than two minutes by posting "no idling" signs at the site entry point, at all loading locations, and throughout the project site.

Mitigation Measure AQ-2g: Electric Vehicle Charging

Prior to the issuance of the final building's certificate of occupancy for each phase of construction, the project applicant shall demonstrate that at least 15 percent of all parking spaces are equipped with electric vehicle (EV) charging equipment, which exceeds the San José Reach Code's requirement of 10 percent EV supply equipment spaces. The installation of all EV charging equipment shall be documented in a report submitted to the Director of the City of San José Department of Planning, Building and Code Enforcement, or the Director's designee, for review and approval, and shall be included on the project drawings submitted for the construction-related permit(s) or on other documentation submitted to the City.

Mitigation Measure AQ-2h: Enhanced Transportation Demand Management Program

The project applicant shall develop and submit a Transportation Demand Management (TDM) Program for review and approval by the Directors of Public Works and Planning, Building, and Code Enforcement or the Directors' designees prior to or concurrent with adoption of the PD Permit. The TDM program shall be designed such that all project-related daily vehicle trips are reduced with the primary focus on the office and residential

components of the proposed project. (Office and residential trips would comprise approximately 85 percent of project vehicle trips and are assumed to serve as a proxy for all project trips.)

The TDM program shall:

(A) Be designed to meet performance standards that include exceeding the 15 percent transportation efficiency requirement of AB 900 *and* achieving additional vehicle trip reductions to mitigate transportation-related environmental impacts and reduce criteria pollutant emissions from mobile sources, as described below;

(B) Describe project features and TDM measures that shall and may be used to achieve the performance standard commitments;

(C) Describe a monitoring and reporting program, including a penalty structure for non-compliance; and

(D) Recognizing that commute patterns, behavior and technology continue to evolve, describe a process for amending and updating the TDM program as needed over time while continuing to achieve the performance standards described below.

These elements of the TDM Program are described further below.

A. **Performance Standards:** The project's TDM program shall be designed to achieve the performance standards described below:

- Assuming currently available (pre-COVID-19) public transit service levels, achieve a non-single occupancy vehicle (SOV) rate of 50 percent, which is estimated to be equivalent to a 24 percent reduction in daily vehicle trips from the City of San José Travel Demand Forecasting Model's travel demand outputs.
- Following completion of service enhancements related to Caltrain Electrification, achieve a non-SOV rate of 60 percent, which is estimated to be equivalent to a 26 percent reduction in daily vehicle trips from the City Travel Demand Forecasting Model's travel demand outputs.
- Following completion of service enhancements related to the start of BART service to Diridon Station, achieve a non-SOV rate of 65 percent, which is estimated to be equivalent to a 27 percent reduction in daily vehicle trips from the City Travel Demand Forecasting Model's travel demand outputs.

B. **TDM Program:** Project features and required SOV trip reduction strategies shall include the following elements:

1. Improvements to pedestrian and bicycle facilities on-site and connecting the site to surrounding areas, including construction/contribution to Los Gatos Creek Trail improvements and on-street connectors between West San Carlos Street and West Santa Clara Street;
2. Limited parking supplies on-site, including no more than 4,800 parking spaces for commercial uses and no more than 2,360 spaces for residential development (a portion of the residential spaces could be available as shared-use spaces for office employees) and enforcement of parking maximums for new uses as a disincentive for employees and visitors to the site, encouraging them to carpool, take transit, bike, and walk instead of drive;

3. Market-rate parking pricing for non-residential uses and unbundled parking for market-rate residential uses;
4. Pre-tax commuter benefits for employees allowing employees to exclude their transit or vanpooling expenses from taxable income or an alternate commuter benefit option consistent with the MTC/BAAQMD Commuter Benefits Program required for employers with 50 or more full-time employees;
5. Marketing (encouragement and incentives) to encourage transit use, carpooling, vanpooling, and all non-SOV travel by employees and residents, including welcome packets for new employees and residents, and dissemination of information about Spare the Air Days in the San Francisco Bay Area Air Basin, as recommended by the 2017 Clean Air Plan; and
6. Rideshare coordination, such as implementation of the 511 Regional Rideshare Program or equivalent, as recommended by the 2017 Clean Air Plan.

Other supplemental SOV trip reduction strategies to meet performance standards shall include some combination of the following:

Transit Fare Subsidy	Make available transit passes to employees and residents to make transit an attractive, affordable mode of travel.
Parking Pricing Structure	Ensure that the parking pricing structure complements on-street parking pricing and encourages "park once" behavior for all uses.
Preferential Carpool and Vanpool Parking	Provide dedicated parking for carpool and vanpool vehicles near building and garage entrances.
On-Site Bicycle Storage	Provide additional security and convenience for bicycle parking, such as lockers or secured bicycle rooms.
Designated Ride-Hailing Waiting Areas	Dedicate curbside areas for passenger pickup by ride-hailing services, to minimize traffic intrusion and double-parking by rideshare vehicles.
Traffic Calming	Implement on-site traffic calming improvements to support the increased use of walking, biking, and transit.
Express Bus or Commuter Shuttle Services	Provide express bus or other commuter shuttle services to complement existing, high-quality, high-frequency public transit; service may also be provided through public/private partnerships with transit providers.
Alternative Work Schedules and Telecommuting	Allow and encourage employees to adopt alternative work schedules and telecommute when possible, reducing the need to travel to the office component of the project.

First-/Last-Mile Subsidy	Provide subsidies for first-/last-mile travel modes to employees to reduce barriers to the use of transit as a primary commute mode by making short connecting trips to and from longer transit trips less costly and more convenient. First-/last-mile subsidies could be used to access bicycle share, scooter share, ride hailing, and local bus and shuttle services, and could subsidize bicycling and walking.
On-Site Transportation Coordinators	Provide TDM program outreach and marketing via on-site transportation coordinators who can also give individualized directions, establish ridesharing connections, and provide other alternative travel information to project employees and residents.
Technology-Based Services	Use technology-based information, encouragement, and trip coordination services to encourage carpooling, transit, walking, and biking by project employees and visitors. These can include third-party apps to distribute incentives to people who choose to use these modes.
Employer-Sponsored Vanpools	Coordinate and provide subsidized vanpools for employees who cannot easily commute via transit.
Biking Incentives and On-Site Bike Repair Facilities	Provide additional incentives that encourage bicycle usage and ability to repair bikes on site.
Carshare Program	Provide car share subsidies to residents encourage the use of carshare programs (such as ZipCar, Car2Go, and Gig) and limit parking demand.
Building-Specific TDM Plans	Develop customized TDM plans for specific buildings and tenants to better address the needs of their users.
Transportation Management Agency Membership	Join a non-profit transportation management association if formed for Downtown San José, and leverage the larger pool of commuters and residents to improve TDM program marketing and coordinate TDM programs.

C. **Monitoring and Enforcement:** Starting in the calendar year after the City issues the first certificate of occupancy for the first office or residential building in the first development phase, the project applicant shall retain the services of an independent City-approved transportation planning/engineering firm to conduct an annual mode-share survey of the project's office and residential components each fall (mid-September through mid-November). The survey shall be conducted to determine whether the project is achieving the non-SOV mode share for office and residential uses sufficient to indicate the specified trip reductions. The applicant shall submit an annual report to the staff of the San José Department of Transportation each January 31 of the following year.

The annual report shall describe: (a) implementation of the TDM program; and (b) results of the annual mode split survey, including a summary of the methodology for collecting the mode split data, statistics on response rates, a summary conclusion, and an outline of additional TDM measures (i.e., a

corrective action plan) to be implemented in subsequent years if the non-SOV mode split goal is not reached.

If timely reports are not submitted and/or reports indicate that the project office and residential uses have failed to achieve the non-SOV mode share specified above in two consecutive years after issuance of the certificates of occupancy for 50 percent of the office development, the project will be considered in violation of this mitigation measure. The City will issue a notice of non-compliance after the first year the project fails to meet monitoring requirements (submittal of timely reports and/or achieving specified non-SOV mode share), after which the applicant has one year to comply with the monitoring requirements.

After two years of not meeting monitoring requirements, the City may initiate enforcement action against the applicant and successors, including imposition of financial penalties to the owners and/or operators of the office and residential development that will support the funding and management of transportation improvements that would bring the non-SOV mode share to the targeted level. Enforcement actions shall generally be consistent with City Council Policy 5-1 and shall include a mutually agreed-upon monetary cap.

If timely reports are submitted and demonstrate that the applicant has achieved the non-SOV mode share specified above for five consecutive years after full project occupancy, monitoring shall no longer be required annually, and shall instead be required every five years, or upon request by the City of San José Planning, Building, and Code Enforcement Department or Department of Public Works for an annual update, as needed.

D. **Flexibility and Amendments:** The project applicant may propose amendments to the approved TDM program as part of its annual report each year, subject to review and approval by the Director of Public Works and Director of Planning, Building, and Code Enforcement or the Directors' designees. The applicant shall not be permitted to decrease the performance standards specified in Section A, above. The City and the project applicant expect that the TDM program will evolve as travel behavior changes and as new technologies become available. Any proposed changes will be considered approved unless the Director of Public Works and Director of Planning, Building, and Code Enforcement object to the proposed change within 30 days of receipt.

Mitigation Measure Effectiveness

Effectiveness of Mitigation Measure AQ-2a

Mitigation Measure AQ-2a, Construction Emissions Minimization Plan, would reduce emissions of ROG, NO_X, PM_{10}, and $PM_{2.5}$ from on- and off-road construction equipment. Mitigation Measure AQ-2a would ensure that the project would use Tier 4 Final off-road engines (as assumed in the modeling for unmitigated project emissions, as discussed under *Project Features Analyzed* above) and other best available emissions controls.

The range of emissions reduction would vary depending on the construction activity and the number of haul, vendor, and worker trips at that time. For off-road equipment, compared to the default equipment engines in the construction fleet, the use of Tier 4 Final engines would reduce ROG, NO_X, PM_{10}, and $PM_{2.5}$ emissions by approximately 75 percent, 88 percent, 93 percent, and

92 percent, respectively. The large reduction in construction emissions is a result of starting with fleet-wide average emissions factors for the construction fleet from OFFROAD (embodied in CalEEMod) for the unmitigated scenario to applying Tier 4 Final emissions factors to off-road construction equipment for the mitigated scenario.

Mitigation Measure AQ-2a also requires additional electric equipment for all concrete/industrial saws, sweepers/scrubbers, aerial lifts, welders, air compressors, fixed cranes, forklifts, and cement and mortar mixers, along with 90 percent of pressure washers and 70 percent of pumps, in all but isolated cases where diesel powered equipment is used as an interim measure prior to the availability of grid power at more remote areas of the site. Further, portable equipment would be powered by grid electricity or alternative fuels (i.e., not diesel) instead of by diesel generators. The modeling assumed the removal of diesel generators in favor of grid electricity; alternative-fueled generators were not modeled. The reduction in emissions from electric off-road equipment was quantified.

To conservatively estimate real-world emissions reductions with implementation of this measure, acknowledging that some Tier 4 Final and electric off-road equipment may not be available during certain construction phases, and allowing for some compliance with Item #2, *Engine Equipment Waivers*, and Table M-AQ-2a, it was assumed that some equipment may meet Compliance Alternative 1 (Tier 4 Interim) or Compliance Alternative 2 (Tier 3 plus CARB Level 3 Verified Diesel Emissions Control Strategies).[161,162] This was modeled by assuming that 3 percent of total horsepower-hours would meet Compliance Alternative 1, 1 percent of total horsepower-hours would meet Compliance Alternative 2, and 1 percent of total horsepower-hours would meet Tier 3 engine standards. Given the high availability of Tier 4 engines in the Bay Area,[163] and the regulatory compliance schedule of CARB's ATCM for In-Use Off-Road Diesel-Fueled Fleets (California Code of Regulations Title 17, Section 2449),[164] the assumption that 95 percent of total horsepower-hours for all phases of construction would meet Tier 4 Final engine standards is conservative.

For electric equipment including concrete/industrial saws, sweepers/scrubbers, aerial lifts, welders, air compressors, and fixed cranes, it was assumed that 10 percent of this equipment would meet Tier 4 Final engine standards (and 90 percent would be electric). This was done to account for the possibility that during certain phases of construction, some electric pieces may not be readily available. It was assumed that all forklifts and cement and mortar mixers would be

[161] A Verified Diesel Emissions Control Strategy is an emissions control strategy evaluated and verified (pursuant to the verification procedure laid out in California Code of Regulations Title 13, Sections 2700–2710) by CARB to reduce emissions of either particulate matter (PM) or oxides of nitrogen (NO_X), or both. PM Verified Diesel Emissions Control Strategies are classified into three levels by the amount of verified emission reductions achieved: Levels 1, 2, and 3. Level 3 VDECS means a minimum reduction in PM of 85 percent or a PM emission level of 0.01 grams per brake-horsepower-hour (g/bhp-hr) or less.

[162] California Air Resources Board, *Frequently Asked Questions: Regulation for In-Use Off-Road Diesel-Fueled Fleets (Off-Road Regulation); Verified Diesel Emission Control Strategy (VDECS)*, December 2015. Available at https://www.arb.ca.gov/msprog/ordiesel/faq/vdecsfaq.pdfw. Accessed May 2020.

[163] San Francisco Planning Department, *2017 Update—In-Use, Off-Road Construction Equipment Emissions Tiers*, April 2018.

[164] California Air Resources Board, *Final Regulation Order: Regulation for In-Use Off-Road Diesel-Fueled Fleets*, December 2011. Available at https://ww3.arb.ca.gov/msprog/offroadzone/landing/offroad.htm. Accessed April 2020.

100 percent electric. Pressure washers would be 90 percent electric and 10 percent gasoline, pumps would be 70 percent electric and 30 percent gasoline (with the exception of concrete pumps, which would be 100 percent diesel), and plate compactors would be 100 percent gasoline. This information was provided by the project applicant's construction team.

After accounting for Tier 4 Final engines as discussed above, all other components of this measure that were quantified would reduce exhaust emissions of ROG, NO_X, PM_{10}, and $PM_{2.5}$ emissions by approximately 84 percent, 18 percent, 8 percent, and 18 percent, respectively.

The use of renewable diesel to fuel all diesel engines was considered as a potential quantifiable mitigation measure to further reduce NO_X emissions. Renewable diesel could potentially reduce ROG, NO_X, and PM emissions associated with off-road construction equipment and may help reduce projected average daily NO_X emissions below the significance threshold.[165]

However, according to a recent study prepared for BAAQMD and the South Coast Air Quality Management District, renewable diesel "does not significantly reduce NO_X emissions from diesel engines equipped with selective catalytic reduction (SCR), nor PM emissions from diesel engines equipped with DPF [diesel particulate filter] technology" and "In engines utilizing a DPF for PM control (and SCR for NO_X control), the impacts of RD on PM emissions were inconclusive."[166] The study recommends that further research be conducted for renewable diesel in high-horsepower off-road engines and in diesel engines with advanced emissions controls.

Given the findings of this study, and because Tier 4 off-road engines (as required by Mitigation Measure AR-2a) are typically equipped with DPF technology, it is possible that renewable diesel may not reduce overall emissions of criteria pollutants and TACs from off-road equipment. Given this uncertainty regarding the actual effects of renewable diesel on emissions from off-road construction equipment meeting Tier 4 engine standards, renewable diesel was not quantified as a mitigation measure to reduce NO_X emissions from construction. The use of other alternative fuels in construction equipment, such as biodiesel, propane, and natural gas, was also not quantified, given the current uncertainty about the effectiveness of these fuels in reducing ROG, NO_X, and PM emissions collectively.

The 2-minute idling limit required by Mitigation Measure AQ-2a (Items #3a and #3b) was included in the modeling for all non-concrete hauling trucks. None of the other exhaust control provisions of Mitigation Measure AQ-2a was quantified. Mitigation Measure AR-2a (Item #3d) also requires all architectural coatings used during construction be super-compliant coatings that meet the limit of 10 grams or less VOC per liter, as defined in the South Coast Air Quality Management District's Rule 1113 (Architectural Coatings).[167] All indoor and outdoor coating

[165] California Air Resources Board, *Staff Report: Multimedia Evaluation of Renewable Diesel*, May 2015. Available at https://calepa.ca.gov/wp-content/uploads/sites/6/2016/10/CEPC-2015yr-RenDieselRpt.pdf. Accessed April 2020.

[166] Gladstein, Neandross & Associates, *Renewable Diesel as a Major Heavy-Duty Transportation Fuel in California: Opportunities, Benefits, and Challenges*, August 2017. Available at https://www.gladstein.org/gna_whitepapers/renewable-diesel-as-a-major-transportation-fuel-in-california-opportunities-benefits-challenges/. Accessed May 2019.

[167] South Coast Air Quality Management District, *Super-Compliant Architectural Coatings*, 2019. Available at http://www.aqmd.gov/home/rules-compliance/compliance/vocs/architectural-coatings/super-compliant-coatings. Accessed April 2020.

ROG emissions from construction were therefore estimated using the 10 grams VOC per liter limit. This requirement would reduce ROG emissions from architectural coatings by approximately 90 percent during the building construction sub-phases.

Dust control measures implemented through Mitigation Measure AQ-2a (Item #5) would reduce fugitive PM_{10} and $PM_{2.5}$ emissions substantially. No dust control measures were modeled for the calculation of the regional emissions for the project, per BAAQMD guidelines. Instead, BAAQMD recommends that analyses focus on implementation of dust control measures rather than comparing estimated levels of fugitive dust to a quantitative significance threshold. Therefore, implementation of these dust control requirements is the basis for determining the significance of air quality impacts from fugitive dust emissions, and fugitive dust emissions from construction are not quantified.

Effectiveness of Mitigation Measure AQ-2b

Mitigation Measure AQ-2b, Construction Equipment Maintenance and Tuning, would ensure the proper operation of construction equipment. While proper operation would help to minimize emissions, this measure was not quantified, given the limited methods available for calculating emissions associated with proper maintenance and tuning of construction equipment.

Effectiveness of Mitigation Measure AQ-2c

Mitigation Measure AQ-2c, Heavy-Duty Truck Model Year Requirement, would require that all on-road heavy-duty trucks with a gross vehicle weight rating of 33,000 pounds or greater have engines that are model year 2014 or newer; this would include vendor trucks that exceed this weight limit.

This measure would reduce emissions from on-road heavy-duty trucks because of more stringent engine emissions standards and more fuel-efficient engines. This measure was quantified by assuming that 90 percent of all heavy-duty trucks used during construction would be model year 2014 or newer, based on emissions factors from EMFAC2017. For the project, on-road mobile sources used emissions factors aggregated for the model year for each year of construction. However, with implementation of Mitigation Measure AQ-2c, the model year was restricted to model year 2014 or newer up to the year of construction. Mitigation Measure AQ-2c would reduce construction mobile-source emissions by 24 percent for ROG, 17 percent for NO_X, and 12 percent for PM_{10}.

Effectiveness of Mitigation Measure AQ-2d

Mitigation Measure AQ-2d, Super-Compliant VOC Architectural Coatings during Operations, would reduce ROG emissions from architectural coatings by approximately 90 percent during operations because the coatings would have a lower VOC content. This mitigation measure was quantified by modeling all operational architectural coatings at a VOC content of 10 grams per liter in CalEEMod (the default values range from 100 to 150 grams VOC per liter).

Effectiveness of Mitigation Measure AQ-2e

Mitigation Measure AQ-2e, Best Available Emissions Controls for Stationary Emergency Generators, would substantially reduce emissions of ROG, NO_X, PM_{10}, and $PM_{2.5}$ from

emergency diesel backup generators. However, generator emissions would make up only a small portion of the project's operational emissions (approximately 2 percent of NO_X emissions); thus, even with implementation of this mitigation measure, total operational emissions would still exceed the significance thresholds.

Similar to Mitigation Measure AQ-2a above, alternative fuels to diesel for emergency backup generators were not quantified (Item #1). Given this uncertainty regarding the feasibility of alternative-fueled emergency backup generators, and the unknown effects of alternative fuels such as renewable diesel on emissions from emergency backup generators, the use of alternative fuels was not quantified.

As discussed under Impact AQ-3, reductions of particulate emissions from this measure are necessary to reduce potential health risk impacts on on-site receptors to less-than-significant levels. Tier 4 stationary emergency generators are readily available, and CARB requires that all new stationary emergency generators greater than 560 kilowatts (750 horsepower) manufactured in 2015 or later meet Tier 4 exhaust emissions standards. Therefore, it was assumed that 100 percent of all new project emergency backup diesel generators would meet Tier 4 standards.

This mitigation measure was quantified in the mitigated scenario using Tier 4 stationary diesel engine standards from CARB's ATCM for stationary compression ignition engines.[168] This measure would reduce generator emissions by 37 percent for ROG, 89 percent for NO_X, and 87 percent for both PM_{10} and $PM_{2.5}$.

Effectiveness of Mitigation Measure AQ-2f

Mitigation Measure AQ-2f, Operational Diesel Truck Emissions Reduction, would reduce emissions of ROG, NO_X, PM_{10}, and $PM_{2.5}$ from on-road heavy-duty truck travel and idling by requiring advanced exhaust technology, encouraging Tier 4 emission standards for TRUs, including installation of electrical hookups to replace TRU operations, and requiring idling limitations.

The amount of emission reductions associated with electrical hookups (Item #1) would depend on the number of actual deliveries from electrified refrigerated transport trucks. To quantify this measure, a constant market penetration rate of 25 percent electric TRUs was assumed; this means that 25 percent of all TRUs associated with deliveries to the project site would be electric instead of diesel.

This assumption is conservative, based on CARB's 2019 Draft Concept to convert all truck TRUs to full zero-emission technology by 2031 at a 15 percent turnover rate per year starting in 2025.[169] CARB is also drafting a new regulation for TRUs that would require all new truck TRUs built after 2023 to be zero-emission and all in-use truck TRU fleets to phase in zero-emission TRUs at

[168] California Air Resources Board, *Final Regulation Order: Amendments to the Airborne Toxic Control Measure for Stationary Compression Ignition Engines*, California Code of Regulations Title 17, Section 93115, May 19, 2011. Table 4. Available at https://www.arb.ca.gov/diesel/documents/FinalReg2011.pdf. Accessed June 2020.

[169] California Air Resources Board, *Draft 2019 Update to Emissions Inventory for Transport Refrigeration Units*, October 2019. Available at https://ww3.arb.ca.gov/cc/cold-storage/documents/hra_emissioninventory2019.pdf. Accessed July 2020.

15 percent per year over 7 years until all TRUs in the state are zero-emission by 2031.[170] If this regulation were to be adopted into law, the majority of TRUs serving the project site would likely be zero-emission. Therefore, the assumption that only 25 percent of all TRUs operating from 2028 through 2062 would be electric is extremely conservative. Electric TRUs are assumed to emit no criteria pollutants or TACs. As a result, this mitigation measure would result in a 25 percent reduction in TRU emissions for the project.

Regarding Tier 4 TRU engines (Item #2), at full buildout, DPM emissions from TRUs would account for less than 1 percent of all DPM emissions from project construction and project operations. Therefore, the contribution of Mitigation Measure AQ-2f toward reducing operational emissions would be minor. In addition, the project applicant has limited control over tenant and vendor delivery vehicles. Consequently, the emissions benefit of Tier 4 TRUs was not quantified.

The other components of this measure, including the two-minute idling limit and the location of loading docks, were not modeled. Idling emissions are already embodied in the EMFAC2017 emission factors used to estimate emissions from trucks, and because of the uncertainty regarding future truck idling activities and locations, this was not quantified; this approach likely overestimates mitigated emissions from trucks.

Effectiveness of Mitigation Measure AQ-2g

Mitigation Measure AQ-2g, Electric Vehicle Charging, would reduce mobile-source emissions of ROG, NO_X, PM_{10}, and $PM_{2.5}$ by encouraging residents, employees, visitors, and patrons of the project to use EVs in place of gasoline- and diesel-powered vehicles. This measure was quantified using the same methods as described above under *Project Features Analyzed*, except that the total number of EV chargers was assumed to be 15 percent of the total parking spaces, or 984 total.

Effectiveness of Mitigation Measure AQ-2h

Mitigation Measure AQ-2h, Enhanced Transportation Demand Management Program, would reduce the total VMT and number of trips associated with proposed project operations by 24 percent during interim year operations (2025 through 2031) and by 27 percent at full buildout (2032), resulting in corresponding reductions of approximately 25 percent and 27 percent in ROG, NO_X, PM_{10}, and $PM_{2.5}$ emissions for operational mobile sources during interim and full buildout operational years, respectively.

The reduction in trips and VMT would be achieved through a variety of means, including improvements to pedestrian and bicycle facilities, market-rate parking pricing for commercial uses, limited parking supplies on site, unbundled parking for residential uses, preferential carshare and vanpool parking, and subsidized transit passes for employees and residents. This mitigation measure was quantified in the mitigated scenario.

[170] California Air Resources Board, *Transport Refrigeration Unit Regulation: Draft Regulatory Language for Stakeholder Review*, March 12, 2020. Available at https://ww2.arb.ca.gov/sites/default/files/classic//diesel/tru/documents/Draft%20TRU%20Regulatory%20Language_03122020.pdf. Accessed July 2020.

Additional Measures Considered

Additional measures to further reduce NO_X emissions were also considered and rejected as infeasible. The additional measures considered and rejected included:

- Adjusting the construction schedule to reduce the intensity of construction activity and shift the equipment producing the most NO_X emissions into years with less construction activity;
- Extending the overall schedule to reduce the emissions intensity in any given year; and
- Replacing the largest pieces of construction equipment with smaller pieces of construction equipment.

These actions were determined to be infeasible because they would not meet the project's buildout schedule and because of other financial and operational considerations. They were also determined to be infeasible because the equipment fleet proposed and modeled in this analysis represents the equipment most likely to be available at this time, including the proportion of electric and diesel equipment (refer to Appendix C1 for more detail). As such, no additional feasible mitigation measures have been identified for achieving further substantial reductions in NO_X emissions from construction activities.

Analysis of Overall Mitigation Measure Effectiveness

Table 3.1-12 presents average daily and total annual construction-related emissions of criteria pollutants with implementation of Mitigation Measures AQ-2a, AQ-2c, and AQ-2d (the mitigation measures that were expressly quantified, as discussed above). The table also compares construction emissions with the significance thresholds. Mitigated project construction emissions would exceed BAAQMD's CEQA thresholds of significance for average daily NO_X emissions during 2023–2026 and 2029–2030. ROG, PM_{10}, and $PM_{2.5}$ exhaust emissions would be below the applicable thresholds of significance for all years of construction.

Table 3.1-13 presents average daily and total annual and operational emissions of criteria pollutants by year with implementation of Mitigation Measures AQ-2a, AQ-2c, AQ-2d, AQ-2e, AQ-2f, and AQ-2h (the mitigation measures applicable to operational emissions that were expressly quantified, as described above). **Table 3.1-14** presents the net increase in average daily and total annual construction-related plus operational criteria pollutant emissions by year with implementation of mitigation measures, compared to existing conditions. The tables also compare emissions to the BAAQMD thresholds. Implementing Mitigation Measures AQ-2a through AQ-2h would reduce emissions, but emissions would remain significant for ROG, NO_X, and PM_{10}. Mitigated net new combined project construction and operational emissions would exceed BAAQMD's CEQA thresholds of significance for average daily ROG emissions during 2026–2032, for average daily NO_X emissions during 2023–2032, for average daily PM_{10} emissions during 2026–2032, and for average daily $PM_{2.5}$ emissions during 2032.

TABLE 3.1-12
AVERAGE DAILY AND TOTAL ANNUAL MITIGATED CONSTRUCTION CRITERIA POLLUTANT EMISSIONS BY YEAR

	Average Daily Emissions (Pounds per Day)[a,b,c,d]				Annual Emissions (Tons per Year)[c,d,e]			
Year	ROG	NO_X	PM_{10} Exhaust	$PM_{2.5}$ Exhaust	ROG	NO_X	PM_{10} Exhaust	$PM_{2.5}$ Exhaust
2021	3	37	1	1	<1	6	<1	<1
2022	4	50	1	1	1	8	<1	<1
2023	5	**56**	1	1	1	9	<1	<1
2024	6	**67**	1	1	1	12	<1	<1
2025	11	**85**	1	1	2	13	<1	<1
2026	18	**76**	1	1	3	12	<1	<1
2027	15	44	1	<1	2	7	<1	<1
2028	3	23	<1	<1	1	4	<1	<1
2029	11	**65**	1	1	2	10	<1	<1
2030	6	**66**	1	1	1	10	<1	<1
2031	8	34	<1	<1	1	5	<1	<1
2032	6	5	<1	<1	1	1	<1	<1
Threshold	**54**	**54**	**82**	**54**	n/a	n/a	n/a	n/a
Exceeds Threshold?	No	Yes	No	No				

NOTES:
NO_X = oxides of nitrogen; $PM_{2.5}$ = particulate matter 2.5 microns or less in diameter; PM_{10} = particulate matter 10 microns or less in diameter; ROG = reactive organic gases

[a] **Bold values** = threshold exceedance

[b] Average daily construction emissions represent total annual emissions divided by 312 work days per year.

[c] Emissions presented in this table include Tier 4 Final engines on all off-road equipment (as available) and certain electric equipment pieces. Emissions also assume that 3% of horsepower-hours for all phases of construction would be associated with Tier 4 interim off-road equipment engines, 1% of horsepower-hours would be associated with Tier 3 off-road equipment engines plus Level 4 diesel particulate filters, and 1% of horsepower-hours would be associated with Tier 3 off-road equipment engines. This is because Tier 4 Final and electric off-road equipment may not be available during certain phases of construction.

[d] Emissions include implementation of Mitigation Measure AQ-2a, Construction Emissions Minimization Plan; Mitigation Measure AQ-2c, Heavy-Duty Truck Model Year Requirement; and Mitigation Measure AQ-2d, Super-Compliant VOC Architectural Coatings during Operations.

[e] Total annual construction emissions are shown because construction-related and operational emissions would overlap for some years. There is no significance threshold for annual construction emissions.

SOURCE: Data compiled by Environmental Science Associates in 2020 (refer to Appendix C1).

Health Impacts Assessment for Criteria Pollutant Emissions—Regional Effects

The types of adverse health effects known to occur as a result of exposure to criteria air pollutants and the potential for secondarily formed ozone are discussed in Section 3.1.1, *Environmental Setting*, under *Criteria Air Pollutants*. The analysis below uses available models to attempt to correlate the project's criteria air pollutant emissions to elevated concentrations of such pollutants in the region, and then to identify health effects that may result from the predicted increased concentrations. The following analysis reflects a reasonable effort, based on the best available existing tools, to relate the expected adverse air quality impacts to likely health consequences as directed by the Supreme Court in the *Friant Ranch* case.[171] The limitations and qualifications of the analysis are highlighted after the presentation of the analysis results, below.

[171] *Sierra Club v. County of Fresno* (2018) 6 Cal.5th 502, 517–522.

TABLE 3.1-13
AVERAGE DAILY AND TOTAL ANNUAL MITIGATED OPERATIONAL CRITERIA POLLUTANT EMISSIONS BY YEAR

	Average Daily Emissions (Pounds per Day)[a,b]				Annual Emissions (Tons per Year)[b]			
Year	ROG	NO_X	PM_{10} Total	$PM_{2.5}$ Total	ROG	NO_X	PM_{10} Total	$PM_{2.5}$ Total
2025 [c]	**55**	39	40	9	9	6	6	2
2026 [c]	**164**	**116**	**120**	28	**28**	**18**	**19**	5
2027 [c]	**246**	**174**	**179**	43	**42**	**27**	**28**	7
2028 [d]	**273**	**193**	**199**	47	**47**	**31**	**32**	8
2029 [d]	**273**	**193**	**199**	47	**47**	**31**	**32**	8
2030 [d]	**329**	**194**	**200**	48	**57**	**31**	**32**	8
2031	**329**	**194**	**200**	48	**57**	**31**	**32**	8
2032+ [e]	**395**	**195**	**237**	**56**	**70**	**31**	**37**	9
Threshold	**54**	**54**	**82**	**54**	**10**	**10**	**15**	**10**
Exceeds Threshold?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No

NOTES:
NO_X = oxides of nitrogen; $PM_{2.5}$ = particulate matter 2.5 microns or less in diameter; PM_{10} = particulate matter 10 microns or less in diameter; ROG = reactive organic gases
[a] Average daily construction emissions represent total annual emissions divided by 312 work days per year.
[b] Emissions include implementation of Mitigation Measure AQ-2d, Super-Compliant VOC Architectural Coatings during Operations; Mitigation Measure AQ-2e, Best Available Emissions Controls for Stationary Emergency Generators; Mitigation Measure AQ-2f, Operational Diesel Truck Emissions Reduction; Mitigation Measure AQ-2g, Electric Vehicle Charging; and Mitigation Measure AQ-2h, Enhanced Transportation Demand Management Program.
[c] Emissions for 2025–2027 are calculated assuming partial buildout scaling factors as follows: 20% in 2025, 60% in 2026, 90% in 2027, and 100% in 2028.
[d] Emissions for 2028–2030 are the same because the modeling assumes that the same vehicle miles traveled and mobile emissions factors remain constant during these years. This is likely an overestimate because emissions factors would decrease over time with vehicle fleet turnover and technology improvements.
[e] Emissions reported for "2032+" would occur at full buildout in 2032 and each subsequent year of project operations.
SOURCE: Data compiled by Environmental Science Associates in 2020 (refer to Appendix C1).

As explained by BAAQMD in its 2010 report justifying its CEQA significance thresholds, the thresholds for the ozone precursors ROG and NO_X were tied to BAAQMD's offset requirements for ozone precursors. The offset requirements refer to BAAQMD's New Source Review Rule, which requires that certain new projects in the Bay Area secure emission offsets for any increases they might cause in emissions of ozone-precursor organic compounds, NO_X, and $PM_{2.5}$.[172] The offset requirements are based on the Bay Area's nonattainment with the federal ozone standard; therefore, such an approach is appropriate "to prevent further deterioration of ambient air quality and thus has

[172] *Emission offsets* are reductions in emissions in one place that can be used to compensate for increased emissions elsewhere, through an established banking and trading program. Ozone-precursor organic compound and NO_X offsets are required for both major and non-major facilities. $PM_{2.5}$ offsets are required only for emissions increases at *major facilities*, which are defined as facilities that have the potential to emit 100 tons or more per year of a given pollutant. *Non-major facilities* have potential emissions of less than 100 tons per year. Emission offsets may be provided through on-site emissions reductions or the purchase of banked emissions reduction credits. The project is not a source that falls under the New Source Review Rule; this information is provided only to explain the origin of BAAQMD's CEQA thresholds.

TABLE 3.1-14
AVERAGE DAILY AND TOTAL ANNUAL MITIGATED NET NEW CONSTRUCTION AND OPERATIONAL CRITERIA POLLUTANT EMISSIONS BY YEAR

	Average Daily (Pounds per Day)[a,b,c]				Annual (Tons per Year)[a,b,c]			
Year	ROG	NO_X	PM_{10} Total	$PM_{2.5}$ Total	ROG	NO_X	PM_{10} Total	$PM_{2.5}$ Total
Existing Conditions								
Including Mobile	70	124	66	16	<1	6	<1	<1
Excluding Mobile	12	2	0.2	0.2	2	0.4	<0.1	<0.1
2021	3	37	1	1	1	6	<1	<1
2022	4	50	1	1	1	8	<1	<1
2023	5	**56**	1	1	1	9	<1	<1
2024	5	**67**	1	1	1	10	<1	<1
2025 [d]	**66**	**123**	**41**	10	11	19	6	2
2026 [d]	**182**	**191**	**120**	29	**31**	**30**	19	5
2027 [d]	**261**	**218**	**180**	43	**45**	**34**	**28**	7
2028	**276**	**216**	**200**	47	**48**	**34**	**32**	8
2029	**273**	**256**	**200**	48	**47**	**40**	**32**	8
2030	**322**	**258**	**201**	48	**56**	**41**	**32**	8
2031	**325**	**226**	**200**	48	**56**	**36**	**32**	8
2032+ [e]	**389**	**198**	**237**	**56**	**69**	**31**	**37**	9
Threshold	**54**	**54**	**82**	**54**	**10**	**10**	**15**	**10**
Exceeds Threshold?	**Yes**	**Yes**	**Yes**	**Yes**	**Yes**	**Yes**	**Yes**	No

NOTES:
NO_X = oxides of nitrogen; $PM_{2.5}$ = particulate matter 2.5 microns or less in diameter; PM_{10} = particulate matter 10 microns or less in diameter; ROG = reactive organic gases

[a] Net new emissions = construction + operation – existing conditions. Existing uses are assumed to operate on-site through 2028. Existing-condition emissions for non-transportation sources were subtracted in 2029–2032.

[b] Construction emissions presented in this table include Tier 4 Final engines on all off-road equipment (as available, with the assumption that 4% of horsepower-hours for all phases of construction would be associated with Tier 4 interim off-road equipment engines, 1% of horsepower-hours would be associated with Tier 3 off-road equipment engines plus Level 4 diesel particulate filters, and 1% of horsepower-hours would be associated with Tier 3 off-road equipment engines) and certain electric equipment pieces.

[c] Emissions include implementation of Mitigation Measure AQ-2a, Construction Emissions Minimization Plan; Mitigation Measure AQ-2c, Heavy-Duty Truck Model Year Requirement; Mitigation Measure AQ-2d, Super-Compliant VOC Architectural Coatings during Operations; Mitigation Measure AQ-2e, Best Available Emissions Controls for Stationary Emergency Generators; Mitigation Measure AQ-2f, Operational Diesel Truck Emissions Reduction; Mitigation Measure AQ-2g, Electric Vehicle Charging; and Mitigation Measure AQ-2h, Enhanced Transportation Demand Management Program.

[d] Operational emissions for 2025–2027 are calculated assuming partial buildout scaling factors as follows: 20% in 2025, 60% in 2026, 90% in 2027, and 100% in 2028.

[e] The operational emissions component of those emissions reported for "2032+" would occur at full buildout in 2032 and each subsequent year of project operations. Note that a portion of these emissions include construction in 2032 (see Table 3.1-12), which would cease in 2033 and subsequent years.

SOURCE: Data compiled by Environmental Science Associates in 2020 (refer to Appendix C1).

nexus and proportionality to prevention of a regionally cumulative significant impact (e.g., worsened status of non-attainment)."[173] Such offset levels allow for regional development while keeping the cumulative effects of new sources at a level that would not impede attainment of the

[173] Bay Area Air Quality Management District, *Revised Draft Options and Justification Report, California Environmental Quality Act Thresholds of Significance*, June 2, 2010.

NAAQS. As described in Section 3.1.2, *Regulatory Framework*, compliance with the ambient air quality standards indicates that regional air quality can be considered protective of public health.

As explained above, attainment can be considered protective of public health, thus providing a strong link between a mass emissions threshold and avoidance of negative health effects. For PM_{10} and $PM_{2.5}$, BAAQMD established CEQA significance thresholds based on the federal New Source Review program for new stationary sources of pollution, which contains stricter thresholds than does BAAQMD's offset program for these pollutants. "These thresholds represent the emission levels above which a project's individual emissions would result in a considerable adverse contribution to the [San Francisco Bay Area Air Basin]'s existing air quality conditions."[174] As with ROG and NO_X discussed above, these thresholds likewise provide a connection between a mass emission threshold and avoidance of health effects.

The following analysis is provided to disclose the extent to which unmitigated and mitigated criteria air pollutant emissions from the project would result in (1) changes in the concentration of criteria air pollutants in the atmosphere and (2) correlative health effects that may occur as a result of those changes in air pollutant concentrations.

Results of Analysis

Photochemical grid modeling performed using CAMx predicts slight increases in ozone and $PM_{2.5}$ concentrations with the unmitigated project emissions as compared to the base-case emissions. The CAMx results for the base case as compared to the base case plus unmitigated project show the following increases at the most affected model grid cells:[175] a maximum increase of 0.014 parts per billion, or 0.021 percent, for the overall maximum daily 8-hour average ozone and 0.20 $\mu g/m^3$, or 1.1 percent, for the maximum 24-hour average $PM_{2.5}$. Similarly, the mitigated project emissions were compared to the base case. The CAMx results for the base case as compared to the base case plus mitigated project show the following increases at the most affected model grid cells: a maximum increase of 0.013 parts per billion, or 0.019 percent, for the overall maximum daily 8-hour average ozone and 0.15 $\mu g/m^3$, or 0.81 percent, for the maximum 24-hour average $PM_{2.5}$.

Note that these estimated increases are for the most affected grid cell; thus, the estimated changes in all other modeled grid cells would be less. These results generally validate the prediction that adding locally generated emissions could result in incremental increases in nearby ground-level concentrations of ozone and $PM_{2.5}$. However, these increases are very small.

Although a strong correlation exists between elevated concentrations and elevated health incidence rates, there is uncertainty when linking health incidence data with very small increases in concentrations. The estimate of health effects presumes that impacts seen at large concentration differences can be linearly scaled down to small concentration differences, with no consideration of potential thresholds below which health effects may not occur. In addition, as discussed below,

[174] Bay Area Air Quality Management District, *Ozone Modeling and Data Analysis During CCOS*, September 2009. Available at http://www.baaqmd.gov/~/media/Files/Planning%20and%20Research/Research%20and%20Modeling/CCOS%20modeling%20report.ashx. Accessed December 2019.

[175] The most-affected model grid cells for $PM_{2.5}$ and ozone concentrations is the one overlapping the project site and the one to the east of the project site, which includes much of downtown San José.

several additional modeling uncertainties and assumptions are embodied in the analysis. The health effects presented are conservatively estimated, and may be zero.

Overall, the estimated change in health effects from ozone and $PM_{2.5}$ associated with unmitigated and mitigated project emissions is minimal in light of background incidences. Specifically, for all the health endpoints quantified, the number of estimated incidences is between 0.00002 percent and 0.0012 percent of the background health incidence.[176] The "background health incidence" is an estimate of the average number of people in a given population who would suffer from some adverse health effect over a given period of time in the absence of additional emissions from the project. Health incidence rates and other health data are typically collected by the government as well as the World Health Organization. When taken into context, the small increase in incidences and the very small percentage of the number of background incidences indicate that these health effects are minimal in a developed, urban environment.

Unmitigated $PM_{2.5}$-related health outcomes attributed to project-related increases in ambient air concentrations include:

- Asthma-related emergency room visits (approximately 1.15 additional per year; study year 2032);
- Asthma-related hospital admissions (approximately 0.10 additional per year; study year 2032);
- All cardiovascular-related hospital admissions, not including myocardial infarctions (approximately 0.29 additional per year; study year 2032);
- All respiratory-related hospital admissions (approximately 0.51 additional per year; study year 2032);
- Mortality (approximately 2.03 additional per year; study year 2032);[177] and
- Non-fatal acute myocardial infarction (approximately 0.23 additional per year for all age groups; study year 2032).

After implementation of mitigation measures, including Mitigation Measure AQ-2a (Construction Emissions Minimization Plan), AQ-2c (Heavy-Duty Truck Model Year Requirement), AQ-2d (Super-Compliant VOC Architectural Coatings during Operations), AQ-2e (Best Available Emissions Controls for Stationary Emergency Generators), AQ-2f (Operational Diesel Truck Emissions Reduction), AQ-2g (Electric Vehicle Charging), and AQ-2h (Enhanced Transportation Demand Management Program), $PM_{2.5}$-related health outcomes attributed to project-related increases in ambient air concentrations include:

- Asthma-related emergency room visits (approximately 0.85 additional per year; study year 2032);
- Asthma-related hospital admissions (less than 0.08 additional per year; study year 2032);

[176] These percentages are based on Project-level incremental health effects divided by background health incidences provided by BenMAP as discussed in the *Approach to Analysis* section above and Appendix C3.

[177] Mortality associated with $PM_{2.5}$ is a result of an individual's exposure to annual $PM_{2.5}$ concentrations. As such, this analysis uses average annual $PM_{2.5}$ concentrations to estimate incidences of mortality.

- All cardiovascular-related hospital admissions, not including myocardial infarctions (less than 0.22 additional per year; study year 2032);
- All respiratory-related hospital admissions (approximately 0.38 additional per year; study year 2032);
- Mortality (approximately 1.50 additional per year; study year 2032); and
- Non-fatal acute myocardial infarction (less than 0.17 additional per year for all age groups; study year 2032).

These numbers compare to the study year 2032 background incidences for the entire modeled area of approximately 18 million people[178] with asthma-related emergency room visits (112,397 per year), asthma-related hospital admissions (13,102 per year), all cardiovascular-related hospital admissions, not including myocardial infarctions (139,003 per year), all respiratory-related hospital admissions (118,802 per year), mortality (170,920 per year), and nonfatal acute myocardial infarction (38,556 per year for all age groups). For comparison, the San Jose Mineta Airport Master Plan Amendment EIR conducted an HIA similar to the one prepared for the proposed project. That EIR found the maximum $PM_{2.5}$-related health outcomes to be 4.5 additional incidences of mortality, 1.9 additional incidences of asthma-related emergency room visits, and 0.8 additional incidences of all respiratory-related hospital admissions.[179] Refer to Appendix C3 for additional discussion.[180]

Unmitigated ozone-related health outcomes attributed to project-related increases in ambient air concentrations included:

- Respiratory-related hospital admissions (approximately 0.038 additional per year, study year 2032);
- Mortality, all causes (less than 0.07 additional per year, study year 2032); and
- Asthma-related emergency room visits (approximately 0.44 additional per year, study year 2032).

After implementation of mitigation measures, ozone-related health outcomes attributed to project-related increases in ambient air concentrations include:

- Respiratory-related hospital admissions (approximately 0.03 additional per year, study year 2032);

[178] Based on the 2010 census data, the EPA's PopGrid software generates the Ben-MAP ready population dataset for the modeling domains, which is 17,928,057 for the 4km modeling grid (the modeling domain is a 387.74-by-253.52-mile [158,196.14-square-mile] area). Based on the 2010 population dataset generated by PopGrid, BenMAP predicts the 2029 and 2032 populations for the modeled domain for usage in the health impact calculations.

[179] City of San Jose, *Draft Environmental Impact Report: Amendment to Norman Y. Mineta San Jose International Airport Master Plan*, Chapter 4.3 Air Quality, pp. 92-93, November 2019. Available at https://www.sanjoseca.gov/your-government/department-directory/planning-building-code-enforcement/planning-division/environmental-planning/environmental-review/active-eirs/sjc-airport-master-plan-update. Accessed August 2020.

[180] For background incidence rates, BenMAP projects likely mortality rates for future years, but for other health effects, incidence rates are based on population changes only and may not reflect rates for future years. Year 2025 is conservatively applied to the Interim Year 2029 Scenario and Year 2030 is conservatively applied to First Operational Year 2032 Scenario emissions modeled in CAMx. The projected incidence rates are assumed conservative because incidence rates are expected to decrease over time with improved air quality.

- Mortality, all causes (approximately 0.05 additional per year, study year 2032); and
- Asthma-related emergency room visits (less than 0.36 additional per year, study year 2032).

These numbers compare to the study year 2032 background incidences for the entire modeled regional area with respiratory-related hospital admissions (49,799 per year), mortality, all causes (73,083 per year), and asthma-related emergency room visits (47,114 per year). For comparison, the San Jose Mineta Airport Master Plan Amendment EIR found the maximum ozone-related health outcomes to be 1.1 additional incidences of mortality, 25.6 additional incidences of asthma-related emergency room visits, and 2.1 additional incidences of all respiratory-related hospital admissions. Refer to Appendix C3 for additional discussion.[181]

Modeling Assumptions

As noted under *Approach to Analysis* above, the health outcomes presented here utilize the highest annual daily average construction and operations emissions for ozone precursors and $PM_{2.5}$, which were combined to develop a conservative emissions inventory. The emissions speciation profiles for the regional existing conditions emission inventory were assumed to be equivalent to the speciation profiles for the project conditions. The model assumes that health effects can occur at any concentration, including small incremental concentrations. It was also assumed that all $PM_{2.5}$ emissions are of equal toxicity, regardless of the source of PM or the constituents of each PM emissions source. These assumptions all result in highly conservative health effect incident rates and are intended to represent the worst-case, upper-bound potential impacts. For example, because the Project is committed to minimizing diesel emission sources, the overwhelming majority of project-related emissions are from less toxic non-combustion sources, such as brake and tire wear and re-entrained road dust. The modeled resultant incremental increase in ambient levels of $PM_{2.5}$ may not be as toxic as the atmospheric PM2.5 levels that serve as the background studies to develop the health impact functions used by BenMAP, like for mortality.[182]

Uncertainty of Results

As many regional-scale HIAs and this project-level analysis demonstrate, performing a quantitative HIA is difficult due to its complexity, but some level of analyses can be performed. Nevertheless, the limits of such analyses should be noted.

The HIA for the project does not link predicted changes in ozone and $PM_{2.5}$ concentrations associated with project operations to any specific *individual* health impact; instead, it uses studies that report *correlations* between health effects and exposure to ozone and $PM_{2.5}$, to estimate potential effects on the population in the modeling domain. The model outputs provide seemingly

[181] For background incidence rates, BenMAP projects likely mortality rates for future years, but for other health effects, incidence rates are based on population changes only and may not reflect rates for future years. Year 2025 is conservatively applied to the Interim Year 2029 Scenario and Year 2030 is conservatively applied to First Operational Year 2032 Scenario emissions modeled in CAMx. The projected incidence rates are assumed conservative because incidence rates are expected to decrease over time with improved air quality.

[182] U.S. Environmental Protection Agency, *BenMAP-Community Edition User's Manual*. Appendix E: Core Particulate Matter Health Impact Functions in U.S. Setup, Section E.1.2 Krewski et al. (2009). Available at: https://www.epa.gov/sites/production/files/2015-04/documents/benmap-ce_user_manual_march_2015.pdf. Accessed August 2020.

precise values. It would be inappropriate, however, to assume that these values give an exact understanding of the project's actual impacts. The uncertainty in such analyses is inherent and unavoidable, given all of the assumptions about meteorology, photochemical reactions, and other air basin characteristics, as described further below.

The modeling performed to estimate a project's contribution to ambient concentrations of pollutants requires assumptions for many variables related to the proposed project and the meteorological and other characteristics of the air basin into which the pollutants are emitted. All simulations of physical processes, whether ambient air concentrations or health effects from air pollution, have an associated level of uncertainty because of many simplifying assumptions. Each step in the modeling process, and each assumption incorporated into the model, adds a degree of uncertainty into the reported results, resulting from the usage of air pollutant emission estimates, ambient air concentration modeling, and health impact calculations using various health impact functions. The combination and compounding of the uncertainties from each step of the modeling analysis, in the context of the very small increments of change that are predicted, could result in large uncertainties. The modeling results should be viewed in light of these uncertainties.

Generally, models that correlate concentrations of criteria air pollutants with specific health effects focus on regulatory decision-making that will apply throughout an entire air basin or region. These models focus on the region-wide health effects of pollutants so that regulators can assess the costs and benefits of adopting a proposed regulation that applies to an entire category of air pollutant sources, rather than the health effects related to emissions from a specific proposed project or source. Because of the scale of these analyses, any single project is likely to have only very small incremental effects, which may be difficult to differentiate from the effects of air pollutant concentrations in an entire air basin. For regional pollutants, it is difficult to trace a particular project's criteria air pollutant emissions to a specific health effect. Even if the model reports a given health effect, the actual effect may differ from the modeled results; that is, the modeled results suggest precision, when in fact the available models have numerous uncertainties that limit their precision for predicting health effects associated with emission sources that are small in comparison to regional, air basin-wide emissions.

A number of assumptions built into the application of concentration-response functions in BenMAP may lead to an overestimation of health effects. For example, estimates of all-cause mortality impacts from $PM_{2.5}$ are based on a single epidemiological study that found an association between $PM_{2.5}$ concentrations and mortality. Similar studies suggest that such an association exists, but uncertainty remains regarding a clear causal link. This uncertainty stems from the limitations of epidemiological studies, such as inadequate exposure estimates and the inability to control for many factors that could explain the association between $PM_{2.5}$ and mortality, such as lifestyle factors like smoking or exposures to other air pollutants. For both the $PM_{2.5}$ and ozone health effects calculated, each pollutant may confound the other and both air pollutants could contribute to the health effect outcomes evaluated, so the overall impacts may be overstated.

These assumptions and uncertainties do not necessarily mean that the modeled results are invalid or uninformative. Rather, the modeled results should not be misinterpreted as an exact calculation of something as complex as photochemical grid modeling, or as an exact correlation between a

given level of emissions and specific health effects. In this case, the modeled health effects may differ from the actual future health effects associated with the project.

In addition, the estimate of health effects presumes that impacts seen at large concentrations can be linearly scaled down to small concentrations, with no consideration of the potential threshold effect[183] below which health effects may not occur. This method of linearly scaling impacts is broadly accepted for use in regulatory evaluations and is considered to be health protective. While conservative to apply linear scaling, it may result in an overestimation of health effect incidences from very small increases in concentrations.

The very small increase in the incidence of health effects as determined from the modeling, relative to the substantially larger number of background health effects incidences, demonstrates that the project would have a very small impact on community-wide health effects. The estimated increases in those incidences of health effects are quite minor compared to the background health incidence values with the largest $PM_{2.5}$ health effect (all-cause mortality), representing only 0.0009 percent of the total of all deaths under mitigated conditions, and the largest effect for ozone (asthma-related emergency room visits by adults), representing 0.0016 percent of all emergency room visits under mitigated conditions.

While the quantitative HIA uses the best available tools and guidance currently available, many compounding uncertainties may affect the reported results such that the modeled health effects may differ from the actual future health effects associated with the proposed project. The calculated health effects for the project are conservatively estimated, within the models' margin of error, and may in fact be zero.

Additional discussion of modeling limitations and uncertainty is provided in Appendix C3.

> **Significance after Mitigation:** Significant and unavoidable. Implementation of Mitigation Measures AQ-2a through AQ-2h would reduce emissions of ROG, NO_X, PM_{10}, and $PM_{2.5}$ for the proposed project. However, as shown in Table 3.1-14, the net increase in criteria air pollutant emissions would exceed the significance thresholds for ROG, NO_X, PM_{10}, and $PM_{2.5}$, even after mitigation. For these reasons, the residual impact of project emissions during construction and overlapping operations is significant and unavoidable.

Impact AQ-3: The proposed project would expose sensitive receptors to substantial pollutant concentrations. ***(Significant and Unavoidable)***

To assess the project's potential to expose sensitive receptors to substantial pollutant concentrations, an HRA was conducted to assess increased cancer risk, non-cancer chronic health effects, and localized annual average $PM_{2.5}$ concentrations from both construction-related and operational sources. In the HRA, localized $PM_{2.5}$ concentrations and non-cancer chronic health

[183] U.S. National Library of Medicine, Dose Response, https://toxtutor.nlm.nih.gov/02-002.html. Accessed August 17, 2020.

risks were assessed based on annual average concentrations and exposure; hence, separate evaluations were performed for construction and operations, except where they would overlap.

Cancer risk was assessed based on the probability of contracting cancer over a person's lifetime, evaluated as 30.25 years of exposure, starting as a third-trimester fetus in the womb and ending after 30 years of life.[184] Therefore, the probability of an increased cancer risk was determined by evaluating a sensitive receptor's exposure to both construction-related and operational emissions, combined. To determine whether significant impacts would occur, the cancer risk, non-cancer chronic risk, and annual average $PM_{2.5}$ concentration results were compared to the project-related significance thresholds of an increase in cancer risk level greater than 10 in 1 million, a non-cancer chronic HI greater than 1.0, and an annual average $PM_{2.5}$ concentrations greater than 0.3 $\mu g/m^3$ of $PM_{2.5}$, respectively.

BAAQMD established a project-level significance threshold of greater than 10 in 1 million increased lifetime cancer risk. To put the increased risk in context, the "background" cancer risk for the general population in the U.S. is 387,000–401,400 in a million.[185] (Stated another way, the probability of a person in the general population contracting cancer over their lifetime is 38.7 to 40.1 percent, and the BAAQMD project-level significance threshold would be an increase in that probability by over 0.001 percent. See *Incremental Increase in Lifetime Cancer Risk* section above for further perspective.) As discussed in Section 3.1.1, *Environmental Setting*, of this overall cancer risk, CARB has determined that the statewide risk from DPM—the most significant TAC contributor to cancer risk—declined from 750 in 1 million in 1990 to 570 in 1 million in 1995 and to 520 in 1 million by 2012.[186,187] This number is expected to decline further during the 11 years of project construction as the ATCM requiring reductions from construction equipment fleets is fully implemented, and during long-term operation of the project as trucking fleets become cleaner in compliance with existing regulations. For that reason, even if a single project were to cause an increase in cancer risk, a person's lifetime risk may be lower than it is today.

[184] As discussed above, adults are much less susceptible to increased cancer risk, so to include the worst-case scenario, this analysis accounts this "age sensitivity factor" by including results for both adult and children receptors.

[185] National Cancer Institute, Cancer Stat Facts: Cancer of Any Site, 2010. Available at https://seer.cancer.gov/statfacts/html/all.html. Accessed March 2020.

[186] California Air Resources Board, *California Almanac of Emissions and Air Quality—2009 Edition*, 2009, Table 5-44 and Figure 5-12. Available at https://www.cityofdavis.org/home/showdocument?id=4101. Accessed February 3, 2020.

[187] California Air Resources Board, Overview: Diesel Exhaust and Health. Available at https://ww2.arb.ca.gov/resources/overview-diesel-exhaust-and-health. Accessed January 14, 2020. This calculated cancer risk value from ambient air exposure in the Bay Area can be compared against the lifetime probability of being diagnosed with cancer in the United States, from all causes, which is approximately 40 percent, or greater than 400,000 in 1 million, according to the American Cancer Society. (American Cancer Society, Lifetime Risk of Developing or Dying from Cancer, last updated January 13, 2020. Available at https://www.cancer.org/cancer/cancer-basics/lifetime-probability-of-developing-or-dying-from-cancer.html. Accessed March 2020.)

As discussed under *Approach to Analysis* above, the HRA considered three separate exposure scenarios to assess worst-case risk at the locations of both new on-site and existing off-site sensitive receptors:

- *Scenario 1:* Exposure of existing off-site sensitive receptors to construction (all phases of development evaluated), operations starting at an interim buildout year of 2028, and full-buildout operations starting at 2032, for a total 30-year exposure.
- *Scenario 2:* Exposure of all new on-site sensitive receptors to construction emissions beginning at building occupancy (i.e., completion of construction of residential structure) plus the exposure from interim operations (if applicable) to full-buildout operations, for a total 30-year exposure.
- *Scenario 3:* Exposure of both existing off-site and new on-site sensitive receptors to full-buildout operations starting at 2032, for a total duration of 30 years.

Impacts on Sensitive Receptors

Sensitive receptors in the HRA include all existing off-site residential receptors within 1,000 feet of the proposed project boundary and all existing schools or childcare centers within approximately 2,500 feet of the proposed project boundary. Refer to Figure 3.1-1, which presents the locations of sensitive receptors include in the HRA.

Future on-site sensitive receptors were considered to be located at any part of the proposed project site that may contain residential uses.[188] The exposure period evaluated for each potential new residence was assumed to begin at the start of occupancy, i.e., when the proposed residential structure's construction was completed. These sensitive receptors would be exposed to the proposed project's new TAC emissions; thus, this analysis is needed to determine how the proposed project might worsen existing conditions and how such worsened conditions could affect the project's future sensitive receptors.

Table 3.1-15, **Table 3.1-16**, and **Table 3.1-17** present the unmitigated results of the HRA for all receptor types under Scenario 1, Scenario 2, and Scenario 3, respectively. These results are explained below and assume Tier 4 Final engines on all off-road equipment (as available), electrification of some construction equipment, and other project features (for construction and operation) described under *Approach to Analysis* above.

Cancer Risk Impacts

Table 3.1-15 shows the incremental increase in lifetime cancer risk for existing off-site receptors for Scenario 1 exposure from unmitigated project construction and operational emissions. As shown, the maximum exposure period for the off-site child resident begins in 2023 and for the off-site adult resident begins in 2021. The incremental increase in the lifetime cancer risk from unmitigated project construction and operational emissions at the maximally exposed off-site child resident MEIR would be 43.8 in 1 million (33.2 from construction and 10.6 from operations), and the maximum incremental increase in lifetime cancer risk at the off-site adult resident MEIR would be 2.4 in 1 million (1.1 from construction and 1.3 from operations). Both

[188] As part of the future on-site sensitive receptor evaluation, residents in the proposed Northern Variant were considered in order to assess potential impacts on residents if the variant is selected for implementation.

TABLE 3.1-15
SCENARIO 1—UNMITIGATED INCREMENTAL INCREASE IN LIFETIME CANCER RISK, CHRONIC HAZARD INDEX, AND ANNUAL AVERAGE $PM_{2.5}$ CONCENTRATION

Receptor Type/ Emissions Source	Exposure Period/ HI Max Year/ $PM_{2.5}$ Max Year	Incremental Increase in Lifetime Cancer Risk (in 1 million)[a,b]	Chronic Hazard Index[a,b]	Annual Average $PM_{2.5}$ Concentration ($\mu g/m^3$)[a,b]
Resident Child—Off-Site Receptor[c]				
Project Construction	2023–2032/2027/2027	**33.2**	0.02	0.12
Project Operational, interim	2025–2032/2025/2025	5.5	0.01	0.19
Project Operational, full[d]	2032–2053/2032/2032	5.1	0.02	0.24
Project Construction + Operations[d]	2023–2053/2027/2027	**43.8**	0.03	**0.31**
Significance Threshold		**10**	**1.0**	**0.3**
Exceeds Threshold (Yes or No)?		**Yes**	No	**Yes**
Resident Adult—Off-Site Receptor[e]				
Project Construction	2021–2032/2027/2027	1.1	0.02	0.12
Project Operational, interim	2025–2032/2025/2025	0.3	0.01	0.19
Project Operational, full[d]	2032–2051/2032/2032	1.0	0.02	0.24
Project Construction + Operations[d]	2021–2051/2027/2027	2.4	0.03	**0.31**
Significance Threshold		**10**	**1.0**	**0.3**
Exceeds Threshold (Yes or No)?		No	No	**Yes**
School—Off-Site Receptor[f]				
Project Construction[g]	2023–2032/2025/2025	0.2	<0.01	0.01
Project Operational, interim	2025–2032/2025/2025	0.8	0.01	0.11
Project Operational, full[d]	NA	0.0	0.0	0.0
Project Construction + Operations[d]	2023–2032/2025/2025	1.0	0.01	0.12
Significance Threshold		**10**	**1.0**	**0.3**
Exceeds Threshold (Yes or No)?		No	No	No

NOTES:
$\mu g/m^3$ = micrograms per cubic meter; HI = Hazard Index; MEIR = Maximally Exposed Individual Receptor; NA = not applicable; $PM_{2.5}$ = particulate matter 2.5 microns or less in diameter

[a] **Bold values** = threshold exceedance.

[b] Health risk values presented in this table include Tier 4 Final engines on all off-road equipment (as available, with the assumption that 4% of horsepower-hours for all phases of construction would be associated with Tier 4 interim off-road equipment engines, 1% with Tier 3 off-road equipment engines plus Level 4 diesel particulate filters, and 1% with Tier 3 off-road equipment engines).

[c] The resident child cancer risk MEIR is located south of W. San Fernando St., east of Delmas Ave. The HI and $PM_{2.5}$ MEIR is located along Auzerais Avenue, south of the project site.

[d] Hazard index values and annual average $PM_{2.5}$ concentrations represent the worst year of exposure, not a summation. Overlapping years of construction and operation have combined impacts. For full buildout operational values, the MEIR is identified based on the maximum exposure to both construction and operational TAC emissions, not just operational TAC emissions. For the MEIR exposed to the maximum operational TAC emissions in isolation without construction, see the Scenario 3 results below.

[e] The resident adult cancer risk MEIR is located south of W. San Fernando St., east of Delmas Ave. The HI and $PM_{2.5}$ MEIR is located along Auzerais Avenue, south of the project site.

[f] The school cancer risk and HI MEIR is located at Gardener Elementary School. The $PM_{2.5}$ MEIR is located at Hester School.

[g] The exposure duration of the school MEIR is less than 30 years. The exposure start date represents the worst-case exposure period.

SOURCES: Data compiled by Environmental Science Associates in 2019 (refer to Appendix C1).

TABLE 3.1-16
SCENARIO 2—UNMITIGATED INCREMENTAL INCREASE IN LIFETIME CANCER RISK, CHRONIC HAZARD INDEX, AND ANNUAL AVERAGE $PM_{2.5}$ CONCENTRATION

Receptor Type/ Emissions Source	Exposure Period/ HI Max Year/ $PM_{2.5}$ Max Year	Incremental Increase in Lifetime Cancer Risk (in 1 million)[a,b]	Chronic Hazard Index[a,b]	Annual Average $PM_{2.5}$ Concentration ($\mu g/m^3$)[a,b]
Resident Child—On-Site Receptor[c]				
Project Construction	2029–2032/2029/ 2029	5.2	<0.01	0.02
Project Operational, interim	2029–2032/2029/ 2029	3.7	0.01	0.18
Project Operational, full[g]	2032– 2059/2032/2032	4.5	0.01	0.22
Project Construction + Operations[g]	2029–2059/2032/ 2032	**13.4**	0.01	0.22
Significance Threshold		**10**	**1.0**	**0.3**
Exceeds Threshold (Yes or No)?		**Yes**	No	No
Resident Adult—On-Site Receptor[d]				
Project Construction	2026–2032/2029/ 2029	0.2	<0.01	0.02
Project Operational, interim	2026–2032/2026/ 2026	0.2	0.01	0.18
Project Operational, full[g]	2032– 2056/2032/2032	0.7	0.01	0.22
Project Construction + Operations[g]	2026–2056/2032/ 2032	1.2	0.01	0.22
Significance Threshold		**10**	**1.0**	**0.3**
Exceeds Threshold (Yes or No)?		No	No	No
Childcare—On-Site Receptor[e]				
Project Construction[f]	2027–2032/2028/ 2028	3.4	<0.01	0.01
Project Operational, interim	2027–2032/2027/ 2027	1.9	0.01	0.12
Project Operational, full[g]	2032– 2035/2032/2032	0.6	0.01	0.15
Project Construction + Operations[g]	2027–2035/2032/ 2032	5.9	0.01	0.15
Significance Threshold		**10**	**1.0**	**0.3**
Exceeds Threshold (Yes or No)?		No	No	No

TABLE 3.1-16
SCENARIO 2—UNMITIGATED INCREMENTAL INCREASE IN LIFETIME CANCER RISK, CHRONIC HAZARD INDEX, AND ANNUAL AVERAGE $PM_{2.5}$ CONCENTRATION

Receptor Type/ Emissions Source	Exposure Period/ HI Max Year/ $PM_{2.5}$ Max Year	Incremental Increase in Lifetime Cancer Risk (in 1 million)[a,b]	Chronic Hazard Index[a,b]	Annual Average $PM_{2.5}$ Concentration ($\mu g/m^3$)[a,b]

NOTES:
$\mu g/m^3$ = micrograms per cubic meter; HI = Hazard Index; MEIR = Maximally Exposed Individual Receptor; $PM_{2.5}$ = particulate matter 2.5 microns or less in diameter
[a] **Bold values** = threshold exceedance.
[b] Health risk values presented in this table include Tier 4 Final engines on all off-road equipment (as available, with the assumption that 4% of horsepower-hours for all phases of construction would be associated with Tier 4 interim off-road equipment engines, 1% with Tier 3 off-road equipment engines plus Level 4 diesel particulate filters, and 1% with Tier 3 off-road equipment engines).
[c] The resident child MEIR is located on site at Block E2.
[d] The resident adult MEIR is located on site at Block E2.
[e] The education MEIR is located on site at Block H3.
[f] The exposure duration of the school MEIR is less than 30 years. The exposure start date represents the worst-case exposure period.
[g] Hazard index values and annual average $PM_{2.5}$ concentrations represent the worst year of exposure, not a summation. Overlapping years of construction and operation have combined impacts. For full buildout operational values, the MEIR is identified based on the maximum exposure to both construction and operational TAC emissions, not just operational TAC emissions. For the MEIR exposed to the maximum operational TAC emissions in isolation without construction, see the Scenario 3 results below.

SOURCES: Data compiled by Environmental Science Associates in 2019 (refer to Appendix C1).

TABLE 3.1-17
SCENARIO 3—UNMITIGATED INCREMENTAL INCREASE IN LIFETIME CANCER RISK, CHRONIC HAZARD INDEX, AND ANNUAL AVERAGE $PM_{2.5}$ CONCENTRATION

Receptor Type/ Emissions Source	Exposure Period/ HI Max Year/ $PM_{2.5}$ Max Year	Incremental Increase in Lifetime Cancer Risk (in 1 million)[a,b]	Chronic Hazard Index[a,b]	Annual Average $PM_{2.5}$ Concentration ($\mu g/m^3$)[a,b]
Resident Child—Off-Site Receptor[c]				
Project Operational, full buildout	2032–2062/2032/ 2032	**25.0**	0.05	**0.87**
Significance Threshold		**10**	**1.0**	**0.3**
Exceeds Threshold (Yes or No)?		**Yes**	No	**Yes**
Resident Child—On-Site Receptor[d]				
Project Operational, full buildout	2032–2062/2032/ 2032	**14.0**	0.04	**0.64**
Significance Threshold		**10**	**1.0**	**0.3**
Exceeds Threshold (Yes or No)?		**Yes**	No	**Yes**
Resident Adult—Off-Site Receptor[e]				
Project Operational, full buildout	2032–2062/2032/ 2032	2.6	0.05	**0.87**
Significance Threshold		**10**	**1.0**	**0.3**
Exceeds Threshold (Yes or No)?		No	No	**Yes**
Resident Adult—On-Site Receptor[f]				
Project Operational, full buildout	2032–2062/2032/ 2032	1.5	0.04	**0.64**
Significance Threshold		**10**	**1.0**	**0.3**
Exceeds Threshold (Yes or No)?		No	No	**Yes**

TABLE 3.1-17
SCENARIO 3—UNMITIGATED INCREMENTAL INCREASE IN LIFETIME CANCER RISK, CHRONIC HAZARD INDEX, AND ANNUAL AVERAGE $PM_{2.5}$ CONCENTRATION

Receptor Type/ Emissions Source	Exposure Period/ HI Max Year/ $PM_{2.5}$ Max Year	Incremental Increase in Lifetime Cancer Risk (in 1 million)[a,b]	Chronic Hazard Index[a,b]	Annual Average $PM_{2.5}$ Concentration ($\mu g/m^3$)[a,b]
School—Off-Site Receptor[g]				
Project Operational, full buildout[h]	2032–2041/2032/ 2032	2.6	0.02	0.13
Significance Threshold		**10**	**1.0**	**0.3**
Exceeds Threshold (Yes or No)?		No	No	No
Childcare—On-Site Receptor[i]				
Project Operational, full buildout[h]	2032–2038/2032/ 2032	4.9	0.03	**0.43**
Significance Threshold		**10**	**1.0**	**0.3**
Exceeds Threshold (Yes or No)?		No	No	**Yes**

NOTES:
$\mu g/m^3$ = micrograms per cubic meter; HI = Hazard Index; MEIR = Maximally Exposed Individual Receptor; $PM_{2.5}$ = particulate matter 2.5 microns or less in diameter
[a] **Bold values** = threshold exceedance.
[b] Health risk values presented in this table include Tier 4 Final engines on all off-road equipment (as available, with the assumption that 4% of horsepower-hours for all phases of construction would be associated with Tier 4 interim off-road equipment engines, 1% with Tier 3 off-road equipment engines plus Level 4 diesel particulate filters, and 1% with Tier 3 off-road equipment engines).
[c] The off-site resident child MEIR is located east of the project site, along N. Montgomery Street north of the SAP center.
[d] The on-site resident child cancer risk is located in Block D1. The HI and $PM_{2.5}$ MEIR are located on Block C1.
[e] The off-site resident adult MEIR is located east of the project site, along N. Montgomery Street north of the SAP center.
[f] The on-site resident adult cancer risk MEIR is located in Block D1. The HI and $PM_{2.5}$ MEIR are located on Block C1.
[g] The off-site school cancer risk MEIR is located at Gardener Elementary School. The $PM_{2.5}$ and HI MEIR is located at Hester School.
[h] The exposure duration of the school and childcare MEIR is less than 30 years. The exposure start date represents the worst-case exposure period.
[i] The childcare cancer MEIR is located in Block H2.

SOURCES: Data compiled by Environmental Science Associates in 2019 (refer to Appendix C1)

the off-site child and adult resident MEIRs are located south of West San Fernando Street, east of Delmas Avenue. The risk at these locations is driven by construction activities occurring on the F blocks. The off-site school MEIR has a maximum incremental increase in lifetime cancer risk of 1.0 in 1 million (0.2 from construction and 0.8 from operations). The off-site school MEIR is located at Gardener Elementary School, and the cancer risk at this location is driven by operational traffic along Interstate 280.

The incremental increase in the lifetime cancer risk for the off-site child resident MEIR that would be attributable to combined construction and operational activities would exceed BAAQMD's threshold of 10 in 1 million, requiring mitigation. The maximum incremental increase in the lifetime chance of contracting cancer would increase only 0.011 percent as a result of project-related emissions (incremental increase in lifetime cancer risk of 43.8 in 1 million divided by background risk of approximately 400,000 in 1 million). However, the increase exceeds the threshold of a 10 in 1 million incremental increase. Therefore, the impact of the proposed project would be **potentially significant** and mitigation would be required.

Table 3.1-16 shows the incremental increase in lifetime cancer risk for new on-site receptors under Scenario 2 for construction plus operations. As shown, the maximum exposure period for the on-site child resident begins in 2029 and for the on-site adult resident begins in 2026. For these exposure start dates, the maximum incremental increase in lifetime cancer risk from unmitigated project construction and operational emissions at the on-site child resident MEIR would be 13.4 in 1 million (5.2 from construction and 8.2 from operations), and the maximum cancer risk at the on-site adult resident MEIR would be 1.2 in 1 million (0.2 from construction and 0.9 from operations). The on-site child and adult resident MEIRs are located in Block E2. The risk in these locations is driven by construction emissions from the buildout of the D and C blocks and by operational traffic along Highway 87.

For the potential on-site childcare center, a worst-case exposure assessment that assumes the center to be a childcare with a maximum occupancy duration of 6 years was used. The maximum exposure period for the on-site childcare begins in 2027. The maximum incremental increase in the lifetime cancer risk from unmitigated project construction and operational emissions would be 5.9 in 1 million (3.4 from construction and 2.5 from operations). The on-site childcare MEIR is located on Block H3. The risk in this location is driven by construction activities occurring on the H blocks.

For the new on-site child resident MEIR, the maximum incremental increase in the lifetime cancer risk of 13.4 in 1 million would increase only 0.003 percent compared to the background lifetime risk as a result of combined project construction and operational activities. However, the cancer risk exceeds BAAQMD's threshold of 10 in 1 million. Consequently, the impact of the proposed project would be **potentially significant** and mitigation would be required.

Table 3.1-17 shows the incremental increase in lifetime cancer risk results for all receptor types under Scenario 3. As shown, the maximum incremental increase in the lifetime cancer risk from unmitigated project full-buildout operational emissions for all receptor types would occur for the off-site child resident MEIR. The maximum increase in cancer risk for the off-site child resident from unmitigated operational emissions would be 25.0 in 1 million, and for the on-site child resident the cancer risk would be 14.0 in 1 million. The off-site child resident MEIR is located east of the project site, along North Montgomery Street, and the cancer risk at this location is driven by operational vehicle traffic along North Montgomery Street. The on-site child resident MEIR is located on Block D1, and the cancer risk at this location is driven by operational traffic along West Santa Clara Street. The off-site school MEIR would have a maximum cancer risk of 2.6 in 1 million, and the on-site childcare MEIR would have a maximum cancer risk of 4.9 in 1 million. The on-site childcare MEIR is located on Block H2, and the cancer risk at this location is driven by operational traffic along Interstate 280. The maximum incremental increases in lifetime cancer risk for both the on- and off-site child residential receptors would exceed the 10 in 1 million threshold. Consequently, the impact of the proposed project would be **potentially significant** and mitigation would be required.

Non-Cancer Health Impacts

Non-cancer chronic (long-term) adverse health impacts unrelated to cancer are measured against an HI, which is defined as the ratio of the predicted incremental TAC exposure concentration from the proposed project to a reference exposure level (or REL) that could cause adverse health effects. A HI of greater than 1.0 is considered significant.

For exposure under Scenario 1, Scenario 2, and Scenario 3, as shown in Table 3.1-15, Table 3.1-16, and Table 3.1-17, respectively, the maximum non-cancer chronic HI for the project at any receptor was for the off-site resident MEIR, estimated to be 0.05 for full buildout operations in 2032. The off-site resident MEIR is located east of the project site, along North Montgomery Street, and the non-cancer chronic HI at this location is driven by operational vehicle traffic along North Montgomery Street. Because the non-cancer chronic HI would be below the project-level threshold of 1.0, this impact of the proposed project would be **less than significant**.

$PM_{2.5}$ Concentrations

Tables 3.1-15 through 3.1-17 also show the results of the risk assessment for exposure to $PM_{2.5}$ during construction and operations at the maximally impacted receptors.

For Scenario 1, as shown in Table 3.1-15, the maximum annual average $PM_{2.5}$ concentrations for unmitigated project emissions at the off-site MEIR were estimated to be 0.12 µg/m^3 for construction (year 2027), 0.19 µg/m^3 for operations (year 2025), and 0.31 µg/m^3 for the maximum year during combined construction and operations (year 2027). The off-site MEIR is located along North Montgomery Street, east of the project site. The maximum annual average $PM_{2.5}$ concentration at this location is driven by operational vehicle traffic along North Montgomery Street. The maximum annual average $PM_{2.5}$ concentration would exceed BAAQMD's threshold of 0.3 µg/m^3. Therefore, the impact of the proposed project would be **potentially significant** and mitigation would be required.

For Scenario 2, the maximum annual average $PM_{2.5}$ concentrations occur at the on-site resident located at Block E2, which are 0.02 µg/m^3 for construction (year 2029), 0.22 µg/m^3 for operations (year 2032), and 0.22 µg/m^3 for the maximum of either construction or operations. The maximum annual average $PM_{2.5}$ concentration at this location is driven by operational vehicle traffic along Highway 87 and along West Santa Clara Street. These annual average $PM_{2.5}$ concentrations would not exceed BAAQMD's threshold of 0.3 µg/m^3. Therefore, this impact of the proposed project would be **less than significant**.

For Scenario 3, the maximum annual average $PM_{2.5}$ concentration occurred at the off-site resident, which was 0.87 µg/m^3 for full buildout operations. The off-site resident MEIR is located along North Montgomery Street, east of the project site, and the maximum annual average $PM_{2.5}$ concentration at this location is driven by operational vehicle traffic along North Montgomery Street. For the new on-site resident, the maximum annual average $PM_{2.5}$ concentration would be 0.64 µg/m^3 for full buildout operations. The maximum annual average $PM_{2.5}$ concentrations for unmitigated project emissions at the new on-site MEIR was estimated to be 0.64 µg/m^3 for full buildout operations. The new on-site child MEIR is located at Block D1, and the maximum annual average $PM_{2.5}$ concentration at this location is driven by operational vehicle traffic along West Santa Clara Street. The values for both the existing off-site and new on-site resident would exceed BAAQMD's threshold of 0.3 µg/m^3. Consequently, this impact of the proposed project would be **potentially significant** and mitigation would be required.

The following mitigation measures are required as conditions of approval to reduce the impacts of project-related TAC emissions on existing off-site and new on-site sensitive receptors.

Mitigation Measures

Mitigation Measure AQ-2a: Construction Emissions Minimization Plan (refer to Impact AQ-2)

Mitigation Measure AQ-2b: Construction Equipment Maintenance and Tuning (refer to Impact AQ-2)

Mitigation Measure AQ-2c: Heavy-Duty Truck Model Year Requirement (refer to Impact AQ-2)

Mitigation Measure AQ-2e: Best Available Emissions Controls for Stationary Emergency Generators (refer to Impact AQ-2)

Mitigation Measure AQ-2f: Operational Diesel Truck Emissions Reduction (refer to Impact AQ-2)

Mitigation Measure AQ-2g: Electric Vehicle Charging (refer to Impact AQ-2)

Mitigation Measure AQ-2h: Enhanced Transportation Demand Management Program (refer to Impact AQ-2)

Mitigation Measure AQ-3: Exposure to Air Pollution—Toxic Air Contaminants

The project applicant shall incorporate the following health risk reduction measures into the project design to reduce the potential health risk caused by exposure to toxic air contaminants (TACs), as feasible for the project's sources of TACs. These features shall be submitted to the Director of Planning, Building and Code Enforcement, or the Director's designee, for review and approval and shall be included on the project drawings submitted for the construction-related permit(s) or on other documentation submitted to the City:

1. Plant trees and/or vegetation between new on-site and existing off-site sensitive receptors and the project's operational source(s) of TACs, if feasible. In addition, plant trees and/or vegetation between new on-site sensitive receptors and existing background sources of toxic air contaminants, if feasible. Locally native trees that provide suitable trapping of particulate matter are preferred.
2. Construction trucks shall adhere to the modeled haul route as presented in Figure 3.1-2. If an alternative truck haul route is used, the project applicant shall quantitatively demonstrate to the satisfaction of the Director of Planning, Building and Code Enforcement, or the Director's designee, that these haul routes would not result in health risks that exceed the project-level thresholds of significance for either existing off-site or new on-site sensitive receptors.

Mitigation Measure Effectiveness

Effectiveness of Mitigation Measure AQ-3

Mitigation Measure AQ-3, Exposure to Air Pollution—Toxic Air Contaminants, would reduce the exposure of new on-site sensitive receptors to TAC emissions associated with project construction and operations. This mitigation measure requires that the project applicant plant vegetative buffers to trap particulate matter and adhere to the modeled construction truck haul route, or to quantitatively demonstrate that any route changes would not result in health risks that exceed the project-level thresholds of significance for any sensitive receptor. Although this measure was not quantified, it

would reduce TAC emissions and lessen exposure, thereby reducing the incremental increase in the lifetime cancer risk, non-cancer chronic risk, and annual average $PM_{2.5}$ concentrations.

Effectiveness of Mitigation Measures AQ-2a and AQ-2b

Mitigation Measure AQ-2a, Construction Emissions Minimization Plan, and Mitigation Measure AQ-2b, Construction Equipment Maintenance and Tuning, are proposed to reduce exhaust emissions from construction equipment. For the proposed project to comply with Mitigation Measure AQ-2a, the project's construction equipment fleet would be required to meet Tier 4 Final engine standards, or if a specific piece of Tier 4 Final equipment were not available, the next cleanest piece of off-road equipment as provided by the step-down schedule identified in the mitigation measure. This is already modeled as part of the project design, as discussed under *Project Features Analyzed* above.

Mitigation Measure AQ-2a also requires additional electric equipment. This would reduce DPM and $PM_{2.5}$ emissions associated with off-road diesel construction equipment, thereby reducing the incremental increase in lifetime cancer risk, non-cancer chronic risk, and annual average $PM_{2.5}$ concentrations.

Mitigation Measure AQ-2b, Construction Equipment Maintenance and Tuning, was not quantified.

Effectiveness of Mitigation Measure AQ-2c

Mitigation Measure AQ-2c, Heavy-Duty Truck Model Year Requirement, would be implemented as part of the project to reduce DPM and $PM_{2.5}$ emissions associated with on-road heavy-duty truck travel and idling, thereby reducing the incremental increase in lifetime cancer risk, non-cancer chronic risk, and annual average $PM_{2.5}$ concentrations. This measure was quantified using EMFAC2017 emission factors, as described under Impact AQ-2 above.

Effectiveness of Mitigation Measure AQ-2e

Mitigation Measure AQ-2e, Best Available Emissions Controls for Stationary Emergency Generators, would reduce DPM and $PM_{2.5}$ emissions associated with emergency diesel backup generators, thereby reducing the incremental increase in lifetime cancer risk, non-cancer chronic risk, and annual average $PM_{2.5}$ concentrations. The reduction in DPM and $PM_{2.5}$ emissions would be approximately 87 percent.

Effectiveness of Mitigation Measure AQ-2f

Mitigation Measure AQ-2f, Operational Diesel Truck Emissions Reduction, would reduce DPM and $PM_{2.5}$ emissions associated with operational on-road, heavy-duty truck travel and idling, thereby reducing the incremental increase in lifetime cancer risk, non-cancer chronic risk, and annual average $PM_{2.5}$ concentrations. This measure would reduce emissions by TRUs by encouraging Tier 4 emissions standards for TRUs and installing electrical hookups to replace TRU operations. In addition, this measure would reduce the exposure of existing off-site sensitive receptors to truck-related TAC emissions by locating truck loading docks as far from nearby existing off-site sensitive receptors as feasible.

This mitigation measure was not quantified in the HRA because the project applicant has limited control over tenant and vendor delivery vehicles, and because the exact locations of loading docks and sensitive receptors are currently not known.

Effectiveness of Mitigation Measure AQ-2g

Mitigation Measure AQ-2g, Electric Vehicle Charging, would also reduce mobile-source emissions of TOG-related TACs and $PM_{2.5}$ exhaust by encouraging EVs in place of gasoline- and diesel-powered vehicles. Reductions in TOG-related TAC and $PM_{2.5}$ emissions associated with this measure were quantified using the same methods as described above under *Project Features Analyzed*, except the total number of EV chargers was assumed to be 15 percent of the total parking spaces, or 984 total. This measure would not reduce fugitive sources of $PM_{2.5}$, including tire wear, brake wear, and road dust (because these emissions are a function of VMT, not fuel type).

Effectiveness of Mitigation Measure AQ-2h

Implementation of Mitigation Measure AQ-2h, Enhanced Transportation Demand Management Program, would reduce vehicle travel and VMT, thereby reducing DPM, $PM_{2.5}$, and TOG emissions from mobile sources. Therefore, Mitigation Measure AQ-2h would reduce the incremental increase in lifetime cancer risk, non-cancer chronic risk, and annual average $PM_{2.5}$ concentrations. This measure would reduce DPM, TOG, and $PM_{2.5}$ emissions by approximately 27 percent at full buildout, resulting in a similar reduction in cancer risk, non-cancer chronic risk, and annual average $PM_{2.5}$ concentrations.

Additional Measures Considered

Additional measures to further reduce exposure to TAC emissions were considered and rejected as infeasible. The additional measures considered and rejected included:

(1) Staging areas shall be located as far from both existing off-site sensitive receptors and new on-site sensitive receptors (once new buildings are occupied and operational) as feasible, to minimize the exposure of these receptors to TAC emissions associated with construction activities.

(2) The project applicant shall locate proposed truck loading docks as far from nearby sensitive receptors as feasible.

(3) Residential developments proposed within 500 feet of freeways shall be built in phases such that the homes nearest the freeway are built last.

(4) The project shall be designed to locate sensitive receptors as far away as feasible from the project's source(s) of TACs, and operable windows, balconies, and building air intakes shall be located as far away from these sources as feasible.

(5) If near a distribution center, residents shall be located as far away as feasible from loading docks or areas where trucks concentrate to deliver goods.

(6) Sensitive receptors shall be located as far away from truck activity areas, such as loading docks and delivery areas, as feasible.

The six actions listed above were determined to be infeasible for a variety of reasons:

- The proposed project would be located in a high-density urban center near existing non-residential, residential, and mixed uses. This makes it difficult (or impossible) to locate

new TAC sources (for both construction and operations) specific distances away from existing off-site sensitive receptors.

- Construction staging areas would be located throughout the site as the project is built out. In addition, staging areas are not the primary source of DPM emissions from construction activity, so Item #1 above would likely have a small effect on construction-related health risks.
- The project site is dense and located in a highly urban area with many surrounding existing off-site sensitive receptors. Thus, it is not feasible to require specific offset distances between sensitive receptors and new loading docks and other TAC sources, per Items #2, #4, #5, and #6 above.

Phasing and buildout would be based on the final project design and market conditions, so requiring residential developments to be built in phases so that the homes nearest the freeway are built last would not meet the proposed project's buildout schedule and other financial and operational considerations, per Item #3 above. Thus, no additional feasible mitigation measures have been identified for achieving further substantial reductions in sensitive receptors' exposure to project-level TAC emissions.

Analysis of Overall Mitigation Measure Effectiveness

Table 3.1-18 shows the mitigated incremental increase in lifetime cancer risk results for existing off-site receptors for Scenario 1 exposure from project construction and operational activities. **Table 3.1-19** presents the mitigated incremental increase in lifetime cancer risk results for new on-site receptors under Scenario 2. **Table 3.1-20** presents the mitigated incremental increase in lifetime cancer risk results for all receptor types from emissions associated with full-buildout operations under Scenario 3. Because the effectiveness of Mitigation Measures AQ-2b, AQ-2f, and AQ-3 on health risks is not known, the mitigated results in Table 3.1-18, Table 3.1-19, and Table 3.1-20 present results that do not quantify reductions associated with these mitigation measures.

Cancer Risk Impacts

With implementation of mitigation measures, the maximum incremental increase in the lifetime cancer risk for existing off-site receptors would occur under Scenario 1. Under this scenario, the incremental increase in the lifetime cancer risk for the off-site child MEIR is reduced to 14.0 in 1 million for construction, 5.6 in 1 million for operations, and 19.6 in 1 million for combined construction and operations, which remains greater than the threshold of significance of 10 in 1 million. This risk occurs for the maximum exposure period beginning in 2024. After implementation of mitigation, the off-site child resident MEIR is located east of the project site, north of Park Avenue, and the cancer risk in this location is driven by construction activities occurring on the F blocks. The off-site adult resident MEIR is located east of the project site, along North Montgomery Street, and the cancer risk at this location is driven by operational vehicle traffic.

TABLE 3.1-18
SCENARIO 1—MITIGATED INCREMENTAL INCREASE IN LIFETIME CANCER RISK, CHRONIC HAZARD INDEX, AND ANNUAL AVERAGE $PM_{2.5}$ CONCENTRATION

Receptor Type/ Emissions Source	Exposure Period/ HI Max Year/ $PM_{2.5}$ Max Year	Incremental Increase in Lifetime Cancer Risk (in 1 million)[a]	Chronic Hazard Index[a]	Annual Average $PM_{2.5}$ Concentration ($\mu g/m^3$)[a]
Resident Child—Off-Site Receptor[b]				
Project Construction	2024–2032/2027/2027	**14.0**	0.01	0.05
Project Operational, interim	2025–2032/2025/2025	3.3	0.01	0.14
Project Operational, full	2032–2054/2032/2032	2.3	0.01	0.17
Project Construction + Operations[c]	2024–2054/2032/2032	**19.6**	0.02	0.19
Significance Threshold		**10**	**1.0**	**0.3**
Exceeds Threshold (Yes or No)?		Yes	No	No
Resident Adult—Off-Site Receptor[d]				
Project Construction	2021–2032/2027/2027	0.6	0.01	0.05
Project Operational, interim	2025–2032/2025/2025	0.4	0.01	0.14
Project Operational, full	2032–2051/2032/2032	1.1	0.01	0.17
Project Construction + Operations[c]	2021–2051/2032/2032	2.1	0.02	0.19
Significance Threshold		**10**	**1.0**	**0.3**
Exceeds Threshold (Yes or No)?		No	No	No
School—Off-Site Receptor[e]				
Project Construction[f]	2023–2030/2025/2025	0.1	<0.01	<0.01
Project Operational, interim	2025–2032/2025/2025	0.4	0.01	0.09
Project Operational, full	NA	0.0	0.0	0.0
Project Construction + Operations[c]	2023–2032/2025/2025	0.5	0.01	0.09
Significance Threshold		**10**	**1.0**	**0.3**
Exceeds Threshold (Yes or No)?		No	No	No

NOTES:
$\mu g/m^3$ = micrograms per cubic meter; HI = Hazard Index; MEIR = Maximally Exposed Individual Receptor; NA = not applicable; $PM_{2.5}$ = particulate matter 2.5 microns or less in diameter

[a] **Bold values** = threshold exceedance.

[b] Health risk values presented in this table include Tier 4 Final engines on all off-road equipment (as available, with the assumption that 4% of horsepower-hours for all phases of construction would be associated with Tier 4 interim off-road equipment engines, 1% with Tier 3 off-road equipment engines plus Level 4 diesel particulate filters, and 1% with Tier 3 off-road equipment engines), and implementation of Mitigation Measure AQ-2a, Construction Emissions Minimization Plan; Mitigation Measure AQ-2c, Heavy-Duty Truck Model Year Requirement; Mitigation Measure AQ-2e, Best Available Emissions Controls for Stationary Emergency Generators; Mitigation Measure AQ-2f, Operational Diesel Truck Emissions Reduction; Mitigation Measure AQ-2g, Electric Vehicle Charging; and Mitigation Measure AQ-2h, Enhanced Transportation Demand Management Program.

[c] The resident child cancer risk MEIR is located east of the project site, north of Park Avenue. The HI and $PM_{2.5}$ MEIR is located along Auzerais Avenue, south of the project site.

[d] HI and $PM_{2.5}$ annual concentration represent the worst year of exposure, not a summation. Overlapping years of construction and operation have combined impacts.

[e] The resident adult cancer risk MEIR is located east of the project site, along N. Montgomery Street north of the SAP center. The HI and $PM_{2.5}$ MEIR is located along Auzerais Avenue, south of the project site.

[f] The school cancer risk and HI MEIR is located at Gardener Elementary School. The $PM_{2.5}$ MEIR is located at Hester School.

[g] The exposure duration of the school MEIR is less than 30 years. The exposure start date represents the worst-case exposure period.

SOURCES: Data compiled by Environmental Science Associates in 2019 (refer to Appendix C1).

TABLE 3.1-19
SCENARIO 2—MITIGATED INCREMENTAL INCREASE IN LIFETIME CANCER RISK, CHRONIC HAZARD INDEX, AND ANNUAL AVERAGE $PM_{2.5}$ CONCENTRATION

Receptor Type/ Emissions Source	Exposure Period/ HI Max Year/ $PM_{2.5}$ Max Year	Incremental Increase in Lifetime Cancer Risk (in 1 million)[a]	Chronic Hazard Index[a]	Annual Average $PM_{2.5}$ Concentration ($\mu g/m^3$)[a]
Resident Child—On-Site Receptor[b]				
Project Construction	2029–2032/2029/2029	2.5	<0.01	0.01
Project Operational, interim	2029–2032/2029/2029	1.8	0.01	0.09
Project Operational, full	2032–2059/2032/2032	2.2	0.01	0.11
Project Construction + Operations	2029–2059/2032/2032	6.5	0.01	0.11
Significance Threshold		**10**	**1.0**	**0.3**
Exceeds Threshold (Yes or No)?		No	No	No
Resident Adult—On-Site Receptor[c]				
Project Construction	2026–2032/2029/2029	0.1	<0.01	0.01
Project Operational, interim	2026–2032/2026/2026	0.1	0.01	0.09
Project Operational, full	2032–2056/2032/2032	0.3	0.01	0.11
Project Construction + Operations	2026–2056/2032/2032	0.5	0.01	0.11
Significance Threshold		**10**	**1.0**	**0.3**
Exceeds Threshold (Yes or No)?		No	No	No
Childcare—On-Site Receptor[d]				
Project Construction[e]	2027–2032/2028/2028	1.4	<0.01	<0.01
Project Operational, interim	2027–2032/2027/2027	0.9	0.01	0.04
Project Operational, full	2032–2035/2032/2032	0.3	0.01	0.06
Project Construction + Operations[f]	2027–2035/2032/2032	2.6	0.01	0.06
Significance Threshold		**10**	**1.0**	**0.3**
Exceeds Threshold (Yes or No)?		No	No	No

NOTES:
$\mu g/m^3$ = micrograms per cubic meter; HI = Hazard Index; MEIR = Maximally Exposed Individual Receptor; NA = not applicable; $PM_{2.5}$ = particulate matter 2.5 microns or less in diameter

[a] **Bold values** = threshold exceedance.

[b] Health risk values presented in this table include Tier 4 Final engines on all off-road equipment (as available, with the assumption that 4% of horsepower-hours for all phases of construction would be associated with Tier 4 interim off-road equipment engines, 1% with Tier 3 off-road equipment engines plus Level 4 diesel particulate filters, and 1% with Tier 3 off-road equipment engines), and implementation of Mitigation Measure AQ-2a, Construction Emissions Minimization Plan; Mitigation Measure AQ-2c, Heavy-Duty Truck Model Year Requirement; Mitigation Measure AQ-2e, Best Available Emissions Controls for Stationary Emergency Generators; Mitigation Measure AQ-2f, Operational Diesel Truck Emissions Reduction; Mitigation Measure AQ-2g, Electric Vehicle Charging; and Mitigation Measure AQ-2h, Enhanced Transportation Demand Management Program.

[c] The resident child MEIR is located on-site at Block E2.

[d] The resident adult MEIR is located on-site at Block E2.

[e] The education MEIR is located on-site at Block H3.

[f] The exposure duration of the school MEIR is less than 30 years. The exposure start date represents the worst-case exposure period.

[g] Hazard impact and $PM_{2.5}$ annual concentration represent the worst year of exposure, not a summation. Overlapping years of construction and operation have combined impacts.

SOURCES: Data compiled by Environmental Science Associates in 2019 (refer to Appendix C1).

TABLE 3.1-20
SCENARIO 3—MITIGATED INCREMENTAL INCREASE IN LIFETIME CANCER RISK, CHRONIC HAZARD INDEX, AND ANNUAL AVERAGE $PM_{2.5}$ CONCENTRATION

Receptor Type/ Emissions Source	Exposure Period/ HI Max Year/ $PM_{2.5}$ Max Year	Incremental Increase in Lifetime Cancer Risk (in 1 million)[a]	Chronic Hazard Index[a]	Annual Average $PM_{2.5}$ Concentration ($\mu g/m^3$)[a]
Resident Child—Off-Site Receptor[b]				
Project Operational, full buildout	2032–2062/2032/2032	**17.0**	0.04	**0.74**
Significance Threshold		**10**	**1.0**	**0.3**
Exceeds Threshold (Yes or No)?		**Yes**	No	**Yes**
Resident Child—On-Site Receptor[c]				
Project Operational, full buildout	2032–2062/2032/2032	9.7	0.03	0.27
Significance Threshold		**10**	**1.0**	**0.3**
Exceeds Threshold (Yes or No)?		No	No	No
Resident Adult—Off-Site Receptor[d]				
Project Operational, full buildout	2032–2062/2032/2032	1.8	0.04	**0.74**
Significance Threshold		**10**	**1.0**	**0.3**
Exceeds Threshold (Yes or No)?		No	No	**Yes**
Resident Adult—On-Site Receptor[e]				
Project Operational, full	2032–2062/2032/2032	1.0	0.03	0.27
Significance Threshold		**10**	**1.0**	**0.3**
Exceeds Threshold (Yes or No)?		No	No	No
School—Off-Site Receptor[f]				
Project Operational, full buildout[g]	2032–2039/2032/2032	1.6	0.02	0.11
Significance Threshold		**10**	**1.0**	**0.3**
Exceeds Threshold (Yes or No)?		No	No	No
Childcare – On Site Receptor[h]				
Project Operational, full buildout[g]	2032–2038/2032/2032	3.2	0.02	0.14
Significance Threshold		**10**	**1.0**	**0.3**
Exceeds Threshold (Yes or No)?		No	No	No

NOTES:
$\mu g/m^3$ = micrograms per cubic meter; HI = Hazard Index; MEIR = Maximally Exposed Individual Receptor; $PM_{2.5}$ = particulate matter 2.5 microns or less in diameter

a **Bold values** = threshold exceedance.

b Health risk values presented in this table include Tier 4 Final engines on all off-road equipment (as available, with the assumption that 4% of horsepower-hours for all phases of construction would be associated with Tier 4 interim off-road equipment engines, 1% with Tier 3 off-road equipment engines plus Level 4 diesel particulate filters, and 1% with Tier 3 off-road equipment engines), and implementation of Mitigation Measure AQ-2a, Construction Emissions Minimization Plan; Mitigation Measure AQ-2c, Heavy-Duty Truck Model Year Requirement; Mitigation Measure AQ-2e, Best Available Emissions Controls for Stationary Emergency Generators; Mitigation Measure AQ-2f, Operational Diesel Truck Emissions Reduction; Mitigation Measure AQ-2g, Electric Vehicle Charging; and Mitigation Measure AQ-2h, Enhanced Transportation Demand Management Program.

c The off-site resident child MEIR is located east of the project site, along N. Montgomery Street north of the SAP center.

d The on-site resident child cancer risk and HI MEIR is located in Block C1. The $PM_{2.5}$ MEIR is located in Block D1.

e The off-site resident adult MEIR is located east of the project site, along N. Montgomery Street north of the SAP center.

f The on-site resident adult cancer risk and HI MEIR is located in Block C1. The $PM_{2.5}$ MEIR is located in Block D1.

g The off-site school MEIR is located at the Hester School.

h The exposure duration of the school and childcare MEIR is less than 30 years. The exposure start date represents the worst-case exposure period.

i The childcare MEIR is located in Block H2.

SOURCES: Data compiled by Environmental Science Associates in 2019 (refer to Appendix C1)

With implementation of mitigation measures, the maximum incremental increase in the lifetime cancer risk for new on-site receptors would occur under Scenario 2. Under this scenario, the incremental increase in the lifetime cancer risk for the on-site child MEIR is reduced to 2.5 in 1 million for construction, 4.0 in 1 million for operations, and 6.5 in 1 million for combined construction and operations. After implementation of mitigation, the on-site child resident MEIR is located at Block E2, the maximum exposure period begins in 2029, and the cancer risk in this location is driven by operational vehicle traffic along West Santa Clara Street and Highway 87. Because these values are all less than the threshold of significance of 10 in 1 million, the impacts would be less than significant.

For Scenario 3, after implementation of mitigation, the maximum incremental increases in the lifetime cancer risk for the off-site child resident would be 17.0 in 1 million, and for the on-site child resident the cancer risk would be 9.7 in 1 million. The off-site child resident MEIR is located east of the project site, along North Montgomery Street, and the cancer risk at this location is driven by operational vehicle traffic along North Montgomery Street. The on-site child resident MEIR is located at Block C1, and the cancer risk at this location is driven by operational vehicle traffic along North Montgomery Street. The childcare MEIR would have a cancer risk of 3.2 in 1 million. The on-site childcare MEIR is located on Block H2, and the cancer risk at this location is driven by operational vehicle traffic along Interstate 280. Although the value for the on-site child resident is less than the threshold of significance of 10 in 1 million, the value for the off-site child resident is greater than the threshold.

As indicated in Table 3.1-18, the maximum mitigated cancer risk at the off-site child receptor would be 19.6 for combined construction and operations beginning in 2024, which would exceed BAAQMD's thresholds for significance after implementation of all feasible mitigation. Therefore, the impacts would be **significant and unavoidable**.

Non-Cancer Health Impacts

With implementation of the mitigation measures, exposure under Scenario 1, Scenario 2, and Scenario 3, as shown in Table 3.1-18, Table 3.1-19, and Table 3.1-20, respectively, the maximum non-cancer chronic HI at the MEIR would occur under Scenario 3 for the off-site resident receptor. Under this scenario, the maximum non-cancer chronic HI would be 0.04 for operations under full buildout conditions. The off-site child resident MEIR after implementation of mitigation is located east of the project site, long North Montgomery Street, and the cancer risk at this location is driven by operational vehicle traffic along North Montgomery Street. After implementation of mitigation measures as shown in Table 3.1-20, the maximum non-cancer chronic HI for new on-site receptors would be 0.04 for operations under Scenario 3.

Therefore, with implementation of the mitigation measures, as shown in Table 3.1-20 above, the non-cancer chronic HI would be less than 1 for all receptor types. Because the non-cancer chronic HI would be below the project-level threshold of 1.0 before mitigation is implemented, the impact of the proposed project would be **less than significant**.

$PM_{2.5}$ Concentrations

With the implementation of mitigation measures, the maximum annual average $PM_{2.5}$ concentration would occur under Scenario 3 for existing off-site receptors. Under this scenario, the annual average $PM_{2.5}$ concentration would be 0.74 $\mu g/m^3$ for operations (year 2032). After implementation of mitigation, the existing off-site child MEIR is located along North Montgomery Street, east of the project site. The maximum annual average $PM_{2.5}$ concentration at this location is driven by operational vehicle traffic along North Montgomery Street. After implementation of mitigation, the maximum annual average $PM_{2.5}$ concentration for the new on-site MEIR is 0.27 $\mu g/m^3$. The new on-site child MEIR is located at Block D1, and the maximum annual average $PM_{2.5}$ concentration at this location is about 50 percent due to operational vehicle traffic along West Santa Clara Street and about 50 percent due to on-site operations of stationary sources such as charbroilers, emergency generators, and cooling towers. There are a number of reasons why the existing off-site MEIR annual average $PM_{2.5}$ concentration is greater than the new on-site annual average $PM_{2.5}$ concentration. For example, the existing off-site MEIR is located adjacent to a major roadway that contains project-related vehicle traffic and the existing off-site MEIR does not have MERV 13 filtration systems installed in their buildings (as the new on-site MEIR does).

The vast majority of the maximum annual average $PM_{2.5}$ concentration at the existing off-site MEIR location is associated with road dust from operational vehicle traffic. Charbroilers, cooling towers, and emergency diesel generators have a very small effect on this concentration. Road dust is a function of total traffic and VMT on local roadways near the location of the existing off-site MEIR, and is independent of the vehicle type and fuel type. As such, the only feasible method for reducing road dust concentrations is to reduce vehicle trips and VMT. Through implementation of Mitigation Measure AQ-2h, Enhanced Transportation Demand Management Program, the project applicant would reduce total vehicle trips and VMT by 27 percent and achieve a non-SOV mode split of 65 percent. This performance standard is very aggressive, representing the maximum possible trip reduction for the proposed project, and goes far beyond most TDM plans for CEQA projects in the region.[189] Additional vehicle trip and VMT reductions were determined to be infeasible. It should also be noted that the road dust calculation is based on highly conservative emission rates for $PM_{2.5}$, as recommended by CARB and BAAQMD.[190]

As discussed above under *Significance Criteria*, the 0.3 $\mu g/m^3$ annual average $PM_{2.5}$ threshold is based on the lower range of an EPA-proposed SIL, which is the level of $PM_{2.5}$ increment that represents a "significant contribution" to regional non-attainment. Although the SIL was not designed as a threshold for assessing community risk and hazards, it is considered protective of public health at a regional level by helping an area maintain the NAAQS. Further, BAAQMD considers the SIL as a threshold of significance under CEQA for local-scale increments of $PM_{2.5}$.

This EIR also quantifies predicted health impacts associated with the proposed project's regional $PM_{2.5}$ emissions under Impact AQ-2. This is described above as the Health Impacts Assessment. This analysis uses modeling techniques to correlate the project's $PM_{2.5}$ emissions (and other

[189] Fehr & Peers, Downtown West Mixed-Use Plan –Transportation Demand Management (TDM) Plan Assessment, Memorandum to Environmental Science Associates, September 30, 2020.

[190] California Air Resources Board, *Miscellaneous Process Methodology 7.9: Entrained Road Travel, Paved Road Dust*, March 2018. Available at https://ww3.arb.ca.gov/ei/areasrc/fullpdf/full7-9_2018.pdf. Accessed May 2020.

criteria air pollutant emissions) with health effects that may result from the predicted increased concentrations. This effort was conducted to disclose the potential health consequences of the nature of the project's $PM_{2.5}$ emissions, as directed by the Supreme Court in the *Friant Ranch* case. Refer to Appendix C3 for additional discussion.

With implementation of the mitigation measures, as shown in Table 3.1-20, the annual average $PM_{2.5}$ concentrations would be greater than 0.3 µg/m^3. Because the annual average $PM_{2.5}$ concentrations would be above the project-level threshold of 0.3 µg/m^3, the impact of the proposed project would be **significant and unavoidable**.

For Scenario 1, after implementation of mitigation measures as shown in Table 3.1-18, the maximum annual average $PM_{2.5}$ concentrations for at the off-site MEIR was estimated to be 0.05 µg/m^3 for construction (year 2027), 0.14 µg/m^3 for interim operations (year 2025 to 2032), 0.17 µg/m^3 for operations (year 2032), and 0.19 µg/m^3 for combined construction and operations (year 2027). The off-site MEIR is located along Auzerais Avenue, south of the project site, and the maximum annual average $PM_{2.5}$ concentration at this location is driven by operational vehicle traffic along Interstate 280. These annual average $PM_{2.5}$ concentrations would not exceed BAAQMD's threshold of 0.3 µg/m^3.

For Scenario 2, after implementation of mitigation measures as shown in Table 3.1-19, the maximum annual average $PM_{2.5}$ concentrations occurred at the on-site resident located on Block E2, which were 0.01 µg/m^3 for construction (year 2029), 0.11 µg/m^3 for operations (year 2032), and 0.11 µg/m^3 for combined construction and operations (year 2032). The maximum annual average $PM_{2.5}$ concentration at this location is driven by operational vehicle traffic along West Santa Clara Street and Highway 87. These annual average $PM_{2.5}$ concentrations would not exceed BAAQMD's threshold of 0.3 µg/m^3.

Cancer Burden

The cancer risk analysis presented above presents the maximum potential increased *risk* of cancer per million individuals at the maximally exposed receptor location. This risk value is an estimate of the potential for cancer, not the expected rate of cancer in the population. For example, the maximum mitigated cancer risk presented above of 19.6 in 1 million for the off-site child receptor means that the chance of this receptor getting cancer as a result of the project is 0.002 percent.

The cancer burden, in contrast, is the total number of population-wide cancer cases as a result of exposure to TAC emissions from the proposed project. In other words, it means how many people are expected to contract cancer as a result of the project, not just the level of risk. Under the mitigated emissions scenario, the cancer burden is calculated to be 0.16. This should be interpreted to say that amongst the population that could be exposed to project-related TAC emissions continuously for 70 years (a highly conservative assumption, but in line with current OEHHA guidance) that results in an individual incremental increase in cancer risk of 1 in 1 million or more, there would be less than 1 additional case of cancer expected. As stated above, the BAAQMD has not formally adopted a numeric threshold for cancer burden. However, in accordance with OEHHA guidance, a result of less than 0.5 (meaning that lifetime exposure to project emissions are not expected to result in an additional cancer case) is acceptable.

Health Risks for New On-site Receptors

Although not a CEQA issue, the San José 2040 General Plan Policy MS-11.1 states that projects that site new residential receptors must "incorporate effective mitigation into project designs or be located an adequate distance from sources of TACs to avoid significant risks to health and safety." As indicated in Tables 3.1-19 and 3.1-20 and discussed above, the maximum mitigated project-level health risks for all new on-site sensitive receptors (an incremental increase in lifetime cancer risk of 9.7 in 1 million under Scenario 3, a non-cancer chronic HI of 0.03 under Scenario 3, and a maximum annual average $PM_{2.5}$ concentration of 0.27 under Scenario 3) would be less than BAAQMD's thresholds of significance. Consequently, the proposed project complies with General Plan Policy MS-11.1. Refer to Impact AQ-1 for additional discussion of the project's consistency with General Plan Policy MS-11.1.

Significance after Mitigation: Significant and unavoidable.

Impact AQ-4: Traffic associated with the development of the proposed project would not contribute to carbon monoxide concentrations exceeding the California ambient air quality standards of 9 parts per million averaged over eight hours and 20 parts per million for one hour. ***(Less than Significant)***

Regional ambient air quality monitoring data, including those presented in Table 3.1-1, demonstrate that CO concentrations in the city of San José and the SFBAAB at large are well below federal and state standards, despite long-term upward trends in regional VMT. In recent years, the potential for localized increases in CO concentrations from increased traffic has been greatly reduced as a result of improvements in vehicle exhaust controls since the early 1990s and the use of oxygenated fuels.

BAAQMD recommends using screening criteria for determining whether a project would contribute to CO concentrations exceeding the CAAQS of 9 ppm averaged over eight hours and 20 ppm for one hour. If the project meets all of BAAQMD's screening criteria, the project would result in a less-than-significant impact on air quality with respect to local CO concentrations. Pursuant to the BAAQMD CEQA Guidelines' screening criteria for CO, localized CO concentrations should be estimated for projects in which either:

(a) Project-generated traffic would conflict with an applicable congestion management program established by the county congestion management agency; or

(b) Project-generated traffic would increase traffic volumes at affected intersections to more than 44,000 vehicles per hour (or 24,000 vehicles per hour where vertical and/or horizontal mixing is substantially limited, such as tunnels, parking garages, bridge underpasses, natural or urban street canyons, and below-grade roadways).

In San José, no nearby roadways or freeways exceed the 44,000 vehicles per hour screening criteria, including U.S. Highway 101 and Interstate 280. Therefore, no nearby roadways would result in elevated CO concentrations at the project site. Further, ambient CO standards have not been exceeded in the Bay Area for more than a decade, largely because of the reformulated fuels in California and vehicle emissions controls, as discussed above. Therefore, development under the

proposed project would not be required to estimate localized CO concentrations as it would not contribute to CO concentrations exceeding the CAAQS. The impact would be **less than significant**.

Mitigation: None required.

Impact AQ-5: The proposed project would not result in other emissions (such as those leading to odors) adversely affecting a substantial number of people. ***(Less than Significant with Mitigation)***

Construction

The use of construction equipment at the project site could potentially create objectionable odors to nearby properties or employees/residents located at the project site from an earlier phase. Construction-related odors would be localized and temporary, and the use of low-VOC surface coating materials in accordance with BAAQMD Rules would reduce potentially objectionable odors from painting operations. The project is not expected to generate odors that would adversely affect a substantial number of people. This impact would be **less than significant**.

Operations

Certain commercial land uses on the project site could potentially create objectionable odors. For example, restaurants emit cooking odors while in operation that may be deemed objectionable. This includes odors associated with the project's charbroilers. For restaurants and charbroilers, the proposed project would comply with BAAQMD Rule 6-2 (Commercial Cooking Equipment). This would reduce odors through the installation of catalytic oxidizers, integral grease filtration systems or grease removal systems, baffle filters, and electrostatic precipitators.

In addition, there would be odors from the potential district water reuse facility (wastewater treatment plant and the centralized waste collection terminal[s]). Up to two private district WRFs are proposed to treat site wastewater for reuse to meet demands for non-potable water. The WRFs would be housed within central utility plant(s). The WRF(s) would include a multi-stage treatment system for primary treatment, secondary treatment, tertiary filtration, and disinfection. Membrane bioreactors are proposed as the secondary treatment for the WRF(s). Water that has been tertiary filtered and disinfected would be stored in a non-potable storage tank before being distributed for uses such as toilet flushing, cooling, and irrigation. Treated non-potable water would be distributed via a pressurized distribution network within the private utilidor.

The proposed district WRF(s) would treat wastewater to California Code of Regulations Title 22 disinfected tertiary (unrestricted reuse) recycled-water standards. The treatment plant residuals would be predominantly liquid, with a very low percentage of solids. These solids could be discharged into the City's sanitary sewer system. Alternatively, sanitary solids produced as a byproduct from the district WRFs could be managed on-site through anaerobic digestion, generating biogas that could be used in fuel cells to generate electricity. Should anaerobic digestion be implemented, co-digestion with food waste collected via the automated water collection system would increase the amount of biogas and biosolids production. The digested biosolids would be dewatered and reused beneficially as soil amendment. Alternatively, these

solids could be pumped into the City's sanitary sewer network without being thickened or digested. Refer to Section 3.14, *Utilities and Service Systems*, for more detail.

Daily operations of the WRF(s) could result in objectionable odors to nearby sensitive receptors. It should be noted that separation between sources and receptors are difficult or impossible in a dense urban setting, such as the project location. There would be up to two WRFs on the project site, one in each central utility plant on Block B1 in the north and Block F5 in the south (or possibly on the adjacent Block G1). For the northern WRF on Block B1, on-site residents could be located as close as 100 feet south and 100 feet west of the WRF; off-site residents could be located as close as 250 feet northeast, 600 feet southwest, and 350 feet south of the WRF. For the southern WRF on Block F5, on-site residents could be located as close as 250 feet east and 500 feet northeast of the WRF; off-site residents could be located as close as 600 feet east, 350 feet west, and 950 feet south of the WRF. Although these are within BAAQMD's standard screening distances for wastewater treatment plants, the WRF would be enclosed within the central utility plant; would be soundproofed to alleviate potential noise issues; and would include appropriate odor controls (air blowers and odor control units [e.g., carbon filters]) to manage any objectionable odors, as discussed below.

The WRFs would install odor controls to manage any objectionable odors. At the initial stage of treatment, raw wastewater would be screened to remove inorganic solids, which would be collected in a roll-off bin and periodically hauled off site. Screenings would be composed of primarily inorganic wastes that would not be biodegradable and not beneficial for post-processing and resource recovery. As such, screenings would typically be washed, compacted, and hauled off-site at regular intervals for disposal in a permitted landfill. Grit such as sand, gravel, coffee grounds, and eggshells would be removed to prevent them from accumulating in downstream processes such as aeration basins and anaerobic digesters. Similar to screenings, grit does not have a resource recovery value and would be hauled off site. The screenings and grit would be managed to avoid creating nuisance odors; wastewater treatment plant odors are subject to the jurisdiction of BAAQMD. Handling and disposal would require screenings and grit to be washed and drained, and the wash water may be recycled to the front of the treatment train. Once washed and dewatered, the screenings and grit would be stored in refuse containers, satisfying the City's requirements, and would be routinely hauled off site to a permitted landfill. Refuse containers would be odor proof and contained in an area draining to the sanitary sewer in the case of a rain event, leak, or spill. Odor control measures may also include housing primary screenings in a ventilated enclosure at the WRF.

The WRF would also include appropriate controls to manage any objectionable odors from primary treatment and management of primary and secondary solids. The headspace of tanks with the potential to produce odors would be vented. Air blowers and odor control units (e.g., carbon filters) would be incorporated into the wastewater treatment design, along with other appropriate odor controls to satisfy BAAQMD requirements.[191] Further, the waste collection terminal(s) pneumatic exhaust would be filtered and treated before release. These technologies were selected for their low risk of odor break-through, technology maturity, and reliability.[192] In its guidance to

[191] Sherwood Design Engineers, *Water Reuse Basis of Design at Downtown West*, January 20, 2020.
[192] San Francisco Water Power Sewer, Sewer System Improvement Program—Odor Control Fact Sheet, December 2014.

Bay Area agencies regarding air quality improvement methods, BAAQMD identifies carbon adsorption, biofiltration, and ammonia scrubbers as effective methods for reducing odor impacts from wastewater treatment plants.[193]

In addition, through the odor controls described above, and by housing the WRF within the central utility plant structures, the WRF would comply with General Plan Policies MS-12.1 and MS-12.2 (refer to Table 3.1-7).

Future Recordkeeping. The new odor control units proposed as part of the WRF would also be subject to recordkeeping requirements and conditions in BAAQMD's Permit to Operate for the purpose of abating any public nuisance from odors.

Mitigation Measures

Mitigation Measure AQ-5: Hydrogen Sulfide and Odor Management Program for the Potential Water Reuse Facility(s)

Prior to construction of each WRF, the project applicant shall develop a Hydrogen Sulfide and Odor Management program (HSOM Program) at each water reuse facility (WRF) for review and approval by the Director of Planning, Building and Code Enforcement and the Director of Environmental Services, or the Directors' designees. The HSOM Program shall address hydrogen sulfide and odor management using a performance-based approach designed to meet the regulatory ambient air concentrations established in BAAQMD Regulation 9, Rule 2, (i.e., 0.06 ppm averaged over three consecutive minutes or 0.03 ppm averaged over any 60 consecutive minutes) and to limit public complaints. The HSOM Program shall include best management practices and emissions controls as follows:

1. For grit and screenings, refuse containers shall be odor proof and contained within an area draining to the sanitary sewer.
2. Primary screenings shall be housed in a ventilated enclosure at the WRF(s).
3. Carbon absorption, biofiltration, or ammonia scrubbers shall be installed at the WRF(s).
4. Ferrous chloride injection for hydrogen sulfide removal may also be installed and implemented if necessary.

The project applicant shall implement the HSOM Program on an ongoing basis and provide the Directors or the Directors' designees with an annual report to describe implementation of the program and any adjustments needed to improve performance.

The HSOM Program shall address odor complaints that occur over time and shall designate WRF staff to receive and respond to complaints. The name and contact information of the responsible WRF staff shall be posted in a noticeable location on each WRF facility. The performance standard for odors shall be based on a three-tier threshold

[193] Bay Area Air Quality Management District, *BAAQMD CEQA Air Quality Guidelines*, adopted May 2011, updated May 2012, pages 7-3 to 7-4. Available at https://www.baaqmd.gov/~/media/files/planning-and-research/ceqa/baaqmd-ceqa-guidelines_final_may-2012.pdf?la=en. Accessed July 2020.

based on 30-day, 90-day, and three year averaging times for complaints. The performance standards that must be met shall be as follows:

1. Three or more violation notices for public nuisance related to odors issued by the BAAQMD within a 30-day period;
2. Odor complaints from ten or more complainants within a 90-day period; or
3. Five or more confirmed odor complaints per year averaged over three years as an indication of a significant odor impact from a facility.

If one or more of these standards are not met, the project applicant shall revise the program and make any necessary improvement to the WRF odor controls to achieve all performance standards in subsequent reporting years.

Additionally, odor-control facilities shall be designed to meet the requirements of Section 302 of BAAQMD Regulation 7 and shall not allow the WRF to discharge any odorous substance that causes the ambient air at or beyond the property line to be odorous and to remain odorous after dilution with four parts of odor-free air.

Mitigation Measure Effectiveness

With proper controls, such as those required by BAAQMD Rule 1-301 (Public Nuisance), Rule 6-2 (Commercial Cooking Equipment), Rule 7 (Odorous Substances), Rule 8-8 (Wastewater Collection and Separation Systems), and Rule 9-2 (Inorganic Gaseous Pollutants: Hydrogen Sulfide), and with implementation of Mitigation Measure AQ-5, odors would not adversely affect a substantial number of people, and the impact would be **less than significant with mitigation**.

Significance after Mitigation: Less than significant.

Cumulative Impacts

This section discusses the cumulative impacts on air quality that could result from the proposed project in conjunction with past, present, and reasonably foreseeable future projects. The following analysis addresses the potential cumulative air quality impacts associated with the proposed project. Impact AQ-1 addresses potential impacts related to consistency with the BAAQMD 2017 Clean Air Plan. Because the 2017 Clean Air Plan focuses on reducing population exposure to air pollutants throughout the region, the assessment in Impact AQ-1 is a cumulative analysis as it assesses consistency with a regionwide air quality plan. Therefore, a separate cumulative assessment of consistency with the 2017 Clean Air Plan is not required.

Impact C-AQ-1: The proposed project, in combination with past, present, and reasonably foreseeable future development in the project area, would result in a cumulatively considerable contribution to significant cumulative regional air quality impacts. ***(Significant and Unavoidable)***

Geographic Context

The cumulative geographic context for cumulative air quality impacts related to criteria pollutants is the regional SFBAAB, which is considered a nonattainment area for both federal and state ambient air quality standards for ozone and particulate matter. Cumulative air quality impacts related to criteria pollutants are evaluated based on (1) consistency of the project with local and

regional air quality plans (i.e., the 2017 Clean Air Plan) and (2) a quantification of project-related air quality impacts.

As discussed above, the contribution of a project's individual air emissions to regional air quality impacts is, by its nature, a cumulative effect. Emissions from past, present, and reasonably foreseeable future projects in the region also have or will contribute to adverse regional air quality impacts on a cumulative basis, resulting in a potentially significant cumulative air quality impact. No single project by itself would be sufficient in size to result in non-attainment of ambient air quality standards. Instead, a project's individual emissions contribute to existing cumulative air quality conditions.[194]

Construction Criteria Pollutant Emissions

Fugitive dust from all cumulative construction projects would be controlled by Mitigation Measure AQ-2a, Construction Emissions Minimization Plan, and reduced to less-than-significant levels accordingly. This impact determination is based on BAAQMD's 2017 CEQA Guidelines that recommends the implementation of these dust controls for all new projects.

For criteria pollutants, as described under *Approach to Analysis* above, the project-level thresholds are based on levels by which new sources are not anticipated to contribute to an air quality violation or result in a considerable net increase in criteria air pollutants. Therefore, because the proposed project's construction ROG and NO_X emissions would exceed the project-level thresholds as explained in Impact AQ-2, the proposed project would result in a considerable contribution to cumulative regional air quality NO_X impacts. Mitigation Measure AQ-2a, Construction Emissions Minimization Plan, and Mitigation Measure AQ-2b, Construction Equipment Maintenance and Tuning, have been identified to reduce this impact, although not to less-than-significant levels. Therefore, the project's construction-related emissions of criteria air pollutants would be cumulatively considerable, and this cumulative impact would be **significant and unavoidable.**

Operational Criteria Pollutant Emissions

The region is in nonattainment for ozone and PM, which constitutes a significant cumulative impact. Because the project would have a significant direct impact on air quality with regard to emissions of PM_{10}, $PM_{2.5}$, NO_X, and ROG, its impacts would constitute a cumulatively considerable contribution to a significant cumulative impact with respect to criteria pollutant emissions. As discussed above, implementing Mitigation Measures AQ-2a through AQ-2h would reduce the severity of this impact, but would not reduce the project's contribution to the cumulative impact to a less-than-significant level as shown in the mitigated scenario and uncertainties regarding the implementation of these measures. Therefore, the project's emissions of criteria air pollutants would be cumulatively considerable, and this cumulative impact would be **significant and unavoidable**.

[194] Bay Area Air Quality Management District, *California Environmental Quality Act Air Quality Guidelines*, May 2017, p. 2-1. Available at https://www.baaqmd.gov/~/media/files/planning-and-research/ceqa/ceqa_guidelines_may2017-pdf.pdf?la=en. Accessed January 13, 2020.

Carbon Monoxide

Because the region is in attainment for CO and the project would not contribute to CO concentrations exceeding CAAQS as explained in Impact AQ-4, the proposed project would not result in a considerable contribution to cumulative regional CO impacts.

Odors

There are not currently uncommon or objectionable odors in the project vicinity and no odor-generating projects are reasonably foreseeable in the immediate area. The proposed project could result in objectionable odors from charbroilers and the potential private district water reuse facilities. Odors from the charbroilers would be minimized through compliance with BAAQMD Rule 6-2. With implementation of BAAQMD Rule 8-8 and Mitigation Measure AQ-5, Odor Controls at the Potential Water Reuse Facility, and through the monitoring and enforcement mechanisms of BAAQMD, odors from the water reuse facilities would be minimized.

Because the project would not result in other emissions (such as those leading to odors) adversely affecting a substantial number of people as explained in Impact AQ-5, the proposed project would not result in a considerable contribution to cumulative odor impacts.

Consistency with the Clean Air Plan

As discussed in Impact AQ-1, with implementation of mitigation measures required to reduce air pollutant emissions, the proposed project would be consistent with the 2017 Clean Air Plan. Thus, the proposed project would not disrupt or hinder implementation of control measures identified in the Clean Air Plan.

Mitigation Measures

Mitigation Measure AQ-2a: Construction Emissions Minimization Plan (refer to Impact AQ-2)

Mitigation Measure AQ-2b: Construction Equipment Maintenance and Tuning (refer to Impact AQ-2)

Mitigation Measure AQ-2c: Heavy-Duty Truck Model Year Requirement (refer to Impact AQ-2)

Mitigation Measure AQ-2d: Super-Compliant VOC Architectural Coatings during Operations (refer to Impact AQ-2)

Mitigation Measure AQ-2e: Best Available Emissions Controls for Stationary Emergency Generators (refer to Impact AQ-2)

Mitigation Measure AQ-2f: Diesel Truck Emissions Reduction (refer to Impact AQ-2)

Mitigation Measure AQ-2g: Electric Vehicle Charging (refer to Impact AQ-2)

Mitigation Measure AQ-2h: Enhanced Transportation Demand Management Program (refer to Impact AQ-2)

Mitigation Measure AQ-5: Hydrogen Sulfide and Odor Management Program for the Potential Water Reuse Facility(s) (refer to Impact AQ-5)

As discussed above, implementing Mitigation Measures AQ-2a through AQ-2h and AQ-5 would reduce the severity of this impact; however, as discussed above, these measures would not reduce

the project's contribution to the cumulative regional air quality impact associated with criteria pollutant emissions to a less-than-significant level.

Significance after Mitigation: Significant and unavoidable.

Impact C-AQ-2: The proposed project, in combination with past, present, and reasonably foreseeable future development in the project area, would result in a cumulatively considerable contribution to significant cumulative health risk impacts on sensitive receptors. *(Significant and Unavoidable)*

As discussed above under *Significance Criteria*, the proposed project would have a cumulatively considerable contribution to health risks if the proposed project plus all background cumulative stationary sources within 1,500 feet and mobile sources within 1,500 feet would expose sensitive receptors to substantial levels of TACs resulting in:

- A cancer risk level greater than 100 in 1 million;
- A non-cancer risk (chronic or acute) HI greater than 10.0; or
- Annual average $PM_{2.5}$ concentration of greater than 0.8 $\mu g/m^3$.

These significance criteria are applicable only to the extent that the proposed project would exacerbate existing air quality conditions. An impact would be significant if the project would exacerbate existing or future air quality conditions.[195] Because the proposed project would result in increased health risks at both new on-site and existing off-site sensitive receptors from both construction and operational activities, as discussed in Impact AQ-3 above, the proposed project would exacerbate future air quality conditions. Consequently, cumulative background plus proposed project health risks are analyzed below and compared to the significance criteria presented above.

Geographic Context

Cumulative risks were estimated by taking total background risk values and adding the project's contribution at the on-site and off-site MEIR locations and measuring against the BAAQMD-recommended threshold of an incremental increase in lifetime cancer risk of 100 in 1 million. Background risk values were determined using the standard BAAQMD CEQA Guidelines approach, using a conservative 1,500-foot radius for both stationary sources and mobile sources. For mobile sources, cumulative health risk was modeled in AERMOD and impacts were calculated with methods consistent with BAAQMD's online screening tools, as discussed above under *Approach to Analysis*. Stationary-source information was provided by BAAQMD and methods contained within their tools were applied to calculate the impacts at the MEIRs. This method employs the standard modeling procedure recommended by BAAQMD in its CEQA Guidelines.

As discussed under *Cumulative Impacts* at the beginning of Chapter 3, *Environmental Setting, Impacts, and Mitigation*, and again in **Appendix B**, there are three projects that have been identified as cumulative major development projects plus 41 other nearby projects generally located within 0.5 miles of the project site. All but 15 of the listed cumulative projects (the three

[195] *California Building Industry Association v. Bay Area Air Quality Management District* (2015) 62 Cal.4th 369.

major projects plus 12 other projects) are well beyond the 1,000-foot BAAQMD radius guidance from the proposed project site.

Background Sources of Toxic Air Contaminants

TAC and $PM_{2.5}$ sources with a high potential to affect the same sensitive land uses as the proposed project were examined as part of the cumulative analysis as recommended by BAAQMD.[196,197] Near the project site, sources range from highways and high-volume roadways to standby and prime generators and gasoline-dispensing facilities. The following background existing TAC and $PM_{2.5}$ sources were included in the cumulative HRA for this project.

Railyards and Locomotives

The project site is located adjacent to the San José Diridon Station. The station is served by Caltrain, ACE, and Amtrak. Additionally, Union Pacific Railroad freight locomotives occasionally pass through on this rail line. Only the diesel locomotives operating on rail lines emit TACs, which contribute to the background health risks at the project site; therefore, only freight, Amtrak, Caltrain, and ACE locomotives were considered.

The Caltrain modernization project would electrify the corridor from San Francisco to San José and replace 75 percent of Caltrain's diesel service with electric service by 2022–2023. For the cumulative analysis, it was conservatively assumed that 75 percent of locomotives would be electrified and the remaining 25 percent of the locomotives would have Tier 4 diesel engines, as documented in the Peninsula Corridor Electrification Project EIR.[198]

Permitted Stationary Sources

Stationary sources within 1,500 feet of the project site and their associated localized risk values were provided by BAAQMD.[199] Permitted stationary sources include auto body shops, a coffee roaster, backup generators, and gasoline dispensing facilities. The sources are current as of 2018. The cancer risk and $PM_{2.5}$ values provided represent the risk at each stationary source (i.e., localized). To determine the impact of these sources at the MEIR, an equation based on distance, which was acquired from BAAQMD tools, was used to extrapolate the risk.[200]

On-Road Mobile Sources

Vehicles traveling on roadways around the project's development represent a major TAC emissions source in the community. TAC emissions were included for fuel combustion sources, including

196 Bay Area Air Quality Management District, *California Environmental Quality Act Air Quality Guidelines*, May 2017, p. C-16. Available at https://www.baaqmd.gov/~/media/files/planning-and-research/ceqa/ceqa_guidelines_may2017-pdf.pdf?la=en. Accessed January 13, 2020.

197 Bay Area Air Quality Management District, *Recommended Methods for Screening and Modeling Local Risks and Hazards*, May 2012. Available at http://www.baaqmd.gov/~/media/Files/Planning%20and%20Research/CEQA/Risk%20Modeling%20Approach%20May%202012.ashx?la=en. Accessed February 5, 2020.

198 ICF, *Peninsula Corridor Electrification Project EIR*, prepared for Peninsula Corridor Joint Powers Board, December 2014. Available at http://www.caltrain.com/Assets/Caltrain+Modernization+Program/FEIR/3.2+Air+Quality.pdf.

199 Flores, Areana, Environmental Planner, Bay Area Air Quality Management District, electronic communication to Sarah Patterson, Environmental Science Associates, January 22, 2020.

200 Bay Area Air Quality Management District, BAAQMD Health Risk Calculator (Beta 4.0), 2020. Available at https://www.baaqmd.gov/~/media/files/planning-and-research/ceqa/tools/baaqmd-health-risk-calculator-beta-4-0-xlsx.xlsx?la=en.

running exhaust; fugitive fuel vapor sources, including running loss processes; and fugitive particulate sources, including tire wear, brake wear, and re-entrained road dust. Roadways evaluated in the modeling include highways (such as Interstate 280 and State Route 87) and surface streets (such as West Santa Clara Street). TAC emissions from all vehicle types operating in the community were included, such as passenger cars, passenger trucks, medium-duty trucks, heavy-duty trucks, and buses. As discussed under *Approach to Analysis* above, BAAQMD offers analytical tools to assist in evaluating air quality impacts, but these tools were not used to calculate cumulative health risks, because they rely on an older version of the EMFAC model and outdated traffic volumes.[201] Instead, cumulative background on-road mobile-source emissions were calculated using EMFAC2017 (the latest version of the model) and were modeled in AERMOD to determine cumulative cancer risk and $PM_{2.5}$ concentrations at the project MEIR locations.

The methods used to calculate cumulative risk were consistent with the methods contained within the tools. Consistent with BAAQMD CEQA guidelines for cumulative analyses, emissions from roadways with an existing annual average daily traffic volume of 10,000 vehicles or roadways within 1,000 feet of the project site were calculated and subsequently modeled in AERMOD to determine associated TAC concentrations at MEIR locations. These concentrations were then evaluated to determine health risks at each MEIR location. The methods are detailed in Appendix C1.

Local Emissions Sources Not Included in this Analysis

BAAQMD's screening tools do not include other local TAC emissions sources such as construction activities, commercial and residential cooking, residential wood burning, lawn and home gardening equipment, or emissions associated with other land use development projects or projects that have recently undergone (or are undergoing) CEQA review and are not yet operational. BAAQMD also does not include TAC emissions from these sources in cumulative citywide HRAs for other communities, such as the West Oakland Community Action Plan, because "emission information was not readily available" and "they are either (a) difficult to analyze (e.g., for wood burning and cooking, the spatial and temporal distribution of emissions are poorly understood), or (b) deemed to be less important than similar sources that are included in the emissions inventory."[202]

Calculating these TAC emissions and the resulting contribution to cumulative health risks would be speculative, given the uncertainty in the activities generating these TAC emissions, as described by BAAQMD above. As such, these additional local sources of TAC emissions are not included in this analysis.

Construction

BAAQMD did not include TAC emissions from construction of other future regional projects because of data limitations. The same limitations are present for this analysis, because modeling future construction activity in San José for new development projects would be speculative at the

[201] Bay Area Air Quality Management District, Tools and Methodologies, 2012. Available at https://www.baaqmd.gov/plans-and-climate/california-environmental-quality-act-ceqa/ceqa-tools. Accessed February 5, 2020.

[202] Bay Area Air Quality Management District and West Oakland Environmental Indicators Project, *Final Environmental Impact Report: The West Oakland Community Action Plan*, September 2019, Appendix C, AB 617 Owning Our Air: The West Oakland Community Action Plan Technical Support Document Base Year Emissions Inventory and Air Pollutant Dispersion Modeling. Available at http://www.baaqmd.gov/community-health/community-health-protection-program/west-oakland-community-action-plan. Accessed December 2019.

level of detail needed for a refined HRA. There are limited completed CEQA documents available for these future projects, and most of them have not performed detailed construction HRAs. As such, TAC emissions from future construction projects without CEQA documentation of their TAC emissions and associated health risks were not included in the cumulative HRA for the project. The cumulative HRA does include health risks associated with projects that do have CEQA review of project-level health risks (refer to *Other Cumulative Projects* below).

Restaurants and Cooking

Emissions from restaurants that primarily include combustion-related organic TACs from charbroiling and cooking were excluded. Because of the required emissions control devices and the scale of TAC emissions from charbroiling overall, these emissions are typically small and result in minimal health risks compared to major sources of DPM and $PM_{2.5}$.[203] In addition, quantifying TAC emissions from citywide cooking operations is not feasible, given the proprietary nature of commercial cooking operations, the wide variety of cooking methods and equipment, and the varying emissions control technologies in place and the thousands of restaurants dispersed throughout the city. Therefore, TAC emissions from commercial and residential cooking were not included in the cumulative HRA.

Other Cumulative Projects

As discussed under *Cumulative Impacts* at the beginning of Chapter 3, *Environmental Setting, Impacts, and Mitigation*, and again in Appendix B, there are three projects that have been identified as cumulative major development projects. Two of those projects (BART and Caltrain Modernization) would involve construction on the project site or in the immediate vicinity. These projects have been reviewed under CEQA and both are anticipated to have a net reduction in health risk for operational impacts, but also to have some short-term impacts from construction.

Construction of the BART station has the highest potential to contribute to the cumulative health risk in the vicinity. As part of the CEQA review for the BART project, only the construction of the Alum Rock/28th Street Station was evaluated. The reported risk for the Alum Rock/28th Street Station MEIR was conservatively applied to all receptors as a part of this cumulative assessment. The risk from the Caltrain modernization is associated with the construction of the utilities, traction power substation, overhead contact system, signal and grade crossings, communications, and integration/commissioning.

The third major cumulative project is the update to the DSAP, affecting areas outside the project site. This update will modify the DSAP boundaries, will increase height limits and allowable densities, and is likely to result in more commercial and residential development in the vicinity of the site. Replacement parking that is being considered for locations near the project site, such as Lot E, is also likely to be developed in the DSAP area. Specific information regarding potential development is not available, however, and each large development project under the revised plan would require its own evaluation to determine project-specific and cumulative health risks. Similarly, details of the High-Speed Rail alignment/configuration on the site and the final

[203] Per BAAQMD Regulation 6 Rule 2, Commercial Cooking Equipment, certified emissions control devices are required to be installed on all under-fired charbroilers at restaurants that meet certain criteria. These controls significantly reduce TAC emissions from cooking.

outcome of the Diridon Integrated Station Concept planning process are not known at a sufficient level of detail to model their contribution to cumulative health risks. As such, TAC emissions from these cumulative projects were not included in the cumulative HRA for the proposed project.

Also under *Cumulative Impacts* at the beginning of Chapter 3, *Environmental Setting, Impacts, and Mitigation,* is the discussion of 41 nearby projects that either are under planning review, have planning approved, or are under construction. Of those 41 projects, 12 are within 1,000 feet of the project site. Out of those 12 projects, approximately four environmental documents with quantitative health risk analysis details were available. All four were reviewed to identify quantitative emissions for construction and operation of the respective projects; however, not all environmental documents contained emissions for construction and operation.

Impacts on Sensitive Receptors

As discussed in Impact AQ-3, existing off-site sensitive receptors evaluated in the HRA include all existing off-site sensitive receptors within 1,000 feet of the proposed project boundary and all schools within 2,500 feet of the proposed project boundary (there are no childcare centers within 1,000 feet of the proposed project boundary). New on-site sensitive receptors evaluated include all blocks containing residential uses and blocks containing educational centers, assessed as childcare centers as a conservative assumption. Refer to Appendix C1 for a figure presenting the location of sensitive receptors included in the HRA. From Tables 3.1-15 through 3.1-17, it was determined that the maximum risk impacts for residents would occur when exposure starts at the third trimester. For that reason, only the child receptor under mitigated project conditions was evaluated for the residential cumulative scenarios.

Table 3.1-21 shows the cumulative HRA results for unmitigated project TAC emissions; including incremental increase in lifetime cancer risk, non-cancer chronic HI, and maximum annual average $PM_{2.5}$ concentrations; for existing off-site receptors for Scenario 1 exposure from project construction and operational activities. **Table 3.1-22** presents the cumulative HRA results for unmitigated project TAC emissions for new on-site receptors under Scenario 2. **Table 3.1-23** presents the cumulative HRA results for unmitigated project TAC emissions for all receptor types from emissions associated with full-buildout operations under Scenario 3. The MEIR locations and exposure periods shown in these tables are the same ones as shown above for project-level risks presented in Tables 3.1-15, 3.1-16, and 3.1-17, under Impact AQ-3.

Cancer Risk Impacts

Table 3.1-21, Table 3.1-22, and Table 3.1-23 show the incremental increase in lifetime cancer risk results for both the existing off-site and new on-site MEIRs under unmitigated conditions, along with the cumulative background health risks. As shown in Table 3.1-23, the maximum cumulative incremental increase in lifetime cancer risk would occur at the off-site child resident MEIR under Scenario 1. The incremental increase in lifetime cancer risk at this MEIR is 43.8 per 1 million from the project's contribution and 50.3 per 1 million for cumulative background sources, for a total of 94.1 per 1 million, for the exposure period beginning in 2023. As discussed under Impact AQ-3 above, this MEIR is located south of West San Fernando Street, east of Delmas Avenue, and the project-level cancer risk is driven by construction activities occurring on the F blocks. The background cumulative risk is driven by roadways (49 percent) and diesel

TABLE 3.1-21
SCENARIO 1—UNMITIGATED CUMULATIVE INCREMENTAL INCREASE IN LIFETIME CANCER RISK, CHRONIC HAZARD INDEX, AND ANNUAL AVERAGE $PM_{2.5}$ CONCENTRATION

Receptor Type/Emissions Source	Exposure Period/ HI Max Year/ $PM_{2.5}$ Max Year	Incremental Increase in Lifetime Cancer Risk (in 1 million)[a,b]	Chronic Hazard Index[a,b]	Annual Average $PM_{2.5}$ Concentration ($\mu g/m^3$)[a,b]
Resident Child—Off-Site Receptor				
Project Construction + Operations[b]	2023–2053/2027/ 2027	43.8	0.03	0.31
Background, Rail		13.7	0.01	0.04
Background, Stationary Sources		9.3	0.01	0.01
Background, Roadway		24.6	2.75	0.93
Background, BART Silicon Valley Extension[c]		0.1	<0.01	<0.01
Background, Caltrain Modernization		0.3	<0.01	<0.01
Background, Nearby Project Construction[d]		2.3	<0.01	0.01
Project + Background		94.1	2.8	**1.30**
Significance Threshold		**100**	**10.0**	**0.8**
Exceeds Threshold (Yes or No)?		No	No	**Yes**
School—Off-Site Receptor				
Project Construction + Operations[b,e]	2023–2032/2025/ 2025	1.0	0.01	0.12
Background, Rail		2.0	<0.01	0.01
Background, Stationary Sources		2.9	<0.01	0.01
Background, Roadway		17.8	3.42	0.33
Background, BART Silicon Valley Extension[c]		<0.1	<0.01	<0.01
Background, Caltrain Modernization		<0.1	<0.01	<0.01
Background, Nearby Project Construction[d]		0.2	<0.01	<0.01
Project + Background		23.9	3.43	0.47
Significance Threshold		**100**	**10.0**	**0.8**
Exceeds Threshold (Yes or No)?		No	No	No

NOTES:
$\mu g/m^3$ = micrograms per cubic meter; BART = Bay Area Rapid Transit; HI = Hazard Index; MEIR = Maximally Exposed Individual Receptor; $PM_{2.5}$ = particulate matter 2.5 microns or less in diameter

[a] **Bold values** = threshold exceedance.

[b] Health risk values presented in this table include Tier 4 Final engines on all off-road equipment (as available, with the assumption that 4% of horsepower-hours for all phases of construction would be associated with Tier 4 interim off-road equipment engines, 1% with Tier 3 off-road equipment engines plus Level 4 diesel particulate filters, and 1% with Tier 3 off-road equipment engines). HI values and annual average PM2.5 concentrations represent the worst year of exposure, not a summation. Overlapping years of construction and operation have combined impacts. For values that represent exposure to full buildout TAC emissions, the MEIR is identified based on the maximum exposure to both construction and operational TAC emissions, not just operational TAC emissions. For the MEIR exposed to the maximum operational TAC emissions in isolation without construction, see the Scenario 3 results below

[c] Risk from construction of the Alum Rock/28th Street Station is assumed to be the same or less than that for Diridon Station. The reported risk for the Alum Rock/28th Street Station MEIR was conservatively applied to all receptors of the project site.

[d] Health risk for nearby project construction was acquired from each project's respective published CEQA documents and their impacts at the MEIR were estimated using the Bay Area Air Quality Management District's Health Risk Calculator with Distance Multiplier.

[e] The exposure duration of the school MEIR is less than 30 years. The exposure start date represents the worst-case exposure period.

SOURCES: Data compiled by Environmental Science Associates in 2019 (refer to Appendix C1).

TABLE 3.1-22
SCENARIO 2—UNMITIGATED CUMULATIVE INCREMENTAL INCREASE IN LIFETIME CANCER RISK, CHRONIC HAZARD INDEX, AND ANNUAL AVERAGE $PM_{2.5}$ CONCENTRATION

Receptor Type/Emissions Source	Exposure Period/ HI Max Year/ $PM_{2.5}$ Max Year	Incremental Increase in Lifetime Cancer Risk (in 1 million)[a,b]	Chronic Hazard Index[a,b]	Annual Average $PM_{2.5}$ Concentration ($\mu g/m^3$)[a,b]
Resident Child—On-Site Receptor[b]				
Project Construction + Operations[c]	2029–2059/2032/2032	13.4	0.01	0.22
Background, Rail		7.0	<0.01	0.01
Background, Stationary Sources		3.0	<0.01	0.01
Background, Roadway		9.4	0.41	0.14
Background, BART Silicon Valley Extension[d]		0.1	<0.01	0.01
Background, Caltrain Modernization		0.2	<0.01	<0.01
Background, Nearby Project Construction[e]		0.6	<0.01	0.02
Project + Background		33.7	0.42	0.41
Significance Threshold		**100**	**10.0**	**0.8**
Exceeds Threshold (Yes or No)?		No	No	No
Childcare—On-Site Receptor[b]				
Project Construction + Operations[c,f]	2027–2035/2032/2032	5.9	0.01	0.15
Background, Rail		8.2	<0.01	0.02
Background, Stationary Sources		1.4	<0.01	<0.01
Background, Roadway		8.1	0.69	0.23
Background, BART Silicon Valley Extension[d]		<0.1	<0.01	<0.01
Background, Caltrain Modernization		<0.1	<0.01	<0.01
Background, Nearby Project Construction[e]		0.7	<0.01	0.01
Project + Background		24.3	0.70	0.41
Significance Threshold		**100**	**10.0**	**0.8**
Exceeds Threshold (Yes or No)?		No	No	No

NOTES:
$\mu g/m^3$ = micrograms per cubic meter; BART = Bay Area Rapid Transit; HI = Hazard Index; MEIR = Maximally Exposed Individual Receptor; NA = not applicable; $PM_{2.5}$ = particulate matter 2.5 microns or less in diameter; TBD = to be determined

[a] **Bold values** = threshold exceedance.

[b] Background calculated including Minimum Efficiency Reporting Value (MERV) reduction.

[c] Health risk values presented in this table include Tier 4 Final engines on all off-road equipment (as available, with the assumption that 4% of horsepower-hours for all phases of construction would be associated with Tier 4 interim off-road equipment engines, 1% with Tier 3 off-road equipment engines plus Level 4 diesel particulate filters, and 1% with Tier 3 off-road equipment engines). HI values and annual average PM2.5 concentrations represent the worst year of exposure, not a summation. Overlapping years of construction and operation have combined impacts. For values that represent exposure to full buildout TAC emissions, the MEIR is identified based on the maximum exposure to both construction and operational TAC emissions, not just operational TAC emissions. For the MEIR exposed to the maximum operational TAC emissions in isolation without construction, see the Scenario 3 results below.

[d] Risk from construction of the Alum Rock/28th Street Station is assumed to be the same or less than that for Diridon Station. The reported risk for the Alum Rock/28th Street Station MEIR was conservatively applied to all receptors of the project site.

[e] Health risk for nearby project construction was acquired from each project's respective published CEQA documents and their impacts at the MEIR were estimated using the Bay Area Air Quality Management District's Health Risk Calculator with Distance Multiplier.

[f] The exposure duration of the childcare MEIR is less than 30 years.

SOURCES: Data compiled by Environmental Science Associates in 2020 (refer to Appendix C1).

TABLE 3.1-23
SCENARIO 3—UNMITIGATED CUMULATIVE INCREMENTAL INCREASE IN LIFETIME CANCER RISK, CHRONIC HAZARD INDEX, AND ANNUAL AVERAGE $PM_{2.5}$ CONCENTRATION

Receptor Type/Emissions Source	Exposure Period/ HI Max Year/ $PM_{2.5}$ Max Year	Incremental Increase in Lifetime Cancer Risk (in 1 million)[a,b]	Chronic Hazard Index[a,b]	Annual Average $PM_{2.5}$ Concentration ($\mu g/m^3$)[a,b]
Resident Child—Off-Site Receptor				
Project Operational, full-buildout[b]	2032–2062/2032/ 2032	25.0	0.05	0.87
Background, Rail		29.5	0.01	0.04
Background, Stationary Sources		4.9	<0.01	0.02
Background, Roadway		11.8	0.71	0.26
Background, BART Silicon Valley Extension[c]		<0.1	<0.01	<0.01
Background, Caltrain Modernization		0.1	<0.01	<0.01
Background, Nearby Project Construction[d]		8.4	0.04	0.09
Project + Background		79.7	0.81	**1.28**
Significance Threshold		**100**	**10.0**	**0.8**
Exceeds Threshold (Yes or No)?		No	No	**Yes**
Resident Child—On-Site Receptor[e]				
Project Operational, full buildout[b]	2032–2062/2032/ 2032	14.0	0.04	0.64
Background, Rail		17.1	<0.01	0.02
Background, Stationary Sources		2.1	<0.01	0.01
Background, Roadway		10.0	0.24	0.08
Background, BART Silicon Valley Extension[c]		0.1	<0.01	<0.01
Background, Caltrain Modernization		0.5	<0.01	<0.01
Background, Nearby Project Construction[d]		0.3	0.01	0.03
Project + Background		44.1	0.29	0.78
Significance Threshold		**100**	**10.0**	**0.8**
Exceeds Threshold (Yes or No)?		No	No	No
School—Off-Site Receptor				
Project Operational, full buildout[b,e]	2032–2041/2032/ 2032	2.6	0.02	0.13
Background, Rail		2.0	<0.01	0.01
Background, Stationary Sources		2.9	<0.01	0.01
Background, Roadway		17.8	0.96	0.39
Background, BART Silicon Valley Extension[c]		<0.1	<0.01	<0.01
Background, Caltrain Modernization		<0.1	<0.01	<0.01
Background, Nearby Project Construction[d]		0.2	<0.01	<0.01
Project + Background		25.5	0.98	0.54
Significance Threshold		**100**	**10.0**	**0.8**
Exceeds Threshold (Yes or No)?		No	No	**No**

TABLE 3.1-23
SCENARIO 3—UNMITIGATED CUMULATIVE INCREMENTAL INCREASE IN LIFETIME CANCER RISK, CHRONIC HAZARD INDEX, AND ANNUAL AVERAGE $PM_{2.5}$ CONCENTRATION

Receptor Type/Emissions Source	Exposure Period/ HI Max Year/ $PM_{2.5}$ Max Year	Incremental Increase in Lifetime Cancer Risk (in 1 million)[a,b]	Chronic Hazard Index[a,b]	Annual Average $PM_{2.5}$ Concentration ($\mu g/m^3$)[a,b]
Childcare—On-Site Receptor[d]				
Project Operational, full buildout[b,e]	2032–2038/2032/ 2032	4.9	0.03	0.43
Background, Rail		6.6	<0.01	0.02
Background, Stationary Sources		1.4	<0.01	<0.01
Background, Roadway		9.4	0.80	0.29
Background, BART Silicon Valley Extension[c]		<0.1	<0.01	<0.01
Background, Caltrain Modernization		0.1	<0.01	<0.01
Background, Nearby Project Construction[d]		0.7	<0.01	0.01
Project + Background		23.1	0.83	0.75
Significance Threshold		**100**	**10.0**	**0.8**
Exceeds Threshold (Yes or No)?		No	No	No

NOTES:
$\mu g/m^3$ = micrograms per cubic meter; BART = Bay Area Rapid Transit; HI = Hazard Index; MEIR = Maximally Exposed Individual Receptor; $PM_{2.5}$ = particulate matter 2.5 microns or less in diameter
[a] **Bold values** = threshold exceedance
[b] Health risk values presented in this table include Tier 4 Final engines on all off-road equipment (as available, with the assumption that 4% of horsepower-hours for all phases of construction would be associated with Tier 4 interim off-road equipment engines, 1% with Tier 3 off-road equipment engines plus Level 4 diesel particulate filters, and 1% with Tier 3 off-road equipment engines).
[c] Risk from construction of the Alum Rock/28th Street Station is assumed to be the same or less than that for Diridon Station. The reported risk for the Alum Rock/28th Street Station MEIR was conservatively applied to all receptors of the project site.
[d] Health risk for nearby project construction was acquired from each project's respective published CEQA documents and their impacts at the MEIR were estimated using the Bay Area Air Quality Management District's Health Risk Calculator with Distance Multiplier.
[e] Background calculated including Minimum Efficiency Reporting Value (MERV) 13 reduction.
[f] The exposure duration of the school and childcare MEIR is less than 30 years. The exposure start date represents the worst-case exposure period.

SOURCES: Data compiled by Environmental Science Associates in 2019 (refer to Appendix C1).

locomotives on rail lines (27 percent). The total cumulative cancer risk is less than the cumulative BAAQMD threshold of an increased lifetime cancer risk of 100 in 1 million.

For Scenario 2 as shown in Table 3.1-22, the maximum cumulative incremental increase in lifetime cancer risk would occur at the new on-site child resident MEIR and would be 13.4 per 1 million from the project's contribution and 20.3 per 1 million for cumulative background sources, for a total of 33.7 per 1 million, for the exposure period beginning in 2029. As discussed under Impact AQ-3 above, this MEIR is located at Block E2, and the project-level cancer risk is driven by construction emissions from the buildout of the D and C blocks and by operational traffic along Highway 87. The background cumulative risk is driven by roadways (46 percent) and diesel locomotives on rail lines (34 percent). The total cumulative cancer risk is less than the BAAQMD cumulative threshold of an increased lifetime cancer risk of 100 in 1 million.

For Scenario 3 as shown in Table 3.1-22, the maximum cumulative incremental increase in lifetime cancer risk would occur at the off-site child resident MEIR and would be 25.0 per 1 million from the project's contribution and 54.7 per 1 million for cumulative background sources, for a total of 79.7 per 1 million. As discussed under Impact AQ-3 above, this MEIR is located east of the project site, along North Montgomery Street, and the project-level cancer risk at this location is driven by operational vehicle traffic along North Montgomery Street. The background cumulative risk is driven by diesel locomotives on rail lines (54 percent) and roadways (22 percent). For the on-site child resident MEIR, the cumulative incremental increase in lifetime cancer risk and would be 14.0 per 1 million from the project's contribution and 30.1 per 1 million for cumulative background sources, for a total of 44.1 per 1 million. The on-site child resident MEIR is located on Block D1, and the project-level cancer risk at this location is driven by operational traffic along West Santa Clara Street. The background cumulative risk is driven by diesel locomotives on rail lines (57 percent) and roadways (33 percent). The total cumulative cancer risk for both locations are less than the BAAQMD cumulative threshold of an increased lifetime cancer risk of 100 in 1 million.

Therefore, the project's contribution to the excess lifetime cancer risk to the cumulative impact would be **less than significant**. Nonetheless, modelling results reflecting project mitigation measures are presented below.

Non-cancer Health Impacts

Table 3.1-21, Table 3.1-22, and Table 3.1-23 also show non-cancer chronic health risks for both the existing off-site and new on-site MEIRs for unmitigated conditions, along with the cumulative background health risks. As shown in Table 3.1-21, Table 3.1-22, and Table 3.1-23, the maximum non-cancer chronic HI at would occur under Scenario 1 for the off-site resident MEIR. Under this scenario, the maximum non-cancer chronic HI would be 0.03 from the project's contribution and 2.77 for cumulative background sources for a total of 2.80, and this risk value would occur in 2032. As discussed under Impact AQ-3 above, this MEIR is located east of the project site, along North Montgomery Street, and the project-level non-cancer chronic HI at this location is driven by operational vehicle traffic along North Montgomery Street. The background cumulative risk is driven by roadways (99 percent). Because the maximum non-cancer chronic HI would be below the BAAQMD cumulative HI threshold of 10.0, the proposed project's cumulative impact would be **less than significant**. Nonetheless, modelling results reflecting project mitigation measures are presented below.

$PM_{2.5}$ Concentration

Table 3.1-21, Table 3.1-22, and Table 3.1-23 also show maximum annual average $PM_{2.5}$ concentration for both the existing off-site and new on-site MEIRs for unmitigated conditions, along with the cumulative background health risks. As shown in Table 3.1-21, Table 3.1-22, and Table 3.1-23, the maximum cumulative annual average $PM_{2.5}$ concentration would occur for the existing off-site child resident MEIR under Scenario 1. For this MEIR, as shown in Table 3.1-21, the maximum annual average $PM_{2.5}$ concentration would be 0.31 $\mu g/m^3$ for the project (year 2032 for full-buildout operations) and 0.99 $\mu g/m^3$ for cumulative background sources for a total of 1.30 $\mu g/m^3$. As discussed under Impact AQ-3 above, this MEIR is located along North Montgomery Street, east of the project site, and the project-level annual average $PM_{2.5}$

concentration is driven by operational vehicle traffic along North Montgomery Street. The background cumulative annual average $PM_{2.5}$ concentration is driven by roadways (94 percent). The total cumulative annual average $PM_{2.5}$ concentration is greater than the BAAQMD cumulative threshold of 0.8 µg/m^3.

For Scenario 2 as shown in Table 3.1-22, the maximum cumulative annual average $PM_{2.5}$ concentrations would occur for the off-site child resident MEIR and would be 0.22 µg/m^3 for the project and 0.19 µg/m^3 for cumulative background sources for a total of 0.41 µg/m^3, for the year 2032. As discussed under Impact AQ-3 above, this MEIR is located on Block E2, and the project-level annual average $PM_{2.5}$ concentration is driven by operational vehicle traffic along West Santa Clara Street and Highway 87. The background cumulative annual average $PM_{2.5}$ concentration is driven by roadways (74 percent). The total cumulative annual average $PM_{2.5}$ concentration is less than the BAAQMD cumulative threshold of 0.8 µg/m^3.

For Scenario 3 as shown in Table 3.1-22, the maximum cumulative annual average $PM_{2.5}$ concentrations would occur for the off-site child resident MEIR and would be 0.87 µg/m^3 for the project and 0.41 µg/m^3 for cumulative background sources for a total of 1.28 µg/m^3, for the year 2032. As discussed under Impact AQ-3 above, this MEIR is located along North Montgomery Street, east of the project site, and the project-level annual average $PM_{2.5}$ concentration from the project at this location is driven by operational vehicle traffic along North Montgomery Street. The background cumulative annual average $PM_{2.5}$ concentration is driven by roadways (63 percent). The maximum cumulative annual average $PM_{2.5}$ concentration for the new on-site MEIR is 0.64 µg/m^3 for the project and 0.14 µg/m^3 for cumulative background sources for a total of 0.78 µg/m^3, for the year 2032. The new on-site child MEIR is located at Block D1, and the project-level annual average $PM_{2.5}$ concentration at this location is driven by operational traffic along West Santa Clara Street. The background cumulative annual average $PM_{2.5}$ concentration is driven by roadways (57 percent). The total cumulative annual average $PM_{2.5}$ concentration at the off-site MEIR location is greater than the BAAQMD cumulative threshold of 0.8 µg/m^3.

Because the total cumulative plus project annual average $PM_{2.5}$ concentration at the existing off-site resident MEIR would be above the cumulative threshold of 0.8 µg/m^3, and because the proposed project would exacerbate the annual average $PM_{2.5}$ concentrations at this MEIR location by adding 0.32 µg/m^3 under Scenario 1 and 0.87 µg/m^3 under Scenario 3, the project's contribution would be cumulatively considerable. Therefore, the cumulative impact would be **potentially significant**.

The following mitigation measures are required as conditions of approval to reduce the impacts of project-related and cumulative TAC emissions on existing off-site and new on-site sensitive receptors.

Mitigation Measures

Mitigation Measure AQ-2a: Construction Emissions Minimization Plan (refer to Impact AQ-2)

Mitigation Measure AQ-2b: Construction Equipment Maintenance and Tuning (refer to Impact AQ-2)

Mitigation Measure AQ-2c: Heavy-Duty Truck Model Year Requirement (refer to Impact AQ-2)

Mitigation Measure AQ-2e: Best Available Emissions Controls for Stationary Emergency Generators (refer to Impact AQ-2)

Mitigation Measure AQ-2f: Operational Diesel Truck Emissions Reduction (refer to Impact AQ-2)

Mitigation Measure AQ-2g: Electric Vehicle Charging (refer to Impact AQ-2)

Mitigation Measure AQ-2h: Enhanced Transportation Demand Management Program (refer to Impact AQ-2)

Mitigation Measure AQ-3: Exposure to Air Pollution—Toxic Air Contaminants (refer to Impact AQ-3)

Mitigation Measure Effectiveness

For a discussion of the effectiveness of each individual mitigation measure on the project's TAC emissions and associated health effects, please see Impact AQ-3.

Table 3.1-24 shows the cumulative HRA results for mitigated project TAC emissions; including incremental increase in lifetime cancer risk, non-cancer chronic HI, and maximum annual average $PM_{2.5}$ concentrations; for existing off-site receptors for Scenario 1 exposure from project construction and operational activities. **Table 3.1-25** presents the cumulative HRA results for mitigated project TAC emissions for new on-site receptors under Scenario 2. **Table 3.1-26** presents the cumulative HRA results for mitigated project TAC emissions for all receptor types from emissions associated with full-buildout operations under Scenario 3. The MEIR locations and exposure periods shown in these tables are the same ones as shown above for project-level risks presented in Tables 3.1-18, 3.1-19, and 3.1-20, under Impact AQ-3. Additionally, because the effectiveness of Mitigation Measures AQ-2b, AQ-2f, and AQ-3 on health risks is not known, the mitigated results in Table 3.1-24, Table 3.1-25, and Table 3.1-26 present results that do not quantify reductions associated with these mitigation measures.

Cancer Risk Impacts

Table 3.1-24, Table 3.1-25, and Table 3.1-26 show the incremental increase in lifetime cancer risk results for both the existing off-site and new on-site MEIRs under mitigated conditions, along with the cumulative background health risks. As shown in Table 3.1-23, the maximum cumulative incremental increase in lifetime cancer risk would occur at the off-site child resident MEIR under Scenario 3. The incremental increase in lifetime cancer risk at this MEIR is 17.0 per 1 million from the project's contribution and 54.7 per 1 million for cumulative background sources, for a total of 71.7 per 1 million, for the exposure period beginning in 2032. As discussed under Impact AQ-3 above, this MEIR is located east of the project site, along North Montgomery Street, and the project-level cancer risk is driven by operational vehicle traffic. The background cumulative risk is driven by diesel locomotives on rail lines (54 percent) and roadways (22 percent). For the on-site child resident, the cancer risk would be 9.7 in 1 million from the project's contribution and 24.7 per 1 million for cumulative background sources, for a total of 34.4 per 1 million, for the exposure period beginning in 2032. This MEIR is located at Block C1, and the cancer risk at this location is driven by operational vehicle traffic along North Montgomery

TABLE 3.1-24
SCENARIO 1—MITIGATED CUMULATIVE INCREMENTAL INCREASE IN LIFETIME CANCER RISK, CHRONIC HAZARD INDEX, AND ANNUAL AVERAGE $PM_{2.5}$ CONCENTRATION

Receptor Type/Emissions Source	Exposure Period/ HI Max Year/ $PM_{2.5}$ Max Year	Incremental Increase in Lifetime Cancer Risk (in 1 million)[a,b]	Chronic Hazard Index[a,b]	Annual Average $PM_{2.5}$ Concentration ($\mu g/m^3$)[a,b]
Resident Child—Off-Site Receptor				
Project Construction + Operations[b]	2024–2054/2032/ 2032	19.6	0.02	0.19
Background, Rail		23.7	0.01	0.04
Background, Stationary Sources		5.2	0.01	0.01
Background, Roadway		15.7	2.75	0.93
Background, BART Silicon Valley Extension[c]		0.2	<0.01	<0.01
Background, Caltrain Modernization		0.8	<0.01	<0.01
Background, Nearby Project Construction[d]		2.6	<0.01	0.01
Project + Background		67.8	2.79	**1.18**
Significance Threshold		**100**	**10.0**	**0.8**
Exceeds Threshold (Yes or No)?		No	No	**Yes**
School—Off-Site Receptor				
Project Construction + Operations[b,e]	2023–2032/2025/ 2025	0.5	0.01	0.09
Background, Rail		2.0	<0.01	0.01
Background, Stationary Sources		2.9	<0.01	0.01
Background, Roadway		17.8	3.42	0.33
Background, BART Silicon Valley Extension[c]		<0.1	<0.01	<0.01
Background, Caltrain Modernization		<0.1	<0.01	<0.01
Background, Nearby Project Construction[d]		0.2	<0.01	<0.01
Project + Background		23.4	3.43	0.44
Significance Threshold		**100**	**10.0**	**0.8**
Exceeds Threshold (Yes or No)?		No	No	No

NOTES:
$\mu g/m^3$ = micrograms per cubic meter; BART = Bay Area Rapid Transit; HI = Hazard Index; MEIR = Maximally Exposed Individual Receptor; $PM_{2.5}$ = particulate matter 2.5 microns or less in diameter

[a] **Bold values** = threshold exceedance.

[b] Health risk values presented in this table include Tier 4 Final engines on all off-road equipment (as available, with the assumption that 4% of horsepower-hours for all phases of construction would be associated with Tier 4 interim off-road equipment engines, 1% with Tier 3 off-road equipment engines plus Level 4 diesel particulate filters, and 1% with Tier 3 off-road equipment engines), and implementation of Mitigation Measure AQ-2a, Construction Emissions Minimization Plan; Mitigation Measure AQ-2c, Heavy-Duty Truck Model Year Requirement; Mitigation Measure AQ-2e, Best Available Emissions Controls for Stationary Emergency Generators; Mitigation Measure AQ-2f, Operational Diesel Truck Emissions Reduction; Mitigation Measure AQ-2g, Electric Vehicle Charging; and Mitigation Measure AQ-2h, Enhanced Transportation Demand Management Program. HI values and annual average PM2.5 concentrations represent the worst year of exposure, not a summation. Overlapping years of construction and operation have combined impacts. For values that represent exposure to full buildout TAC emissions, the MEIR is identified based on the maximum exposure to both construction and operational TAC emissions, not just operational TAC emissions. For the MEIR exposed to the maximum operational TAC emissions in isolation without construction, see the Scenario 3 results below

[c] Risk from construction of the Alum Rock/28th Street Station is assumed to be the same or less than that for Diridon Station. The reported risk for the Alum Rock/28th Street Station MEIR was conservatively applied to all receptors of the project site.

[d] Health risk for nearby project construction was acquired from each project's respective published CEQA documents and their impacts at the MEIR were estimated using the Bay Area Air Quality Management District's Health Risk Calculator with Distance Multiplier.

[e] The exposure duration of the school MEIR is less than 30 years. The exposure start date represents the worst-case exposure period.

SOURCES: Data compiled by Environmental Science Associates in 2019 (refer to Appendix C1).

TABLE 3.1-25
SCENARIO 2—MITIGATED CUMULATIVE INCREMENTAL INCREASE IN LIFETIME CANCER RISK, CHRONIC HAZARD INDEX, AND ANNUAL AVERAGE $PM_{2.5}$ CONCENTRATION

Receptor Type/Emissions Source	Exposure Period/ HI Max Year/ $PM_{2.5}$ Max Year	Incremental Increase in Lifetime Cancer Risk (in 1 million)[a,b]	Chronic Hazard Index[a,b]	Annual Average $PM_{2.5}$ Concentration ($\mu g/m^3$)[a,b]
Resident Child—On-Site Receptor[b]				
Project Construction + Operations[c]	2029–2059/2032/2032	6.5	0.01	0.11
Background, Rail		7.0	<0.01	0.01
Background, Stationary Sources		3.0	<0.01	0.01
Background, Roadway		9.4	0.41	0.14
Background, BART Silicon Valley Extension[d]		0.1	<0.01	0.01
Background, Caltrain Modernization		0.2	<0.01	<0.01
Background, Nearby Project Construction[e]		0.6	<0.01	0.02
Project + Background		26.8	0.42	0.30
Significance Threshold		**100**	**10.0**	**0.8**
Exceeds Threshold (Yes or No)?		No	No	No
Childcare—On-Site Receptor[b]				
Project Construction + Operations[c,f]	2027–2035/2032/2032	2.6	0.01	0.06
Background, Rail		8.2	<0.01	0.02
Background, Stationary Sources		1.4	<0.01	0.00
Background, Roadway		8.1	0.69	0.23
Background, BART Silicon Valley Extension[d]		<0.1	<0.01	<0.01
Background, Caltrain Modernization		<0.1	<0.01	<0.01
Background, Nearby Project Construction[e]		0.7	<0.01	0.01
Project + Background		21.0	0.70	0.32
Significance Threshold		**100**	**10.0**	**0.8**
Exceeds Threshold (Yes or No)?		No	No	No

NOTES:
$\mu g/m^3$ = micrograms per cubic meter; BART = Bay Area Rapid Transit; HI = Hazard Index; MEIR = Maximally Exposed Individual Receptor; NA = not applicable; $PM_{2.5}$ = particulate matter 2.5 microns or less in diameter; TBD = to be determined

[a] **Bold values** = threshold exceedance.

[b] Background calculated including Minimum Efficiency Reporting Value (MERV) reduction.

[c] Health risk values presented in this table include Tier 4 Final engines on all off-road equipment (as available, with the assumption that 4% of horsepower-hours for all phases of construction would be associated with Tier 4 interim off-road equipment engines, 1% with Tier 3 off-road equipment engines plus Level 4 diesel particulate filters, and 1% with Tier 3 off-road equipment engines), and implementation of Mitigation Measure AQ-2a, Construction Emissions Minimization Plan; Mitigation Measure AQ-2c, Heavy-Duty Truck Model Year Requirement; Mitigation Measure AQ-2e, Best Available Emissions Controls for Stationary Emergency Generators; Mitigation Measure AQ-2f, Operational Diesel Truck Emissions Reduction; Mitigation Measure AQ-2g, Electric Vehicle Charging; and Mitigation Measure AQ-2h, Enhanced Transportation Demand Management Program. HI values and annual average PM2.5 concentrations represent the worst year of exposure, not a summation. Overlapping years of construction and operation have combined impacts. For values that represent exposure to full buildout TAC emissions, the MEIR is identified based on the maximum exposure to both construction and operational TAC emissions, not just operational TAC emissions. For the MEIR exposed to the maximum operational TAC emissions in isolation without construction, see the Scenario 3 results below.

[d] Risk from construction of the Alum Rock/28th Street Station is assumed to be the same or less than that for Diridon Station. The reported risk for the Alum Rock/28th Street Station MEIR was conservatively applied to all receptors of the project site.

[e] Health risk for nearby project construction was acquired from each project's respective published CEQA documents and their impacts at the MEIR were estimated using the Bay Area Air Quality Management District's Health Risk Calculator with Distance Multiplier.

[f] The exposure duration of the childcare MEIR is less than 30 years.

SOURCES: Data compiled by Environmental Science Associates in 2020 (refer to Appendix C1).

TABLE 3.1-26
SCENARIO 3—MITIGATED CUMULATIVE INCREMENTAL INCREASE IN LIFETIME CANCER RISK, CHRONIC HAZARD INDEX, AND ANNUAL AVERAGE $PM_{2.5}$ CONCENTRATION

Receptor Type/ Emissions Source	Exposure Period/ HI Max Year/ $PM_{2.5}$ Max Year	Incremental Increase in Lifetime Cancer Risk (in 1 million)[a,b]	Chronic Hazard Index[a,b]	Annual Average $PM_{2.5}$ Concentration ($\mu g/m^3$)[a,b]
Resident Child—Off-Site Receptor				
Project Operational, full-buildout[b]	2032–2062/2032/2032	**17.0**	0.04	**0.74**
Background, Rail		29.5	0.01	0.04
Background, Stationary Sources		4.9	<0.01	0.02
Background, Roadway		11.8	0.71	0.26
Background, BART Silicon Valley Extension[c]		<0.1	<0.01	<0.01
Background, Caltrain Modernization		0.1	<0.01	<0.01
Background, Nearby Project Construction[d]		8.4	0.04	0.09
Project + Background		71.7	0.8	**1.15**
Significance Threshold		**100**	**10.0**	**0.8**
Exceeds Threshold (Yes or No)?		No	No	**Yes**
Resident Child—On-Site Receptor[e]				
Project Operational, full buildout[b]	2032–2062/2032/2032	9.7	0.03	0.27
Background, Rail		14.2	<0.01	0.02
Background, Stationary Sources		2.0	<0.01	0.01
Background, Roadway		5.4	0.24	0.12
Background, BART Silicon Valley Extension[c]		<0.1	<0.01	0.02
Background, Caltrain Modernization		<0.1	<0.01	<0.01
Background, Nearby Project Construction[d]		3.1	0.01	<0.01
Project + Background		34.4	0.28	0.44
Significance Threshold		**100**	**10.0**	**0.8**
Exceeds Threshold (Yes or No)?		No	No	No
School—Off-Site Receptor				
Project Operational, full buildout[b,e]	2032–2039/2032/2032	1.6	0.02	0.11
Background, Rail		0.8	<0.01	0.01
Background, Stationary Sources		3.5	<0.01	0.01
Background, Roadway		3.9	0.96	0.39
Background, BART Silicon Valley Extension[c]		<0.1	<0.01	<0.01
Background, Caltrain Modernization		<0.1	<0.01	<0.01

TABLE 3.1-26
SCENARIO 3—MITIGATED CUMULATIVE INCREMENTAL INCREASE IN LIFETIME CANCER RISK, CHRONIC HAZARD INDEX, AND ANNUAL AVERAGE $PM_{2.5}$ CONCENTRATION

Receptor Type/ Emissions Source	Exposure Period/ HI Max Year/ $PM_{2.5}$ Max Year	Incremental Increase in Lifetime Cancer Risk (in 1 million)[a,b]	Chronic Hazard Index[a,b]	Annual Average $PM_{2.5}$ Concentration ($\mu g/m^3$)[a,b]
Background, Nearby Project Construction[d]		<0.1	<0.01	<0.01
Project + Background		9.8	0.98	0.52
Significance Threshold		**100**	**10.0**	**0.8**
Exceeds Threshold (Yes or No)?		No	No	No
Childcare—On-Site Receptor[d]				
Project Operational, full buildout[b,e]	2032–2038/2032/2032	3.2	0.02	0.14
Background, Rail		6.6	<0.01	0.02
Background, Stationary Sources		1.4	<0.01	<0.01
Background, Roadway		9.4	0.80	0.29
Background, BART Silicon Valley Extension[c]		<0.1	<0.01	<0.01
Background, Caltrain Modernization		0.1	<0.01	<0.01
Background, Nearby Project Construction[d]		0.7	<0.01	0.01
Project + Background		21.4	0.82	0.46
Significance Threshold		**100**	**10.0**	**0.8**
Exceeds Threshold (Yes or No)?		No	No	No

NOTES:
$\mu g/m^3$ = micrograms per cubic meter; BART = Bay Area Rapid Transit; HI = Hazard Index; MEIR = Maximally Exposed Individual Receptor; $PM_{2.5}$ = particulate matter 2.5 microns or less in diameter

[a] **Bold values** = threshold exceedance

[b] Health risk values presented in this table include Tier 4 Final engines on all off-road equipment (as available, with the assumption that 4% of horsepower-hours for all phases of construction would be associated with Tier 4 interim off-road equipment engines, 1% with Tier 3 off-road equipment engines plus Level 4 diesel particulate filters, and 1% with Tier 3 off-road equipment engines), and implementation of Mitigation Measure AQ-2a, Construction Emissions Minimization Plan; Mitigation Measure AQ-2c, Heavy-Duty Truck Model Year Requirement; Mitigation Measure AQ-2e, Best Available Emissions Controls for Stationary Emergency Generators; Mitigation Measure AQ-2f, Operational Diesel Truck Emissions Reduction; and Mitigation Measure AQ-2h, Enhanced Transportation Demand Management Program.

[c] Risk from construction of the Alum Rock/28th Street Station is assumed to be the same or less than that for Diridon Station. The reported risk for the Alum Rock/28th Street Station MEIR was conservatively applied to all receptors of the project site.

[d] Health risk for nearby project construction was acquired from each project's respective published CEQA documents and their impacts at the MEIR were estimated using the Bay Area Air Quality Management District's Health Risk Calculator with Distance Multiplier.

[e] Background calculated including Minimum Efficiency Reporting Value (MERV) reduction.

[f] The exposure duration of the school and childcare MEIR is less than 30 years. The exposure start date represents the worst-case exposure period.

SOURCES: Data compiled by Environmental Science Associates in 2019 (refer to Appendix C1).

Street. The background cumulative risk is driven by diesel locomotives on rail lines (57 percent) and roadways (22 percent). The total cumulative cancer risk is less than the cumulative BAAQMD threshold of an increased lifetime cancer risk of 100 in 1 million.

For Scenario 1, after implementation of mitigation measures as shown in Table 3.1-25, the maximum cumulative incremental increase in lifetime cancer risk would occur at the off-site child resident MEIR and would be 19.6 per 1 million from the project's contribution and 48.2 per 1 million for cumulative background sources, for a total of 67.8 per 1 million, for the exposure period beginning in 2024. As discussed under Impact AQ-3 above, this MEIR is located east of the project site, north of Park Avenue, and the project-level cancer risk is driven by construction activities occurring on the F blocks. The background cumulative risk is driven by diesel locomotives on rail lines (49 percent) and roadways (33 percent). The total cumulative cancer risk is less than the BAAQMD cumulative threshold of an increased lifetime cancer risk of 100 in 1 million.

For Scenario 2, after implementation of mitigation measures as shown in Table 3.1-25, the maximum cumulative incremental increase in lifetime cancer risk would occur at the new on-site child resident MEIR and would be 6.5 per 1 million from the project's contribution and 20.3 per 1 million for cumulative background sources, for a total of 23.4 per 1 million, for the exposure period beginning in 2029. As discussed under Impact AQ-3 above, this MEIR is located at Block E2, and the project-level cancer risk is driven by operational vehicle traffic along West Santa Clara Street and Highway 87. The background cumulative risk is driven by roadways (49 percent) and diesel locomotives on rail lines (34 percent). The total cumulative cancer risk is less than the BAAQMD cumulative threshold of an increased lifetime cancer risk of 100 in 1 million.

Therefore, the project's contribution to the excess lifetime cancer risk would not be cumulatively considerable, and this cumulative impact would remain less than significant.

Non-cancer Health Impacts

Table 3.1-24, Table 3.1-25, and Table 3.1-26 also show non-cancer chronic health risks for both the existing off-site and new on-site MEIRs under mitigated conditions, along with the cumulative background health risks. As shown in Table 3.1-24, Table 3.1-25, and Table 3.1-26, the maximum non-cancer chronic HI at would occur under Scenario 1 at Gardener Elementary School, for the off-site school MEIR. Under this scenario, the maximum non-cancer chronic HI would be 0.01 from the project's contribution and 3.42 for cumulative background sources for a total of 3.43, and this risk value would occur in 2025. As discussed under Impact AQ-3 above, this MEIR is located east of the project site, along North Montgomery Street, and the project-level non-cancer chronic HI at this location is driven by operational vehicle traffic along North Montgomery Street. The background cumulative risk is driven by roadways (99.7 percent). Because the maximum non-cancer chronic HI would be below the BAAQMD cumulative HI threshold of 10.0, the impact of the proposed project's cumulative impact would remain less than significant.

$PM_{2.5}$ Concentration

Table 3.1-24, Table 3.1-25, and Table 3.1-26 also show maximum annual average $PM_{2.5}$ concentration for both the existing off-site and new on-site MEIRs under mitigated conditions, along with the cumulative background health risks. As shown in Table 3.1-24, Table 3.1-25, and Table 3.1-26, the maximum cumulative annual average $PM_{2.5}$ concentration would occur for the existing off-site child resident MEIR under Scenario 1. For this MEIR, as shown in Table 3.1-24, the maximum annual average $PM_{2.5}$ concentration would be 0.19 $\mu g/m^3$ for the project (year 2025 for construction plus interim-buildout operations) and 0.99 $\mu g/m^3$ for cumulative background

sources for a total of 1.18 µg/m^3. As discussed under Impact AQ-3 above, this MEIR is located along Auzerais Avenue, south of the project site, and the project-level annual average $PM_{2.5}$ concentration is driven by operational vehicle traffic along Interstate 280. The background cumulative annual average $PM_{2.5}$ concentration is driven by roadways (94 percent). The total cumulative annual average $PM_{2.5}$ concentration is greater than the BAAQMD cumulative threshold of 0.8 µg/m^3.

For Scenario 2, after implementation of mitigation measures as shown in Table 3.1-25, the maximum cumulative annual average $PM_{2.5}$ concentrations would occur for the on-site child resident MEIR and would be 0.11 µg/m^3 for the project and 0.19 µg/m^3 for cumulative background sources for a total of 0.30 µg/m^3, for the year 2032. As discussed under Impact AQ-3 above, this MEIR is located on Block E2, and the project-level annual average $PM_{2.5}$ concentration is driven by operational vehicle traffic along West Santa Clara Street and Highway 87. The background cumulative annual average $PM_{2.5}$ concentration is driven by roadways (74 percent). The total cumulative annual average $PM_{2.5}$ concentration is less than the BAAQMD cumulative threshold of 0.8 µg/m^3.

For Scenario 3, after implementation of mitigation measures as shown in Table 3.1-25, the maximum cumulative annual average $PM_{2.5}$ concentrations would occur for the off-site child resident MEIR and would be 0.74 µg/m^3 for the project and 0.41 µg/m^3 for cumulative background sources for a total of 1.15 µg/m^3, for the year 2032. As discussed under Impact AQ-3 above, this MEIR is located at Block D1, and the project-level annual average $PM_{2.5}$ concentration is about 50 percent due to operational vehicle traffic along West Santa Clara Street and about 50 percent due to on-site operations of stationary sources such as charbroilers, emergency generators, and cooling towers. The background cumulative annual average $PM_{2.5}$ concentration is driven by roadways (63 percent). After implementation of mitigation, the maximum annual average $PM_{2.5}$ concentration for the new on-site MEIR is 0.27 µg/m^3 for the project and 0.17 µg/m^3 for cumulative background sources for a total of 0.44 µg/m^3, for the year 2032. The new on-site child MEIR is located at Block D1, and the project-level annual average $PM_{2.5}$ concentration at this location is about 50 percent due to operational vehicle traffic along West Santa Clara Street and about 50 percent due to on-site operations of stationary sources such as charbroilers, emergency generators, and cooling towers. The background cumulative annual average $PM_{2.5}$ concentration is driven by roadways (71 percent). The total cumulative annual average $PM_{2.5}$ concentration for the off-site MEIR is greater than the BAAQMD cumulative threshold of 0.8 µg/m^3.

Because the total cumulative plus project annual average $PM_{2.5}$ concentration at the existing off-site resident MEIR would be above the cumulative threshold of 0.8 µg/m^3, and because the proposed project would exacerbate the annual average $PM_{2.5}$ concentrations at this MEIR location by adding 0.19 µg/m^3 under Scenario 1 and 0.74 µg/m^3 under Scenario 3, the project's contribution would be cumulatively considerable. Therefore, the cumulative impact would be **significant and unavoidable**.

Cumulative Health Risks for New On-site Receptors

Although not a CEQA issue, the San José 2040 General Plan Policy MS-11.1 states that projects that site new residential receptors must "incorporate effective mitigation into project designs or be located an adequate distance from sources of TACs to avoid significant risks to health and safety." As indicated in Tables 3.1-25 and 3.1-26 and discussed above, the maximum mitigated total cumulative health risks for all new on-site sensitive receptors (an incremental increase in lifetime cancer risk of 34.4 in 1 million under Scenario 3, a non-cancer chronic HI of 0.82 under Scenario 2, and a maximum annual average $PM_{2.5}$ concentration of 0.46 under Scenario 3) would be less than BAAQMD's cumulative thresholds of significance. Consequently, the proposed project complies with General Plan Policy MS-11.1. Refer to Impact AQ-1 for additional discussion of the project's consistency with General Plan Policy MS-11.1.

Summary of Impacts

As discussed under Impact AQ-3, Mitigation Measures AQ-2a through AQ-2c, AQ-2e through AQ-2h, and AQ-3 would reduce DPM, $PM_{2.5}$, and TOG emissions associated with off-road diesel construction equipment, on-road diesel construction trucks, operational emergency generators, TRU operations, on-road heavy-duty truck travel and idling, and on-road operational vehicle traffic, thereby reducing project-related excess lifetime cancer risk, non-cancer chronic risk, and annual average $PM_{2.5}$ concentrations at both the off-site MEIR and new on-site MEIR.

The results of these mitigation measures are presented in Tables 3.1-24 through 3.1-26. Even after implementation of mitigation, the maximum annual average $PM_{2.5}$ concentration of 1.19 $\mu g/m^3$ at the off-site MEIR location would exceed the threshold of significance of 0.8 $\mu g/m^3$. Therefore, the impact would be **significant and unavoidable**.

Significance after Mitigation: Significant and unavoidable.

3.2 Biological Resources

This section analyzes potential impacts of the proposed project on biological resources. This section uses the following terms:

- **Project area:** This area is synonymous with the limits of work (e.g., ground disturbance and work in or over potentially jurisdictional wetlands and waters). It defines the area in which direct and indirect impacts on biological resources could occur.
- **Study area:** For purposes of the biological resources analysis, the study area is the project area plus a 250-foot buffer, which encompasses the area within which indirect impacts on biological resources could occur. The project footprint is largely surrounded by urban habitat, with the exception of creeks. The study area includes habitat in the creeks where indirect impacts on biological resources could occur (e.g., disturbance to nesting birds in the riparian corridor).[1]

3.2.1 Environmental Setting

Regional Setting

The proposed project is located in the Central California Coast Bioregion, which has a mild Mediterranean climate with generally warm, dry summers and cool, wet winters. This region includes marine, freshwater, and terrestrial resources from the Santa Cruz Mountains on the north to Point Conception on the south. The edge of the continental shelf forms the western boundary; on the east, the region borders the Central Valley Bioregion. The region is characterized by rugged northwest-to-southeast trending mountain ranges, including the Santa Cruz Mountains, Santa Lucia Ranges, San Rafael Mountains, Diablo Range, Gabilan Range, and Temblor Range. These mountains are separated by a series of valleys: the Santa Clara, Salinas, and Santa Maria River Valleys. Habitats in this diverse bioregion include coastal prairie scrub, chaparral, native and non-native grassland, mixed hardwoods, oak woodlands, redwood forests, and coastal salt marshes.

Local Setting

The city of San José is located in the Santa Clara Valley between the Santa Cruz Mountains to the west and the Diablo Range to the east. The climate in this region is characterized by coastal and bay influences, with a mild climate. The proposed project is located in the Guadalupe River watershed in western San José. The Guadalupe River watershed encompasses approximately 171 square miles, extending from its headwaters in the eastern Santa Cruz Mountains near the summit of Loma Prieta through the Santa Clara Valley to southern San Francisco Bay. Los Gatos Creek, the largest tributary, connects to the Guadalupe River approximately 3.5 miles downstream of the river's headwaters.

Land use in the upper watershed is characterized by heavy forests with pockets of residential parcels. Residential development increases to high density on the valley floor, mixed with

[1] In general, a riparian corridor consists of plant communities that support woody vegetation found along rivers, creeks, and streams. Such habitats can range from dense thickets of shrubs to a closed canopy of large mature trees covered by vines. City of San José Municipal Code Section 20.200.1054 defines *riparian corridor* as "any defined stream channel, including the area up to the bank full-flow line, as well as all characteristic streamside vegetation in contiguous adjacent uplands."

commercial and industrial uses in the city and its surrounding municipalities. With the exception of limited open space and riparian areas, the project area is entirely within the developed urban footprint of the city.

Habitat Types and Associated Wildlife Species

A *vegetation community* is a recognizable collection of plant species that interact with each other and the elements of their environment, and are distinct from adjacent vegetation communities.[2] The terrestrial plant community classification presented in this assessment is based on field observations and the *Preliminary Descriptions of the Terrestrial Natural Communities of California*.[3] Plant communities generally correlate with wildlife habitat types. Wildlife habitats are typically classified and evaluated using *A Guide to Wildlife Habitats of California*.[4] Vegetation communities in the project vicinity (refer to **Figure 3.2-1**) include:

- Developed/landscaped/barren/ruderal;
- Perennial grassland;
- Riverine; and
- Mixed riparian woodland.

The following subsections describe these communities and their locations in the study area.

Developed/Landscaped/Barren/Ruderal

The project area is largely composed of developed urban land that includes existing buildings, paved streets, sidewalks, and parking lots. Such hardscaped areas represent more than 99 percent of the existing land in the project area and provide minimal habitat opportunities for most sensitive plants and wildlife. Developed, barren, and landscaped habitats are not natural vegetation communities per se, as they lack natural vegetation, but the terms are used in this analysis to describe areas that cannot be classified as vegetation communities.

Ruderal[5] habitat is a vegetation community present in only a few limited areas in the study area; these areas are interspersed with developed/barren areas. The total acreage of the ruderal habitat in the project area is less than 0.5 acres. Although larger, contiguous areas of ruderal vegetation can provide habitat for wildlife, the small, discontinuous patches of ruderal vegetation in the study area are not expected to support a different assemblage of wildlife from developed, barren, and landscaped habitats; therefore, "ruderal" is grouped with these other habitats for the purposes of this analysis.

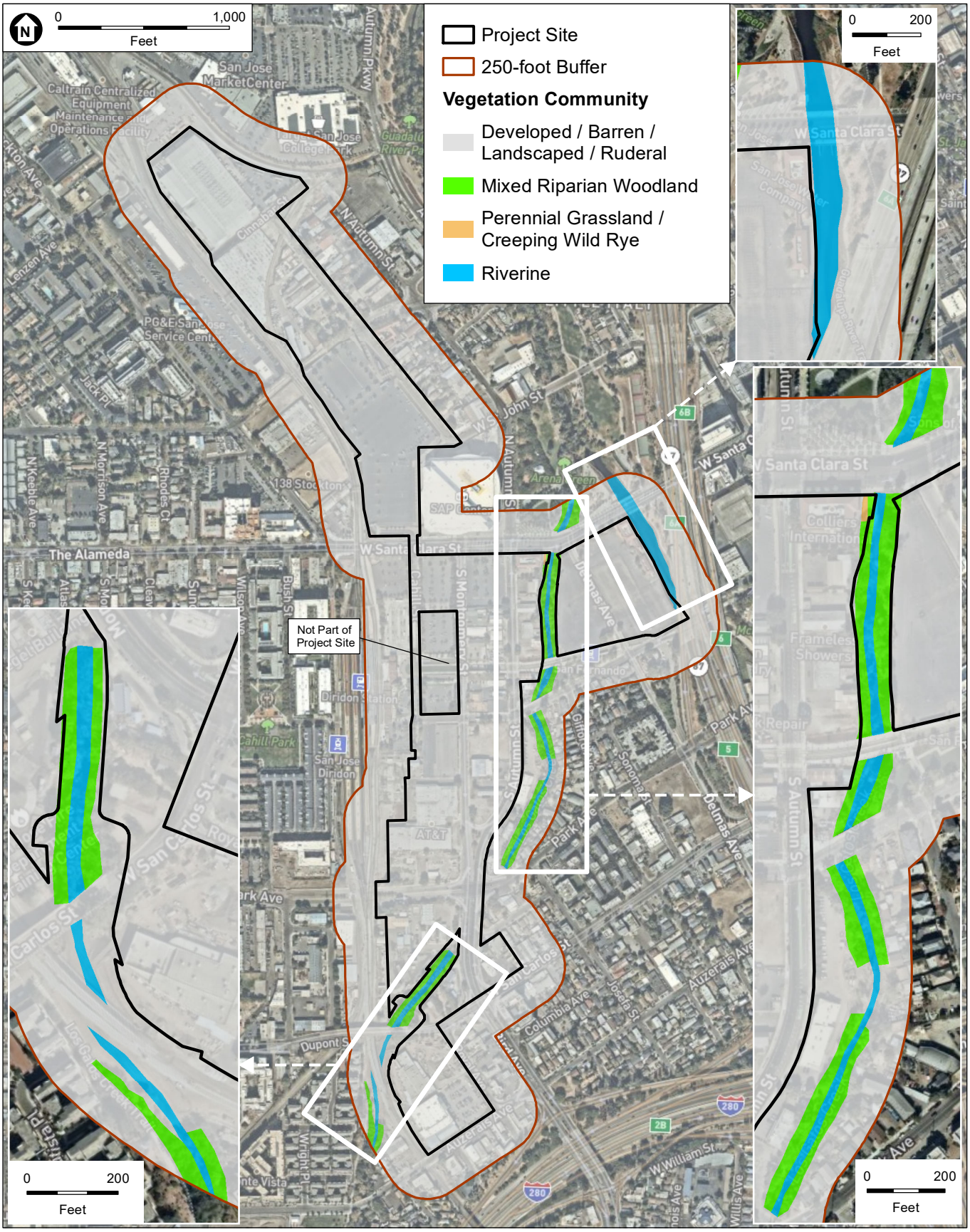
---

2 Holland, R. F., 1986, *Preliminary Descriptions of the Terrestrial Natural Communities of California*, California Department of Fish and Game.

3 Holland, R. F., 1986, *Preliminary Descriptions of the Terrestrial Natural Communities of California*, California Department of Fish and Game.

4 Mayer, K. R., and W. F. Laudenslayer Jr. (eds.), *A Guide to Wildlife Habitats of California,* 1988.

5 *Ruderal vegetation* is composed of plants that are often the first to colonize a disturbed area, and spontaneously arise and spread widely without human intervention. In California, ruderal vegetation is often composed of non-native grasses and forbs.



SOURCES: Esri, 2019; ESA, 2020

Downtown West Mixed-Use Plan

Figure 3.2-1
Vegetation Communities / Habitats Within the Study Area

Urban settings consist mostly of pavement and buildings, and may be classified as barren if the area has less than 2 percent total vegetation cover by herbaceous or non-wildland species and less than 10 percent cover by shrub or tree species. The vast majority of the study area is within developed or barren habitat, consisting primarily of buildings and parking lots, which provide little habitat for wildlife. Paved roads, parking lots, buildings, and empty lots generally lack habitat for wildlife; however, common wildlife such as striped skunk (*Mephitis mephitis*), raccoon (*Procyon lotor*), and Virginia opossum (*Didelphis virginiana*) could use these areas to forage for human food waste, shelter from predators and weather, or move to and from patches of undeveloped habitat, such as riparian corridors. Abandoned buildings can also support bat species such as Mexican free-tailed bat (*Tadarida brasiliensis*) and pallid bat (*Antrozous pallidus*). Thus, developed areas often have some wildlife species assemblages similar to those of the landscaped and non-native vegetative communities, but with lower rates of occurrence and on a transient basis.

Small areas of landscape vegetation are present in the study area adjacent to buildings, parking lots, and roads. Generally, ornamental landscape trees and shrubs in the study area are relatively small in stature and provide limited food and cover for wildlife. However, landscaped areas in an otherwise urban environment can provide cover, foraging, and nesting habitat for a variety of bird species, as well as reptiles and small mammals, especially those that are tolerant of disturbance and human presence.

Birds commonly found in such areas include non-native species, such as house sparrow (*Passer domesticus*) and European starling (*Sturnus vulgaris*), and birds native to the area, including American robin (*Turdus migratorius*), house finch (*Haemorhous mexicanus*), dark-eyed junco (*Junco hyemalis*), California scrub jay (*Aphelocoma californica*), mourning dove (*Zenaida macroura*), and Anna's hummingbird (*Calypte anna*). Merlins (*Falco columbarius*) can be observed perching in tall urban or neighborhood trees or flying through urban areas in the San Francisco Bay Area in winter. When present, reptiles using this type of habitat often include western fence lizard (*Sceloporus occidentalis*) and northern alligator lizard (*Elgaria multicarinata*), although evidence of these species was not observed in the urbanized study area.

The study area contains limited patches of scattered ruderal habitat adjacent to barren or paved areas and at the top of stream channel banks. Typical vegetation found in ruderal habitat includes wild oat (*Avena* sp.), fennel (*Foeniculum vulgare*), broadleaf filaree (*Erodium botrys*), English plantain (*Plantago lanceolata*), Crane's bill geranium (*Geranium molle*), wild radish (*Raphanus sativus*), and spring vetch (*Vicia sativa*).

Perennial Grassland

An area of perennial grassland, approximately 50 feet long by 10 feet wide and dominated by creeping wild rye (*Elymus triticoides*), is present on the west bank of Los Gatos Creek, southeast of the intersection of West Santa Clara and South Autumn Streets. A review of historic imagery on Google Earth indicates that this grass appears to have been planted for bank stabilization after a bank repair project in late 2017, because it is limited to a very specific area of the streambank.

A vegetation community dominated by creeping wild rye is considered a sensitive natural community by the California Department of Fish and Wildlife (CDFW).[6] Although perennial grassland can provide excellent habitat for a variety of reptiles and birds, this recently planted and limited patch of creeping wild rye is too small to support a grassland wildlife community. Still, it may attract wildlife on a transient basis.

Riverine

Los Gatos Creek and the Guadalupe River are the principal drainages in the study area. Los Gatos Creek is a perennial stream that is buffered by a lush, though narrowly confined, riparian woodland corridor. The section of the Guadalupe River in the study area has a concrete bed and banks; a riparian woodland corridor is absent from this section. *Riverine communities* are defined as intermittent or continually running waters often referred to as rivers, streams, or creeks. These streams originate at some elevated source, with the headwaters of Los Gatos Creek originating several miles to the south, upstream from Lexington Reservoir.

Santa Clara Valley streams are home to approximately 11 native and 19 non-native species of fish.[7,8,9] Over time, the abundance and distribution of native species have been reduced and restricted through human impacts. Most headwater reaches and tributaries remain less disturbed than the lower valley floor streams, which typically abut much of the urban development found in South San Francisco Bay. In contrast to the warmer, impaired valley floor stream habitat, aquatic habitat in the high-elevation forested headwaters provides cool temperatures, high dissolved oxygen levels, and ample riparian cover.[10]

The construction of Vasona, Guadalupe, and Almaden Reservoirs in the 1930s isolated the upper watershed, and while native fish species still persist in stream habitat above the reservoirs, migratory fish can no longer use these tributaries for spawning. All low-elevation, mainstem streams and valley floor tributaries in the study area and vicinity have been substantially altered by human development. These developments include urbanization, water diversions, stream channelization, drop structures, flood-control projects, and riparian vegetation removal, which have increased rates of sedimentation.[11,12] This altered habitat structure often coincides with changes to hydrology and water quality, which typically favors non-native, invasive fish species.[13]

---

6 California Department of Fish and Wildlife, Natural Communities–Natural Communities List Arranged Alphabetically by Life Form, November 2019. Available at https://www.wildlife.ca.gov/Data/VegCAMP/Natural-Communities/List. Accessed in July 2020.

7 Santa Clara Basin Watershed Management Initiative, *Watershed Management Plan, Volume 1–Watershed Characteristics Report*, 2010.

8 Leidy, R. A., *Ecology, Assemblage Structure, Distribution, and Status of Steelhead/Rainbow Trout (*Oncorhynchus mykiss*) in Streams of the San Francisco Estuary, California*. Center for Ecosystem Management and Restoration, Oakland, CA, 2007.

9 Smith, J., *Northern Santa Clara County Fish Resources*, Department of Biological Sciences, San Jose State University, July 25, 2013.

10 Santa Clara Basin Watershed Management Initiative, *Watershed Management Plan, Volume 1–Watershed Characteristics Report*, 2003.

11 Leidy, R. A., *Ecology, Assemblage Structure, Distribution, and Status of Steelhead/Rainbow Trout (*Oncorhynchus mykiss*) in Streams of the San Francisco Estuary, California*. Center for Ecosystem Management and Restoration, Oakland, CA, 2007.

12 Moyle, P. B., *Inland Fishes of California–Revised and Expanded*. University of California Press, 2002.

13 Moyle, P. B., *Inland Fishes of California–Revised and Expanded*. University of California Press, 2002.

However, habitat alteration in the lower reaches of the Guadalupe River watershed, including Los Gatos Creek, has not affected the native fish community such that it substantially differs from its historical composition. Stream sampling conducted by the Santa Clara Valley Water District (Valley Water) consistently records native species in higher abundances than invasive species throughout the Guadalupe River watershed, including Los Gatos Creek.[14] Within Los Gatos Creek, native fish species, including California roach (*Hesperoleucus symmetricus*), prickly sculpin (*Cottus asper*), Sacramento sucker (*Catostomus occidentalis*), and steelhead (*Oncorhynchus mykiss*), are all consistently recorded.[15]

In the sections of Los Gatos Creek in the study area, potential wetlands exist where vegetation is present along the banks in approximately 5 to 8 feet of open water (i.e., the area that appears to be inundated during high water flows). This vegetation includes arroyo willow (*Salix lasiolepis*), Fremont cottonwood (*Populus fremontii*), fennel, California blackberry (*Rubus ursinus*), and smartweed (*Persecaria* sp.).

During a field survey of the project area, as described below under *Special-Status and Protected Species*, a non-native common carp (*Cyprinus carpio*) was observed in the Guadalupe River and a non-native large-mouth bass (*Micropterus salmoides*) was observed in Los Gatos Creek. Other wildlife observed using Los Gatos Creek included mallards (*Anas platyrhynchos*) and Canada geese (*Branta canadensis*).[16] A family of beavers (*Castor canadensis*) has been documented at the confluence of Los Gatos Creek and the Guadalupe River.[17]

Mixed Riparian Woodland

Mixed riparian woodland is present along Los Gatos Creek; however, the extent and quality of the woodland are limited by urban development on either side of the waterway, and by the presence of non-native, invasive plant species. Within the riparian corridor,[18] a mix of native vegetation was observed during the reconnaissance survey of the project area, including Fremont cottonwood, black acacia (*Robinia pseudoacacia*), California walnut (*Juglans hindsii*), arroyo willow, and California blackberry. Non-native vegetation was also observed, including American elm (*Ulmus americana*), Peruvian pepper tree (*Schinus molle*), fennel, cape ivy (*Delairea odorata*), and English ivy (*Hedera helix*). Other vegetation documented in the riparian woodland along Los Gatos Creek includes eucalyptus (*Eucalyptus* sp.), box elder (*Acer negundo*), giant reed (*Arundo donax*), and tree of heaven (*Ailanthus altissima*).[19]

---

14 Santa Clara Valley Water District, *Water Year 2018—Juvenile* Oncorhynchus mykiss *Rearing Monitoring in the Guadalupe River Watershed*. Prepared by the Santa Clara Valley Water District Environmental Migration and Monitoring Unit, March 26, 2019.

15 Santa Clara Valley Water District, *Water Year 2018—Juvenile* Oncorhynchus mykiss *Rearing Monitoring in the Guadalupe River Watershed*. Prepared by the Santa Clara Valley Water District Environmental Migration and Monitoring Unit, March 26, 2019.

16 Environmental Science Associates, personal observation during reconnaissance-level field survey, September 27, 2019.

17 Bay Nature, *These Beavers Know the Way to San Jose*, June 3, 2013.

18 *Riparian habitats* are plant communities that support woody vegetation found along rivers, creeks, and streams. Such habitats can range from dense thickets of shrubs to a closed canopy of large mature trees covered by vines.

19 H. T. Harvey and Associates, *Google Downtown San José Los Gatos Creek Enhancement Project Site Assessment Summary Report*, March 5, 2020.

In addition to the presence of non-native plant species, some areas of riparian woodland in the project area lack a vegetative understory but include homeless encampments.[20] The minimal cover coupled with human disturbance limits the potential for the presence of terrestrial wildlife. However, the riparian woodland includes many mature trees with canopy height ranging from 40 to 70 feet, which could support nesting birds and roosting bats. During the reconnaissance survey, a pair of adult red-tailed hawks (*Buteo jamaicensis*) soaring with a juvenile were observed near the riparian canopy, as were dark-eyed juncos, California scrub jays, black phoebes (*Sayornis nigricans*), and Bewick's wrens (*Thryomanes bewickii*).

Mixed riparian woodland often provides habitat for a number of wildlife species because of its extensive cover and the presence of flowing water. Common mammals that could be found in riparian corridors within the study area include raccoon (*Procyon lotor*), Virginia opossum (*Didelphis virginiana*), and skunk (*Mephitis mephitis*). Birds that use moderate- to high-quality riparian habitats for nesting and foraging include northern flicker (*Colaptes auratus*); red-shouldered hawk (*Buteo lineatus*); song sparrow (*Melospiza melodia*); yellow warbler (*Setophaga petechia*), a California species of special concern; and Cooper's hawk (*Accipiter cooperii*), a species on the CDFW Watch List.

Special-Status and Protected Species

The term *special-status species* refers to plant and wildlife species that are considered sufficiently rare that they require special consideration and/or protection and should be, or currently are, listed as rare, threatened, or endangered by the federal and/or state governments. Such species are legally protected under the federal and/or state Endangered Species Acts or other regulations, or are species that are considered sufficiently rare by the regulatory and scientific community to qualify for protection. The term *special-status species* includes the following:

- Species listed or proposed for listing as threatened or endangered under the federal Endangered Species Act (FESA) (Code of Federal Regulations Title 50, Section 17.12 [listed plants] and Section 17.11 [listed animals] and various notices in the *Federal Register* [FR] [proposed species]);
- Species that are candidates for possible future listing as threatened or endangered under the FESA (61 FR 40, February 28, 1996);
- Species listed or proposed for listing by the State of California as threatened or endangered under the California Endangered Species Act (CESA) (California Code of Regulations Title 14, Section 670.5);
- Plants listed as rare or endangered under the California Native Plant Protection Act (California Fish and Game Code [CFGC] Section 1900 et seq.);
- Species formerly designated by the U.S. Fish and Wildlife Service (USFWS) as species of concern or by CDFW as California Species of Special Concern (SSC);[21]

[20] Environmental Science Associates, personal observations during reconnaissance-level field surveys, September 27, 2019, and January 3, 2020.

[21] A California SSC is one that: has been extirpated from the state; meets the state definition of threatened or endangered but has not been formally listed; is undergoing or has experienced serious population declines or range restrictions that put it at risk of becoming threatened or endangered; and/or has naturally small populations susceptible to high risk from any factor that could lead to declines that would qualify it for threatened or endangered status.

- Species designated by the state as "special animals";[22]
- Animals fully protected under the CFGC (Sections 3511 [birds], 4700 [mammals], and 5050 [reptiles and amphibians]);[23]
- Species that meet the definitions of rare and endangered under CEQA. CEQA Section 15380 provides that a plant or animal species may be treated as "rare or endangered" even if not on one of the official lists (CEQA Guidelines Section 15380);
- Raptors (birds of prey), which are specifically protected by CFGC Section 3503.5, thus prohibiting the take, possession, or killing of raptors, including owls, their nests, and their eggs;[24]
- Plants considered by CDFW and the California Native Plant Society (CNPS) to be "rare, threatened or endangered in California" (California Rare Plant Rank 1A, 1B, and 2); and
- Anadromous[25] species managed and regulated under the Magnuson-Stevens Fishery Conservation and Management Act (Magnuson-Stevens Act).

The potential for the study area to support special-status plant or wildlife species was assessed based on review of the following sources:

- Historic and current aerial imagery available on Google Earth;
- Subscription-based biological resource databases including the CDFW California Natural Diversity Database (CNDDB), CNPS Rare Plant Inventory, and a USFWS Information for Planning and Consultation Official Species List;
- The *Los Gatos Creek Trail—Reach 5 Master Plan*;
- The Diridon Station Area Plan Draft Program Environmental Impact Report (EIR);
- The SJW Land Company Planned Development Rezoning Final Integrated EIR; and
- The City's Downtown Strategy 2040 Integrated Final EIR.

In addition, Environmental Science Associates conducted reconnaissance-level field surveys on September 27, 2019, and January 3, 2020, to document existing biological resources conditions, assess vegetation and wildlife habitats, and identify the potential for special-status species to occur in the study area. No special-status plant or wildlife species were observed during the field surveys.

[22] Species listed on the current CDFW Special Animals List (August 2019). This list includes species that CDFW considers "species at risk."

[23] The *fully protected* classification was California's initial effort in the 1960s to identify and provide additional protection to those animals that were rare or faced possible extinction. The designation can be found in the CFGC.

[24] The inclusion of birds protected by CFGC Section 3503.5 is in recognition of the fact that these birds are substantially less common in California than most other birds, having lost much of their habitat to development, and that the populations of these species are therefore substantially more vulnerable to further loss of habitat and to interference with nesting and breeding than most other birds. It is noted that a number of raptors are already specifically listed by federal and state wildlife authorities as threatened or endangered.

[25] Anadromous fish species are born in freshwater, spend most of their lives in the sea, and return to freshwater to spawn.

The CNDDB[26] and CNPS[27] databases were queried based on a search of the San José West, Mountain View, Milpitas, Calaveras Reservoir, Cupertino, San José East, Castle Rock Ridge, Los Gatos, and Santa Teresa Hills 7.5-minute U.S. Geological Survey quadrangles.[28] The USFWS *Official List of Federal Endangered and Threatened Species that Occur in or May Be Affected by the Projects*[29] was queried based on the project area (refer to Appendix D1, *Plant and Wildlife Species Lists for the Project Area*, for database reports). The results of these queries formed the basis for analysis of special-status species with the potential to occur in the project vicinity, their general habitat requirements, and their potential to occur in the study area (refer to **Table 3.2-1**). Species that are not expected to occur because of the absence of suitable habitat, or because the study area is outside of the species' known range, were excluded from the table.

In addition, CNDDB records of special-status plants and animals were mapped relative to the study area (refer to **Figure 3.2-2**). Note that some species observations shown on Figure 3.2-2, such as California tiger salamander (*Ambystoma californiense*), Northern California legless lizard (*Anniella pulchra*), and yellow rail (*Coturnicops noveboracensis*), were recorded from 70 to more than 120 years ago. These species have not been recorded in the study area for extensive periods of time, during which their habitat has been lost and the area urbanized. These species are not expected to occur in the study area and are not considered further in this analysis.

Special-Status Plants

No special-status plants were determined to have a moderate to high potential to occur in the study area.

Special-Status Wildlife

Several special-status wildlife species have a moderate to high potential to occur in the study area: Central California Coast steelhead distinct population segment (DPS) (*Oncorhynchus mykiss iridius*), western pond turtle (*Emys marmorata*), yellow warbler (*Setophaga petechia*), Cooper's hawk, merlin, western red bat (*Lasiurus blossevillii*), hoary bat (*Lasiurus cinereus*), and Yuma myotis (*Myotis yumanensis*).

As discussed above, no special-status wildlife species were observed during the September 2019 and January 2020 field surveys. These species are described in further detail below.

[26] California Department of Fish and Wildlife, California Natural Diversity Database printout for U.S. Geological Survey 7.5-minute topographic quadrangles: San José, Milpitas, Calaveras Reservoir, Cupertino, San José East, Castle Rock Ridge, Los Gatos, and Santa Teresa Hills, 2019. Accessed September 17, 2019.

[27] California Native Plant Society, Online Inventory of Rare, Threatened, and Endangered Plants of California, 2019. Available at http://www.rareplants.cnps.org/. Accessed in September 2019.

[28] California Department of Fish and Wildlife, California Natural Diversity Database printout for U.S. Geological Survey 7.5-minute topographic quadrangles: San José, Milpitas, Calaveras Reservoir, Cupertino, San José East, Castle Rock Ridge, Los Gatos, and Santa Teresa Hills, 2019. Accessed September 17, 2019.

[29] U.S. Fish and Wildlife Service, ECOS Environmental Conservation Online System Critical Habitat Mapper, 2010. Available at https://ecos.fws.gov/ecp/report/table/critical-habitat.html. Accessed September 23, 2019.

TABLE 3.2-1
SPECIAL-STATUS SPECIES' POTENTIAL TO OCCUR WITHIN THE STUDY AREA

Common Name *Scientific Name*	Status	General Habitat Requirements	Potential for Species Occurrence
SPECIES LISTED OR PROPOSED FOR LISTING			
Invertebrates			
Crotch bumblebee *Bombus crotchii*	—/SC/IUCN: EN	Inhabits open grassland and scrub habitats. Nests are often located underground in abandoned rodent nests, or above ground in tufts of grass, old bird nests, rock piles, or cavities in dead trees. Food plants include the following families of native plants: Asclepias, Chaenactis, Lupinus, Medicago, Phacelia, and Salvia.	**Low.** Undeveloped habitat is limited to riparian corridors, and small, discontinuous sections of landscape plants (primarily hedges and trees) and ruderal habitat. These habitats are unlikely to support food plants for this species. CNDDB record from 1903 from a non-specific San José location.
Western bumblebee *Bombus occidentalis*	—/SC/XSIC: IM	Inhabits open grassy areas, urban parks and gardens, chaparral and shrub areas, and mountain meadows. Generalist forager that visits a wide variety of plants. *B. occidentalis* records are primarily associated with plants in the Leguminosae (=Fabaceae), Compositae (=Asteraceae), Rhamnaceae, and Rosaceae families.	**Low.** Undeveloped habitat is limited to riparian corridors, and small, discontinuous section of landscape plants (primarily hedges and trees) and ruderal habitat. One CNDDB record from 1979 from a non-specific San José location.
Fish			
Steelhead (Central California Coast DPS) *Oncorhynchus mykiss irideus*	FT/—/—	Spawns and rears in coastal streams between the Russian River and Aptos Creek, as well as drainages tributary to San Francisco Bay, where gravelly substrate and shaded riparian habitat occurs.	**Moderate.** Historically present in the Guadalupe River watershed, but urbanization and barriers to passage have likely reduced steelhead runs. Most recently identified in Los Gatos Creek during fish surveys in winter 2014.
Amphibians			
Foothill yellow-legged frog *Rana boylii*	—/SE/—	Partly shaded, usually perennial, shallow streams and riffles with a rocky substrate in a variety of habitats. Needs at least some cobble-sized substrate for egg laying. Needs at least 15 weeks to attain metamorphosis.	**Low.** Marginal stream habitat occurs in Los Gatos Creek and the Guadalupe River, but urban setting includes human disturbance (i.e., homeless encampments) and predators such as feral cats. CNDDB record from 1922 in "Coyote Creek, San Jose"; exact location unknown. CNDDB data indicate "*Rana boylii* essentially disappeared from farmed/urbanized lowland areas of Santa Clara County. Most likely extirpated."
California red-legged frog *Rana draytonii*	FT/SSC/—	Breeds in fresh emergent and seasonal wetlands, and slow-moving streams. Requires 11–20 weeks of permanent water for larval development. Aestivation habitat includes oak woodlands and grasslands. Species will travel more than 1 mile from breeding habitat to access aestivation habitat.	**Low.** Low-quality stream habitat occurs in Los Gatos Creek and the Guadalupe River. Urban setting includes human disturbance (i.e., homeless encampments) and predators such as feral cats. Limited and disturbed aestivation habitat within riparian corridor that transitions to developed urban environment. No CNDDB records within 3 miles of project area.

TABLE 3.2-1
SPECIAL-STATUS SPECIES' POTENTIAL TO OCCUR WITHIN THE STUDY AREA

Common Name *Scientific Name*	Status	General Habitat Requirements	Potential for Species Occurrence
NON-LISTED SPECIAL-STATUS SPECIES			
Plants			
Congdon's tarplant *Centromadia parryi* ssp. *congdonii*	—/—/1B.1	Terraces, swales, floodplains, grasslands, and disturbed sites. 0–230 meters. Blooms May–October (November).	**Low.** Suitable habitat present, but nearest recent occurrence (Occurrence #18) is 10 miles away.
Reptiles			
Western pond turtle *Emys marmorata*	—/SSC/—	Ponds, marshes, rivers, streams, and irrigation ditches with aquatic vegetation. Requires basking sites and suitable upland habitat for egg laying. Nest sites most often characterized as having gentle slopes (<15%) with little vegetation or sandy banks. Primarily in foothills and lowlands.	**Moderate.** Marginal stream habitat occurs in Los Gatos Creek and the Guadalupe River within study area, due to urban setting, including human disturbance (i.e., homeless encampments), limited basking sites on banks or in water, and lack of nesting sites. No CNDDB records within 3 miles of study area.
Birds			
Cooper's hawk *Accipiter cooperii*	—/WL/—	Nests in riparian areas and oak woodlands, and hunts songbirds at woodland edges. Increasingly found nesting in neighborhood street trees.	**High.** Suitable habitat in street trees and riparian woodland within study area. CNDDB record from 2006 of nesting Cooper's hawk pair in trees within a commercial/residential neighborhood approximately 2 miles from project area.
Great egret (nesting colony) *Ardea alba*	—/*/—	Colonial nester in tall trees near wetland foraging areas.	**Low.** Potential colonial roosting habitat in riparian woodland within study area. No CNDDB records within 3 miles of project area.
Great blue heron (nesting colony) *Ardea herodias*	—/*/—	Colonial nester in tall trees near wetland foraging areas.	**Low.** Potential colonial roosting habitat in riparian woodland within study area. No CNDDB records within 3 miles of project area.
Burrowing owl *Athene cunicularia*	—/SSC/—	Open grasslands and shrublands where perches and ground squirrel burrows are available. Also found in barren lots, median strips, and undeveloped housing parcels in urban environments where burrows are present.	**Low.** Multiple relatively current (1990s–2009) CNDDB records from vacant lots at Norman Y. Mineta San José International Airport (natural and artificial burrows in use). Most vacant lots appear to have been developed since burrowing owl observations were recorded in the CNDDB. All sites approximately 2.5 miles north of project area. No suitable habitat in study area currently, but suitable habitat could be created following demolition if construction does not start right away and burrows or burrow surrogates are present.
Snowy egret (nesting colony) *Egretta thula*	—/*/—	Colonial nester, with nest sites situated in protected beds of dense tules. Rookery sites situated close to foraging areas: marshes, tidal flats, streams, wet meadows, and borders of lakes.	**Low.** Potential colonial roosting habitat in riparian woodland within study area. No CNDDB records within 3 miles of project area.

TABLE 3.2-1
SPECIAL-STATUS SPECIES' POTENTIAL TO OCCUR WITHIN THE STUDY AREA

Common Name ***Scientific Name***	**Status**	**General Habitat Requirements**	**Potential for Species Occurrence**
Merlin *Falco columbarius*	—/WL/—	Occurs in California only in winter, with the majority arriving in October or November. Bay marshes, grassland, agricultural lands, dairies, savannas, and edges of deserts with open habitat and high density of bird prey. Some individuals overwinter in cities.	**Moderate.** Non-breeding individuals may forage on birds in more open areas of Downtown, such as parks.
Peregrine falcon (nesting) *Falco peregrinus*	FDL/SDL;FP/—	Breeds near water at varied nest sites, including natural cliff ledges and potholes, tall metropolitan buildings and bridges, and former nests of common raven and osprey on electric transmission towers and boat navigation channel markers (towers).	**Low.** Nested on top of high-rise office building approximately 2.5 miles from project area from 2006 to 2015. Likely to forage in study area, but few to no suitable nesting sites in study area.
Black-crowned night heron (nesting colony) *Nycticorax nycticorax*	—/*/—	Colonial nester, usually in trees, occasionally in tule patches. Rookery sites located adjacent to foraging areas: lake margins, mud-bordered bays, marshy spots.	**Low.** Potential colonial roosting habitat in riparian woodland within study area. No CNDDB records within 3 miles of project area.
Yellow warbler *Setophaga petechia*	—/SSC/—	Nests in upright forks of bushes, shrubs, or trees, generally along streams and wetlands. Breeds across central and northern North America. Feeds on insects and other arthropods gleaned from foliage or captured on short flights.	**Moderate.** Project area is outside of typical breeding range; however, riparian habitat along Los Gatos Creek provides suitable foraging habitat for migrating individuals.
Mammals			
Pallid bat *Antrozous pallidus*	—/SSC/WBWG: High	A wide variety of habitats is occupied, including grasslands, shrublands, woodlands, and forests from sea level up through mixed conifer forests. The species is most common in open, dry habitats with rocky areas for roosting. Roosts in buildings, caves, tree hollows, crevices, mines, and bridges. Sensitive to human disturbance.	**Unlikely.** Suitable habitat present in riparian woodland and creek overcrossings/bridges within or adjacent to project area (e.g., West San Carlos Street crossing over Los Gatos Creek); however, the species has been extirpated from the valley floor.[30] One CNDDB record from 1943 for non-specific location in the vicinity of San José.
Townsend's big-eared bat *Corynorhinus townsendii*	—/SSC/WBWG: High	Roosts in caves, mines, hollow trees, and tunnels with minimal disturbance, but can also be found in abandoned open buildings or other human-made structures. Found in all habitats except subalpine and alpine habitats, and may be found at any season throughout its range. Very sensitive to human disturbance.	**Unlikely.** Suitable roosting habitat in abandoned building within study area; however, the species has been extirpated from the valley floor.[31] One CNDDB record from 1943 for non-specific location in the vicinity of San José.
Western red bat *Lasiurus blossevillii*	—/SSC/WBWG: High	Solitary rooster in tree foliage. May hibernate in leaf litter. Habitats include forests and woodlands from sea level up through mixed conifer forests. Feeds over a wide variety of habitats including grasslands, shrublands, open water, open woodlands and forests, and croplands. Absent from desert areas. Migrants can be found outside.	**Moderate.** Suitable roosting and foraging habitat in riparian corridors within study area.

[30] Johnston, Dave, Wildlife Ecologist and Bat Biologist, H. T. Harvey & Associates, telephone conversation, March 10, 2020.
[31] Johnston, Dave, Wildlife Ecologist and Bat Biologist, H. T. Harvey & Associates, telephone conversation, March 10, 2020.

TABLE 3.2-1
SPECIAL-STATUS SPECIES' POTENTIAL TO OCCUR WITHIN THE STUDY AREA

Common Name *Scientific Name*	Status	General Habitat Requirements	Potential for Species Occurrence
Hoary bat *Lasiurus cinereus*	—/*/WBWG: Medium	Solitary rooster in tree foliage. Habitats include woodlands, forests, and riparian habitats with dense foliage. Winters along the coast and in Southern California, but is not known to breed on the valley floor. During migration can be found throughout California.	**Moderate.** Suitable winter roosting habitat in riparian woodland within the study area. One CNDDB occurrence from 1990 recorded at the Interstate 280/State Route 87 (Guadalupe Freeway) interchange, and one CNDDB record from 1893 for a non-specific location in Santa Clara.
Yuma myotis *Myotis yumanensis*	—/*/WBWG: Low-Medium	Occupies wide variety of habitats below 8,000-foot elevation. Optimal habitats are open forests and woodlands with sources of water over which to feed. Clusters in groups of up to thousands in maternity colonies; adult males typically solitary; roost in crevices on buildings, under bridges, and trees; also in caves and mines. Common and widespread in California.	**Moderate.** Suitable habitat present in riparian woodland and creek overcrossings/bridges within the study area (e.g., West San Carlos Street crossing over Los Gatos Creek). This species is known to occur in the Los Gatos Creek riparian corridor.[32]
San Francisco dusky-footed woodrat *Neotoma fuscipes annectens*	—/SSC/—	Regional subspecies with range limited to San Francisco Bay Area. Inhabits forests with moderate canopy cover and brushy understory. Evergreen or live oaks and other thick-leaved trees and shrubs are important habitat components for this highly arboreal species.	**Low.** Riparian woodland habitat at some stream crossings; however, the habitat is marginally suitable in areas lacking understory, presence of human encampments, and proximity to roads and residential and commercial development. No CNDDB records within 3 miles of study area.

NOTES:

CNDDB = California Natural Diversity Database; DPS = distinct population segment

[a] The California Department of Fish and Wildlife (CDFW), the agency responsible for determining California Rare Plant Rank (CRPR) plant rankings, does not recognize a ranking status for the northern California black walnut, as the species is not named on CDFW's October 2019 *Special Vascular Plants, Bryophytes, and Lichens List*; however, the California Native Plant Society (CNPS) recognizes this tree as a Rank 1B.1 (rare, threatened, or endangered in California and elsewhere; seriously threatened in California). There is a current widespread distribution in Northern California and southern Oregon of trees that match *J. hindsii* morphologically, previously thought to be hybrids. Recent findings show that most of these occurrences are genetically pure *J. hindsii*.[33] There are only three or four sites (in Contra Costa, Sacramento, and Napa Counties) where the species is known to have occurred before the extensive settlement of California by Europeans in the mid-19th century, which has served as the exclusive justification for CNPS designating a rare plant rank of 1B.1. This now-known widespread distribution of genetically pure *J. hindsii* suggests that the CNPS rare plant rank of 1B.1 is not appropriate.

KEY:

STATUS: Federal/State/Other (CNPS CRPR, Western Bat Working Group, Xerces Society for Invertebrate Conservation)

Federal (U.S. Fish and Wildlife Service)	State (CDFW)	
FDL = delisted	SE = listed as endangered by the State of California	SSC = California Species of Special Concern
FE = listed as endangered (in danger of extinction) by the federal government		
FT = listed as threatened (likely to become endangered within the foreseeable future) by the federal government	ST = listed as threatened by the State of California	FP = state fully protected
FC = candidate to become a *proposed* species		SDL = delisted
BGEPA = Bald and Golden Eagle Protection Act	SC = state candidate for listing	SR = state rare (plants)
MMPA = Marine Mammal Protection Act	* = Special Animals List	

[32] Johnston, Dave, Wildlife Ecologist and Bat Biologist, H. T. Harvey & Associates, telephone conversation, March 10, 2020.

[33] Potter, D., H. Bartosh, G. Dangl, J. Yang, R. Bittman, and J. Preece. Clarifying the Conservation Status of Northern California Black Walnut (*Juglans hindsii*) Using Microsatellite Markers. *Madroño* 65(3):131–140.

TABLE 3.2-1
SPECIAL-STATUS SPECIES' POTENTIAL TO OCCUR WITHIN THE STUDY AREA

Common Name *Scientific Name*	**Status**	**General Habitat Requirements**	**Potential for Species Occurrence**

Other

California Native Plant Society (CNPS) California Rare Plant Rank (CRPR)

1A = Presumed extirpated in California; Rare or extinct in other parts of its range.
1B = Rare, threatened, or endangered throughout range; Most species in this rank are endemic to California.
2A = Extirpated in California, but common in other parts of its range.
2B = Rare, threatened, or endangered in California but common in other parts of its range.

An extension reflecting the level of threat to each species is appended to each rarity category as follows:
.1 = Seriously endangered in California
.2 = Fairly endangered in California

Western Bat Working Group (WBWG)

Low = Stable population
Medium = Need more information about the species, possible threats, and protective actions to implement
High = Imperiled or at high risk of imperilment

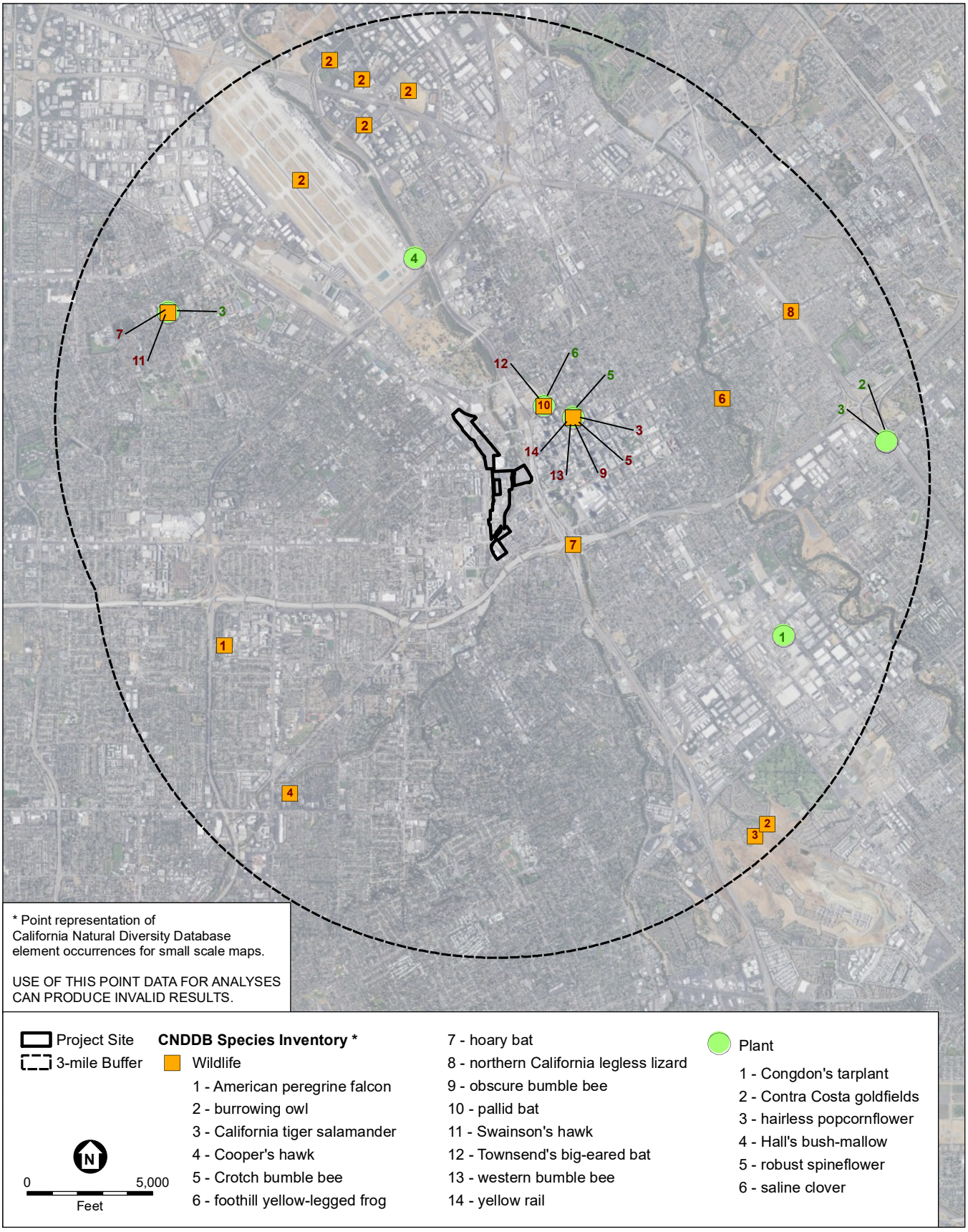
Xerces Society for Invertebrate Conservation (XSIC)

CI = Critically imperiled
IM = Imperiled
VU = Vulnerable
DD = Data Deficit

International Union for Conservation of Nature (IUCN) Red List

LC = Least concern
NT = Near threatened
VU = Vulnerable
EN = Endangered
CR = Critically endangered

SOURCE: Data compiled by Environmental Science Associates in 2019 and 2020



SOURCES: USDA, 2016; Santa Clara County, 2017;
GreenInfo Network, 2019; Google, 2019; CDFW, 2019; ESA, 2020

Downtown West Mixed-Use Plan

Figure 3.2-2
Special-Status Species within
3 Miles of the Study Area

Central California Coast Steelhead Distinct Population Segment

The Central California Coast steelhead DPS is federally listed as threatened. Historically, the Guadalupe River watershed supported a steelhead run, although given the aridity of the system, it was likely smaller than those supported in the larger San Francisco Bay tributaries such as Alameda Creek.[34] The urbanization in the lower reaches of the watershed, along with construction of barriers to upstream passage, has reduced the size of the historic run. Recent surveys during the 2018 water year, conducted by Valley Water, failed to record steelhead at four sampling stations within the lower reaches of Los Gatos Creek, including adjacent to the study area.[35] However, steelhead are known to be present within the system, as sampling conducted by Hobbs et al. during winter 2014 recorded nine individuals at two stations.[36] Steelhead production is likely low in the Los Gatos Creek watershed and the species has struggled to recover from recent drought conditions, as has been observed in the adjacent Guadalupe River watershed. Thus, steelhead have a moderate potential to occur in the study area.

Western Pond Turtle

Western pond turtle is a California SSC that inhabits a variety of water bodies, including ponds, marshes, rivers, streams, and irrigation canals. This species can tolerate full-strength seawater for a short period of time but is normally found in freshwater. Western pond turtle females migrate away from their water bodies into surrounding uplands, where they construct underground nests and lay eggs from April to August.

Suitable habitat for this species is present in the project area in Los Gatos Creek and the Guadalupe River; however, given the urban setting, including human disturbance (i.e., homeless encampments), limited basking sites on banks or in water, and lack of nesting sites, the habitat is of low quality. In particular, the section of the Guadalupe River between West Santa Clara Street and West San Fernando Street lacks a natural riverbank on the southwest side adjacent to the project site; instead there is a vertical concrete floodwall, which would preclude western pond turtles from using this area for anything other than brief passage from one stretch of the river to another.

There are no records of this species within 3 miles of the project area. Western pond turtle has a moderate potential to occur in the study area.

Cooper's Hawk

Cooper's hawk is on the CDFW Watch List. This species nests in riparian areas and oak woodlands, and hunts songbirds at woodland edges. Cooper's hawks are also increasingly found nesting in neighborhood street trees. Suitable nesting habitat is present for this species in street trees and riparian woodland in the study area. Within 3 miles of the project area, one CNDDB

[34] Leidy, R. A., G. S. Becker, and B. N. Harvey, *Historical Distribution and Current Status of Steelhead/Rainbow Trout* (Oncorhynchus mykiss*) in Streams of the San Francisco Estuary, California.* Center for Ecosystem Management and Restoration, Oakland, CA, 2005.

[35] Santa Clara Valley Water District, *Water Year 2018—Juvenile* Oncorhynchus mykiss *Rearing Monitoring in the Guadalupe River Watershed*, prepared by the Santa Clara Valley Water District Environmental Migration and Monitoring Unit, March 26, 2019.

[36] Hobbs, J., J. Cook, and F. La Luz, *Steelhead Smolt Outmigration and Survival Study: Pond A8, A7, & A5 Entrainment and Escapement: Final Report*, Department of Wildlife, Fish and Conservation Biology, University of California, Davis, prepared for National Marine Fisheries Service and the South Bay Salt Pond Recreation Program/Don Edwards San Francisco Bay Wildlife Refuge, 2015.

record for nesting Cooper's hawks exists (from 2006) in trees in a commercial/residential neighborhood approximately 2 miles from the project area. Cooper's hawk has a high potential for nesting in the study area.

Merlin

Merlin is on the CDFW Watch List. This species occurs in California only in winter, with the majority arriving on October and November. Merlins forage in bay marshes, grassland, agricultural lands, dairies, savannas, and edges of deserts with open habitat and high density of bird prey. Some individuals overwinter in cities. Non-breeding individuals may forage on birds in more open areas of Downtown San José, such as parks. Merlin has a moderate potential to occur in the study area (in the winter only).

Yellow Warbler

Yellow warbler is a California SSC that nests in upright forks of bushes, shrubs, or trees, generally along streams and wetlands. This species feeds on insects and other arthropods gleaned from foliage or captured on short flights. Yellow warbler breeds across central and northern North America. The Project is outside of typical breeding range; however, riparian habitat along Los Gatos Creek provides suitable foraging habitat for migrating individuals. Yellow warbler has a moderate potential to occur in the study area during spring and fall migrations.

Western Red Bat

Western red bat is a California SSC and is rated by the Western Bat Working Group (WBWG) as a "high" conservation priority (i.e., species at risk or at high risk of imperilment) for the California region.[37] This species is a solitary rooster in tree foliage and leaf litter, and is found in forests and woodlands from sea level up through mixed conifer forests. This species feeds over a wide variety of habitats, including grasslands, shrublands, open water, open woodlands and forests, and croplands. Western red bat is absent from desert areas.

Suitable roosting and foraging habitat for western red bat is present in riparian corridors within the study area. This species has a moderate potential to occur in the study area.

Hoary Bat

Hoary bat is rated by the WBWG as a "medium" conservation priority (i.e., need more information about the species, possible threats, and protective actions to implement) for the California region. This species is a solitary rooster in tree foliage and is found in woodlands, forests, and riparian habitats with dense foliage. Hoary bats winter along the coast and in Southern California, breeding inland and north of the winter range, but are not known to breed in the Valley floor. During migration, this species can be found throughout California.

Suitable roosting habitat for hoary bat exists in the study area in riparian woodland. There are two CNDDB records for this species within 3 miles of the project area: one occurrence from 1990 was recorded at the intersection of State Route 87 and Interstate 280, and one occurrence from 1893

[37] Western Bat Working Group Western Bat Species Regional Priority Matrix, 2017. Available at http://wbwg.org/matrices/species-matrix/. Accessed March 12, 2020.

from a non-specific location in Santa Clara. Hoary bat has a moderate potential to roost in the study area.

Yuma Myotis

Yuma myotis is rated by the WBWG as a "medium" conservation priority (i.e., need more information about the species, possible threats, and protective actions to implement) for the California region. This species occupies a variety of habitats below the 8,000-foot elevation. Optimal habitats include open forests and woodlands with sources of water over which to feed. Yuma myotis cluster in groups of up to thousands in maternity colonies; adult males are typically solitary and roost in crevices on buildings, under bridges, and trees. They can also be found in caves and mines.

Yuma myotis is common and widespread in California, and is known to occur in the Los Gatos Creek riparian corridor.[38] Suitable roosting habitat for Yuma myotis is present in riparian woodland and creek overcrossings/bridges in the study area (e.g., West San Carlos Street crossing over Los Gatos Creek). No CNDDB records exist of Yuma myotis within 3 miles of the project area. Yuma myotis has a moderate potential to roost in the study area.

Nesting Raptors and Birds

Most bird species that could occur in the project area are protected by the Migratory Bird Treaty Act (MBTA) and by CFGC Sections 3503–3513. These species include locally common species such as Cooper's hawk, red-tailed hawk, cliff swallow (*Petrochelidon pyrrhonota*), bushtit (*Psaltriparus minimus*), dark-eyed junco, house finch, northern mockingbird (*Mimus polyglottos*), and California towhee (*Melozone crissalis*).

Because protected birds could nest in trees, shrubs, ruderal areas and grasses, emergent wetland vegetation, barren ground, and human-made structures, many parts of the project area are considered potential nesting habitat. The MBTA and CFGC are discussed in more detail below.

Sensitive Natural Communities and Critical Habitat

Sensitive natural communities are designated by various resource agencies such as CDFW, or in local policies and regulations; are generally considered to have important functions or values for wildlife and/or are recognized as declining in extent or distribution; and are considered threatened enough to warrant some level of protection. CDFW tracks communities of conservation concern through its *California Sensitive Natural Community List*.[39] Natural communities with ranks of S1 to S3 are considered sensitive natural communities, to be addressed in the environmental review processes of CEQA and its equivalents.[40]

[38] Johnston, Dave, Wildlife Ecologist and Bat Biologist, H. T. Harvey & Associates, telephone conversation, March 10, 2020.

[39] California Department of Fish and Wildlife, Natural Communities–Natural Communities List Arranged Alphabetically by Life Form, November 2019. Available at https://www.wildlife.ca.gov/Data/VegCAMP/Natural-Communities/List. Accessed in July 2020.

[40] California Department of Fish and Wildlife, Natural Communities–Natural Communities List Arranged Alphabetically by Life Form, November 2019. Available at https://www.wildlife.ca.gov/Data/VegCAMP/Natural-Communities/List. Accessed in July 2020.

Table 3.2-2 summarizes the one sensitive plant community identified by CDFW on its *California Sensitive Natural Community List* that is present in the study area. No other sensitive natural communities with a rarity ranking of S1 to S3, or communities considered sensitive as marked with a "Y" on the *California Sensitive Natural Community List*, were identified in the study area.

TABLE 3.2-2
SENSITIVE NATURAL COMMUNITIES IN THE PROJECT AREA

Location	Vegetation Types Present	CDFW California Natural Community[a]	Natural Community Alliance(s)[b]	State Rarity Ranking[c]
At top of Los Gatos Creek bank southeast of West Santa Clara Street and South Autumn Street	Dominated by creeping wild rye (*Elymus triticoides* or *Leymus triticoides*)	*Leymus cinereus–Leymus triticoides*	*Leymus triticoides*	S3, and noted as "Y" for Sensitive

SOURCES and NOTES:

CDFW = California Department of Fish and Wildlife

[a] California Department of Fish and Wildlife, Natural Communities—Natural Communities List Arranged Alphabetically by Life Form, September 2010. Available at https://www.wildlife.ca.gov/Data/VegCAMP/Natural-Communities/List. Accessed in August 2019.

[b] Sawyer, J., T. Keeler-Wolf, and J. M. Evens. *A Manual of California Vegetation*, 2009. Available at http://vegetation.cnps.org/.

[c] State Rarity rankings consist of:
S1 = **Critically imperiled** in the state because of extreme rarity (often five or fewer occurrences) or because of some factor(s) such as very steep declines, making it especially vulnerable to extirpation from the state.
S2 = **Imperiled** in the state because of rarity due to very restricted range, very few populations (often 20 or fewer), steep declines, or other factors, making it very vulnerable to extirpation from the nation or state.
S3 = **Vulnerable** in the state due to a restricted range, relatively few populations (often 80 or fewer), recent and widespread declines, or other factors, making it vulnerable to extirpation.

As shown in Table 3.2-2, a sensitive natural community of creeping wild rye is present on the west bank of Los Gatos Creek immediately south of West Santa Clara Street. The creeping wild rye extends about 70 feet from West Santa Clara Street to the south along the top of the bank and extends from top of the bank to approximately 10 feet down the bank toward the creek at the north end, gradually increasing to 15 feet at the south end. A review of historic imagery indicates that this grass appears to have been planted for bank stabilization after a bank repair project in late 2017, because it is limited to a very specific area of the streambank.

Critical Habitat Designations

USFWS can designate critical habitat for species that have been listed as threatened or endangered. *Critical habitat* is defined in FESA Section 3(5)(A) as those lands (or waters) within a listed species' current range that contain the physical or biological features that are considered essential to its conservation. The designated habitat should contain elements necessary for the primary biological needs of the species, including breeding, foraging, dispersal, migration, shelter, and growth of juveniles. The critical habitat designation serves to identify specific areas that are considered essential to the conservation of a listed species through special management or protection under FESA Section 7, which requires that federal agencies must not fund, carry out, or authorize projects that would destroy or adversely affect critical habitat.

There is no critical habitat in the study area (Figure 3.2-2). Critical habitat is designated for Central California Coast steelhead in the lower reaches of the Guadalupe River, downstream of the study area.

3.2.2 Regulatory Framework

This subsection briefly describes federal, state, and local regulations, permits, and policies pertaining to biological resources (including wetlands) as they apply to the proposed project.

Federal

The FESA, MBTA, Clean Water Act (CWA) Section 404, and Magnuson-Stevens Act are the primary federal planning, treatment, and review mechanisms for biological resources in the study area. Each is summarized below.

Endangered Species Act

USFWS and the National Marine Fisheries Service (NMFS) are the designated federal agencies responsible for administering the FESA. The FESA defines species as "endangered" and "threatened" and provides regulatory protection for any species thus designated. FESA Section 9 prohibits the "take" of species listed by USFWS as threatened or endangered. As defined in the FESA, *taking* means "… to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect or attempt to engage in such conduct." Recognizing that take cannot always be avoided, FESA Section 10(a) includes provisions for takings that are incidental to, but not the purpose of, otherwise lawful activities.

FESA Section 7(a)(2) requires all federal agencies, including USFWS, to evaluate projects authorized, funded, or carried out by federal agencies with respect to any species proposed for listing or already listed as endangered or threatened and the species' critical habitat, if any is proposed or designated. Federal agencies must undertake programs for the conservation of endangered and threatened species and are prohibited from authorizing, funding, or carrying out any action that would jeopardize a listed species or destroy or modify its "critical habitat."

As defined in the FESA, "individuals, organizations, states, local governments, and other non-federal entities are affected by the designation of critical habitat only if their actions occur on federal lands, require a federal permit, license, or other authorization, or involve federal funding."

Migratory Bird Treaty Act

The MBTA is the domestic law that affirms and implements a commitment by the United States to four international conventions (with Canada, Mexico, Japan, and Russia) for the protection of a shared migratory bird resource. Unless and except as permitted by regulations, the MBTA makes it unlawful at any time, by any means, or in any manner to intentionally pursue, hunt, take, capture, or kill migratory birds anywhere in the United States. The law also applies to the intentional disturbance and removal of nests occupied by migratory birds or their eggs during the breeding season.

On December 22, 2017, the U.S. Department of the Interior redefined *incidental take* under the MBTA such that "the MBTA's prohibition on pursuing, hunting, taking, capturing, killing, or attempting to do the same applies only to direct and affirmative purposeful actions that reduce migratory birds, their eggs, or their nests, by killing or capturing, to human control." Thus, the federal MBTA definition of take does not prohibit or penalize the incidental take of migratory birds that results from actions that are performed without motivation to harm birds. This

interpretation differs from the prior federal interpretation of take, which prohibited all incidental take of migratory birds, whether intentional or incidental. However, California state regulations protect bird nests with eggs or young from incidental take, as discussed below.

Clean Water Act Section 404

CWA Section 404, which is administered by the U.S. Army Corps of Engineers (USACE), regulates the discharge of dredged and fill material into "waters of the United States." USACE has established a series of nationwide permits that authorize certain activities in waters of the United States, provided that the proposed activity can demonstrate compliance with standard conditions. Projects that result in relatively minor impacts on waters of the United States can normally be conducted under one of the nationwide permits, if consistent with the standard permit conditions. Use of any nationwide permit is contingent on compliance with FESA Section 7. In the project area, Guadalupe River and Los Gatos Creek may qualify as waters of the United States.

Magnuson-Stevens Fishery Conservation and Management Act

The Magnuson-Stevens Act of 1976 (U.S. Code Title 16, Sections 1801−1884 [16 USC 1804–1884]), as amended in 1996 and reauthorized in 2007, is intended to protect fisheries resources and fishing activities within 200 miles of shore. Conservation and management of U.S. fisheries, development of domestic fisheries, and phasing out of foreign fishing activities are the main objectives of the Magnuson-Stevens Act. The Magnuson-Stevens Act provided NMFS with legislative authority to regulate U.S. fisheries in the area between 3 and 200 miles offshore and established eight regional fishery management councils that manage the harvest of the fish and shellfish resources in these waters.

The Magnuson-Stevens Act defines essential fish habitat (EFH) as those waters and substrate that support fish spawning, breeding, feeding, or maturation. The Magnuson-Stevens Act requires that NMFS, the regional fishery management councils, and federal agencies taking an action that may affect managed fish species covered under the Magnuson-Stevens Act identify EFH and protect important marine and anadromous fish habitat.

The regional fishery management councils, with assistance from NMFS, are required to develop and implement Fishery Management Plans. These plans delineate EFH and management goals for all managed fish species, including some fish species that are not protected under the Magnuson-Stevens Act. Federal agency actions that fund, permit, or carry out activities that may adversely affect EFH are required under Magnuson-Stevens Act Section 305(b), in conjunction with required Section 7 consultation under FESA, to consult with NMFS regarding potential adverse effects of their actions on EFH and to respond in writing to NMFS's recommendations.

The portions of the study area in Los Gatos Creek and the Guadalupe River are designated as EFH as covered under the Pacific Coast Salmon Fishery Management Plan,[41] which is designed to protect habitat for commercially important salmonid species. Chinook salmon (*Oncorhynchus*

[41] Pacific Fishery Management Council, *Pacific Coast Salmon Fishery Management Plan: for Commercial and Recreational Salmon Fisheries off the Coasts of Washington, Oregon, and California as Revised through Amendment 19*, effective March 2016. Available at https://www.pcouncil.org/documents/2016/03/salmon-fmp-through-amendment-19.pdf/.

tshawytscha) is the only one of these species that may be seasonally present in the study area, although historically Coho salmon (*O. kisutch*) were common in San Francisco Bay.

State

In addition to CEQA, the primary state planning, treatment, and review mechanisms for biological resources in the study area are CWA Section 401; the CESA; CFGC Sections 1600–1603 and 3503, 3503.5, and 3511; and the National Pollutant Discharge Elimination System (NPDES) General Permit. Each is summarized below.

State Regulation of Wetlands and Other Waters

California's authority for regulating activities in wetlands and waters in the project area resides primarily with the State Water Resources Control Board (State Water Board). The State Water Board, acting through the San Francisco Bay Regional Water Quality Control Board, must certify that a proposed USACE permit action meets state water quality objectives (CWA Section 401). Any condition of water quality certification is then incorporated into the USACE Section 404 permit authorized for the project.

The State Water Board and the Regional Water Quality Control Boards also have jurisdiction over waters of the state under the Porter-Cologne Water Quality Control Act. The State Water Board and San Francisco Bay Regional Water Quality Control Board evaluate proposed actions for consistency with the Regional Water Quality Control Board's *Water Quality Control Plan for the San Francisco Bay Basin*,[42] and authorize impacts on waters of the state by issuing waste discharge requirements or, in some cases, a waiver of waste discharge requirements.

California Endangered Species Act

The CESA closely parallels the conditions of the FESA; however, it is administered by CDFW. CESA prohibits the "taking" of listed species except as otherwise provided in state law. Unlike the FESA, CESA applies the take prohibitions to species petitioned for listing (state candidates). State lead agencies are required to consult with CDFW to ensure that any actions are not likely to jeopardize the continued existence of any state-listed species or result in destruction or degradation of required habitat. CDFW is required to coordinate with USFWS for actions that involve both federally listed and state-listed species.

Under CFGC Section 2081, CDFW may authorize individuals or public agencies to import, export, take, or possess any endangered, threatened, or candidate species in the state of California. These acts that are otherwise prohibited may be authorized through permits or memoranda of understanding if:

- The take is incidental to an otherwise lawful activity;
- Impacts of the authorized take are minimized and fully mitigated;

[42] San Francisco Bay Regional Water Quality Control Board, *San Francisco Bay Basin (Region 2) Water Quality Control Plan (Basin Plan)*, incorporating all amendments approved by the Office of Administrative Law as of May 4, 2017. Available at https://www.waterboards.ca.gov/sanfranciscobay/water_issues/programs/planningtmdls/basinplan/web/docs/BP_all_chapters.pdf.

- The permit is consistent with any regulations adopted pursuant to any recovery plan for the species; and
- The applicant ensures adequate funding to implement the measures required by CDFW.

CDFW makes this determination based on the best scientific and other information that is reasonably available and includes consideration of the species' capability to survive and reproduce.

California Fish and Game Code Sections 1600–1603

All diversions, obstructions, or changes to the natural flow or bed, channel, or bank of any river, stream, or lake in California that supports fish or wildlife resources are subject to the regulatory authority of CDFW under CFGC Sections 1600–1603. Under the CFGC, a *stream* is defined as a body of water that flows at least periodically, or intermittently, through a bed or channel having banks and supporting fish or other aquatic life. Included are watercourses with surface or subsurface flows that support or have supported riparian vegetation. Specifically, CFGC Section 1603 governs private-party individuals, and CFGC Section 1601 governs public projects.

CDFW jurisdiction in altered or artificial waterways is based on the value of those waterways to fish and wildlife. CDFW must be contacted by the public or private party for a streambed alteration agreement for any project that might substantially affect a streambed or wetland. CDFW has maintained a "no net loss" policy regarding potential impacts and has required replacement of lost habitats on at least an acre-for-acre basis.

California Fish and Game Code Sections 3503, 3503.5, and 3513

Under these Fish and Game Code sections, a project operator is not allowed to conduct activities that would result in the taking, possessing, or destroying of any birds of prey; the taking or possessing of any migratory non-game bird; the taking, possessing, or needlessly destroying of the nest or eggs of any raptors or non-game birds; or the taking of any non-game bird under CFGC Section 3800. CFGC Section 3513 adopts the U.S. Department of the Interior's take provisions under the MBTA. As described above, in 2017, the U.S. Department of the Interior redefined incidental take under the MBTA; however, CDFW subsequently issued an advisory that affirms that California law continues to prohibit incidental take of migratory birds.[43]

National Pollutant Discharge Elimination System General Construction Permit for Stormwater Runoff

Construction of the proposed project would disturb more than 1 acre of land surface affecting the quality of stormwater discharges into waters of the United States. The project would thus be subject to the NPDES *General Permit for Stormwater Discharges Associated with Construction and Land Disturbance Activities* (Order 2009-0009-DWQ, NPDES No. CAS000002, as amended by Orders 2010-0014-DWQ and 2012-006-DWQ). The permit, commonly referred to as the Construction General Permit, regulates stormwater discharges from construction or demolition

[43] California Department of Fish and Wildlife, *CDFW and California Attorney General Xavier Becerra Advisory Affirming California's Protections for Migratory Birds*, November 29, 2018. Available at https://oag.ca.gov/system/files/attachments/press-docs/20181129mbta-advisory3.pdf.

activities, such as clearing and excavation; construction of buildings; and linear underground projects, including installation of water pipelines and other utility lines.

The Construction General Permit regulates pollutants in stormwater (generated by construction activity) to waters of the United States from construction sites that disturb 1 acre or more of land surface, or that are part of a common plan of development or sale that disturbs more than 1 acre of land surface. The permit requires that stormwater discharges and authorized non-stormwater discharges not contain pollutants that cause or contribute to an exceedance of any applicable water quality objective or water quality standards (identified in the water quality control plan, or basin plan).

The Construction General Permit requires that projects develop and implement a storm water pollution prevention plan (SWPPP) that includes specific best management practices (BMPs) designed to prevent sediment and pollutants from contacting stormwater and non-stormwater and from moving off-site into receiving waters. The BMPs fall into several categories: erosion control, sediment control, waste management, and good housekeeping.

Routine inspection of all BMPs is required by the Construction General Permit. In addition, the SWPPP must contain a visual monitoring program, a chemical monitoring program for non-visible pollutants, and a sediment monitoring plan if the site discharges directly to a water body listed on the 303(d) list for sediment.

Regional

Santa Clara Valley Habitat Plan

The Cities of San José, Gilroy, and Morgan Hill; Santa Clara County (County); the Santa Clara Valley Transportation Authority (VTA); and Valley Water conducted a collaborative process to prepare and implement the Santa Clara Valley Habitat Plan (Habitat Plan) for the Santa Clara Valley. These local partners, in association with USFWS, CDFW, stakeholder groups, and the general public, developed the Habitat Plan as a long-range plan to protect and enhance ecological diversity and function in a large section of Santa Clara County, while allowing for currently planned development and growth.

The Habitat Plan is an adopted habitat conservation plan and natural community conservation plan. It provides a regulatory framework for the protection and recovery of natural resources, including nine plant species, nine species of terrestrial wildlife (fish are not covered), and natural communities such as streams, while streamlining permitting for development, construction of infrastructure, and maintenance activities. In general, all private development activities are subject to all applicable Habitat Plan conditions and fees. The Habitat Plan includes Conditions on Covered Activities, including conservation measures to avoid and minimize take of covered species, and avoidance and minimization measures to protect biological resources, such as riparian and aquatic habitat. Like the other local agencies involved in the Habitat Plan, the City of San José is a Permittee under the Habitat Plan. The Habitat Plan includes 20 conditions, to which most development, both private and public, is subject. Several conditions are applicable to specific activities, including urban development, in-stream projects, in-stream operations and maintenance, rural projects, rural operations and maintenance, and implementation of the Plan's

Reserve System.[44] Other conditions apply to minimize impacts on natural communities and on specific species; among the conditions to minimize impacts on natural communities is Condition 11, concerning stream and riparian setbacks from waterways, such as Los Gatos Creek and the Guadalupe River.

Certain conditions, including Condition 11, permit an applicant to request exception(s). In the case of private development, a request for an exception is submitted to the local jurisdiction—in this case, the City of San José. The City must then provide the exception request to the Habitat Agency, CDFW, and USFWS for a 30-day review and comment period, after which the City may consider the exception request, along with any comments received. Compliance with the Habitat Plan does not preclude compliance with all other applicable federal and state laws.

Santa Clara Valley Water District: Guidelines and Standards for Land Use near Streams

In October 2006, Valley Water enacted Ordinance O6-1, the Water Resources Protection Ordinance. This ordinance established the regulations by which, beginning on February 28, 2007, Valley Water would issue permits for modifications, entry, use, or access to Valley Water facilities, where Valley Water has either a fee title or easement property right. This ordinance was developed and enacted to codify the *Guidelines and Standards for Land Use Near Streams* developed by the Santa Clara Valley Water Resources Protection Collaborative. Other agencies do not comply directly with Ordinance O6-1, but instead can adopt the guidelines of Ordinance O6-1 or determine that existing zoning code and/or policies fulfill the guidelines. The City and County approved resolutions that found that their existing codes comply with the guidelines.

An encroachment permit is required for all projects that modify, enter, use, or access Valley Water lands and/or easements. It is through the administration and issuance of the encroachment permit that the guidelines and standards are enforced and tracked. The issuance of the encroachment permit is subject to an environmental assessment and must be found to be in compliance with CEQA.

In addition, findings must be made, such as that the proposed modifications would not impede, restrict, slow down, pollute, or change the direction of water flow, or catch or collect debris carried by the water, and that banks would not be damaged, weakened, eroded, subjected to increased siltation, or reduced in their effectiveness to withhold stormwater and floodwaters.

Local

Envision San José 2040 General Plan

The *Envision San José 2040 General Plan* (General Plan), adopted November 1, 2011, and last amended March 16, 2020, lays out 12 interrelated, mutually supportive major strategies that provide a basis for the City's vision for future development. The strategies relate to developing the economy through job creation; providing more housing so that people who work in the city will also reside there; developing Downtown as a social and cultural center; and building mixed-use developments that create housing centered around transit hubs and full-service

[44] The Reserve System is intended to protect nearly 47,000 acres for the benefit of species covered in the Habitat Plan, natural communities, biological diversity, and ecosystem function, through acquisition or other protection.

neighborhoods. In addition, Major Strategy #10, Life Amidst Abundant Natural Resources, relates directly to biological resources and the proposed project:

- **Major Strategy #10, Life Amidst Abundant Natural Resources**, aims to reinforce the Urban Growth Limit to preserve open space, and promote access to the natural environment by providing, among other things, parks and other recreational amenities to serve residents.

In addition, the General Plan includes goals and policies to protect the city's biological resources, which are summarized in **Table 3.2-3**.

TABLE 3.2-3
ENVISION SAN JOSÉ 2040 GENERAL PLAN POLICIES PERTAINING TO THE PROJECT'S BIOLOGICAL RESOURCES

Environmental Resource Policy	Description
Riparian Corridors[45]	
Policy ER-2.1	Ensure that new public and private developments 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).
Policy ER-2.2	Ensure 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 environmental impacts would occur.
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.
Policy ER-2.4	When disturbances to riparian corridors cannot be avoided, implement appropriate measures to restore, and/or mitigate damage and allow for fish passage during construction.
Policy ER-2.5	Restore riparian habitat through native plant restoration and removal of non-native/invasive plants along riparian corridors and adjacent areas.
Migratory Birds	
Policy ER-5.1	Avoid implementing activities that result in the loss of active native birds' nests, including both direct loss and indirect loss through abandonment, of native birds. Avoidance of activities that could result in impacts to nests during the breeding season or maintenance of buffers between such activities and active nests would avoid such impacts.
Policy ER-5.2	Require that development projects incorporate measures to avoid impacts to nesting migratory birds.
Urban Natural Interface	
Policy ER-6.3	Employ low-glare lighting in areas developed adjacent to natural areas, including riparian woodlands. Any high-intensity lighting used near natural areas will be placed as close to the ground as possible and directed downward or away from natural areas.
Policy ER-6.5	Prohibit use of invasive species, citywide, in required landscaping as part of the discretionary review of proposed development.
Policy ER-6.8	Design and construct development to avoid changes in drainage patterns across adjacent natural areas and for adjacent native trees, such as oaks.
Community Forest	
Policy MS-21.5	As part of the development review process, preserve protected trees (as defined by the Municipal Code), and other significant trees. Avoid any adverse effect on the health and longevity of protected or other significant trees through appropriate design measures and construction practices. Special priority should be given to the preservation of native oaks and sycamores. When tree preservation is not feasible, include appropriate tree replacement, both in number and spread of canopy.

[45] The General Plan incorporates by reference the policy recommendations in the *City of San José Riparian Corridor Policy Study* (1999), which are incorporated into the City of San José Riparian Corridor Protection and Bird Safe Design Policy.

TABLE 3.2-3
ENVISION SAN JOSÉ 2040 GENERAL PLAN POLICIES PERTAINING TO THE PROJECT'S BIOLOGICAL RESOURCES

Environmental Resource Policy	Description
Policy MS-21.6	As a condition of new development, require, where appropriate, the planting and maintenance of both street trees and trees on private property to achieve a level of tree coverage in compliance with and that implements City laws, policies or guidelines.
Policy MS-21.7	Manage infrastructure to ensure that the placement and maintenance of street trees, streetlights, signs and other infrastructure assets are integrated. Give priority to tree placement in designing or modifying streets.
Policy MS-21.8	For Capital Improvement Plan or other public development projects, or through the entitlement process for private development projects, require landscaping including the selection and planting of new trees to achieve the following goals: 1) Avoid conflicts with nearby power lines. 2) Avoid potential conflicts between tree roots and developed areas. 3) Avoid use of invasive, non-native trees. 4) Remove existing invasive, non-native trees. 5) Incorporate native trees into urban plantings in order to provide food and cover for native wildlife species. 6) Plant native oak trees and native sycamores on sites which have adequately sized landscape areas and which historically supported these species.
Policy MS-21.9	Where urban development occurs adjacent to natural plant communities (e.g., oak woodland, riparian forest), landscape plantings shall incorporate tree species native to the area and propagated from local sources (generally from within 5–10 miles and preferably from within the same watershed).
General Provision of Infrastructure	
Policy IN-1.11	Locate and design utilities to avoid or minimize impacts to environmentally sensitive areas and habitats.
Community Design Policies—Attractive City	
Policy CD-1.24	Within new development projects, include preservation of ordinance-sized and other significant trees, particularly natives. Avoid any adverse effect on the health and longevity of such trees through design measures, construction, and best maintenance practices. When tree preservation is not feasible, include replacements or alternative mitigation measures in the project to maintain and enhance our Community Forest.
Policy CD-1-25	Apply Riparian Corridor Goals and Policies of this Plan when reviewing development adjacent to creeks. • Development adjacent to creekside areas should incorporate compatible design and landscaping, including appropriate setbacks and plant species that are native to the area or are compatible with native species. • Development should maximize visual and physical access to creeks from the public right-of-way while protecting the natural ecosystem. Consider whether designs could incorporate linear parks along creeks or accommodate them in the future.

City of San José Riparian Corridor Protection and Bird-Safe Design Policy

In 1994, the City commissioned a Riparian Corridor Policy Study to "explore in detail issues related to General Plan policies which promote the preservation of riparian corridors, the areas along natural streams, and how these corridors should be treated for consistency with the General Plan." The City Council approved the Riparian Corridor Policy Study, which was subsequently amended in 1999. The Policy Study defines a *riparian corridor* as any stream channel, including the area up to the bank full-flow line, as well as all riparian (streamside vegetation) in contiguous

adjacent uplands. It also states that riparian setbacks should be measured from the outside edges of riparian habitat or the top of bank, whichever is greater.[46]

The Riparian Corridor Policy Study served as a foundational document for the Riparian Corridor Protection and Bird-Safe Design Policy (Policy 6-34), which the City Council approved on August 23, 2016.[47] The policy provides guidance for how riparian projects[48] should be designed to protect and preserve the city's riparian corridors, and provides bird-safe design guidelines for buildings and structures constructed north of State Route 237. Because the project site is south of State Route 37, the bird-safe design guidelines contained in Part B of Policy 6-34 are not applicable to the project; instead, the project would be subject to the Downtown Design Guidelines with respect to bird-safe design.

The riparian protection policy includes general guidelines for setbacks[49] between various categories of construction projects and riparian corridors, with the following recommended setbacks:

- New residential and commercial/institutional buildings, parking facilities, and roads, and active recreational uses without lighting and mechanical noise sources: 100 feet.
- Multi-use trails (pedestrian/equestrian/bicycle trails) on natural channels: 10 feet.
- Pedestrian-only trails, interpretive nodes/paths/stream crossings, and passive recreational uses: 0 feet.
- Active recreational uses (including lighting and mechanical noise-generating sources): 200 feet.

Reduced setbacks may be considered under limited circumstances, including: developments located within the boundaries of the Downtown area; urban fill locations where most properties are developed and are located on parcels less than or equal to 1 acre; and sites that are being redeveloped with uses that are similar to the existing uses or are more compatible with the riparian corridor than the existing use.

The policy also recommends using materials and lighting that are designed to reduce light and glare impacts on riparian corridors, and including restoration and rehabilitation of riparian corridors in project designs, including erosion-control measures to avoid soil erosion and runoff. In addition, the policy provides bird-safe design guidance for buildings and structures.

---

46 City of San José, *Riparian Corridor Policy Study.* Approved by City Council May 17, 1994; revised March 1999. Available at https://www.sanjoseca.gov/home/showdocument?id=15579. Accessed August 24, 2020.

47 City of San José, *Riparian Corridor Protection and Bird-Safe Design* (Policy 6-34), approved August 23, 2016. Available at https://www.sanjoseca.gov/home/showdocument?id=12815.

48 *Riparian projects* are defined in the policy as any development project located within 300 feet of a riparian corridor's top of bank or vegetative edge, whichever is greater, and that requires approval of a Development Permit as defined in Chapter 20.200 of Title 20 of the San José Municipal Code (the Zoning Code), except that projects that only required approval of a Single-Family House Permit under the provisions of the Zoning Code are not subject to this policy.

49 Setback is measured from the outside dripline of the riparian corridor vegetation or top of bank, whichever is greater.

These guidelines are consistent with policies of the General Plan, and supplement the regulations in the City Council–adopted Santa Clara Valley Habitat Plan, the Zoning Code, and other existing City policies that may provide for riparian protection and bird-safe design.

City of San José Downtown Design Guidelines and Standards

The City of San José Downtown Design Guidelines and Standards,[50] adopted April 23, 2019, include numerous guidelines and standards related to bird protection, including those presented below (**Table 3.2-4**).

City of San José Tree Removal Permit Requirements and Controls

The City of San José requires a tree removal permit for the removal of the following types of trees:

- A *street tree*, defined as a tree located in the public right-of-way between the curb and the sidewalk. In some locations, the public right-of-way may extend up to 12 feet from the curb.
- A *heritage tree*, defined as one of more than 100 trees on the City's Heritage Tree List with special significance to the community because of their size, history, unusual species, or unique quality. The City also provides a Heritage Tree Map. Under Chapter 13.28 of the San José Municipal Code, it is illegal to prune or remove a heritage tree without first consulting the City Arborist and obtaining a permit.
- An *ordinance-size tree* on private property, defined as either: (1) a single-trunk tree, 38 inches or more in circumference at 4.5 feet above the ground; or (2) a multi-trunk tree, the combined measurements of each trunk circumference, at 4.5 feet above ground, totaling 38 inches or more in circumference. On single-family or duplex lots, a permit is required to remove a living, unhealthy, or dead ordinance-size tree. On multi-family, commercial, or industrial lots, a permit is required to remove a tree of any size.

A permit application to remove an ordinance-size tree will be considered for approval if it can be verified that the tree is a safety hazard; is dead, dying, or diseased; is unsuitable; or restricts economic development and proposed improvement of a parcel. For all of these cases, removal of an ordinance-size tree requires submitting an application for a tree removal permit. For removal of ordinance-sized dead, dying, or diseased trees, the tree removal permit application must be accompanied by a report from a certified arborist. Removal of live ordinance-size trees likely requires fees and may require public notice and a hearing. Tree removal permit applications must include a tree description table and site plan, photograph of each tree, and non-refundable fee, if required.[51]

[50] City of San José, *San José Downtown Design Guidelines and Standards*, adopted April 23, 2019 (amended May 21, 2019). Available at https://www.sanjoseca.gov/home/showdocument?id=38775.

[51] City of San José, Tree Removal Permits webpage. Available at https://www.sanjoseca.gov/your-government/departments/planning-building-code-enforcement/planning-division/tree-removal-permits. Accessed January 13, 2020.

TABLE 3.2-4
CITY OF SAN JOSÉ DOWNTOWN DESIGN GUIDELINES AND STANDARDS RELATED TO BIRD SAFETY

Chapter	Guidelines	Standards	Definitions
4.4.2.b Bird Safety	a. For projects within 300 feet of a *riparian corridor*, treat all glass that is visible from a riparian corridor with a *bird safety treatment*. b. Do not create areas of glass through which trees, landscape areas, water features or the sky is visible from the exterior unless a *bird safety treatment* is used. c. Reduce or eliminate upward-facing spotlights on buildings. d. For projects within 300 feet of a *riparian corridor*, turn off decorative exterior lighting between 2:00AM and 6:00AM except during June, July, December, and January due to bird migration. e. Do not plant landscaping tree lines that are perpendicular to glass facades.	a. Do not use *mirrored glass*. b. Use a *bird safety treatment* on facades within 300 feet of a *riparian corridor* that have 50% or more glazed surface. c. Use a *bird safety treatment* on the façade of any floor of the building within 15 vertical feet of the level of and visible from a green roof, including a green roof on an adjacent building within 20 horizontal feet, if the facade has 50% or more glazed surface. d. Use a *bird safety treatment* on areas of glass through which sky or foliage is visible on the other side of parallel panes of glass less than 30 feet apart.	Bird Safety Treatment—Treatments may include exterior screens, louvers, grilles, shutters, sunshades, bird-safe patterns, or other methods to reduce the likelihood of bird collisions as suggested by the American Bird Conservancy.
4.4.2.c Balconies (Private Open Space)	N/A	c. Use a bird-safe pattern on glass railings.	Bird-Safe Pattern—A pattern on glass intended to reduce bird collisions. The pattern must have circular or square markers at least 0.25 inch in diameter, spaced at most 4 inches apart horizontally and 2 inches apart vertically.
4.4.8 Pedestrian Bridges	N/A	d. Make the side elevations of a pedestrian bridge at least 50 percent transparent to provide views into and out of the bridge. Ensure bird safety through glass patterning or other techniques (see Section 4.4.2.b, *Bird Safety*).	N/A
4.4.9.a Lighting—Podium Level	N/A	b. Create *skyline level* lighting that is bird safe, including the potential to reduce or shield lighting visible to birds during migration season (February to May and August to November).	N/A

NOTE:
N/A = not applicable

SOURCE: City of San José, *City of San José Downtown Design Guidelines and Standards*, adopted April 23, 2019 (amended May 21, 2019). Available at https://www.sanjoseca.gov/home/showdocument?id=38775.

Chapter 13.32 (Tree Removal Controls) of the City's Code of Ordinances[52] controls the removal of trees in the city. Section 13.32.030 allows the removal of live trees only under the following circumstances:

- Removal of the tree is required pursuant to the provisions of Chapter 13.28: Street Trees, Hedges, and Shrubs[53] (e.g., a tree that may be detrimental to public safety).
- A development permit that allows the removal of the tree has been issued and accepted by the permit applicant pursuant to the provision of Municipal Code Title 20, Zoning.[54]
- An amendment to a development permit that allows the removal of the tree has been issued and accepted pursuant to the provisions of Municipal Code Title 20, Zoning.
- A tree removal permit that allows the removal of that tree has been issued and accepted pursuant to the provision of Chapter 13.32.

Under Section 13.32.040, Removal of Dead Tree, it is unlawful to remove a dead tree unless a report prepared and executed by a certified arborist documents that the tree qualifies as a dead tree pursuant to Section 13.32.020, and either (1) a development permit adjustment that allows the removal of the dead tree has been issued and accepted by the permit applicant pursuant to the provisions of Municipal Code Title 20, or (2) a tree removal permit that allows the removal of the dead tree has been issued and accepted by the permit applicant pursuant to the provisions of Municipal Code Section 13.32.040. Similarly, the removal of an "unsuitable tree"[55] from any private parcel requires a development permit or permit adjustment issued pursuant to Title 20, Zoning, or a tree removal permit, that allows removal of the tree.

City of San José Standard Conditions of Approval

The Standard Conditions of Approval (SCAs) relevant to the proposed project's impacts on biological resources are presented below. If the City approves the proposed project, all applicable SCAs would be adopted as conditions of approval and required, as applicable, to be implemented during project construction and operation to address biological resources impacts. The SCAs are incorporated and required as part of the project, so they are not listed as mitigation measures.

> **SCA BI-1: Santa Clara Valley Habitat Plan.** The proposed project is subject to applicable Habitat Plan conditions and fees (including the nitrogen deposition fee) prior to issuance of any grading permits. The project applicant would be required to submit the Santa Clara Valley Habitat Plan Coverage Screening Form to the Director of Planning, Building and Code Enforcement (PBCE) or the Director's designee, for approval and payment of the nitrogen deposition fee prior to the issuance of a grading permit. The Habitat Plan and supporting materials can be viewed online at the following link: https://www.scv-habitatagency.org/.

---

52 City of San José, City of San José Municipal Code Chapter 13.32, Tree Removal Controls. Available at https://library.municode.com/ca/san_jose/codes/code_of_ordinances?nodeId=TIT13STSIPUPL_CH13.32TRRECO. Accessed January 13, 2020.

53 City of San José, City of San José Municipal Code Chapter 13.28, Street Trees, Hedges and Shrubs. Available at https://library.municode.com/ca/san_jose/codes/code_of_ordinances?nodeId=TIT13STSIPUPL_CH13.28STTRHESH. Accessed January 13, 2020.

54 City of San José, *City of San José Municipal Code* Title 20, Zoning. Available at https://library.municode.com/ca/san_jose/codes/code_of_ordinances?nodeId=TIT20ZO. Accessed January 13, 2020.

55 Refer to San José Municipal Code Section 13.32.020, *Definitions*, for the definition of an "unsuitable tree."

SCA BI-2: Tree Replacement. The removed trees would be replaced according to tree replacement ratios required by the City.

3.2.3 Impacts and Mitigation Measures

Significance Criteria

For the purposes of this EIR, a biological resources impact would be significant if implementing the proposed project would:

- Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by CDFW or USFWS;
- Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by CDFW or USFWS;
- Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means;
- Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites;
- Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance; or
- Conflict with the provisions of an adopted habitat conservation plan, natural community conservation plan, or other approved local, regional, or state habitat conservation plan.

Approach to Analysis

The impact analysis is based on the resources, references, and data collection methods identified in the *Local Setting* discussion in Section 3.2.1, *Environmental Setting*. The analysis addresses potential direct and indirect impacts from construction or operation of the proposed project, defined as follows:

- *Direct impacts* are those that could occur at the same time and place as project implementation, such as the removal of habitat as a result of ground disturbance.
- *Indirect impacts* are those that could occur either at a later time or at a distance from the project area, but that are reasonably foreseeable, such as the loss of an aquatic species as a result of upstream effects on water quality or quantity.

Direct and indirect impacts on biological resources may vary in duration; they may be temporary, short term, or long term.

The analysis considers the potential impacts of the proposed project on suitable habitat, special-status species, sensitive natural communities, wetlands, and wildlife corridors, using the significance criteria listed above. Mitigation measures are identified, as necessary, to reduce impacts to less-than-significant levels.

Because the vast majority of the potential construction-related biological resources impacts are related to work in or adjacent to Los Gatos Creek and the Guadalupe River, the construction impacts analyzed under Impacts BI-1, BI-2, BI-3, and BI-4 would be expected to occur during Phase 1. Phase 1 would include demolition, construction, and renovation of all buildings along Los Gatos Creek and the Guadalupe River, with the exception of Block H2, which would be constructed in Phase 2, as well as development of open space adjacent to these buildings. Replacement of the San Fernando Street bridge would also be completed during Phase 1. Only redevelopment of Block H2 during Phase 2 would have potential construction-related impacts on biological resources. None of the construction work anticipated to occur under Phase 3 is expected to have potential construction-related impacts on biological resources.

Impact Analysis

Impact BI-1: The proposed project could have a substantial adverse effect, either directly, indirectly, or through habitat modifications, on a species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by CDFW or USFWS (western pond turtle, central California coast steelhead distinct population segment, nesting birds, special-status bats). *(Less than Significant with Mitigation)*

The study area does not include suitable habitat, or is outside of the known geographic or elevation range, for many of the terrestrial species documented in the CNDDB and CNPS searches. The project area includes suitable habitat for the following species, and is within the species' known range: central California coast steelhead DPS (*Oncorhynchus mykiss iridius*), western pond turtle (*Emys marmorata*), Cooper's hawk (*Accipiter cooperii*), merlin (*Falco columbarius*), western red bat (*Lasiurus blossevillii*), hoary bat (*Lasiurus cinereus*), and Yuma myotis (*Myotis yumanensis*). Therefore, the following analysis is limited to potential impacts on these wildlife species, which have a moderate to high potential to occur in the project area (refer to Appendix D1).

Special-Status Fish

The potential for project construction to impact fish species is limited because most of the project site does not contain fish habitat. However, work in and adjacent to the Los Gatos Creek channel would be required to construct a new footbridge over Los Gatos Creek south of West Santa Clara Street; a pedestrian boardwalk within or adjacent to the creek's riparian corridor and a multi-use trail as close as 10 feet from the riparian corridor; and the West San Fernando Street replacement vehicle bridge over Los Gatos Creek.

Fish species could also be impacted by the proposed enhancements to habitat and flow conveyance in Los Gatos Creek, as described in Chapter 2, Section 2.11, *Flood Control Improvements*, and in the *Google Downtown San José Los Gatos Creek Enhancement Project Site Assessment Summary Report* in Appendix D2. Potential impacts and mitigation measures for these activities are described under *Riparian Habitat* in Impact BI-2. Work is also proposed in the upslope habitat adjacent to the Guadalupe River channel.

Replacing the West San Fernando Street bridge would involve removing bridge supports from Los Gatos Creek before installing a new clear-span bridge. As part of this work, bridge footings that extend from the creek channel to the top of bank would be removed and replaced, which could cause the re-suspension of sediment in the creek channel. To a lesser degree, work adjacent to Los Gatos

Creek and the Guadalupe River channel may indirectly cause sediment levels in the creek channel to increase if work in the riparian corridor and upslope habitats is not contained appropriately.

Re-suspension of sediment in the Los Gatos Creek or Guadalupe River channel could impact the central California coast steelhead DPS by temporarily impairing water quality. Suspended sediment in the water column can lower levels of dissolved oxygen, increase concentrations of suspended solids, and possibly release chemicals present in the sediment into the water column. Turbidity increases would be relatively brief and generally confined to within a few hundred feet of the activity. Turbidity levels would initially be higher than baseline levels, but the sediment would disperse and be re-deposited, and background levels would be expected to be restored within hours of the disturbance.

The project proposes setbacks of 50 feet for new buildings from either the top of bank of Los Gatos Creek or the edge of the creek's existing riparian canopy, whichever is a greater distance outward from the creek. Also, consistent with the previously approved project on the former San Jose Water Company site, the project proposes a 30-foot setback from the top of the channel wall along the Guadalupe River at that location. In addition, non-historic existing buildings along Autumn Street (Blocks D8, D9, D10, D11, D12, and D13), which are currently within 50 feet of the riparian corridor, may be retained and repurposed, or could be rebuilt within existing building footprints if within the riparian setback, pursuant to Sections A.2 and A.3 of City Council Policy 6-34 concerning reduced setbacks and City confirmation that the replacement would be consistent with Policy 6-34.[56]

Construction activities could accidentally introduce contaminants such as fuels, oils, hydraulic fluids, and other chemicals/compounds into both Los Gatos Creek and the Guadalupe River, either directly through spills or incrementally through surface runoff from haul routes and staging areas. If present in sufficient concentrations, contaminants could be toxic to fish and prey organisms occupying adjacent aquatic habitats. Contaminants could also alter oxygen diffusion rates and cause acute and chronic toxicity to aquatic organisms, thereby reducing growth and survival and possibly causing mortality of special-status fish. The project also has the potential to cause increased water temperatures in Los Gatos Creek, which could indirectly impact special-status fish; this potential is described in Impact BI-2.

This impact would be **potentially significant**.

As discussed in Section 3.5, *Geology, Soils, and Paleontological Resources*, and Section 3.8, *Hydrology and Water Quality*, construction contractors would be required to prepare an SWPPP in compliance with the NPDES's General Construction Permit. The SWPPP would list the hazardous materials (including petroleum products) proposed for use during construction. It also would describe spill prevention measures, equipment inspections, and equipment and fuel storage; protocols for responding immediately to spills; and BMPs for controlling site run-on and runoff. This would include preventing site runoff into Los Gatos Creek and the Guadalupe River. The SWPPP would also include BMPs for construction to implement sediment and erosion

[56] City of San José, *Riparian Corridor Protection and Bird-Safe Design* (Policy 6-34), approved August 23, 2016. Available at https://www.sanjoseca.gov/home/showdocument?id=12815.

control measures and BMPs for reducing pollutants in stormwater discharges after completion of each construction phase (i.e., the post-construction best management practices).

In addition to implementing appropriate sediment and erosion control measures and containing potential chemical contaminants, the proposed project would implement the following mitigation measures to reduce this **potentially significant** impact to a less-than-significant level:

- **Mitigation Measure BI-1a, General Avoidance and Protection Measures**
- **Mitigation Measure BI-1b, In-Water Construction Schedule**
- **Mitigation Measure BI-1c, Native Fish Capture and Relocation**

With implementation of Mitigation Measures BI-1a, BI-1b, and BI-1c, potential impacts on special-status fish would be **less than significant with mitigation incorporated**.

Mitigation Measures

Mitigation Measure BI-1a: General Avoidance and Protection Measures

This measure shall be required for demolition, site preparation (including clearing of vegetation), and construction work in the Los Gatos Creek channel and riparian corridor and the 50-foot building construction setback from the riparian corridor. It shall also be required for proposed construction activities within 50 feet of the Guadalupe River (Blocks E1 and E3), and work within 20 feet of the creeping wild rye plant community described under Impact BI-2. Relevant avoidance and protection measures shall be included on demolition, grading, and building permit plans.

- Before the issuance of any demolition, grading, or building permit, a qualified biologist shall prepare a worker environmental awareness training brochure and submit the brochure to the Director of Planning, Building and Code Enforcement, or the Director's designee, for review and approval. The training shall be distributed to the construction contractor for the specific work in question to ensure that a copy is available to all construction workers on-site. The training shall be implemented as described below.
- A California Department of Fish and Wildlife (CDFW)– and National Marine Fisheries Service (NMFS)–approved biologist shall be present to monitor all of the following activities:
  - All construction-related work within the Los Gatos Creek channel or riparian corridor or the 50-foot building construction setback from the riparian corridor;
  - Construction activities within 50 feet of the Guadalupe River (Blocks E1 and E3 and the former San Jose Water Company building); and
  - Work within 20 feet of the creeping wild rye plant community.

  The biologist shall prepare and submit daily reports demonstrating compliance with all general avoidance and protection measures to the Director of Planning, Building and Code Enforcement or the Director's designee.
- A qualified biologist shall provide the worker environmental awareness training to field management and construction personnel. Communication efforts and training shall take place during pre-construction meetings so that construction

personnel are aware of their responsibilities and the importance of compliance. The training shall identify the types of sensitive biological resources in the project area (nesting birds, roosting bats, salmonids, western pond turtle, riparian habitat, and creeping wild rye plant community) and the measures required to avoid impacting these resources. The materials covered in the training program shall include environmental rules and regulations for the specific project and shall require workers to limit activities to the construction work area and avoid demarcated sensitive resource areas.

- If the project adds new construction personnel, the contractor for the work in question shall ensure that the new personnel receive worker environmental awareness training before starting work within the Los Gatos Creek riparian corridor or channel; within the 50-foot building construction setback from the Los Gatos Creek riparian corridor and the Guadalupe River; or within 20 feet of the creeping wild rye plant community. The contractor shall maintain a sign-in sheet identifying the individuals who have received the training. A representative from the contractor company for the work in question shall be appointed during the training to be the contact person for any employee or contractor who might inadvertently kill or injure a listed species, or who finds a dead, injured, or entrapped individual. The representative's name and telephone number shall be provided to NMFS and CDFW before the start of ground disturbance.
- The minimum qualifications for a qualified biologist shall be a four-year college degree in biology or related field and at least two years' demonstrated experience with the species of concern.
- If a listed wildlife species is discovered, construction activities shall not begin in the immediate vicinity of the individual until the CDFW Region 3 office in Fairfield is contacted, and the discovered species has been allowed to leave and is no longer present in the construction area.
- Any special-status species observed by the qualified biologist shall be reported to CDFW by the qualified biologist, or by a biologist designated by the qualified biologist, so that the observations can be added to the California Natural Diversity Database.
- The discharge of water from new construction sites into Los Gatos Creek or the Guadalupe River shall be prohibited if the temperature of the discharged water exceeds 72 degrees Fahrenheit (°F), unless modeling studies and subsequent monitoring demonstrate that the volume of the discharge would not increase maximum daily stream temperatures above 75.2°F. This prohibition shall cover both direct discharges and indirect discharges into local storm drains that discharge to Los Gatos Creek or the Guadalupe River. Construction discharges shall be prohibited until the discharged water cools below the average daily stream temperature at the discharge point or maximum daily stream temperatures drop below 75°F.

Mitigation Measure BI-1b: In-Water Construction Schedule

All in-water construction work in the Los Gatos Creek channel shall occur outside of the normal rainy season, between June 1 and October 15 inclusive (or as otherwise specified by permits from the San Francisco Bay Regional Water Quality Control Board, California Department of Fish and Wildlife, National Marine Fisheries Service, and/or U.S. Army Corps of Engineers), when flows in Los Gatos Creek and the Guadalupe

River are normally at their lowest and special-status anadromous fish species are least likely to occur in the project area.

Mitigation Measure BI-1c: Native Fish Capture and Relocation

The project applicant shall ensure that any contractor for any construction work in the Los Gatos Creek channel prepares and submits a fish relocation plan (consistent with federal and state permit requirements) for in-water work in Los Gatos Creek. Relocation shall be required only for in-water work in the Los Gatos Creek channel. The plan shall be prepared in coordination with the California Department of Fish and Wildlife (CDFW), and a copy of the final plan shall be provided to the Director of Planning, Building and Code Enforcement or the Director's designee, along with demonstration of coordination with CDFW. Implementation of the fish relocation plan shall be consistent with the following conditions:

- Before rescues of listed species are attempted, any necessary authorization shall be obtained from the resource agencies (CDFW and/or National Marine Fisheries Service [NMFS]).
- Before dewatering may occur, a qualified biologist shall determine whether the extent of dewatering will result in immediate or foreseeable impacts on fish and wildlife. This shall include conducting a reconnaissance survey of the dewatering zone.
- Before dewatering can begin, the following elements of fish relocation shall be determined:
  - *Staging Area:* Staging areas in the dewatering zone shall be identified. Sites should be selected based on their proximity and access to the dewatering zone and ability to support safe operation of the equipment.
  - *Relocation Sites:* Relocation site(s) shall be identified. Priority shall be given to a site's close proximity to the dewatering zone in the same stream. If a qualified on-site biologist determines that no suitable site in the stream is available, then "second choice" locations within the watershed shall be selected. In all cases, the closest site that is likely to result in a successful rescue shall be used.
  - *Transportation Routes:* Transport routes for rescued fish species shall be determined in advance of dewatering.
  - *Disease Consideration:* To guard against disease transmission, fish shall not be moved upstream over substantial barriers or long distances (i.e., greater than 10 miles).
- If salmonids are encountered during relocation, they shall be moved upstream to a location of perennial running water or the best available habitat determined by a qualified biologist. Collection and transport methods shall be determined based on site conditions. Methods shall also be selected to maximize the efficiency of the collection effort while minimizing handling and transport time and stress. Creek water from the site shall be used in all containers. The local transport of fish may be completed using various methods, including:
  - *Net Transfer:* Appropriate for short distances (less than 50 feet) where rapid transfer is possible.

  - *Live Car:* Appropriate for temporary holding in the stream and for short distances where a rapid transfer is required.
  - *Bucket:* Appropriate for temporary holding and transport over short to medium distances. Holding time should be minimized if possible and aeration should be supplied.
  - *Aerated Cooler:* Appropriate for temporary holding and transport for long distances. Temperature shall be maintained to be similar to the temperature of the source creek water, and if necessary, fish shall be sorted by size to reduce risks of predation.

- Species and collection/relocation sites shall be prioritized as follows: (1) Threatened species; and (2) other native fishes.
- A contact person at each of the appropriate resource agencies (CDFW, NMFS, and/or U.S. Fish and Wildlife Service) shall be identified in the relocation plan. At least 24 hours before fish relocation begins, the appropriate resource agencies shall be notified to communicate the details of the fish relocation and to confirm disposition instructions.
- Fish shall be relocated under the following conditions:
  - *Setup:* Upon arrival at the site, a qualified biologist shall review the operational sequence and logistics of the rescue and field assignments shall be designated. The fish relocation team shall review safety and operational methods.
  - *Live Well Operation:*
    - If necessary, live wells shall be set up early in the operation to stabilize tank conditions.
    - Local "native" water shall be used to fill live wells, if available and clean.
    - To lessen stress on fish, the temperature in live wells shall be reduced or managed to be compatible with the water temperatures in which the fish were encountered.
    - To ensure that sufficient oxygen is present during the adjustment period, the aeration system shall be started before fish are placed into the live well. When salmonids are placed in the live well, the live well shall be managed to the extent possible so that the dissolved oxygen concentration is greater than 6 milligrams per liter, but less than saturation.
  - *Electrofishing Operation:*
    - The electrofishing unit settings shall be adjusted to the conductivity and temperature of the water. Settings shall be adjusted for either varying width (wide to narrow) or varying frequency (high to low) to minimize possible fish injury when these settings elicit proper taxis (i.e., response of fish toward or away from stimulus) for fish capture.
    - The settings used and any incidental electrofishing mortalities shall be recorded in the field notebook. If electrofishing mortalities for salmonids and other species listed as threatened or endangered exceed 5 percent of the total capture, or as otherwise specified in any biological resource

permits, a qualified biologist shall re-evaluate and possibly terminate electrofishing activities.

- Fish other than salmonids experiencing mortality from electrofishing activities shall be noted and used as an indicator of the possible injury or mortality rates of salmonids and other fish.

– *General Collection Guidelines:*

- Fish shall be collected in a manner to minimize handling time and stress, yet maintain the safety of personnel.
- Multiple buckets and/or live cars shall be used to reduce crowding during collection and transfer.
- Fish shall be pre-sorted as needed for transport.
- Buckets that hold salmonids shall be equipped with portable aerators until the fish are transferred to a live well.

– *Transport:*

- Fish shall be transported to minimize holding time and alternately sequenced in tandem with ongoing collection activities.
- Normal live well operations shall continue during transport.

– *Records and Data:*

- Fish shall be inventoried and pertinent data shall be recorded, including species, numbers of each species, disposition, and fork length. If conditions preclude a complete inventory, at a minimum, the species present and their disposition shall be documented and their abundance shall be estimated.
- Information on ambient site conditions (available habitat/water quality) shall be recorded as appropriate, including photo documentation at collection and release sites and other information on collection, handling, and transport.
- At completion, a qualified biologist shall conduct an assessment of the fish relocation to identify lessons learned, estimate the number of individual fish and fish species moved, and determine the mortality rate. The assessment report shall be forwarded to the appropriate resource agencies and to the Director of Planning, Building, and Code Enforcement or the Director's designee within a month of the completion of in-water work.

Significance after Mitigation: Less than significant.

Western Pond Turtle

Western pond turtles could be present in the Guadalupe River, but this species' presence near the project site would be transient because no vegetative cover or basking sites are adjacent to the project site. Therefore, project construction adjacent to the river is assumed to have low potential to impact western pond turtles. Construction activities that could directly impact this species would be the use of project-related motorized equipment to construct the footbridge across Los Gatos Creek

and replace the West San Fernando Street vehicle bridge over the creek, which could cause direct mortality of, or injury to, this species.

In addition, grubbing, earth moving, and operation of heavy equipment near the Los Gatos Creek riparian corridor could result in noise, vibration, and increased activity levels, which could indirectly impact western pond turtle by causing individual turtles to avoid areas they normally use. This species could also be impacted by turbidity caused by construction-related erosion or in-water work. Therefore, this construction-related impact would be **potentially significant**. Operational impacts on the western pond turtle are addressed under Impact BI-2 (riparian habitat).

To reduce this potentially significant construction-related impact, the proposed project would implement Mitigation Measure BI-1a (listed under *Special-Status Fish*) and **Mitigation Measure BI-1d, Western Pond Turtle Protection Measures**. These measures would reduce the impact because they require providing environmental training for construction personnel, implementing general protection measures, conducting pre-construction surveys, and monitoring for this species during construction and relocating individuals as authorized. Implementing these mitigation measures would reduce potential impacts on western pond turtle to **less than significant with mitigation incorporated**.

Mitigation Measure

Mitigation Measure BI-1d: Western Pond Turtle Protection Measures

Prior to the start of any construction activities within 50 feet of the Los Gatos Creek riparian corridor (measured from the outer dripline of riparian vegetation or the top of bank, whichever is greater), the project applicant for the specific construction activity to be undertaken shall retain a qualified biologist to conduct pre-construction surveys for western pond turtles in all suitable habitats (i.e., aquatic and upland in the Los Gatos Creek riparian corridor) near the work site. Surveys shall take place no more than 72 hours before the onset of site preparation and construction activities that have the potential to disturb turtles or their habitat and copies shall be provided to the Director of Planning, Building, and Code Enforcement or the Director's designee.

If pre-construction surveys identify active western pond turtle nests on the project site, the biologist shall establish no-disturbance buffer zones around each nest using temporary orange construction fencing. The demarcation shall be permeable to allow young turtles to move away from the nest after hatching. The radius of the buffer zone and the duration of exclusion shall be determined in consultation with the California Department of Fish and Wildlife (CDFW). The buffer zones and fencing shall remain in place until the young have left the nest, as determined by the qualified biologist.

A qualified biologist shall monitor construction activities near suitable habitat within which western pond turtle is found (either during the survey or observed during construction), and shall remove and relocate western pond turtles in proposed construction areas to suitable habitat outside the project limits, consistent with CDFW protocols and handling permits. Relocation sites shall be subject to CDFW approval.

If any turtles are found on the project site, construction activities shall halt within 50 feet of the turtle(s) and the qualified biologist shall be notified. If the biologist determines that the turtle is a western pond turtle, the turtle shall be relocated into nearby suitable habitat

consistent with CDFW protocols and with approval from CDFW. The biologist shall submit a final report to the Director of Planning, Building, and Code Enforcement or the Director's designee following completion of construction and relocation.

Significance after Mitigation: Less than significant.

Nesting Birds

Construction-related direct impacts on nesting birds protected by the Migratory Bird Treaty Act could result from the removal of trees and vegetation and/or demolition of buildings while an active bird nest is present. In addition, earth moving, operation of heavy equipment, and increased human presence could result in noise, vibration, and visual disturbance. These conditions could indirectly result in nest failure (disturbance, avoidance, or abandonment that leads to unsuccessful reproduction), or could cause flight behavior that would expose an adult or its young to predators. These activities could cause birds that have established a nest before the start of construction to change their behavior or even abandon an active nest, putting their eggs and nestlings at risk for mortality.

Because of the potential for nest failure, this impact would be **potentially significant**. Generally, nest failure would be a violation of CFGC Sections 3503–3513. Impacts during the non-breeding season generally are not considered significant, primarily because of the birds' mobility and ability to access other comparable foraging habitat in the region.

Operational/long-term activities that could indirectly impact nesting birds include the removal of street trees, as well as removal of dead and live trees from the riparian corridor; however, the removal of dead and live trees would be mitigated through tree replacement ranging from a ratio of 1:1 to 3:1 (replacement:existing), as described in the analyses of Impact BI-2 (riparian habitat) and Impact BI-5 (street tree removal policy).

Other operational activities that could indirectly impact nesting birds include the use of a new public access trail in the Los Gatos Creek riparian corridor. The resulting increase in human activity could cause nesting birds to flush from their nests or cause young birds to fledge from their nests prematurely, and could result in fewer nesting attempts. However, birds electing to nest in areas where human disturbance is already occurring are habituated to such disturbance, and therefore, human disturbance should not be an issue.

Increased human activity could also attract bird species known to thrive in human-dominated environments, such as American crow (*Corvus brachyrhynchos*). Increases in food-related trash would be a primary attractant to these species. These larger, more aggressive birds can out-compete songbirds and will prey on their eggs and nestlings.

Public access paths would be constructed and located in an already highly urbanized area, and many riparian areas were observed to currently include human encampments.[57] All riparian areas in the study area are within 50 to 100 feet of busy roads, commuter train tracks, or light industrial and commercial businesses. Nesting birds that use these areas are assumed to already be

[57] Environmental Science Associates, personal observations during reconnaissance-level field surveys, September 27, 2019 and January 3, 2020.

accustomed to a moderate to high level of human activity, noise, and vibration. Therefore, the impact on nesting birds from human activity, noise, and vibration during the use and maintenance of public paths would be **less than significant**.

To reduce the potentially significant construction-related impact, the proposed project would implement the following mitigation measures:

- **Mitigation Measure BI-1a, General Avoidance and Protection Measures**
- **Mitigation Measure BI-1e, Avoidance of Impacts on Nesting Birds**

These measures would reduce the impact because they require providing environmental training for construction personnel; implementing general protection measures; limiting construction to the non-nesting season when feasible or, if avoiding the nesting season is not feasible, conducting pre-construction surveys for nesting birds and establishing no-disturbance buffers around any active nests to ensure they are not disturbed by construction; and repeating the pre-construction surveys when work resumes after being suspended for 7 days. Implementing these mitigation measures would reduce potential impacts on nesting birds to **less than significant with mitigation incorporated**.

Mitigation Measures

Mitigation Measure BI-1a: General Avoidance and Protection Measures

Mitigation Measure BI-1e: Avoidance of Impacts on Nesting Birds

Prior to the issuance of any demolition, grading, or building permits, the project shall implement the following measures to avoid impacts on nesting migratory birds:

- **Avoidance:** The project applicant for the specific construction activity to be undertaken shall schedule demolition and construction activities to avoid commencement during the nesting season. The nesting season for most birds, including most raptors in the San Francisco Bay Area, extends from February 1 through August 15 (inclusive), as amended.
- **Nesting Bird Surveys:** If demolition and construction cannot be scheduled to occur between August 16 and January 31 (inclusive), a qualified ornithologist shall complete pre-construction surveys for nesting birds to ensure that no nests are disturbed during project implementation. This survey shall be completed no more than 14 days before the start of construction activities during the early part of the breeding season (February 1 through April 30 inclusive), and no more than 30 days before the start of construction activities during the late part of the breeding season (May 1 through August 15 inclusive). During this survey, the ornithologist shall inspect all trees and other possible nesting habitats immediately adjacent to the construction areas for nests.
- **Buffer Zones:** If an active nest is found within 250 feet of work areas to be disturbed by construction, the ornithologist, in coordination with the California Department of Fish and Wildlife (CDFW), shall determine the extent of a construction-free buffer zone to be established around the nest, typically 250 feet for raptors and 100 feet for songbirds, or an area determined to be adequate by the qualified ornithologist in coordination with CDFW, to ensure that raptor or

migratory bird nests are not be disturbed during project construction. The no-disturbance buffer shall remain in place until the ornithologist determines that the nest is no longer active or the nesting season ends. If construction ceases for 7 days or more, then resumes during the nesting season, an additional survey shall be necessary to avoid impacts on active bird nests that may be present.

- **Reporting:** The project applicant for the specific construction activity to be undertaken shall submit the ornithologist's report indicating the results of the surveys and any designated buffer zones to the Director of Planning, Building and Code Enforcement, or the Director's designee, for review and approval prior to issuance of any grading or building permits or tree removal (whichever occurs first).
- The results of the surveys and any identified designated buffer zones shall be submitted to the Director of Planning, Building and Code Enforcement or the Director's designee.

Significance after Mitigation: Less than significant.

Special-Status Bats

The proposed project could impact special-status bats if they are present in buildings, or crevices in structures, that would be demolished, or in mature trees that would be removed or pruned to accommodate project construction. Special-status bat species that have the potential to occur in the project area include western red bat, hoary bat, and Yuma myotis. Suitable roosting habitat for these species includes the undersides of road overcrossings, buildings, and mixed riparian woodland in the study area. If tree removal or building and/or bridge demolition were to occur during periods of winter torpor or maternity roosting, any bats present would likely not survive the disturbance.[58] The impact of these disturbances would be **potentially significant**.

To reduce this potentially significant impact, the proposed project would implement **Mitigation Measure BI-1f, Roosting Bat Surveys**. This mitigation measure would reduce impacts because it requires providing worker environmental awareness training and conducting roosting bat surveys, and limiting removal of trees or structures with potential bat roosting habitat to the time of year when bats are active to avoid disturbing bats during the maternity roosting season or months of winter torpor.

Implementing this mitigation measure would reduce potential impacts on roosting bats to **less than significant with mitigation incorporated**.

Mitigation Measure

Mitigation Measure BI-1f: Roosting Bat Surveys

In advance of tree and structure removal or adaptive reuse, a qualified biologist shall conduct a pre-construction survey for special-status bats to characterize potential bat habitat and identify active roost sites within 100 feet of the project site. The results of the surveys and the locations of any designated buffer zones shall be submitted to the

[58] Tuttle, M., How North America Bats Are at Their Most Vulnerable during Hibernation and Migration, *BATS Magazine* 9(3), fall 1991. Available at http://www.batcon.org/resources/media-education/bats-magazine/bat_article/492. Accessed January 5, 2018.

Director of Planning, Building and Code Enforcement, or the Director's designee, for review and approval prior to issuance of any demolition or building permits. Should potential roosting habitat or active bat roosts be found in trees and/or structures to be removed or renovated under the project or within a 100-foot buffer zone from these areas, the following measures shall be implemented:

- Removal of trees and structures with active roosts shall occur when bats are active, approximately between March 1 and April 15 inclusive and between September 15 and October 15 inclusive. To the extent feasible, removal shall occur outside of bat maternity roosting season (approximately April 15 to August 31 inclusive) and outside of the months of winter torpor (approximately October 16 to February 28 inclusive).
- If removing trees and structures during the periods when bats are active is not feasible and active bat roosts being used for maternity or hibernation purposes are found on or in the immediate vicinity of the project area where tree and structure removal is planned, a 100-foot no-disturbance buffer shall be established around these roost sites until the qualified biologist has determined that they are no longer active.
- The qualified biologist shall be present during removal of trees and structures when active bat roosts not being used for maternity or hibernation purposes are present. Trees and structures with active roosts shall be removed only when no rain is occurring and rain is not forecast to occur for 3 days following removal of the roost, and when daytime temperatures are at least 50 degrees Fahrenheit.
- Removal of trees with active or potentially active roost sites shall follow a two-step removal process:

  (1) On the first day of tree removal and under the supervision of the qualified biologist, branches and limbs that do not contain cavities or fissures in which bats could roost shall be cut only using chainsaws. Removal of the canopy makes the tree unappealing for bats to return that evening to roost.

  (2) On the following day and under the supervision of the qualified biologist, after confirmation that bats have not returned, the remainder of the tree may be removed, using either chain saws or other equipment (e.g., excavator or backhoe).

Structures that contain or are suspected to contain active bat roosts, but that are not being used for maternity or hibernation purposes, shall be dismantled under the supervision of the qualified biologist in the evening, after bats have emerged from the roost to forage. The structures shall be partially dismantled to substantially change roost conditions, causing the bats to abandon and not return to the roost.

Significance after Mitigation: Less than significant.

Impact BI-2: The proposed project could have a substantial adverse effect on riparian habitat or other sensitive natural communities identified in local or regional plans, policies, regulations, or by CDFW or USFWS. *(Less than Significant with Mitigation)*

This section addresses impacts on riparian habitat and sensitive natural communities, including EFH and designated critical habitat for project elements in Los Gatos Creek and its associated riparian corridor. As described in Section 3.2.1, *Environmental Setting*, the study area is composed primarily of developed urban land. Although no critical habitat is present, the study area does include EFH, riparian habitat, and a sensitive natural community of creeping wild rye (*Elymus triticoides*).

As described under Impact BI-5, the project would conform to the City's Policy 6-34 (riparian corridor protection) (refer to Section 3.2.2, *Regulatory Framework*). In addition, the *Downtown West Design Standards and Guidelines* (Appendix M) include specific controls for protecting riparian habitat, such as riparian setbacks; additional plantings to extend the riparian corridor in select locations; a footbridge designed for minimal impacts on riparian habitat; replacement of chain-link fencing with wildlife-friendly fences; and control of the lighting adjacent to the riparian corridor.

The following discussions analyze potential impacts on sensitive natural communities.

Essential Fish Habitat

As discussed in Section 3.2.2, *Regulatory Framework*, the reaches of Los Gatos Creek and the Guadalupe River within the study area are designated as EFH. EFH in the study area is covered under the Pacific Coast Salmon Fishery Management Plan and is designed to protect habitat for commercially important salmonid species.[59] Chinook salmon is the only species covered under this plan that may be seasonally present in the study area.

Potential effects of in-water or in-channel construction work on EFH include the temporary impairment of water quality and increased turbidity, coinciding with the disturbance and alteration of stream channel habitat. The project also has the potential to cause increases in water temperatures in Los Gatos Creek associated with the potential loss in riparian cover, which could directly impair EFH in the study area. This potential impact is described in Impact BI-2, in the *Riparian Habitat* discussion. These effects are not specific to EFH; rather, they would be shared by all aquatic life in the study area. Thus, the descriptions of these effects in Impact BI-1, under *Special-Status Fish*, directly apply to EFH-managed fish species.

This impact of project construction to EFH would be **potentially significant**. To reduce this impact, the proposed project would implement an SWPPP in conjunction with the implementation of Mitigation Measures BI-1a, BI-1b, and BI-1c to ensure that any impacts on EFH would be temporary and less than significant. Mitigation Measure BI-1a would ensure that the project would avoid impacts on the riparian community and construction-related discharges

[59] Pacific Fishery Management Council, *Pacific Coast Salmon Fishery Management Plan: for Commercial and Recreational Salmon Fisheries off the Coasts of Washington, Oregon, and California as Revised through Amendment 19*, effective March 2016. Available at https://www.pcouncil.org/documents/2016/03/salmon-fmp-through-amendment-19.pdf/.

into the creek to the extent feasible. Mitigation Measure BI-1b would limit in-water or in-channel work in Los Gatos Creek and the Guadalupe River to June 1 to October 15, or as otherwise allowed by regulatory permits, when Chinook salmon are least likely to occur in the study area. If flows and water temperatures during this period remain conducive to supporting over-summering individuals, implementing Mitigation Measure BI-1c would prevent any direct impact on EFH-protected species in the study area.

Because the amount of in-channel work proposed would be limited and the proposed project would implement Mitigation Measures BI-1a, BI-1b, and BI-1c to reduce construction-related impacts on instream habitat, the impact on EFH would be **less than significant with mitigation incorporated**.

Mitigation Measures

Mitigation Measure BI-1a: General Avoidance and Protection Measures (refer to Impact BI-1)

Mitigation Measure BI-1b: In-Water Construction Schedule (refer to Impact BI-1)

Mitigation Measure BI-1c: Native Fish Capture and Relocation (refer to Impact BI-1)

Significance after Mitigation: Less than significant.

Riparian Habitat

In general, City Policy 6-34 requires that new buildings be set back at least 100 feet and that multi-use trails on natural channels be set back at least 10 feet; however, lesser setbacks may be permitted Downtown—including the project site. Pedestrian-only paths (e.g., the boardwalks proposed as part of the project) may be allowed up to the edge of and, where necessary for continuity, within the riparian corridor. The project proposes setbacks of 50 feet from Los Gatos Creek for new buildings and, consistent with the previously approved project on the former San Jose Water Company site, a 30-foot setback from the top of the channel wall along the Guadalupe River at the San Jose Water Company site. Portions of six existing structures, on Blocks D8, D9, D10, D11, D12, and D13 at Creekside Walk at South Autumn Street, currently encroach into the Los Gatos Creek 50-foot riparian setback. Outside of the riparian setback, vertical and horizontal additional would be permitted to the existing structures. The cumulative area of vertical and horizontal additions to these existing structures would not exceed 17,500 square feet (sf) beyond the total built area of existing structures. It is also possible that future structural assessments would indicate that one or more of these existing structures cannot reasonably be retained. In that event, replacement structures would be permitted within the existing building footprints, pursuant to Sections A.2 and A.3 of City Council Policy 6-34 concerning reduced setbacks from the riparian corridor and City confirmation that the replacement would be consistent with Policy 6-34.

Active programs would be kept outside the 50-foot riparian setback, with the exception of programming within the existing buildings on Blocks D8, D9, D10, D11, D12, and D13 and the existing former San Jose Water Company building at 374 West Santa Clara Street. Where possible, a 50- to 100-foot ecological enhancement zone would be included in the project in open spaces such as Los Gatos Creek Park, Creekside Walk at South Autumn Street, and Los Gatos Creek East. This enhancement zone would include riparian plantings composed primarily of native species. These riparian plantings would expand the riparian canopy, replace existing

hardscape,[60] and potentially reduce the water temperature of urban stormwater runoff by reducing the impervious area that can be heated by sunlight over which stormwater would flow, which would benefit Los Gatos Creek and provide wildlife habitat for birds and pollinators (Appendix M).

Several elements of the proposed project have the potential to result in permanent and/or temporary impacts on riparian habitat:

- Construction of a new footbridge over Los Gatos Creek south of West Santa Clara Street (between Blocks D and E; refer to Figure 2-7, *Open Space Plan*)
- Construction of a new multi-use trail at least 10 feet away from the riparian corridor (but generally closer to 50 feet from the riparian corridor)
- Construction, between West Santa Clara and West San Fernando Streets, of pedestrian-only boardwalks,[61] that may be located up to the edge of the riparian corridor, and may extend into the riparian corridor in limited circumstances. These circumstances include where these features replace existing impervious, hardscape, and/or disturbed landscape surfaces and where existing buildings extend within the minimum width of a boardwalk, such that an encroachment into the riparian corridor is necessary to ensure continuity of the feature.
- Placement of creek overlooks/viewing platforms within the riparian setback or riparian corridor. If placed within the riparian corridor, development of the platforms would avoid removal of native trees, avoid placement of footings within the top of bank, and be located no less than 250 linear feet apart, with up to 4-foot protrusion into the riparian corridor for a maximum of 25 feet in length along the riparian corridor.
- Removal of existing fencing between the creek and the project site and possible replacement with wildlife-friendly fencing
- Replacement of the West San Fernando Street vehicle bridge over Los Gatos Creek (refer to Figure 2-3, *Land Use Plan*)
- Construction of a new utility corridor ("utilidor") via jack-and-bore crossing underneath Los Gatos Creek in two locations: (1) on the north side of West San Carlos Street between Block H and Block G1, and (2) between Block D at South Autumn Street and Block E. Jacking and receiving pits on either side of the creek would be placed outside of the riparian corridor. In addition, the utilidor would cross Los Gatos Creek in at least one of the following two locations (refer to Figure 2-10, *Preliminary Utilidor Alignment Options*):
  - On the replacement West San Fernando Street vehicle bridge, and/or
  - On the proposed footbridge between Block D and Block E.

[60] Overall, the project would reduce impervious surfaces by more than 50 percent within the Los Gatos Creek riparian setback of 50 feet.

[61] Pedestrian boardwalks would be narrower than a multi-use trail and intended for less-intensive use. To minimize the disruption of vegetation, the boardwalks would be permeable and would be constructed no more than 4 feet off the ground. Boardwalk materials and lighting would be limited by the Downtown West Design Standards and Guidelines and by City lighting policies. Pedestrian boardwalks would encourage the flow of people, rather than creating places to gather and create noise, to protect the existing and extended habitat from noise and light.

- Reconstruction of an existing storm drain outfall to Los Gatos Creek, under the West Santa Clara Street overcrossing, which would be relocated into creeping wild rye habitat. The new outfall would require a flap gate to prevent backwater flows.
- Demolition, construction, and renovation of office, residential, and retail/cultural buildings; as well as buildings for recreational/educational activities outside of the proposed 30- or 50-foot riparian setback (as described at the beginning of this section)
- Implementation of flow conveyance and creek habitat enhancements (removal of debris, live and dead trees, and logjams) and placement of five engineered fish habitat enhancement log structures or other bioengineered features in Los Gatos Creek

Potential permanent impacts on riparian habitat, including operational impacts, would include: construction-related removal of riparian vegetation for the new footbridge over Los Gatos Creek and for elevated pedestrian boardwalks and viewing platforms where they would extend into the riparian corridor; loss of creeping wild rye/riparian habitat due to outfall construction; increased night lighting, noise, trash or debris, and shading caused by the construction and operation of new buildings, the multi-use trail, pedestrian boardwalks, viewing platforms, and bridges near (or, in limited circumstances, in) the riparian corridor; removal of trees for flow conveyance and creek habitat enhancements; and placement of fish habitat structures in Los Gatos Creek.

Potential temporary impacts on riparian habitat include: clearing and grubbing of adjacent work areas in or near the riparian corridor during construction of the footbridge and of pedestrian boardwalks and/or viewing platforms where they would extend into (and possibly where they would be adjacent to) the riparian corridor; crushing of vegetation during worker access and materials staging; incidental entry of soils or harmful materials into Los Gatos Creek; and construction-related increases in artificial night lighting and noise.

The following discussion analyzes the potential permanent and temporary construction and operational impacts on riparian habitat of each of the project elements listed above.

Impacts of the Footbridge

Construction Impacts

The new footbridge over Los Gatos Creek is anticipated to be a clear-span bridge supported by abutments on either end. The footbridge is expected to be 12 feet wide and approximately 85 feet long, with approximately 65 feet of the bridge located in or over riparian habitat and 20 feet extending over open water. The footings/abutments would be constructed outside the top of bank to the extent feasible, but they may need to be constructed within the riparian corridor (Appendix M). The footings/abutments are assumed to be 16 feet wide and 8 feet long.

Potential permanent impacts on riparian habitat would occur where the clear-span footbridge would bisect the riparian corridor on either side of the creek, including the abutments that could extend beyond the bridge. Potential impacts could also result from the shading of open water. Based on the extent of riparian and open water habitat and the bridge's estimated dimensions, the new footbridge would result in the permanent loss of an estimated 0.02 acres (812 sf) of riparian habitat and 0.006 acres (240 sf) of shading of open water. In addition, an excavator is anticipated to work in the stream channel during construction, and removal of riparian vegetation may be required for access and construction in an estimated 25-foot-wide area extending 30 feet down the

creek bank on all sides of the bridge placement. This work would result in a total temporary impact area of 0.07 acres (3,000 sf).

The proposed project would be expected to require replacement of or compensation for replacement of permanently impacted riparian habitat at a 1:1 ratio based on acreage, or as otherwise specified by the permitting resource agencies. Shading impacts would likely require creek enhancement at a minimum 1:1 ratio based on acreage, or as otherwise specified by the permitting agencies. Potential temporary impacts include construction-related disturbance of riparian vegetation by workers and equipment required to install the footbridge, and the potential for erosion or the entry of harmful materials into Los Gatos Creek. Therefore, permanent and temporary impacts on riparian habitat would be **potentially significant**.

Lighting and Noise. Riparian corridors, even those in an urban setting, offer natural cover, food, water, and nest sites for a variety of birds and mammals, and riparian vegetation maintains temperatures for terrestrial and aquatic habitats.[62] Although wildlife in riparian corridors adjacent to Downtown San José is habituated to a certain level of light and noise, construction-related increases in artificial night lighting and noise or a change in adjacent uses could impact wildlife in the riparian corridor by disrupting their circadian rhythms,[63] increasing stress, or masking natural sounds. These changes to baseline conditions could cause animals to avoid lighted or noisy areas that previously provided suitable resting, dispersal, or feeding habitat, or could cause them to miss auditory cues about predators and/or prey.

Construction of the footbridge would occur during the daylight hours (7 a.m. to 7 p.m.). Therefore, the project would have a **less-than-significant** impact on riparian wildlife from nighttime lighting associated with construction of the footbridge, and no mitigation is required. Noise during construction of the footbridge would likely be generated by earth-moving equipment, truck trips, concrete pours or placement of pre-cast bridge abutments, and the use of a crane to place the clear-span bridge across Los Gatos Creek. Construction of the footbridge would last an estimated 6 months or less and would occur in a very limited area of the riparian corridor. Wildlife would have access to the majority of the riparian corridor and would likely avoid the construction area temporarily during construction. Construction equipment would use noise suppression devices as described in General Plan Policy EC-1.7[64] and SCA NO-1, Construction-Related Noise (refer to Section 3.10, *Noise and Vibration*). Therefore, noise impacts on wildlife during construction of the footbridge would be **less than significant**, and no mitigation is required.

Operational Impacts

Potential operational impacts of the proposed footbridge on riparian habitats could result from increased human use by pedestrians (e.g., increased noise, light, and refuse), which could impact wildlife that uses the corridor. The *Downtown West Design Standards and Guidelines* include a standard to minimize lighting on the footbridge by targeting lighting levels to those required for

62 City of San José, *Downtown Strategy 2040 Integrated Final EIR*, December 2018.

63 A *circadian rhythm* is a natural, internal process that regulates the sleep-wake cycle in animals over an approximately 24-hour period. These rhythms can become altered by external cues such as light.

64 City of San José, *Envision San José 2040 General Plan*, adopted November 1, 2011 (amended March 16, 2020). Available at https://www.sanjoseca.gov/home/showdocument?id=22359. Accessed January 16, 2020.

pedestrian safety and prohibiting light trespass into the riparian corridor. The *Downtown West Design Standards and Guidelines* also require wildlife-proof waste receptacles. The area is currently developed and open to ongoing human activity on three sides: light industrial and commercial businesses to the west, the VTA San Fernando light rail station to the south, and West San Fernando Street to the north. In addition, homeless encampments are present[65] at the southwest and southeast corners of this stream reach, north of the San Fernando light rail station.

Overall, the level of existing disturbance within and adjacent to the riparian corridor makes the riparian habitat in this area conducive only to wildlife species that are tolerant of human activity.

Considering implementation of the *Downtown West Design Standards and Guidelines*, combined with the existing baseline disturbance, operational impacts of the proposed footbridge would be **less than significant**, and no mitigation is required.

Mitigation Measures

For the footbridge, no mitigation is required for construction-related nighttime lighting or noise impacts on wildlife, or for operational impacts.

However, the proposed project would implement the following mitigation measures to reduce potentially significant construction-related permanent and temporary impacts on riparian habitat from the footbridge to **less than significant with mitigation incorporated**. These measures would reduce the impacts because they require providing environmental training to construction crews, delineating the limits of construction around riparian habitat to exclude work within those limits, returning any temporarily impacted areas to pre-project conditions through re-vegetation and monitoring, compensating for permanently impacted riparian habitat, and preparing and implementing a fish relocation plan for in-water work in Los Gatos Creek.

> **Mitigation Measure BI-1a: General Avoidance and Protection Measures** (refer to Impact BI-1)
>
> **Mitigation Measure BI-1b: In-Water Construction Schedule** (refer to Impact BI-1)
>
> **Mitigation Measure BI-1c: Native Fish Capture and Relocation** (refer to Impact BI-1)
>
> **Mitigation Measure BI-2a: Avoidance of Impacts on Riparian Habitat**
>
> The project applicant for the specific construction activity to be undertaken and its contractors shall implement the following measures.
>
> For portions of the project site located within 50 feet of the riparian corridor—such as the new footbridge; multi-use trail and associated infrastructure; pedestrian boardwalks, viewing platforms, and signage; removal and replacement of fencing; replacement of the West San Fernando Street vehicle bridge; reconstruction of the existing storm drain; and building demolition, construction, and renovation—a qualified biologist shall clearly delineate the construction footprint in or within 50 feet of the riparian area with flagging

[65] Environmental Science Associates, personal observation during reconnaissance-level field survey, September 27, 2019.

before the start of construction to avoid the accidental removal or trampling of vegetation outside of the project limits.

The limits of construction within 50 feet of the riparian corridor shall be confined to the smallest possible area to complete the required work. The edge of construction in and near riparian areas shall be separated and protected from the work area through silt fencing, amphibian-friendly fiber rolls (i.e., no microfilament), or other appropriate erosion control material. Staging of materials and all other project-related activity shall be located at least 25 feet upslope from riparian areas.

Where disturbance to riparian habitat cannot be avoided, any temporarily affected riparian habitat shall be restored to pre-construction conditions or better at the end of construction, in accordance with the requirements of USACE, the San Francisco Bay Regional Water Quality Control Board, and CDFW permits. Compensation for permanent impacts on riparian habitat shall be provided at a 1:1 or greater ratio, or as specified by USACE, the San Francisco Bay Regional Water Quality Control Board, and CDFW. Compensation for loss of riparian habitat may be in the form of permanent on-site or off-site creation, restoration, enhancement, or preservation of habitat. At a minimum, the restoration or compensation sites shall meet the following performance standards by the fifth year after restoration or as otherwise required by resource agency permits:

(1) Temporarily affected areas are returned to pre-project conditions or better.

(2) Native vegetation cover shall be at least 70 percent of the baseline native vegetation cover in the impact area.

(3) No more cover by invasive species shall be present than in the baseline/impact area.

Restoration or compensation shall be detailed in a Riparian Habitat Mitigation and Monitoring Plan, which shall be developed before the start of construction and in coordination with permit applications and/or conditions from applicable regulatory agencies. At a minimum, the plan shall include:

(1) Name and contact information for the property owner of the land on which the mitigation will take place;

(2) Identification of the water source for supplemental irrigation, if needed;

(3) Identification of depth to groundwater;

(4) Topsoil salvage and storage methods for areas that support special-status plants;

(5) Site preparation guidelines to prepare for planting, including coarse and fine grading;

(6) Plant material procurement, including assessment of the risk of introduction of plant pathogens through the use of nursery-grown container stock vs. collection and propagation of site-specific plant materials, or use of seeds;

(7) A planting plan outlining species selection, planting locations, and spacing for each vegetation type to be restored;

(8) Planting methods, including containers, hydroseed or hydromulch, weed barriers, and cages, as needed;

(9) Soil amendment recommendations, if needed;

(10) An irrigation plan, with proposed rates (in gallons per minute), schedule (i.e., recurrence interval), and seasonal guidelines for watering;

(11) A site protection plan to prevent unauthorized access, accidental damage, and vandalism;

(12) Weeding and other vegetation maintenance tasks and schedule, with specific thresholds for acceptance of invasive species;

(13) Performance standards, as referenced above, by which successful completion of mitigation can be assessed relative to a relevant baseline or reference site, and by which remedial actions will be triggered;

(14) Success criteria that shall include the minimum performance standards described in Mitigation Measure BI-2a, Avoidance of Impacts on Riparian Habitat, and Mitigation Measure BI-2d, Avoidance and Protection of Creeping Wild Rye Habitat;

(15) Monitoring methods and schedule;

(16) Reporting requirements and schedule;

(17) Adaptive management and corrective actions to achieve the established success criteria; and

(18) An educational outreach program to inform operations and maintenance departments of local land management and utility agencies of the mitigation purpose of restored areas to prevent accidental damages.

The Riparian Habitat Mitigation and Monitoring Plan shall be developed before the start of construction and in coordination with permit applications and/or conditions from applicable regulatory oversight agencies. The plan shall be submitted to the Director of Planning, Building and Code Enforcement, or the Director's designee, prior to the issuance of any demolition, grading, or building permit that would include construction activities that would have direct impacts on riparian habitat.

Significance after Mitigation: With implementation of Mitigation Measures BI-1a, BI-1b, BI-1c, and BI-2a, potential impacts on riparian habitat from the footbridge would be **less than significant with mitigation incorporated**.

Impacts of the Multi-Use Trail, Pedestrian Boardwalks, Viewing Platforms, Interpretive Signage, and Removal and Replacement of Fencing

Construction Impacts

The proposed project would include a new Class I (e.g., dirt) multi-use trail, pedestrian boardwalks, viewing platforms, and interpretive signage. The multi-use trail would have a minimum 10-foot setback from the riparian corridor, but the pedestrian boardwalks, viewing platforms, and signage could be adjacent to or, in limited circumstances, within the riparian corridor. Plans for Reaches 5C and 5E as described in the City of San José's Los Gatos Creek Trail–Reach 5 Master Plan[66] include a trail that appears to be in approximately the same location as the project's proposed multi-use trail, with minor modification as directed by the City. According to the master plan, the Reach 5C trail alignment, adjacent to the riparian corridor between the Southern Pacific Railroad undercrossing and Park Avenue, would be constructed on the top of bank; and Reach 5E, adjacent

[66] City of San José, *Los Gatos Creek Trail—Reach 5 Master Plan,* June 20, 2008.

to the riparian corridor between West San Fernando and West Santa Clara Streets, would be constructed on the top of bank before routing pedestrians and bicyclists onto existing sidewalks. In addition, the project would encourage removal of existing fences outside of the riparian corridor between Los Gatos Creek and Downtown West and replacement with wildlife-friendly fences that do not impede movement of, or create a hazard to, wildlife. The project would also remove existing impervious, hardscape, and/or disturbed landscape surfaces (such as areas of disturbed habitat and non-native vegetation as well as areas of compacted bare soil, gravel, or mulch that are not part of habitat restoration) within the riparian setback and corridor, and replace these surfaces with vegetation and/or permeable surfaces.

Because the multi-use trail would be outside of riparian habitat, no permanent impacts associated with its construction are anticipated, and no mitigation is required. Removal of chain-link fencing and replacement with post-and-rail wildlife friendly fencing is expected to be negligible in terms of permanent impacts because both types of fencing are assumed to include similarly-sized and similarly-spaced support posts. However, placement of pedestrian boardwalks, viewing platforms, and interpretive signage outside of the existing building footprints and within the riparian corridor may require permanent removal of riparian vegetation. The pedestrian boardwalks and viewing platforms would be elevated, rather than constructed directly on grade, thereby minimizing the area to be disturbed for supporting foundations. Nevertheless, permanent impacts on riparian habitat would be **potentially significant**.

Construction of the multi-use trail, pedestrian boardwalks, viewing platforms, and interpretive signage and replacement of fencing adjacent to riparian habitat could result in temporary impacts on riparian habitat during clearing and grubbing of adjacent work areas; crushing of vegetation during worker access and materials staging; and the potential for erosion or the entry of harmful materials into Los Gatos Creek. The pedestrian boardwalks and viewing platforms would be elevated, rather than constructed directly on grade, thereby minimizing the area to be disturbed for supporting foundations. Nevertheless, temporary impacts on riparian habitat would be **potentially significant**.

Lighting and Noise. As described earlier in this impact discussion under *Impacts of the Footbridge*, construction-related increases in artificial night lighting and noise could impact wildlife in the riparian corridor. Construction of the multi-use trail, pedestrian boardwalks, viewing platforms, and interpretive signage and replacement of fencing would occur during the daylight hours (7 a.m. to 7 p.m.). Therefore, the project would have a **less-than-significant** impact on wildlife from nighttime lighting associated with construction of the multi-use trail, and no mitigation is required. Noise during construction of the multi-use trail, pedestrian boardwalks, viewing platforms, and interpretive signage could be generated by clearing and grubbing equipment; small earth-moving equipment such as a skid steer, if used; and truck trips for materials and/or spoils. Construction equipment would be minimal and small in scale. The equipment would use noise suppression devices as described in General Plan Policy EC-1.7 and SCA NO-1, Construction-Related Noise (refer to Section 3.10, *Noise and Vibration*). Therefore, the project would have a **less-than-significant** impact on riparian wildlife from noise during construction of the multi-use trail, pedestrian boardwalks, viewing platforms, and interpretive signage and replacement of fencing is anticipated, and no mitigation is required.

Operational Impacts

The multi-use trail, pedestrian boardwalks, viewing platforms, and interpretive signage would result in an increase in human activity, and thus would have the potential to increase noise, lighting, and refuse adjacent to the Los Gatos Creek riparian corridor. This could potentially impact wildlife that uses the riparian corridor, as discussed earlier in this impact discussion under *Impacts of the Footbridge*. The multi-use trail would be a minimum 10-foot riparian setback, which would provide a sufficient buffer between transient human activity associated with the multi-use trail and wildlife using the riparian corridor. The pedestrian boardwalks, viewing platforms, and signage could be adjacent to or, in limited circumstances, within the riparian corridor, as permitted by Council Policy 6-34. However, these are considered passive uses and human activity thereon would not be anticipated to adversely affect, to a substantial degree, wildlife using the riparian corridor. In addition, human homeless encampments were observed during the field survey[67] along Los Gatos Creek, which makes the riparian habitat in this area conducive only to wildlife species that are tolerant of human activity.

The *Downtown West Design Standards and Guidelines* include a number of guidelines and standards related to trails, the pedestrian boardwalks, and viewing platforms to protect the Los Gatos Creek riparian corridor. These include limiting active programming to outside of the riparian setback except where necessary to ensure continuity of the pedestrian boardwalks (i.e., where existing building edges are closer to the riparian corridor than the width required for a pedestrian boardwalks), and where the new features would replace an existing impervious, hardscape, and/or impervious surface with a permeable surface; restricting lighting within the riparian corridor and setbacks; and installing wildlife-proof waste receptacles. Therefore, with the implementation of the *Downtown West Design Standards and Guidelines*, the project would have a **less-than-significant impact** on riparian wildlife from operation of the multi-use trail, pedestrian boardwalks, viewing platforms, interpretive signage, and fence replacement, and no mitigation is required.

Mitigation Measures

For the multi-use trail, pedestrian boardwalks, viewing platforms, interpretive signage, and removal and replacement of fencing, no mitigation is required for permanent construction-related impacts on riparian habitat, for construction-related nighttime lighting or noise impacts on wildlife, or for operational impacts.

However, the proposed project would implement the following mitigation measures to reduce potentially significant temporary construction-related impacts on riparian habitat from construction of the multi-use trail, pedestrian boardwalks, viewing platforms, and interpretive signage to **less than significant with mitigation incorporated**. These measures would reduce the impacts because they require providing environmental training to construction crews, delineating the limits of construction around riparian habitat to exclude work within those limits,

[67] Environmental Science Associates, personal observation during reconnaissance-level field survey, September 27, 2019.

and returning any temporarily impacted areas to pre-project conditions through re-vegetation and monitoring.

> **Mitigation Measure BI-1a: General Avoidance and Protection Measures** (refer to Impact BI-1)
>
> **Mitigation Measure BI-2a: Avoidance of Impacts on Riparian Habitat**
>
> **Significance after Mitigation:** With implementation of Mitigation Measures BI-1a and BI-2a, potential impacts on riparian habitat from the multi-use trail, pedestrian boardwalks, viewing platforms, interpretive signage, and removal and replacement of fencing would be **less than significant with mitigation incorporated**.

Impacts of the West San Fernando Street Vehicle Bridge Replacement

Construction Impacts

Replacement of the West San Fernando Street vehicle bridge would involve removing the existing bridge above Los Gatos Creek and the support columns in the creek channel, and replacing them with a clear-span bridge. The replacement bridge would be the same size as the existing bridge, and the new bridge abutments would be of comparable size and in the same location as the existing abutments (top of creek bank). Therefore, replacing the West San Fernando Street vehicle bridge is not expected to result in a permanent loss of riparian habitat or to increase shading in the riparian corridor, and no mitigation is required.

Temporary impacts associated with removal of the existing bridge supports would include re-suspension of sediment, as described under Impact BI-1, *Special-Status Fish*. Additional potential temporary impacts would include construction-related disturbance to riparian vegetation by the workers and heavy equipment in the riparian corridor and creek channel, and the potential for entry of deleterious materials (e.g., hazardous materials, site runoff, sediment) into Los Gatos Creek. Excavators are anticipated to work within the creek channel and riparian corridor during demolition of the existing bridge, and within the riparian corridor during construction of the new bridge. Removal of riparian vegetation in an estimated 25-foot-wide area extending 30 feet down the creek bank on all sides of the bridge placement, for a total temporary impact area of approximately 0.07 acres (3,050 sf), may be required for excavator and crew access during construction. These impacts on riparian habitat would be **potentially significant**.

Lighting and Noise. As described earlier in this impact discussion under *Impacts of the Footbridge*, construction-related increases in artificial night lighting and noise could impact wildlife in the riparian corridor. Construction would occur during the daylight hours (7 a.m. to 7 p.m.). Therefore, impacts on riparian wildlife from construction-related lighting used during replacement of the West San Fernando Street bridge are expected to be **less than significant**, and no mitigation is required.

Noise during construction of the West San Fernando Street bridge could be generated by clearing and grubbing equipment, heavy equipment for demolition and earth-moving, truck trips for materials and spoils, concrete pours or placement of pre-cast bridge abutments, and use of a crane to place the bridge section across Los Gatos Creek. There are several existing disturbances near the stream reach where the West San Fernando Street replacement bridge is planned to be

constructed. For example, the bridge would be replaced at the site of an existing roadway, and homeless encampments are present[68] below the bridge.

Overall, the level of existing disturbance within and adjacent to the riparian corridor makes the riparian habitat in this area conducive only to wildlife species that are tolerant of human activity. These species would likely avoid the area temporarily during construction by moving to other sections of the riparian corridor upstream and downstream of the construction site. In addition, construction would occur during the daylight hours, and equipment would use noise suppression devices as described in General Plan Policy EC-1.7 and SCA NO-1, Construction-Related Noise (refer to Section 3.10, *Noise and Vibration*). Therefore, noise impacts on wildlife from replacement of the West San Fernando Street bridge would be **less than significant**, and no mitigation is required.

Operational Impacts

No new noise or light, or change in use, would be associated with the replacement of the West San Fernando Street vehicle bridge. Therefore, impacts on riparian wildlife from operation of this bridge would be **less than significant**, and no mitigation is required.

Mitigation Measures

For replacement of the West San Fernando Street vehicle bridge, no mitigation is required for permanent construction-related impacts on riparian habitat; construction-related lighting or noise impacts on wildlife; or operational impacts.

However, the proposed project would implement mitigation measures to reduce the potentially significant temporary impacts of replacing the West San Fernando Street vehicle bridge to **less than significant with mitigation incorporated**. These measures would reduce the impacts because they require providing environmental training to construction crews; delineating the limits of construction around riparian habitat to exclude work within those limits; returning any temporarily impacted areas to pre-project conditions through re-vegetation and monitoring; and preparing and implementing a fish relocation plan for in-water work in Los Gatos Creek.

> **Mitigation Measure BI-1a: General Avoidance and Protection Measures** (refer to Impact BI-1)
>
> **Mitigation Measure BI-1b: In-Water Construction Schedule** (refer to Impact BI-1)
>
> **Mitigation Measure BI-1c: Native Fish Capture and Relocation** (refer to Impact BI-1)
>
> **Mitigation Measure BI-2a: Avoidance of Impacts on Riparian Habitat**
>
> **Significance after Mitigation:** With implementation of Mitigation Measures BI-1a, BI-1b, BI-1c, and BI-2a, potential impacts on riparian habitat from construction of the West San Fernando Street vehicle bridge replacement would be **less than significant with mitigation incorporated**.

[68] Environmental Science Associates, personal observation during reconnaissance-level field survey, January 3, 2020.

Impacts of the Utilidor

Construction Impacts

Installation of the utilidor inside the box girder of the new West San Fernando Street bridge would be accomplished off-site and would not require work in or above the channel, or in the riparian corridor; therefore, no impacts on the Los Gatos Creek riparian corridor are anticipated. The utilidor may be installed on the new footbridge either before or after installation of this bridge. Under either scenario, potential temporary impacts would be similar to those of the bridge construction described earlier in this impact discussion under *Impacts of the West San Fernando Street Vehicle Bridge Replacement*: impacts on riparian habitat from heavy equipment in the construction area, and impacts on Los Gatos Creek from construction materials or deleterious (e.g., hazardous materials, site runoff, sediment) materials that could inadvertently enter Los Gatos Creek. These temporary impacts on riparian habitat would be **potentially significant**.

As described in Chapter 2, *Project Description*, and as shown on Figure 2-10, *Preliminary Utilidor Alignment Options*, jack-and-bore construction would be used to construct the utilidor underneath Los Gatos Creek to link Block H with the rest of the site, crossing Los Gatos Creek north of West San Carlos Street. In addition, jack-and-bore construction may be used to construct the utilidor underneath Los Gatos Creek to link Block E with the rest of the site between West Santa Clara Street and the VTA tracks. Jacking and receiving pits, as well as staging areas for jack-and-bore operations, would be located outside of the 50-foot riparian corridor. During jack-and-bore construction, the potential would exist for frac-outs[69] to occur. If a frac-out were to occur, bentonite slurry could be released into Los Gatos Creek, which could degrade water quality, adversely impacting riparian habitat and/or individual steelhead or other aquatic species by increasing suspended sediments. These temporary impacts would be **potentially significant**.

Lighting and Noise. As described earlier in this impact discussion under *Impacts of the Footbridge*, construction-related increases in artificial night lighting and noise could impact wildlife in the riparian corridor. Jack-and-bore construction would occur during the daylight hours (7 a.m. to 7 p.m.). Therefore, nighttime lighting impacts on riparian wildlife associated with installation of the utilidor would be **less than significant**, and no mitigation is required.

Installation of the utilidor within the box girder of the replacement West San Fernando Street vehicle bridge would not occur in or over Los Gatos Creek, and is not expected to have any noise impacts above and beyond installation of the replacement bridge. However, installation of the utilidor under Los Gatos Creek using jack-and-bore methods would require the use of excavators to dig (and fill) jacking and receiving pits and the use of a horizontal auger in upland areas outside of the riparian corridor. These jack-and-bore construction sites include existing disturbances to riparian wildlife typical of urban streams (e.g., homeless encampments within the riparian corridor), and roadways, public transit, businesses, and parking lots adjacent to the riparian corridor.

Overall, the level of existing disturbance within and adjacent to the riparian corridor makes the riparian habitat in this area conducive only to wildlife species that are tolerant of human activity.

[69] A *frac-out* is the condition in which drilling mud is released through fractured bedrock into the surrounding rock and sand and travels toward the surface during directional bore operations such as horizontal directional drilling.

These species would likely avoid the area temporarily during construction by moving to other sections of the riparian corridor upstream and downstream of the construction site. In addition, construction equipment would use noise suppression devices as described in General Plan Policy EC-1.7 and SCA NO-1, Construction-Related Noise (refer to Section 3.10, *Noise and Vibration*). Therefore, noise impacts on riparian wildlife associated with utilidor construction would be **less than significant**, and no mitigation is required.

Operational Impacts

No new noise or light, or change in use, would be associated with the operation of the utilidor where it crosses Los Gatos Creek. Therefore, impacts on riparian wildlife from operation of the utilidor would be **less than significant**, and no mitigation is required.

Mitigation Measures

For the utilidor construction, no mitigation is required for permanent construction-related impacts on riparian habitat, for construction-related nighttime lighting or noise impacts on wildlife, or for operational impacts.

However, the proposed project would implement the following mitigation measures to reduce potentially significant temporary impacts of installing the utilidor to **less than significant with mitigation incorporated**. These measures would reduce the impacts because they require providing environmental training to construction crews, delineating the limits of construction around riparian habitat to exclude work within those limits, returning any temporarily impacted areas to pre-project conditions through re-vegetation and monitoring, and developing and implementing a frac-out contingency plan.

> **Mitigation Measure BI-1a: General Avoidance and Protection Measures** (refer to Impact BI-1)
>
> **Mitigation Measure BI-2a: Avoidance of Impacts on Riparian Habitat**
>
> **Mitigation Measure BI-2b: Frac-Out Contingency Plan**
>
> If jack-and-bore construction is implemented, the project applicant shall require the contractor to retain a licensed geotechnical engineer to develop a Frac-out Contingency Plan. The project applicant shall submit the contingency plan to the appropriate resource agencies (e.g., the California Department of Fish and Wildlife [CDFW], Regional Water Quality Control Board, U.S. Army Corps of Engineers [USACE], U.S. Fish and Wildlife Service [USFWS], and National Marine Fisheries Service [NMFS]) for review and approval prior to the start of construction of any pipeline that requires jack-and-bore construction to avoid surface waters. The regulatory agency–approved Frac-Out Contingency Plan shall also be submitted to the Director of Planning, Building and Code Enforcement or the Director's designee. The Frac-out Contingency Plan shall be implemented where jack-and-bore construction under a waterway will occur to avoid, minimize, or mitigate potential project impacts during jack-and-bore construction, as specified in the contingency plan. The Frac-out Contingency Plan shall include, at a minimum:
>
> (1) Measures describing training of construction personnel about monitoring procedures, equipment, materials, and procedures in place for the prevention, containment, cleanup (creating a containment area and using a pump, using a

vacuum truck, etc.), and disposal of released bentonite slurry, and agency notification protocols;

(2) Methods for preventing frac-out, including maintaining pressure in the borehole to avoid exceeding the strength of the overlying soil;

(3) Methods for detecting an accidental release of bentonite slurry that include:

(a) Monitoring by a minimum of one qualified biological monitor throughout drilling operations to ensure swift response if a frac-out occurs;

(b) Continuous monitoring of drilling pressures to ensure they do not exceed those needed to penetrate the formation;

(c) Continuous monitoring of slurry returns at the exit and entry pits to determine if slurry circulation has been lost; and

(d) Continuous monitoring by spotters to follow the progress of the drill bit during the pilot hole operation, and reaming and pull back operations;

(4) Protocols that the contractor would follow if there is a loss of circulation or other indicator of a release of slurry; and

(5) Cleanup and disposal procedures and equipment the contractor would use if a frac-out occurs.

If a frac-out occurs, the contractor shall immediately halt work and implement the measures outlined in the Frac-out Contingency Plan to contain, clean up, and dispose of the bentonite slurry. The project applicant and/or contractor shall also notify and coordinate with appropriate regulatory agencies, as required by the Frac-Out Contingency Plan (e.g., CDFW, the Regional Water Quality Control Board, USACE, USFWS, and NMFS) before jack-and-bore activities can begin again.

Significance after Mitigation: With implementation of Mitigation Measures BI-1a, BI-2a, and BI-2b, potential impacts on riparian habitat from the utilidor construction would be **less than significant with mitigation incorporated**.

Impacts of Replacement of the Storm Drain Outfall

Construction Impacts

An existing 18-inch-diameter storm drain outfall into Los Gatos Creek, currently located under the West Santa Clara Street overcrossing, would be replaced with a 33-inch-diameter pipe, headwall and apron, or riprap, on the west bank of Los Gatos Creek south of the Santa Clara Street overcrossing. The new outfall would include a larger flap gate. From the top of bank to approximately 12 feet below the top of bank, this area is vegetated with creeping wild rye, a sensitive natural community. Impacts on creeping wild rye are analyzed in detail later in this impact discussion under *Creeping Wild Rye Sensitive Natural Community*. An additional 20 to 25 feet of riparian vegetation extends from the lower edge of the creeping wild rye down the bank to the channel. CDFW determines the limits of riparian vegetation on a case-by-case basis, but generally defines it as the entire area between the two top-of-bank areas; therefore, for this analysis, the area of the top of bank down to the channel in the immediate area of creeping wild rye is considered riparian habitat.

In the absence of construction drawings, the dimensions of the headwall and apron/riprap have been estimated to calculate permanent impacts on riparian habitat. Assuming a 33-inch-diameter outfall pipe; an 8-foot-long, 26-inch-deep footprint for the headwall; and an 8-foot-wide, 15-foot-long apron/area of riprap, the permanent impact on riparian habitat would total approximately 0.008 acres (341 sf). In addition, temporary impacts on riparian habitat could include disturbance caused by workers accessing the site, by clearing and grubbing in preparation for construction, or by the use of construction equipment on the channel banks or in the channel during installation of the storm drain outfall, headwall, and apron/riprap. These impacts would be **potentially significant**.

The project also proposes to construct a new, larger storm drainage pipe in Cinnabar Street in the northern portion of the site, to connect with a new storm drain installed in North Autumn Street. These new storm drainage pipes would connect to an existing outfall east of the former Howard Street—to be increased in size by the City as part of its ongoing Capital Improvement Program—that drains into the Guadalupe River. Project-related construction of larger storm drainage pipes and a new storm drain would occur outside of the riparian corridor and would therefore have no impact on riparian habitat. Potential project-related impacts related to the increased capacity of the storm drain outfall are discussed later in this impact discussion under *Operational Impacts*. Construction to increase the size of the existing storm drain outfall east of the former Howard Street under the City's Capital Improvement Program is addressed under *Cumulative Impacts*.

Lighting and Noise. As described earlier in this impact discussion under *Impacts of the Footbridge*, increases in artificial night lighting and noise during construction could impact wildlife in the riparian corridor. Construction of the storm drain outfall would occur during the daylight hours (7 a.m. to 7 p.m.). Therefore, impacts on riparian wildlife from nighttime lighting used during replacement of the storm drain outfall would be **less than significant**, and no mitigation is required.

During replacement of the storm drain outfall, noise could be generated by clearing and grubbing equipment, earth-moving equipment, truck trips for materials and spoils, and concrete pours. This work would occur adjacent to West Santa Clara Street and would be of limited duration. Overall, the level of existing disturbance within and adjacent to the riparian corridor limits its utility as habitat to wildlife species that are very tolerant of human presence. These species would likely avoid the area temporarily during construction by moving to other sections of the riparian corridor upstream and downstream of the construction site. In addition, construction equipment would use noise suppression devices as described in General Plan Policy EC-1.7 and SCA NO-1, Construction-Related Noise (refer to Section 3.10, *Noise and Vibration*). Therefore, noise impacts on wildlife from replacement of the storm drain outfall would be **less than significant**, and no mitigation is required.

Operational Impacts

No new noise or light would be associated with the operation of the replacement storm drain outfall south of the Santa Clara Street overcrossing. The outfall would discharge stormwater into Los Gatos Creek approximately 50 feet upstream from its current discharge location. Because Los Gatos Creek is a major perennial stream and the proposed new discharge location is so close to the current discharge location, no changes to stream hydrology or riparian vegetation are

anticipated. A concrete apron or riprap would be installed and would protect against erosion. Similarly, the increased capacity of storm drainage pipes in Cinnabar Street in the northern portion of the project site, which would connect to the existing outfall east of the former Howard Street, would result in increased stormwater being discharged into Guadalupe Creek. Because the Guadalupe River is a major perennial stream and the proposed new discharge location is the same as the current location, no changes to stream hydrology or riparian vegetation are anticipated. Therefore, a **less-than-significant** impact on riparian habitat would result from outfall operations, and no mitigation is required.

Mitigation Measures

For the replacement of the storm drain outfall, no mitigation is required for construction-related nighttime lighting or noise impacts on wildlife, or for operational impacts.

However, the proposed project would implement the following mitigation measures to reduce potentially significant construction-related impacts of replacing the storm drain outfall to a level of **less than significant with mitigation incorporated**. These measures would reduce the impacts because they require providing environmental training to construction crews, delineating the limits of construction around riparian habitat to exclude work within those limits, returning any temporarily impacted areas to pre-project conditions through re-vegetation and monitoring, compensating for permanently impacted riparian habitat, and preparing and implementing a fish relocation plan for in-water work in Los Gatos Creek.

> **Mitigation Measure BI-1a: General Avoidance and Protection Measures** (refer to Impact BI-1)
>
> **Mitigation Measure BI-1b: In-Water Construction Schedule** (refer to Impact BI-1)
>
> **Mitigation Measure BI-1c: Native Fish Capture and Relocation** (refer to Impact BI-1)
>
> **Mitigation Measure BI-2a: Avoidance of Impacts on Riparian Habitat**
>
> **Significance after Mitigation:** With implementation of Mitigation Measures BI-1a, BI-1b, BI-1c, and BI-2a, potential impacts on riparian habitat from replacement of the storm drain outfall would be **less than significant with mitigation incorporated**.

Impacts of Demolition, Construction, and Renovation of Buildings and Construction of Buildings for Recreational/Educational Activities

Construction Impacts

The proposed project would include demolition, construction, and renovation (hereafter referred to as "construction") of buildings and construction of various permanent structures for recreational/educational activities—such as program decks, serviced and un-serviced pavilions, and kiosks (refer to Chapter 2, *Project Description*, for description of these elements). These buildings would provide space for uses such as informal gatherings, extension of retail, social seating, commercial concessions, recreational rentals, and educational/learning/exhibit space. Program decks and kiosks would not include amplified music. Pavilions would host live music events but would be entirely enclosed. The project would also include an outdoor performance space in the St. John Triangle open space.

The project proposes 50-foot setbacks from Los Gatos Creek for new building construction and, consistent with the previously approved project on the former San Jose Water Company site, a 30-foot setback from the top of the channel wall along the Guadalupe River at the San Jose Water Company site. In addition, non-historic existing buildings along South Autumn Street (Blocks D8, D9, D10, D11, D12, and D13) that are currently within 50 feet of the riparian corridor may be retained and repurposed, or could be rebuilt within existing building footprints if within the riparian setback.[70] City Policy 6-34 allows consideration of a reduced riparian setback under certain circumstances (see Sections A.2 and A.3 of the policy). Because new structures, including pavilions and kiosks, program decks, and the outdoor performance space, would be constructed a minimum of 50 feet outside of the riparian corridor or within the footprint of existing buildings or previously approved setbacks, permanent impacts on riparian habitat from building construction would be **less than significant**, and no mitigation is required.

However, project construction could temporarily damage riparian vegetation if heavy equipment or workers were to enter the riparian corridor or stage materials there. In addition, equipment leaks, refueling, or improper storage or containment could cause harmful material (e.g., concrete truck washout, sediment) to enter Los Gatos Creek or the Guadalupe River, especially during the rainy season. This impact would be **potentially significant**.

Lighting and Noise. As described earlier in this impact discussion under *Impacts of the Footbridge*, increases in artificial night lighting during construction could impact wildlife in the riparian corridor. Construction would generally occur during the daylight hours (7 a.m. to 7 p.m.), except during 24-hour continuous concrete pours for major building foundations, which could be required for residential/commercial buildings. Construction-related night lighting is only expected to potentially impact wildlife when used for building construction adjacent to the Los Gatos Creek or Guadalupe River riparian corridors. Six blocks in the vicinity of the riparian corridor are planned for new construction: Blocks E1, E2, and E3 (collectively referred to as Block E), and Blocks G1, H2, and H3. This impact would be **potentially significant**.

During building construction, noise would be generated by construction crews, haul trucks, and heavy equipment accessing the construction site via existing primary roadways in Downtown San José, and by the operation of construction equipment such as pile drivers, compactors, excavators, concrete trucks, and other heavy equipment. Construction-related noise from pile driving and heavy equipment could indirectly impact active bird nests in riparian areas during the bird nesting season (February 1 through August 15 [inclusive]) or roosting bats, as described in the discussions under Impact BI-1, under *Nesting Birds* and *Special-Status Bats*. To reduce potentially significant construction-related impacts, the proposed project would implement Mitigation Measure BI-1e, Avoidance of Impacts on Nesting Birds and Mitigation Measure BI-1f, Roosting Bat Surveys. Most building construction activities would occur 50 feet or more from the riparian corridor, in accordance with City Policy 6-34, except in a few locations: where roadways used as haul routes cross Los Gatos Creek, where the former San Jose Water Company building and transformer house on Block E may be rehabilitated within 30 feet of the Guadalupe River, and where existing non-historical buildings within the riparian corridor of the Creekside

[70] City of San José, *Riparian Corridor Protection and Bird-Safe Design* (Policy 6-34), approved August 23, 2016. Available at https://www.sanjoseca.gov/home/showdocument?id=12815.

Walk at South Autumn Street open space may be rehabilitated or redeveloped (as described earlier in this impact discussion). The level of existing disturbance within and adjacent to the riparian corridor makes the riparian habitat in this area conducive only to wildlife species that are tolerant of human activity. These species may avoid the area temporarily during construction by moving to other sections of the riparian corridor upstream and downstream of the construction site. Construction equipment would use noise suppression devices as described in General Plan Policy EC-1.7 and SCA NO-1, Construction-Related Noise (refer to Section 3.10, *Noise and Vibration*). Therefore, noise impacts on wildlife from building demolition, construction, and renovation would be **less than significant with mitigation**.

Operational Impacts

Both the Diridon Station Area Plan EIR[71] and the Downtown Strategy 2040 EIR[72] included a mitigation measure requiring future development within 100 feet of the riparian corridors to analyze the impacts of new shading and thermal radiation from proposed structures on riparian vegetation and creek temperatures to assess potential impacts on fish in the Guadalupe River and Los Gatos Creek. The measure indicated that projects resulting in "a 20 percent or more increase in shade or any increase in average daily temperatures within the river corridor" would be required to alter their design to reduce shading or implement other measures to reduce instream water temperatures, such as increasing setbacks or planting additional shaded riverine aquatic habitat.

No analysis justifying the 20 percent threshold was presented in either of the above-referenced EIRs, or in the prior EIR for the Downtown Strategy 2000,[73] where the 20 percent figure first appeared; in each instance, the 20 percent threshold first appears in a mitigation measure without explanation or analysis. Moreover, none of the three prior EIRs discuss whether the 20 percent threshold is based on an annual total amount of sunlight, one or more individual days, or a calculation at a single worst-case moment in time. Finally, the prior EIRs do not explain the geographic area that is to be considered in the analysis of shading on riparian vegetation. Because shadow cast on riparian vegetation could have more complex effects than can be described with a simple quantitative threshold, this EIR presents a reasoned, qualitative analysis of potential effects.

The following analysis is based on a shadow study prepared by Integral Group, which is included as Appendix L to this Draft EIR. As described in *Approach to Analysis* in Section 3.9, *Land Use*, the shadow analysis assumes that all project buildings would reach the maximum allowable height (180–290 feet) shown in Chapter 2, *Project Description*, Figure 2-5, *Existing and Proposed Zoning Districts*, and would cover the entire footprint of each block on the project site, as shown in Chapter 2, Figure 2-6, *Existing Height Limits and Proposed Height Limits*. The shadow model does not include building setbacks at upper stories, and therefore, is a worst-case

[71] City of San José, *Diridon Station Area Plan EIR.* Final EIR certified June 17, 2014. Available at: https://www.sanjoseca.gov/your-government/departments/planning-building-code-enforcement/planning-division/environmental-planning/environmental-review/completed-eirs/diridon-station-area-plan. Accessed August 24, 2020.

[72] City of San José, *Downtown Strategy 2040 EIR.* Final EIR certified December 18, 2018. Available at: https://www.sanjoseca.gov/your-government/departments/planning-building-code-enforcement/planning-division/environmental-planning/environmental-review/active-eirs/downtown-strategy-2040. Accessed August 24, 2020.

[73] City of San José, *Downtown Strategy 2000 Plan EIR*, adopted in June 2005. Available at https://www.sanjoseca.gov/your-government/departments/planning-building-code-enforcement/planning-division/environmental-planning/environmental-review/completed-eirs/downtown-strategy-2000.

scenario. The analysis evaluates project-generated shadows on the winter solstice (on or around December 21), which is the shortest day of the year when the sun is lowest in the sky and shadows are the longest at any given time of day. To bracket the range of impacts, the analysis also considers the summer solstice (on or around June 21) and the spring/fall equinoxes (on or around March 21 and September 21), during the hours of 10 a.m., 12 noon, and 3 p.m.

Limited new shadow would be cast by the project on the Guadalupe River, and the portion of this reach that is most affected—adjacent to the project's Block E—has no riparian vegetation. Accordingly, shadow effects on the Guadalupe River would be less than significant and are not discussed further.

Under existing conditions, the Los Gatos Creek riparian corridor adjacent to the project site receives minimal shade from buildings. Relatively few existing buildings are adjacent to (or within 100 feet of) the creek, and those that do exist are generally no more than two stories in height. Many existing structures near Los Gatos Creek are single-story buildings. However, as shown in the analysis in Appendix L, development of the proposed project would substantially increase building shadow on the riparian corridor of Los Gatos Creek, particularly during the six months between the fall equinox and the spring equinox. It is important to note that, within the project area, the Los Gatos Creek riparian corridor is composed of a fairly dense riparian canopy of mature trees, which shades the creek; however, the seasonal extent has not been quantified.

Increased water temperatures may result from a reduction in riparian cover due to the substantial increase in shading described above, which may increase the exposure of instream habitat to direct sunlight. In addition, increased water temperatures may result from heat radiation from the newly constructed buildings and hardscape environments. This increased exposure to direct sunlight and/or heat radiation from buildings, and the resulting potential increases in water temperature, could impair the riparian environment. Increased water temperatures may result in the exclusion of fish from this portion of Los Gatos Creek and may prevent steelhead from migrating upstream or dispersing throughout the Los Gatos Creek–Guadalupe River system. Additional impacts on instream habitat may result from a loss of riparian cover, such as decreased prey availability for fish and a lack of cover for holding fish.[74] Some aquatic insects, the primary source of freshwater prey for steelhead, feed on leaves and woody material that fall in the water; terrestrial insects utilizing riparian vegetation occasionally fall into the waterway as well, providing another source of food for fish.

For these reasons, the impact on riparian habitat from shading by adjacent buildings and from changes in water temperature caused by losses in riparian cover or heat island effects would be **potentially significant**.[75]

[74] During downstream migration, most juvenile steelhead move rapidly from their natal reaches to San Francisco Bay. However, a small portion of the juvenile population may hold for up to several months within instream habitat that provides suitable cover, water temperature, and prey.

[75] The *heat island effect* refers to the tendency for built areas to retain solar radiation and heat generated by building heating systems and other human activity and discharge that heat during the cooler evening hours, thereby increasing the ambient temperature in the surrounding area, compared to conditions in a less developed environment.

Noise and Lighting. Operational noise from building equipment, such as heating, ventilation, and air conditioning (HVAC), is expected to be negligible. Pavilions may include commercial concessions, event support space, public restrooms, shared community meeting space, food and beverage service in connection with events, and educational/learning/exhibit space. Some pavilions could be used for live entertainment venues; however, pavilions would be enclosed structures and would not be expected to generate much, if any, outdoor noise. Kiosks may include commercial concessions, newsstands, food and beverage (pre-made), and recreational rentals. Current noise levels adjacent to the riparian corridor in downtown include vehicular and train traffic, commercial and light industrial building operations, and human activity, including homeless encampments. The noise levels associated with concessions, exhibit space and rentals in the vicinity of the riparian corridor are not expected to generate noise levels that are substantially different from noise levels that currently exist. With respect to the outdoor performance space, the noise analysis in Section 3.10, *Noise and Vibration*, explains: "Operators of events at the outdoor performance space would be required to obtain a special event permit from the City to operate any loudspeaker or sound amplifier. Such a permit may establish additional operational conditions such as hours of operation, direction of speakers, or sound level restrictions. Such events would not be regular occurrences, would be restricted by permit conditions to certain hours, and would occur in an area where rail noise occurs multiple times an hour during daytime periods and approximately once an hour into the late evening." The outdoor performance space would be located at least 650 feet from the Guadalupe River riparian corridor and farther than that from the Los Gatos Creek riparian corridor, and would be largely shielded from both waterways by existing buildings. It would also be about half that distance from the Caltrain tracks, which, as noted, are an existing noise source. Therefore, the outdoor performance space would be unlikely to result in any substantial noise impacts on species using riparian habitat along either waterway.

In addition, the proposed project would conform to Sections 20.20.300, 20.30.700, 20.40,600, and 20.50.300 of the City of San José Municipal Code,[76] and would implement **Mitigation Measure NO-1a, Operational Noise Performance Standard** (refer to Section 3.10, *Noise and Vibration*), to limit noise levels through the use of low-noise-emitting HVAC or other strategies.

Traffic noise is expected to increase as development of the proposed project progresses; however, the Los Gatos Creek riparian corridor would be largely buffered from long-term traffic noise because of the open space and buildings between the primary roadways and the riparian corridor. As stated in Section 3.10, *Noise and Vibration* (Table 3.10-10, *Traffic Noise Increases along Roads in the Project Vicinity*), traffic noise would increase substantially (+8.3 A-weighted decibels [dBA]) in only one area where wildlife in the riparian corridor could potentially be impacted: the West San Fernando Street bridge crossing over Los Gatos Creek. Human encampments are present in what is a narrow riparian corridor along this reach.[77]

Overall, the level of existing disturbance within and adjacent to the riparian corridor makes the riparian habitat in this area conducive only to wildlife species that are tolerant of human activity.

[76] These sections of the City's Municipal Code establish performance standards for noise exposure associated with stationary/non-transportation sources at the property line of noise-sensitive uses. Specifically, noise exposure is limited to 55 dBA, 60 dBA, and 70 dBA at the property line of residential, commercial, and industrial receivers.

[77] Environmental Science Associates, personal observation during reconnaissance-level field survey, January 3, 2020.

Therefore, noise impacts from building equipment and traffic would be **less than significant**, and no mitigation is required.

Once constructed, buildings and public gathering areas such as program decks, pavilions, and kiosks in the vicinity of the Los Gatos Creek riparian corridor could increase ambient nighttime light levels if they are operating after dark. Increased ambient nighttime light levels could impact roosting bats and nesting birds in the riparian corridor.[78]

In accordance with the General Plan,[79] the Riparian Corridor Policy Study, [80] the City's Downtown Design Guidelines, and City Policy 6-34, [81] the following guidelines would reduce the potential for new light sources from all types of buildings to negatively impact wildlife in the riparian corridor:

- Design new development to protect adjacent riparian corridors from encroachment of lighting into the riparian zone.
- Design new development to use materials and lighting that reduce light and glare impacts into the riparian corridor.
- Orient exterior lighting fixtures downward.
- Place high-intensity lighting near riparian corridors as close to the ground as possible (e.g., bollard lighting).
- Direct light downward with light sources not visible from riparian area.

In addition, the *Downtown West Design Standards and Guidelines* include standards to avoid light trespass by interior and exterior lighting into the riparian corridor; require fully shielded down-lighting for outdoor building spaces such as paths and decks; require lighting on building façades to use wildlife-friendly lighting within the green-to-yellow light spectrum; and prohibit lights that blink or flash repeatedly (Appendix M). With implementation of these standards and guidelines, impacts on riparian corridors from exterior and interior building lighting would be **less than significant**, and no mitigation is required.

Potential impacts of increased ambient nighttime lighting on birds migrating at night, including in or near riparian corridors, are analyzed under Impact BI-4 and would be **less than significant with mitigation incorporated**.

Mitigation Measures

For the building demolition, construction, and renovation, and construction of program decks, pavilions, and kiosks, no mitigation is required for construction-related noise impacts on wildlife.

---

78 The Diridon Station Area Plan EIR identified a significant unavoidable impact on riparian corridor wildlife, largely because of the inclusion of a ballpark and associated lighting that was planned for the area between Diridon Station and Los Gatos Creek. Because no ballpark was built and a ballpark is not currently proposed, that impact is not relevant to the current project.

79 City of San José, *Envision San José 2040 General Plan*, adopted November 1, 2011 (amended March 16, 2020). Available at https://www.sanjoseca.gov/home/showdocument?id=22359. Accessed August 22, 2020.

80 City of San José Riparian Corridor Policy Study. Approved by City Council May 17, 1994. Revised in March 1999. Available at https://www.sanjoseca.gov/home/showdocument?id=15579. Accessed August 22, 2020.

81 City of San José, *Riparian Corridor Protection and Bird-Safe Design* (Policy 6-34). Approved by City Council August 23, 2016. Available at https://www.sanjoseca.gov/home/showdocument?id=12815. Accessed August 22, 2020.

However, the proposed project would implement the following mitigation measures to reduce potentially significant construction-related permanent impacts on riparian habitat from the construction and operation of program decks, pavilions, and kiosks adjacent to the riparian setback, construction-related temporary impacts on riparian habitat, and construction-related noise and night lighting impacts on riparian wildlife to **less than significant with mitigation incorporated**. These measures would reduce the impacts because they require providing environmental training to construction crews; limiting construction to the non-nesting season for birds when feasible or, if avoiding the nesting season is not feasible, conducting pre-construction surveys for nesting birds and establishing no-disturbance buffers around any active nests to ensure they are not disturbed by construction, and repeating the pre-construction surveys when work resumes after being suspended for 7 days; delineating the limits of construction around riparian habitat to exclude work within those limits; returning any temporarily impacted areas to pre-project conditions through re-vegetation and monitoring; compensating for permanently impacted riparian habitat; and requiring contractors to direct night lighting away from the riparian corridor.

Mitigation Measure BI-1a: General Avoidance and Protection Measures (refer to Impact BI-1)

Mitigation Measure BI-1e: Avoidance of Impacts on Nesting Birds (refer to Impact BI-1)

Mitigation Measure BI-1f: Roosting Bat Surveys (refer to Impact BI-1)

Mitigation Measure BI-2a: Avoidance of Impacts on Riparian Habitat

In addition, the proposed project would implement the following mitigation measures to reduce potentially significant operational impacts on riparian habitat to **less than significant with mitigation incorporated**. These measures would reduce the impacts because they require monitoring water temperatures within Los Gatos Creek to ensure that steelhead are not exposed to harmful conditions (the threshold of concern is 71.6˚F); monitoring riparian vegetation before and after building construction adjacent to the riparian corridor; establishing performance criteria for existing riparian vegetation; and, if performance criteria are not met, implementing habitat enhancement.

Mitigation Measure BI-2c: Monitor Effects of Shading and Heat Island on Riparian Vegetation and Stream Temperature

To evaluate the effects of building shading on riparian vegetation and water temperature in Los Gatos Creek, the project applicant shall implement an annual monitoring program that includes a baseline assessment and continues annually for 15 years following construction. Two or more unshaded reference sites shall be included for comparison to shaded areas to account for vegetation effects that are unrelated to the project, such as from drought. The following performance standards shall be used to evaluate vegetation and water temperature changes over time, and determine whether project-related shading is negatively affecting the riparian corridor, or whether the increased urban footprint is negatively affecting water temperatures in Los Gatos Creek.

Aquatic monitoring. The project applicant shall use the following methodology to study water temperature in Los Gatos Creek during the 15-year monitoring period. Prior to project construction, water and ambient air temperature loggers shall be installed at three locations within and adjacent to the project site. One logger shall be installed in upstream

Los Gatos Creek, one within the affected reach adjacent to building construction, and one downstream of the project site. Care shall be taken to ensure that each of these temperature loggers is installed in similar habitat types (e.g., pool, riffle, run) within similar habitat conditions (e.g., amount of cover, depth, flow rate). Loggers at these three locations shall record hourly water temperature values before, during, and after project construction. If the difference in water temperature between the upstream and downstream monitoring locations increases substantially over time, particularly above the threshold of concern (71.6 degrees Fahrenheit), then additional adaptive actions shall be implemented (e.g., riparian planting, increase in urban tree canopy, treatment of runoff) to compensate for any increase in stream temperature. All actions shall be consistent with the approved Habitat Enhancement Plan, described below.

Riparian monitoring. At a minimum, riparian vegetation shaded by project buildings shall meet the following performance standards by the 15th year of post-project monitoring:

(1) The loss of absolute cover of riparian canopy and understory cover relative to baseline conditions is less than or equal to 15 percent. (If the loss of cover exceeds this criterion, then the change shall be compared with changes measured in the reference site[s] to determine whether on-site shading is the causal factor as opposed to other external regional factors such as climate change, drought, and alterations to reservoir releases.)

(2) There is no more than a 5 percent reduction in native species relative to non-native species for tree and woody shrub species, measured both as species richness and relative cover.

The following approach shall be used to monitor vegetation conditions during the 15-year period:

(1) Prior to the start of building construction within 100 feet of the riparian corridor, the project applicant shall prepare a 15-Year Riparian Vegetation Monitoring Plan to assess the change in riparian vegetation canopy and understory cover in the Los Gatos Creek riparian corridor within 100 feet of the project. The Riparian Vegetation Monitoring Plan shall describe quantitative methods for measuring the canopy and understory vegetation cover of baseline on-site and reference site riparian habitat and changes in the extent and species composition of riparian vegetation canopy following the completion of building construction within 100 feet of the riparian corridor. This plan shall assess the impacts of shading by project buildings on the riparian vegetation. Reference sites shall be chosen that have comparable canopy coverage, species composition, hydrology, topography, and scale from locations on Los Gatos Creek or the Guadalupe River as close to the project site as possible. The Riparian Vegetation Monitoring Plan shall be submitted to the appropriate regulatory agencies (e.g., the California Department of Fish and Wildlife [CDFW]) for review and subsequently to the Director of Planning, Building and Code Enforcement or the Director's designee. The Riparian Vegetation Monitoring Plan shall include, at a minimum, the following elements:

   (a) Methods for monitoring and measuring composition (i.e., species), cover, and extent of existing riparian vegetation, which may include:

      (1) Tree canopy and wood understory cover plots or transects; and

      (2) Percent cover of non-native invasive species.

In addition, monitoring shall include qualitative indicators of riparian vegetation health such as photomonitoring and signs of early decline (e.g., yellowing of leaves, small leaves, poor growth) to allow for early indications that riparian canopy cover and understory vegetation is in decline. Monitoring will also include natural recruitment/succession of native riparian vegetation, by recording observations of seedling and sapling tree species, and tracking their persistence and growth each year.

(b) Pre-project conditions shall be assessed during the late summer before the start of each construction phase that includes construction within 100 feet of the riparian corridor. Post-project monitoring shall be conducted in years 1–15 following the conclusion of each construction phase that includes construction within 100 feet of the riparian corridor. Surveys shall be conducted during the late summer to capture riparian species during their maximum growth.

(c) The project applicant shall prepare and submit to the Director of Planning, Building and Code Enforcement, or the Director's designee, an annual report documenting the monitoring of riparian habitat and any associated habitat enhancement activities. The first-year report shall consist of baseline on-site and reference site monitoring and a plan for habitat enhancement. Reports shall be submitted by December 30 of each monitoring year.

(2) A failure to meet the performance standards defined above in year 5, 10, or 15 shall trigger implementation of the following habitat enhancement measures as mitigation for loss of existing riparian habitat:

(a) Repeat the monitoring the following year (e.g., if performance criteria are not met in year 5, repeat monitoring in year 6). If in the following year (e.g., year 6), performance criteria are not met (i.e., for 2 years in a row), implement step (b), below.

(b) The project applicant shall develop a Habitat Enhancement Plan to be reviewed and approved by appropriate regulatory agencies (e.g., National Marine Fisheries Service), and submitted to the Director of Planning, Building and Code Enforcement, or the Director's designee. The plan shall consist of a planting palette composed primarily of shade-tolerant riparian vegetation such as white alder (*Alnus rhombifolia*), bigleaf maple (*Acer macrophyllum*), box elder (*Acer negundo*), Oregon ash (*Fraxinus latifolia*), California buckeye (*Aesculus californica*), and other locally appropriate native species, as well as an invasive vegetation control plan (if appropriate based on monitoring findings).

(c) The area of plantings needed to offset losses of existing riparian vegetation shall be defined in the Habitat Enhancement Plan based on the documented difference in percent absolute cover of riparian vegetation between the baseline conditions and the percent absolute cover averaged over each year of annual monitoring to date.

(d) Mitigation gains in woody riparian vegetation shall be deemed successful when there is an 80 percent survival rate of plantings after 5 years of additional monitoring, and no increase in percent cover of invasive plant species in restored areas.

(e) If these criteria are not met, adaptive management and corrective actions shall be implemented to achieve the established success criteria, in coordination with the applicable regulatory agencies. These may include additional plantings, weeding, or provision of supplemental water. Monitoring within the corrective action area shall continue for up to 10 additional years, until the criteria are met, or as otherwise required by the applicable regulatory agencies.

(f) The project applicant shall prepare and submit an annual report to the Director of Planning, Building and Code Enforcement, or the Director's designee, documenting the annual monitoring of habitat enhancement activities to document that this performance standard has been satisfied.

Significance after Mitigation: With implementation of Mitigation Measures BI-1a, BI-1e, BI-1f, BI-2a, and BI-2c, potential impacts on riparian habitat from building demolition, construction, and renovation; construction and operation of program decks, pavilions, and kiosks; and shading caused by new buildings would be **less than significant with mitigation incorporated**.

Impacts of Creek Habitat/Flow Conveyance Enhancements

Construction Impacts

To facilitate water conveyance, decrease flooding, and enhance habitat, the project would remove an estimated 4 dead trees and 7 live trees (non-native and native) from the riparian corridor, as well as 13 individual in-channel logs, 3 logjams, 2 logs lodged on the creek bank, and 13 aerial logs within a highly constrained stream reach from West Santa Clara Street to San Carlos Street.

Live trees larger than 6 inches diameter at breast height (dbh) removed by the project would be replaced at a minimum ratio of 3:1 (trees replaced: trees removed) for native species and 2:1 for non-native species. Removal of live trees with a dbh of 2 to 6 inches would be mitigated at a minimum of 1:1 for native trees, and no mitigation for non-native trees. No mitigation is proposed for the removal of invasive tree species regardless of dbh. Removal of dead trees would be mitigated at a ratio of 1:1 (refer to Appendix D2, the *Google Downtown San José Los Gatos Creek Enhancement Project Site Assessment Summary Report*). Replacement trees would consist of a combination of plantings of shade-tolerant riparian vegetation such as Oregon ash (*Fraxinus latifolia*), California buckeye (*Aesculus californica*), and other locally appropriate native species. With implementation of tree replacement at the ratios above, permanent impacts associated with tree removal would be less than significant.

Because some of the logjams and single logs to be removed from the channel provide velocity refugia for steelhead moving through this reach during high flows, approximately five engineered fish habitat enhancement log structures (EFHELS) would be installed in the Los Gatos Creek channel to mitigate the removal of three logjams and several additional logs currently present in the channel, by creating habitat and high velocity refuge for steelhead. In addition, placing these structures would help to slow streamflow velocity and retain coarse sediment within the reach. All proposed work would need to be developed based on further field studies, design work,

collaboration and approval with the site owner (Valley Water), and review and permitting by relevant regulatory agencies, especially NMFS and CDFW.[82]

The placement of EFHELS, while beneficial to steelhead, would be a permanent impact of fill in potentially jurisdictional waters. Drawings representing the footprint of these structures are not available, so their size has been estimated by assuming that each EFHEL would be a log structure with root ball that would be anchored in the creek bank. Assuming that each log would be 18 feet long with a 2-foot-diameter trunk and a 6-foot-diameter root ball, and assuming that 12 feet of the trunk would be anchored in the creek bank and covered with rock, permanent impacts on riparian habitat would be 24 sf per EFHELS, or 120 sf for all five structures. Because a portion of the EFHELS would be placed in the creek, which would be a permanent impact on potentially jurisdictional waters, that impact is presented under Impact BI-3.

Removing trees and logjams from the instream channel and banks would result in a temporary loss of steelhead habitat until EFHELS are placed in the creek. Both of these activities would occur in-channel, and therefore, would occur outside of the normal rainy season, as described in Mitigation Measure BI-1b, In-Water Construction Schedule. The removal of logjams and logs and installation of EFHELS is assumed to occur during the same dry season, and therefore, would not impact steelhead moving through the reach during high flows.

In addition, removing trees and logjams from the in-stream channel and banks may cause sediment re-suspension and impacts on water quality similar to those described under Impact BI-1. However, in-channel work would be conducted during the summer months when streamflow is at its lowest and steelhead are least likely to be present. Should in-water work be required during the removal or placement of log structures, a fish rescue and relocation would be implemented to prevent any impact of construction on steelhead as described in Mitigation Measure BI-1c, Native Fish Capture and Relocation.

Mitigation Measures

In addition to implementing appropriate sediment and erosion control measures and containing potential chemical contaminants, the proposed project would implement the following mitigation measures to reduce potentially significant impacts to **less than significant with mitigation**. These measures would reduce the impacts because they require providing environmental training to construction crews; delineating the limits of construction around riparian habitat to exclude work within those limits; conducting in-water work outside of the rainy season; dewatering,

[82] H. T. Harvey and Associates, *Google Downtown San José Los Gatos Creek Enhancement Project Site Assessment Summary Report*, March 5, 2020.

capturing, and relocating fish out of the construction area if water is present in Los Gatos Creek; and returning any temporarily impacted areas to pre-project conditions.

> **Mitigation Measure BI-1a: General Avoidance and Protection Measures** (refer to Impact BI-1)
>
> **Mitigation Measure BI-1b: In-Water Construction Schedule** (refer to Impact BI-1)
>
> **Mitigation Measure BI-1c: Native Fish Capture and Relocation** (refer to Impact BI-1)
>
> **Mitigation Measure BI-2a: Avoidance of Impacts on Riparian Habitat**
>
> **Significance after Mitigation:** With implementation of Mitigation Measures BI-1a, BI-1b, BI-1c, and BI-2a, potential impacts on special-status fish and habitat from instream enhancement activities would be **less than significant with mitigation incorporated**.

Conclusion Regarding Impact BI-2

In summary, if any project components analyzed above could permanently or temporarily impact riparian habitat, the proposed project would require permit authorization from some or all of the following agencies:

- CDFW (a Streambed Alteration Agreement [CFGC Section 1600 et seq.])
- NMFS (informal or formal consultation under FESA Section 7(c) [16 USC 1536(c) and Code of Federal Regulations Title 50, Section 402.12])
- San Francisco Bay Regional Water Quality Control Board (CWA Section 401 certification)
- USACE (CWA Section 404 permit)
- Valley Water (project review and approval; encroachment permit)
- Santa Clara Valley Habitat Agency (review for consistency with the Santa Clara Valley Habitat Plan [Habitat Plan])

(Refer to Section 3.2.2, *Regulatory Framework*, and Chapter 2, Section 2.15.2, *Other State, Regional, and Local Entities*.)

In addition to the SWPPP that would be required under the NPDES General Construction Permit, as described under the *Special-Status Fish* analysis in Impact BI-1, the proposed project would implement the following mitigation measures to reduce significant impacts on riparian habitat:

> **Mitigation Measure BI-1a: General Avoidance and Protection Measures** (refer to Impact BI-1)
>
> **Mitigation Measure BI-1b: In-Water Construction Schedule** (refer to Impact BI-1)
>
> **Mitigation Measure BI-1c: Native Fish Capture and Relocation** (refer to Impact BI-1)
>
> **Mitigation Measure BI-1e: Avoidance of Impacts on Nesting Birds** (refer to Impact BI-1)
>
> **Mitigation Measure BI-1f: Roosting Bat Surveys** (refer to Impact BI-1)
>
> **Mitigation Measure BI-2a: Avoidance of Impacts on Riparian Habitat**

Mitigation Measure BI-2b: Frac-Out Contingency Plan

Mitigation Measure BI-2c: Monitoring of Effects of Shading and Urban Heat Retention on Riparian Vegetation and Stream Temperature

Mitigation Measure HY-3b: Plan for Ongoing Creek Maintenance (refer to Section 3.8, *Hydrology and Water Quality*)

Mitigation Measure NO-1a: Operational Noise Performance Standard (refer to Section 3.10, *Noise and Vibration*)

Significance after Mitigation: Less than significant.

The project would also follow the guidelines in City Policy 6-34 (riparian corridor protection) and Environmental Resource Policy ER-6.3 in the General Plan. These policies are summarized in Section 3.2.2, *Regulatory Framework*, and analyzed for project consistency under Impact BI-5, below.

Creeping Wild Rye Sensitive Natural Community

As described in Section 3.2.1, *Environmental Setting*, the majority of the project site is disturbed urban land, but a sensitive natural community dominated by creeping wild rye is present in the riparian corridor of Los Gatos Creek directly south of West Santa Clara Street (refer to Figure 3.2-1).

As part of the proposed project, a new footbridge is planned to span Los Gatos Creek between West Santa Clara Street and the railroad tracks north of West San Fernando Street. The footbridge is expected to be placed approximately midway between West Santa Clara Street and the railroad tracks (refer to Figure 2-7, *Open Space Plan*).

As described earlier in this impact discussion, re-construction of the storm drain outfall south of the West Santa Clara Street overcrossing could temporarily and permanently impact creeping wild rye habitat, which would be a **potentially significant** impact. Additionally, construction of the pedestrian boardwalk adjacent to the existing building on Block D8 (450 West Santa Clara Street), south of West Santa Clara Street and along the edge of the riparian corridor, could temporarily affect creeping wild rye habitat through ground disturbance; this impact is not anticipated to be permanent because the elevated and permeable design of the boardwalk would allow regrowth of creeping wild rye. Because the creeping wild rye is within the riparian corridor, the temporary and permanent impacts are quantified under the *Riparian Habitat* section, above.

To reduce the potentially significant impact on creeping wild rye habitat, the proposed project would implement the following mitigation measures:

- Mitigation Measure BI-2a, Avoidance of Impacts on Riparian Habitat
- Mitigation Measure BI-2d, Avoidance and Protection of Creeping Wild Rye Habitat

Implementing these mitigation measures would reduce impacts to **less than significant with mitigation incorporated**. These measures would reduce the impacts because they require conducting worker environmental awareness training for construction personnel regarding

protection of creeping wild rye habitat; installing fencing to delineate any creeping wild rye habitat; and returning any temporarily impacted areas to pre-project conditions through re-vegetation and monitoring.

Mitigation Measures for Impacts on Creeping Wild Rye Sensitive Natural Community

Mitigation Measure BI-2a: Avoidance of Impacts on Riparian Habitat (refer to Impact BI-1)

Mitigation Measure BI-2d: Avoidance and Protection of Creeping Wild Rye Habitat

Prior to the start of construction within 20 feet of retained areas of creeping wild rye, the project applicant shall ensure that all areas that contain or potentially contain creeping wild rye are clearly delineated, separated, and protected from the work area by environmentally sensitive area fencing, which shall be maintained throughout the construction period. A qualified biologist shall oversee the delineation and installation of fencing. Excavation, vehicular traffic, staging of materials, and all other project-related activity shall be located outside of the environmentally sensitive area.

If creeping wild rye cannot be avoided, any temporarily affected areas shall be restored to pre-construction conditions or better at the end of construction that occurs within 20 feet of the retained area of creeping wild rye. At a minimum, the restoration sites shall meet the following performance standards by the fifth year after restoration:

(1) Temporarily affected areas shall be returned to pre-project conditions or better.

(2) Native vegetation cover shall be at least 70 percent of the baseline native vegetation cover in the impact area.

(3) No more cover by invasive species shall be present than in the baseline/impact area.

Restoration shall be detailed in a habitat mitigation and monitoring plan, which shall be developed before the start of construction and in coordination with permit applications and/or conditions. At a minimum, the plan shall include:

(1) Name and contact information for the property owner of the land on which the mitigation will take place;

(2) Identification of the water source for supplemental irrigation, if needed;

(3) Identification of depth to groundwater;

(4) Topsoil salvage and storage methods for areas that support special-status plants;

(5) Site preparation guidelines to prepare for planting, including coarse and fine grading;

(6) Plant material procurement, including assessment of the risk of introduction of plant pathogens through the use of nursery-grown container stock vs. collection and propagation of site-specific plant materials, or use of seeds;

(7) A planting plan outlining species selection, planting locations, and spacing for each vegetation type to be restored;

(8) Planting methods, including containers, hydroseed or hydromulch, weed barriers, and cages, as needed;

(9) Soil amendment recommendations, if needed;

(10) An irrigation plan, with proposed rates (in gallons per minute), schedule (i.e., recurrence interval), and seasonal guidelines for watering;

(11) A site protection plan to prevent unauthorized access, accidental damage, and vandalism;

(12) Weeding and other vegetation maintenance tasks and schedule, with specific thresholds for acceptance of invasive species;

(13) Performance standards by which successful completion of mitigation can be assessed relative to a relevant baseline or reference site, and by which remedial actions will be triggered;

(14) Success criteria that shall include the minimum performance standards described in Mitigation Measure BI-2a, Avoidance of Impacts on Riparian Habitat, and Mitigation Measure BI-2d, Avoidance and Protection of Creeping Wild Rye Habitat;

(15) Monitoring methods and schedule;

(16) Reporting requirements and schedule;

(17) Adaptive management and corrective actions to achieve the established success criteria; and

(18) An educational outreach program to inform operations and maintenance departments of local land management and utility agencies of the mitigation purpose of restored areas to prevent accidental damages.

The Habitat Mitigation and Monitoring Plan and all field documentation, prepared in coordination with the appropriate regulatory agencies, shall be submitted to the Director of the City of Planning, Building and Code Enforcement or the Director's designee for review and approval prior to the issuance of any demolition, grading, or building permit for construction that would occur within 20 feet of creeping wild rye habitat.

Significance after Mitigation: Less than significant.

Impact BI-3: The proposed project could have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means. ***(Less than Significant with Mitigation)***

During reconnaissance surveys conducted on September 27, 2019, and January 3, 2020, Environmental Science Associates biologists estimated the areas of potentially jurisdictional wetlands and waters of the United States and the state that could be impacted by the proposed project. As shown in **Table 3.2-5**, several features in the study area have riverine habitat and potential instream wetlands. These features are considered navigable waters of the United States; therefore, they are "jurisdictional" waters regulated by USACE under Section 10 of the Rivers and Harbors Act and CWA Section 404. These waters are also regulated by the San Francisco Bay Regional Water Quality Control Board and CDFW as waters of the state and streams.

TABLE 3.2-5
POTENTIALLY JURISDICTIONAL WETLANDS AND WATERS OF THE UNITED STATES AND THE STATE IN THE PROJECT AREA

Location	Riverine (i.e., channel width)	Potential Instream Wetlands
Guadalupe River north and south of West Santa Clara Street, north of State Route 87 (adjacent to the project area)	60–80 feet	None observed
Los Gatos Creek, south of West Santa Clara Street, north of West San Fernando Street	20 feet	5–8 feet of bank on either side of channel
Los Gatos Creek, north of West Santa Clara Street to the 250-foot project buffer	20 feet	5–8 feet of bank on either side of channel
Los Gatos Creek east of South Autumn Street, between West San Fernando Street and Park Avenue	20 feet	5–8 feet of bank on either side of channel
Los Gatos Creek, northeast of West San Carlos Street, southwest of South Montgomery Street	20 feet	5 feet of bank on either side of channel
Los Gatos Creek west of the railroad tracks, between West San Carlos Street and Auzerais Avenue	20 feet	5 feet of bank on either side of channel
Los Gatos Creek under West San Fernando Street (bridge replacement site)	35–50 feet	None observed

SOURCE: Data compiled by Environmental Science Associates in 2019.

The proposed project would construct a new footbridge over Los Gatos Creek south of West Santa Clara Street and replace a vehicle bridge where West San Fernando Street crosses over the creek. No in-water work is anticipated for construction of the new footbridge; the footbridge would be a clear-span bridge with footings placed outside of the channel, away from jurisdictional wetlands and waters. Direct impacts of the new footbridge on jurisdictional waters would be limited to shading, and ecological effects on the surrounding riparian area or creek would be negligible. Shading impacts are expected to be less than significant, given the assumed modest size of the footbridge relative to the extensive shading of Los Gatos Creek along this reach by a broad canopy of mature trees in the riparian corridor.

Replacing the West San Fernando Street bridge would involve removing bridge supports from Los Gatos Creek before installing a new clear-span bridge. Direct disturbance of the stream bottom for removal of the bridge footings could impact jurisdictional waters of the United States and state. The existing abutments are located on the banks of Los Gatos Creek and extend from the channel to the top of bank. The abutments for the replacement bridge would be supported on piles that are expected to occupy the same or smaller footprint as the existing abutments; therefore, the new abutments are not expected to impact jurisdictional waters. In addition, because the replacement bridge is expected to be the same width as the existing bridge, no shading impacts are anticipated. Installing the utilidor in the new West San Fernando Street bridge would not require work in or above the channel, or in the riparian corridor. Thus, **less-than-significant impacts** on jurisdictional waters are anticipated in association with the utilidor crossing.

As described under Impact BI-2, above, approximately five engineered fish habitat enhancement log structures would be installed in the Los Gatos Creek channel to mitigate the removal of three logjams and several additional logs currently present in the channel. The placement of these

EFHELS, while beneficial to steelhead, would be a permanent impact of fill in potentially jurisdictional waters. Drawings representing the footprint of these structures are not available, so the size has been estimated assuming that each EFHEL would be a log structure with root ball that would be anchored in the creek bank. In addition, a 6-foot portion of each 2-foot-diameter EFHELS, as well as their 6-foot-diameter root balls, would be placed in the creek. The permanent impact for would be 125 sf for each EFHELS, or a total of 625 sf, for all five structures.

The resource agencies consider placement of structures within, as well as over, jurisdictional features to be a potentially significant impact. Construction drawings are not yet available, nor has a wetland delineation been completed; therefore, the potential for portions of the proposed outfall, headwall, and apron, described in detail under Impact BI-2, to result in a permanent impact on wetlands cannot be dismissed. Project construction–related activities such as access, equipment staging, or placement of EFHELS or temporary structures in the channel or instream wetlands could temporarily impact federal and/or state jurisdictional waters by causing sediment suspension and, potentially, minor amounts of erosion from the work or access occurring on the creek bank. This impact would be **potentially significant**.

To reduce this potentially significant impact, the proposed project would implement the following mitigation measures:

- Mitigation Measure BI-1a, General Avoidance and Protection Measures
- Mitigation Measure BI-2a, Avoidance of Impacts on Riparian Habitat
- Mitigation Measure BI-2d, Avoidance and Protection of Creeping Wild Rye Habitat
- **Mitigation Measure BI-3, Avoidance of Impacts on Wetlands and Waters**

Implementing these mitigation measures would reduce impacts on wetlands and other jurisdictional waters to **less than significant with mitigation incorporated**. These measures would reduce the impacts because they require providing worker environmental awareness program training to construction personnel regarding protection of jurisdictional waters; delineating the limits of the riparian corridor to exclude work within those limits and returning any temporarily impacted riparian habitat areas to pre-project conditions through re-vegetation and monitoring; conducting a wetland delineation and preparing a wetland delineation report; and minimizing disturbance to wetlands by keeping construction activity at least 50 feet away, and restoring the bed and bank of streams to pre-construction conditions.

In addition, for work in and over the creek channel, CDFW, the San Francisco Bay Regional Water Quality Control Board, and USACE would require specific permits, including a CFGC Section 1602 permit (also known as a Streambed Alteration Agreement), CWA Section 401 certification, and CWA Section 404 permit, respectively. In addition, Valley Water may require project review and approval and an encroachment permit. (Refer to Section 3.2.2, *Regulatory Framework*, and Chapter 2, Section 2.15.2, *Other State, Regional, and Local Entities*, for more details.)

Mitigation Measures

Mitigation Measure BI-1a: General Avoidance and Protection Measures (refer to Impact BI-1)

Mitigation Measure BI-2a: Avoidance of Impacts on Riparian Habitat (refer to Impact BI-2)

Mitigation Measure BI-2d: Avoidance and Protection of Creeping Wild Rye Habitat (refer to Impact BI-2)

Mitigation Measure BI-3: Avoidance of Impacts on Wetlands and Waters

The project applicant for the specific construction activity to be undertaken and its contractors shall minimize impacts on waters of the United States and waters of the state, including wetlands, by implementing the following measures:

- A preliminary jurisdictional delineation of wetlands shall be prepared to determine the extent of waters of the United States and/or waters of the state within the project component footprints and anticipated construction disturbance areas. The results shall be summarized in a wetland delineation report to be submitted to the Director of the City of San José Department of Planning, Building and Code Enforcement, or the Director's designee, for review and approval before the issuance of any demolition, grading, or building permit for construction activity within the riparian corridor. Wetlands identified in the report shall be avoided through project design, if feasible. All identified avoidance and protection measures shall be included on the plans for proposed demolition, grading, and/or building permits for construction activities within the riparian corridor.
- The proposed project shall be designed to avoid, to the extent practical, work within wetlands and/or waters under the jurisdiction of U.S. Army Corps of Engineers (USACE), the San Francisco Bay Regional Water Quality Control Board, and/or the California Department of Fish and Wildlife (CDFW). If applicable, permits or approvals shall be sought from the above agencies, as required. Where wetlands or other water features must be disturbed, the minimum area of disturbance necessary for construction shall be identified and the area outside avoided.
- Before the start of construction within 50 feet of any wetlands and drainages, appropriate measures shall be taken to ensure protection of the wetland from construction runoff or direct impact from equipment or materials, such as the installation of a silt fence, and signs indicating the required avoidance shall be installed. No equipment mobilization, grading, clearing, or storage of equipment or machinery, or similar activity, shall occur until a qualified biologist has inspected and approved the fencing installed around these features. The construction contractor for the specific construction activity to be undertaken shall ensure that the temporary fencing is maintained until construction activities are complete. No construction activities, including equipment movement, storage of materials, or temporary spoils stockpiling, shall be allowed within the fenced areas protecting wetlands.
- Where disturbance to jurisdictional wetlands or waters cannot be avoided, any temporarily affected jurisdictional wetlands or waters shall be restored to pre-construction conditions or better at the end of construction, in accordance with the requirements of USACE, San Francisco Bay Regional Water Quality Control Board, and/or CDFW permits. Compensation for permanent impacts on wetlands or waters shall be provided at a 1:1 ratio, or as agreed upon by CDFW, USACE, and the San Francisco Bay Regional Water Quality Control Board, as applicable. Compensation for loss of wetlands may be in the form of permanent on-site or off-

site creation, restoration, enhancement, or preservation of habitat. At a minimum, the restoration or compensation sites shall meet the following performance standards by the fifth year after restoration:

(1) Temporarily affected areas shall be returned to pre-project conditions or better.

(2) Wetlands restored or constructed as federal wetlands meet the applicable federal criteria for jurisdictional wetlands, and wetlands restored or constructed as state wetlands meet the state criteria for jurisdictional wetlands.

(3) No more cover by invasive species shall be present than in the baseline/impact area pre-project.

Restoration and compensatory mitigation activities shall be described in the habitat mitigation and monitoring plan prescribed by Mitigation Measure BI-2a, Avoidance of Impacts on Riparian Habitat.

Significance after Mitigation: Less than significant.

Impact BI-4: The proposed project could interfere substantially with the movement of a native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites. *(Less than Significant with Mitigation)*

Native Wildlife Movements

The study area encompasses several reaches of Los Gatos Creek with riparian habitat that could provide movement corridors for native wildlife species. Riparian habitat provides movement corridors for native mammals such as Columbian black-tailed deer (*Odocoileus hemionus columbianus*), raccoon, and western gray squirrel (*Sciurus grisius*). Riparian habitat also provides corridors for bird dispersal, as well as breeding grounds and overwintering and migration stopover sites.[83] The proposed project would include construction and ongoing use of a public access trail that would be either within or adjacent to the riparian corridor along a 600-foot section of Los Gatos Creek east of Autumn Street (refer to Figure 2-7, *Open Space Plan*).

The project area is located within the Pacific Flyway along the southern shoreline of San Francisco Bay. Although specific migratory corridors near the project area are unknown, it can be assumed that numerous birds pass overhead or in the project vicinity during their spring and fall migrations. Existing buildings in the project area are one and two stories tall (10 to 20 feet high), whereas the heights of the project's buildings are expected to range between approximately 25 and 290 feet, or 2 to 20 stories high (excluding mechanical structures mounted on roofs). The portion of buildings most likely to sustain bird strikes extends from ground level to 60 feet above the ground surface.[84]

---

[83] Riparian Habitat Joint Venture, *The Riparian Bird Conservation Plan: A Strategy for Reversing the Decline of Riparian Associated Birds in California*, Version 2.0, California Partners in Flight, 2004. Available at http://www.rhjv.org/.

[84] San Francisco Planning Department, *Standards for Bird-Safe Buildings*, adopted July 14, 2011.

The proposed project is likely to increase the amount of glass in the built environment, given the increased height and surface area of the newly constructed buildings. Typically, as building size increases, so does the amount of glass, making larger buildings more of a collision threat to birds.[85] Daytime collisions with glass occur most often when birds fail to recognize window glass because it reflects the sky, clouds, and vegetation in the absence of protective window treatments (e.g., frit) or because the glass is transparent (e.g., in the case of skywalks, or glass corners in buildings). Birds may also move through the urban environment while moving from one riparian habitat to another.

Many bird collisions are also induced by artificial night lighting, particularly from large buildings, which can be especially problematic for migrating songbirds because many are nocturnal migrants.[86] Research suggests that fatal bird collisions increase as light emissions increase.[87] The project area is located in a generally urban industrial setting and surrounded by other light sources that contribute to ambient light levels at night; however, the proposed project would increase the amount of nighttime lighting and glare in the built environment because of the infill of vacant parcels and increased height and surface area of newly constructed buildings, which would include interior and exterior illumination. Artificial night lighting from nearby buildings could also impact wildlife in the riparian corridor by causing wildlife to avoid lighted areas, which may expose them to predation, as discussed in Impact BI-2 (riparian habitat).

Direct effects on migratory and resident birds moving through an area could include death or injury if birds collide with lighted structures or with glass during the daytime or nighttime. Indirect effects on migratory birds could include delayed arrival at breeding or wintering grounds, and reduced energy stores necessary for migration, winter survival, or subsequent reproduction.[88] Because of the scale of the proposed project and its proximity to riparian corridors, the impact of the proposed project on movement corridors for native wildlife would be **potentially significant**.

As summarized in Section 3.3.2, *Regulatory Framework*, the City's *San José Downtown Design Guidelines* include guidelines and standards for minimizing bird collisions with the built environment, including the following requirements that the project must meet:

- Avoid the use of mirrors, large areas of reflective glass, and areas of glass through which natural features are visible.
- Use bird safety treatments on certain applications of glass or façades (e.g., in the vicinity of riparian corridors).
- Strategically place landscaping to reduce reflection and views of foliage inside or through glass.
- Avoid or minimize up-lighting and spotlights on buildings.

85 San Francisco Planning Department, *Standards for Bird-Safe Buildings*, adopted July 14, 2011.
86 Ogden, L. E., *Collision Course: The Hazards of Lighted Structures and Windows to Migrating Birds, Special Report for the World Wildlife Fund Canada and the Fatal Light Awareness Program*, September 1996. Available at https://digitalcommons.unl.edu/cgi/viewcontent.cgi?article=1002&context=flap.
87 Verheijen, F. J., Bird Kills at Lighted Man-Made Structures: Not on Nights Close to a Full Moon, *American Birds* 35(3):251–254, 1981.
88 Gauthreaux, S. A., and C. G. Belser, Effects of Artificial Night Lighting on Migrating Birds, in *Ecological Consequences of Night Lighting*, eds. C. Rich and T. Longcore, Covelo, CA: Island Press, 2006.

- Turn off decorative exterior lighting between 2 a.m. and 6 a.m. except during June, July, December, and January due to bird migration.

Refer to Section 3.2.2, *Regulatory Framework*, for more details.

In addition to the City's guidelines and standards, the proposed project would implement **Mitigation Measure BI-4, Avian Collision Avoidance Measures**, to reduce this potential adverse impact on bird movement corridors. This measure would reduce the impact to **less than significant with mitigation incorporated** because it requires educating building occupants to reduce night lighting impacts on birds, and minimizing the impacts of antennas, monopole structures, and rooftop elements that could pose bird collision hazards. In addition, the General Plan includes Environmental Resource Policy ER-6.3, summarized in Section 3.3.2, *Regulatory Framework*, which recommends practices for limiting nighttime light pollution near natural areas, including riparian habitat.

Native Wildlife Nursery Sites

Native wildlife nursery sites in the study area would primarily include communally roosting birds and bats, or individual nesting birds and roosting bats. Potential impacts and mitigation measures on individual nesting birds and bats and communally roosting bats are discussed under Impact BI-1. Birds such as herons and egrets that nest in groups, and whose communal nesting sites are referred to as rookeries, are not documented to nest in the Los Gatos Creek riparian corridor;[89] therefore, project impacts would be **less than significant** on native wildlife nursery sites.

Mitigation Measures

Mitigation Measure BI-4: Avian Collision Avoidance Measures

In addition to conforming to the bird safety standards and guidelines in the City's Downtown Design Guidelines, and the General Plan, the following mitigation measures shall be implemented:

Educating Residents and Occupants. Prior to issuance of any building permits, the project applicant shall develop educational materials for building tenants, occupants, and residents, encouraging them to minimize light transmission from windows, especially during peak spring and fall migratory periods, by turning off unnecessary lights and/or closing window coverings at night. The Director of Planning, Building and Code Enforcement or the Director's designee shall review and approve the educational materials before buildings are occupied. The project applicant shall also supply documentation (e.g., written statement) describing when and how the materials will be distributed (e.g., poster in building lobby, attachment to lease, new-tenant welcome packet). Documentation shall be submitted to the Director of Planning, Building and Code Enforcement or the Director's designee.

Antennae, Monopole Structures, and Rooftop Elements. Prior to issuance of any building permits, the project applicant shall provide documentation (e.g., construction drawings) that buildings minimize the number of and co-locate rooftop antennas and other rooftop

[89] California Department of Fish and Wildlife, California Natural Diversity Database special-status species locations in GIS file format, version: September 4, 2019. Available at https://www.wildlife.ca.gov/Data/CNDDB/Data-Updates.

equipment, and that monopole structures or antennas on buildings do not include guy wires. The documentation shall be reviewed and approved by a wildlife biologist before issuance of the site development permit for the project component (e.g., building) that poses a collision risk for birds. Documentation shall be submitted to the Director of Planning, Building and Code Enforcement or the Director's designee.

Significance after Mitigation: Less than significant.

Impact BI-5: The proposed project would not conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance. *(Less than Significant*)

The local policies relevant to the biological resources present, or with potential to occur, in the study area include the General Plan, City Policy 6-34 (riparian corridor protection), the City of San José Tree Removal Permit Requirements and Controls, and City of San José SCA BI-2, Tree Replacement. These policies, summarized in detail in Section 3.2.2, *Regulatory Framework*, are analyzed for project consistency below.

Envision San José 2040 General Plan

The proposed project is consistent with Major Strategy #10, *Life Amidst Abundant Natural Resources*, because the project incorporates access to open space, including parks and the Los Gatos Creek riparian corridor (refer to Figure 2-7, *Open Space Plan*). In addition, the proposed project would implement the following General Plan policies:

- **Riparian Corridors Policies ER-2.1 through ER-2.5**, which include: consistency with City's Riparian Corridor Policy Study (refer to Section 3.2.2, *Regulatory Framework*); the inclusion of appropriate setbacks near riparian corridors; design of new development to protect riparian habitat from encroachment of lighting, glare, and noise; implementation of mitigation measures to restore riparian habitat following temporary and permanent impacts, including for fish passage during construction; and restoration of riparian habitat through native plant restoration along riparian corridors. (Also refer to Mitigation Measures BI-2a and BI-3, and discussion of Policy 6-34 under Impact BI-4.)
- **Migratory Birds Policies ER-5.1 and ER-5.2**, which include avoidance and protection of active bird nests during the nesting season. (Also refer to Mitigation Measures BI-1a and BI-1e.)
- **Urban Natural Interface Policies ER-6.3, ER-6.5, and ER-6.8**, which include: employing low-glare lighting in areas developed adjacent to natural areas, including riparian woodlands, and placing high-intensity lighting in these areas as close to the ground as possible and directed downward; prohibiting the use of invasive species in landscaping; and designing and constructing development to avoid changes in drainage patterns across natural areas. (Also refer to the discussion of Policy 6-34 under Impact BI-2, and Mitigation Measure BI-4.)
- **Community Forest Policies MS-21.5, MS-21.6, MS-21.8, and MS-21.9**, which include: preserving protected trees, and when preserving protected trees is not feasible, replacing trees; requiring planting of street trees as a condition of new development; requiring replacement of street trees removed for the project; requiring landscaping to avoid the use of invasive, non-native species; removing existing invasive, non-native trees; and

incorporating locally native tree species propagated from local sources (preferably the same watershed) into landscape planting adjacent to natural plant communities, such as riparian forest.

- **General Provision of Infrastructure Policy IN-1.11**, which includes locating and designing utilities to avoid or minimize impacts on environmentally sensitive areas and habitats. For example, where the utilidor for the proposed project would cross Los Gatos Creek, it would be placed inside the box girder structure of the replacement vehicle bridge at West San Fernando Street, avoiding impacts on the creek.
- **Community Design Policies—Attractive City Policy CD-1.24**, which includes preservation of ordinance-sized and other significant trees, particularly native species, and when preservation is not feasible, including replacements or alternative mitigation measures in the project to maintain and enhance the City's community forest. (Also refer to the City of San José Tree Removal Permit Requirements and Controls, and the City's SCA BI-2, Tree Replacement, below.)

City of San José Riparian Corridor Protection and Bird-Safe Design (Policy 6-34)

Riparian projects in San José are subject to design guidelines, including a riparian setback in certain areas, as defined by the City's Policy 6-34. Generally, this policy prescribes a standard 100-foot setback requirement for new buildings, roads, and active recreational uses in the vicinity of riparian corridors; however, a reduced setback may be considered under limited circumstances, including when the development is located within the boundaries of the Downtown area, as defined in the General Plan (additional detail is provided in Section 3.2.2, *Regulatory Framework*). The project site is located in the designated Downtown area, as identified in the General Plan, making the project eligible for a reduced setback of 50 feet from the Los Gatos Creek riparian corridor. Consistent with the previously approved project on the former San Jose Water Company site (Building 374 on Figure 2-3, *Land Use Plan*), the project proposes a 30-foot setback from the top of the channel wall along the Guadalupe River at that location. In addition, non-historic existing buildings along Autumn Street (Blocks D8, D9, D10, D11, D12, and D13), which are currently within 50 feet of the riparian corridor, may be retained and repurposed, or could be rebuilt within existing building footprints if within the riparian setback, subject to City conformation of consistency with Policy 6-34.[90]

Policy 6-34 further prescribes a standard 10-foot setback for multi-use trails on natural channels and a 0-foot setback for pedestrian-only trails and passive recreational uses; pedestrian-only trails may enter the riparian corridor where necessary for continuity of the trail, and interpretive nodes and paths may penetrate riparian areas at intervals not to exceed an average of one every 500 feet of riparian corridor. The proposed project's multi-use trails would be located outside the 10-foot setback. The pedestrian boardwalks between West Santa Clara and West San Fernando Streets would be located along the edge of the riparian corridor, except both where it is necessary for continuity to enter the riparian corridor around existing buildings that are located closer than the width of a boardwalk, and where a pedestrian boardwalk would replace existing hardscape, impervious, and/or disturbed landscape surface with permeable material.

[90] City of San José, *Riparian Corridor Protection and Bird-Safe Design* (Policy 6-34), approved August 23, 2016. Available at https://www.sanjoseca.gov/home/showdocument?id=12815.

City of San José Tree Removal Permit Requirements and Controls

The City of San José Tree Removal Permit Requirements and Controls would apply to all trees in the project area, except within the riparian corridor, including but not limited to street trees and park landscaping. The proposed project would be required to comply with this policy (described in detail in Section 3.2.1, *Environmental Setting*). A tree removal permit is not applicable to this project because tree removal would be granted through the issuance of the planned development permit, pursuant to City of San José Municipal Code Section 13.32.080.[91]

City of San José Standard Condition of Approval BI-2: Tree Replacement

Tree replacement ratios are provided in SCA BI-2, *Tree Replacement* (refer to Section 3.2.2, *Regulatory Framework*). Compliance with the tree replacement ratios in SCA BI-2 applies only to trees outside of the riparian corridor. All 537 urban street or landscape trees on-site would be removed, of which 8 are native and 529 are non-native (none are orchard trees). Of the 537 trees inventoried, 254 of the trees are classified as Ordinance Trees under the City of San José regulations. According to the tree replacement ratios defined in SCA BI-2 (shown in **Table 3.2-6**), 6 trees would be replaced at a 5:1 ratio, 249 trees at a 4:1 ratio, 2 trees at a 3:1 ratio, 195 trees at a 2:1 ratio, and the remaining 85 trees would be replaced at a 1:1 ratio. Therefore, the total number of replacement trees required to be planted would be 1,507 (refer to Appendix D3, the arborist report). The species of trees to be planted would be determined in consultation with the City Arborist and staff from the City Department of Planning, Building and Code Enforcement.

TABLE 3.2-6
TREE REPLACEMENT RATIOS AND REQUIRED REPLACEMENT SIZE

Circumference of Tree to be Removed	Replacement Ratio for Native Trees	Replacement Ratio for Non-native Trees	Replacement Ratio for Orchard Trees	Minimum Size of Each Replacement Tree
≥ 38 inches	5:1	4:1	3:1	15 gallons
19 up to 38 inches	3:1	2:1	none	15 gallons
< 19 inches	1:1	1:1	none	15 gallons

NOTES:

x:x = Tree replacement to tree loss ratio.

On single-family or duplex properties, trees greater than or equal to 38-inch circumference shall not be removed unless a Tree Removal Permit, or equivalent, has been approved for the removal of such trees. For Multi-Family Residential, Commercial, and Industrial properties, a permit is required for the removal of trees of any size, unless a development permit that allows the removal of the tree has been issued and accepted by the permit applicant.

A 38-inch tree equals 12.1 inches in diameter.

A 24-inch box tree equals two 15-gallon trees.

Single-family and two-dwelling properties may be mitigated at a 1:1 ratio.

SOURCE: City of San José Standard Condition of Approval BI-2

[91] City of San José Municipal Code Section 13.32.080—Development Permit Combined. Available at https://library.municode.com/ca/san_jose/codes/code_of_ordinances?nodeId=TIT13STSIPUPL_CH13.32TRRECO_13.32.080DEPECO. Accessed May 11, 2020.

If the project site does not have sufficient area to accommodate the required tree mitigation, one or both of the following measures would be implemented to the satisfaction of the Director of Planning, Building and Code Enforcement or the Director's designee at the development permit stage:

- The size of a 15-gallon replacement tree may be increased to 24-inch box and count as two replacement trees to be planted on the project site, at the development permit stage.
- Off-site tree replacement fee(s) will be paid to the City, before the issuance of grading permit(s), in accordance with the City Council–approved Fee Resolution. The City will use the off-site tree replacement fee(s) to plant trees at alternative sites.

As indicated in Chapter 2, *Project Description*, the project has committed to planting 2,280 trees, which exceeds the number required with implementation of SCA BI-2. Therefore, impacts of tree removal would be **less than significant**.

In addition, according to the City's Heritage Tree Map showing the location of each tree on the Heritage Tree List, the project area does not contain any heritage trees;[92] however, the City's Tree Removal Policy requires tree removal permits for trees other than heritage trees, as described in Section 3.3.2, *Regulatory Framework*. Compliance with the Tree Removal Policy would further reduce potential impacts and avoid conflicts with the City's tree ordinance.

Assuming project approval, the project would undergo a conformance review process to ensure that subsequent development within the project site substantially conforms with the requirements of the General Development Plan, the Design Standards and Guidelines, applicable provisions of the Municipal Code, and the other applicable standards and guidelines. In conclusion, there would be no conflict between the proposed project and the policies described above that protect biological resources.

Mitigation: None required.

Impact BI-6: The proposed project would not conflict with the provisions of an adopted habitat conservation plan, natural community conservation plan, or other approved local, regional, or state habitat conservation plan. ***(Less than Significant with Mitigation)***

As set forth in the discussion in Section 3.2.2, *Regulatory Framework*, the City is a Permittee of the *Santa Clara Valley Habitat Plan* (Habitat Plan), and the proposed project is within the Habitat Plan Permit Area. Portions of the project area are located within fee zones and are subject to conditions identified in Chapter 6 of the Habitat Plan. The project area is outside of the burrowing owl and serpentine fee zones, but the proposed project may be subject to land cover fees for Zone B (Agricultural and Valley Floor Land) and wetland fees (Willow Riparian Forest and

[92] City of San José, Heritage Tree Map. Available at https://www.sanjoseca.gov/your-government/departments/transportation/roads/landscaping/trees/heritage-trees. Accessed January 16, 2020.

Scrub)[93] for any work within and adjacent to the riparian corridor. The project would also be subject to nitrogen deposition fees for any increases in vehicle trips.[94]

Any project requesting a riparian setback reduction from City Policy 6-34 and the Habitat Plan's Condition 11 must be reviewed and approved by the City. For exceptions to the Habitat Plan's Condition 11, the stream and riparian setback requirement, an exception request is submitted to the City. The City could work with the project applicant to make any adjustments, and the City would then provide the exception request to the Habitat Agency, CDFW, and USFWS for a 30-day period for review and comment. At the conclusion of the 30-day review period, the City would consider any comments received from these agencies and may then consider the stream and riparian setback exception request for approval.

The Habitat Plan defines the standard setback for Los Gatos Creek, a Category 1 stream inside the existing urban service area, and with a slope class of 0–30 percent, as 100 feet. As described under Impact BI-2, the project proposes 50-foot building setbacks from Los Gatos Creek, consistent with a setback reduction that may be permitted under Policy 6-34.[95] The project would also retain certain existing buildings along South Autumn Street (Blocks D8, D9, D10, D11, D12, and D13) that are currently within 50 feet of the riparian corridor. One or more of these buildings could also be replaced within existing building footprints if retention is determined not reasonably feasible, subject to City confirmation of consistency with Policy 6-34; such replacement would be required under the Downtown West Design Standards and Guidelines to maintain or reduce the existing building footprint within the City-mandated minimum 50-foot riparian setback. The project would remove certain hardscape areas and areas of disturbed landscape behind (on the Los Gatos Creek side of) at least two of these buildings on Block D that are adjacent to the top of the stream bank, would revegetate the formerly hardscape/disturbed areas with riparian plant species, and would then install sections of a raised pedestrian boardwalk along the edge of, and in some cases within, the riparian corridor. This boardwalk would provide continuous pedestrian access along Los Gatos Creek from the VTA rail tracks north to West Santa Clara Street. Where it would be along the edge of, or intrude into, the riparian corridor, the pedestrian boardwalk would travel exclusively above the formerly paved or disturbed areas to be revegetated. Similarly, the project would develop a pedestrian boardwalk on the east side of Los Gatos Creek between the VTA tracks and West Santa Clara Street, on Block E. This boardwalk would remain outside the riparian corridor.

Open spaces would be developed adjacent to the riparian corridor, but commercial/residential mixed-use buildings, active facilities (e.g., pavilions, kiosks, and program decks), along with maintenance facilities, would be set back 50 feet or more from the riparian corridor. However, such facilities may be located within the 100-foot setback permitted by the Habitat Plan's Condition 11. The exact dimensions and locations of program decks, pavilions, kiosks, and

93 Santa Clara Valley Habitat Agency Geobrowser. Available at http://www.hcpmaps.com/habitat/. Accessed January 13, 2020.

94 Willdan Financial Services with Urban Economics, *Santa Clara Valley Habitat Plan Development Fee Nexus Study*, June 30, 2012.

95 On Block E, the former San Jose Water Company site, the project would provide a 30-foot setback from the top of the channel wall along the Guadalupe River, consistent with a project previously approved there (File Nos. PDC15-051, PD15-061, and PT16-012). This portion of the Guadalupe River is an engineered flood channel that the City, in consultation with the Santa Clara Valley Habitat Agency, previously determined was not subject to Habitat Plan policies.

maintenance facilities are not yet known; therefore, the total area of encroachment has not been calculated. The project applicant would request that the City grant exceptions to the standard 100-foot Habitat Plan setback for such uses; the minimum setback allowed under the Habitat Plan for new development is 35 feet.[96] As explained in Impact BI-2, Mitigation Measure BI-2a would include a number of features and requirements to avoid adverse effects on the riparian corridor and riparian habitat. The Block D pedestrian boardwalk described above would enhance the riparian corridor by removing previously paved surfaces and revegetating them with riparian plant species.

With implementation of Mitigation Measure BI-2a, along with Mitigation Measures BI-1a, BI-1b, and BI-1c, the proposed project would have a less-than-significant impact on the riparian corridor and the riparian habitat that it provides. Because the identification of a significant impact under CEQA depends on the finding that a project would result in a physical change in the environment (CEQA Guidelines Section 15358(b), the fact that the project would provide less than the Habitat Plan's standard 100-foot riparian setback would not rise to the level of a significant unavoidable impact, given that mitigation for any adverse physical effects is feasible through implementation of Mitigation Measures BI-1a, BI-1b, BI-1c, and BI-2a and given that a reduced setback for any proposed construction would require approval by the City during Conformance Review to ensure conformance to the Habitat Plan's reduced setback provisions.

Applicable fees and conditions would be determined during the entitlement phase for the proposed project.

Mitigation Measures

Mitigation Measures BI-1a, BI-1b, BI-1c, and BI-2a

Significance after Mitigation: Less than significant.

Cumulative Impacts

Impact C-BI-1: The proposed project, in conjunction with other past, current, or foreseeable development in the project vicinity, could result in cumulative impacts on biological resources. ***(Less than Significant with Mitigation)***

This analysis evaluates whether the impacts of the proposed project (including development it would facilitate), together with the impacts of cumulative development, would cause the project to have a cumulatively considerable impact on special-status species, wetlands, or other waters of the United States, or on other biological resources protected by federal, state, or local regulations or policies (based on the significance criteria and thresholds presented earlier). This analysis then considers whether the incremental contribution of the proposed project to this cumulative impact would be considerable. Both conditions must apply for a project's cumulative effects to be significant.

[96] Santa Clara Valley Habitat Agency. Santa Clara Valley Habitat Plan. Accessed August 19, 2020. https://scv-habitatagency.org/178/Santa-Clara-Valley-Habitat-Plan

The geographic scope of potential cumulative impacts on biological resources encompasses the project area and biologically linked areas that share the Guadalupe River watershed and greater San Francisco Bay. Past projects in this context—including the development of civic facilities, residences, commercial and industrial areas, and infrastructure—have already caused substantial adverse cumulative changes to biological resources in the study area. This includes the engineering of the Guadalupe River and Los Gatos Creek to allow urban development over and around these waterways, and the loss of the riparian corridors and floodplains to urban encroachment.

Current and future development projects, similar to those in the project area shown in Appendix B and summarized on Figure 3-1, *Cumulative Projects in the Project Vicinity*, could similarly impact biological resources if appropriate actions are not taken to avoid or mitigate the loss of habitat or other direct or indirect impacts.

Of the projects identified, only two are located along the Los Gatos Creek or Guadalupe River riparian corridor: Montgomery 7, located at 565 Lorraine Avenue (PDC15-038, PD15-042), and River Corporate Center, located at 353 West Julian Street (H16-013, HA16-013-01). Montgomery 7 is in the planning stage and proposes 54 dwelling units and 1,856 sf of retail space. River Corporate Center is under construction and includes 194,178 sf of office space. In addition, in connection with the Diridon Station Area Plan, the City of San José plans to upsize three stormwater outfalls as part of its ongoing Capital Improvement Program.

These projects would have potential impacts on sensitive biological resources similar to those of the proposed project because of the concentration of biological resources in riparian corridors in Downtown San José and the similarity of some project components (i.e., construction of residential, retail, and office space). As discussed under *Impact Analysis*, construction of the proposed project would have the potential to impact special-status fish, western pond turtle, nesting and protected birds, special-status bats, riparian habitat, EFH, sensitive natural communities, wetlands, and native wildlife corridors. The following sections summarize cumulative impacts on each of these biological resources.

Special-Status Fish and Western Pond Turtle

Potential impacts of the proposed project on special-status fish (i.e., steelhead) and western pond turtle are limited to impacts from construction activity in or adjacent to Los Gatos Creek and the Guadalupe River. Such construction work would include demolishing and constructing buildings adjacent to these waterways, constructing the footbridge across Los Gatos Creek, replacing the West San Fernando Street vehicle bridge over Los Gatos Creek, and implementing flow conveyance and creek habitat enhancements. Impacts could include construction-related mortality or injury to western pond turtle on the banks of the riparian corridor, and increased turbidity caused by in-water work or fouling of waterways by spills or uncontained harmful materials at the construction site. Both of these scenarios would negatively impact fish and western pond turtle. Western pond turtle could also be indirectly and temporarily impacted by construction noise, vibrations, and human activity near the turtles.

Impacts on special-status fish and western pond turtle would be reduced to less than significant by implementing Mitigation Measures BI-1a through BI-1d, which require conducting worker

environmental awareness training; limiting all in-water work to the specified in-water work window during the dry season; implementing a fish relocation plan; conducting pre-construction surveys for western pond turtle; and monitoring for this species during construction and relocating individuals as authorized.

With these mitigation measures, potential impacts on steelhead and pond turtles would be minor and short-term. Other projects in the region that occur within potential steelhead and pond turtle habitat, potentially including flood control or riverine/riparian enhancement projects, would be required to implement similar measures to protect steelhead and western pond turtles. In conjunction with the proposed project, the cumulative impact of such projects on steelhead and western pond turtles, or their populations, would be **less than significant with mitigation incorporated**.

Nesting Birds and Special-Status Bats

Potential direct impacts of the proposed project on nesting birds and special-status roosting bats include the effects of removing vegetation and demolishing buildings during construction. Indirect construction-related impacts could include construction noise, vibration, and human activity near active bird nests and bat roosts. Operational indirect impacts could result from the use of the new multi-use trail, pedestrian boardwalks, viewing platforms, program decks, and interpretive signage); however, the trail and program decks would be outside of the riparian corridor where the most bird nesting and bat roosting activity would be expected, and substantial baseline human activity already occurs within and adjacent to the trail alignment.

These impacts would be reduced to less than significant by implementing Mitigation Measure BI-1e. This measure would reduce impacts on nesting birds because it requires limiting construction to the non-nesting season when feasible to avoid impacts on active nests. If avoiding the nesting season is not feasible, this measure calls for conducting pre-construction surveys for nesting birds and establishing no-disturbance buffers around any active nests to ensure that they are not disturbed by construction. The project would also implement other mitigation measures to reduce the impact, including requiring worker environmental awareness training.

Other cumulative projects in the region would also be required to implement the City's SCAs for protection of nesting birds, which would reduce potential cumulative impacts on nesting birds to **less than significant**. The proposed project would also implement Mitigation Measure BI-1a to educate construction personnel on the identification of birds, and additionally avoid impacts.

Cumulative projects that may occur in the region, such as flood control or riverine/riparian enhancement projects, would be required to implement measures for protecting roosting bats similar to those identified in Mitigation Measure BI-1f. These measures include conducting roosting bat surveys, and limiting the removal of trees or structures with potential bat roosting habitat to the time of year when bats are active to avoid disturbing bats during the maternity roosting season or months of winter torpor. With the implementation of such measures for projects that provide bat roosting habitat, cumulative impacts on this species group would be **less than significant with mitigation incorporated**.

Sensitive Natural Communities and State- or Federally Protected Wetlands

Three sensitive natural communities—riparian habitat, creeping wild rye vegetation community, and EFH—and potentially jurisdictional wetlands and waters are present in the project area. Potential permanent impacts on the creeping wild rye vegetation community could result from construction of the storm drain outfall and temporary impacts could also result from construction of the boardwalk adjacent to Block D8 within creeping wild rye habitat, which is also within riparian habitat. Potential direct impacts on riparian habitat, EFH, and instream wetlands could also result from permanent removal of riparian habitat for the new footbridge over Los Gatos Creek, increased shading of the Los Gatos Creek riparian corridor from construction of the footbridge and new buildings, and implementation of flow conveyance and creek habitat enhancements.

In addition, as described in more detail under Impact BI-2, temporary impacts on riparian habitat and/or jurisdictional waters would result from construction of the new footbridge; construction of a multi-use trail, pedestrian boardwalks, viewing platforms, and interpretive signage; removal and replacement of fencing; replacement of the West San Fernando Street vehicle bridge over Los Gatos Creek; installation of the utilidor; reconstruction of an existing storm drain outfall to Los Gatos Creek; demolition, construction, and renovation of office, residential, and retail/cultural buildings; construction of recreational/educational facilities such as program decks, pavilions, and kiosks; and implementation of flow conveyance and creek habitat enhancements. Temporary construction-related impacts on riparian vegetation and jurisdictional waters could include clearing and grubbing of adjacent work areas, crushing of vegetation during worker access and materials staging, the incidental entry of soils or harmful materials into Los Gatos Creek, and increases in artificial night lighting and noise, which would impact wildlife using those corridors.

As described under the *Special-Status Fish* analysis in Impact BI-1, an SWPPP would be required under the NPDES General Construction Permit to prevent soils and hazardous materials from entering jurisdictional waters. In addition, the City's Policy 6-34, the General Plan, and the Building and Design Standards include standards and guidelines to reduce the potential for new light sources to impact wildlife in the riparian corridor, and the project's *Downtown West Design Standards and Guidelines* include several guidelines to protect the riparian corridor from noise and lighting impacts. These impacts would be further reduced to less than significant by implementing Mitigation Measures BI-1a, BI-e, BI-1f, BI-2a, BI-2b, BI-2c, BI-2d, and BI-3, which require the project to:

- Provide worker environmental awareness training;
- Prepare and implement a fish relocation plan for in-water work in Los Gatos Creek;
- Conduct pre-construction nesting bird surveys and create no-construction buffers around active bird nests;
- Conducting pre-construction roosting bat surveys;
- Delineate the limits of riparian and creeping wild rye areas to exclude work within those limits;
- Return any temporarily impacted riparian or creeping wild rye habitat to pre-project conditions through re-vegetation and monitoring;

- Provide compensatory mitigation for permanent impacts on riparian or creeping wild rye habitat, and wetlands and waters;
- Develop and implement a frac-out contingency plan;
- Conduct a wetland delineation and prepare a wetland delineation report;
- Minimize disturbance to wetlands and waters by keeping construction activity at least 50 feet away where possible; and
- Monitor the effects of shading and heat island on riparian vegetation and stream temperature.

With implementation of these mitigation measures, potential impacts on sensitive natural communities and state or federally protected wetlands would be less than significant. In addition, CDFW, the San Francisco Bay Regional Water Quality Control Board, and USACE would require specific permits to facilitate work in and over the creek channel. Other projects in the region that occur within or adjacent to the riparian corridor, potentially including flood control or riverine/riparian enhancement projects, would be required to implement similar measures to protect sensitive natural communities and state or federally protected wetlands, and would be subject to the same permit requirements. In conjunction with the proposed project, cumulative impacts on sensitive natural communities and federally protected wetlands would be **less than significant with mitigation incorporated**.

Wildlife Corridors

The proposed project could impact resident and migrating birds; the resulting infill would increase levels of lighting and areas of glazing, and the project would construct new buildings that would be taller than existing buildings in the project area. The City requires projects to implement the City's Downtown Design Guidelines. The Downtown Design Guidelines provide standards and guidelines for bird-safe design, including but not limited to avoiding mirrored glass; using bird safety treatment on certain building façades within 300 feet of a riparian corridor; not creating areas of glass through which trees, landscape areas, water features, or the sky would be visible from the exterior unless a bird safety treatment is used; and turning off decorative exterior lighting between 2 a.m. and 6 a.m., except during June, July, December, and January, due to bird migration. Impacts on birds using the riparian corridors would be further reduced to less than significant by implementing Mitigation Measure BI-4, which requires:

- Educating building occupants to reduce night lighting impacts on birds; and
- Minimizing the impacts of antennas, monopole structures, and rooftop elements that pose bird collision hazards.

With implementation of the mitigation measures and compliance with the City's Downtown Design Guidelines, potential impacts on wildlife corridors would be less than significant. Other projects in the region that could increase nighttime lighting levels and areas of glazing, potentially including multi-story mixed-use projects, would be required to implement similar measures to protect birds using the riparian corridor and other areas of the city. In conjunction with the proposed project, cumulative impacts on wildlife corridors would be **less than significant with mitigation incorporated**.

Local Ordinances

The proposed project would require removal of trees and vegetation adjacent to or within the riparian corridor; however, the project would comply with the City's SCA BI-2, Tree Replacement (refer to Section 3.3.2, *Regulatory Framework*), which prescribes replacement ratios for tree removal, and with the City's Tree Removal Policy, and Council Policy 6-34, which provides protection for riparian corridors. The proposed project would not conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance, and no impact would occur. Other projects in the region with the potential to conflict with local policies or ordinances protecting biological resources, including multi-story mixed-use projects, would be required to comply with the City's SCA BI-2 and Tree Removal Policy. In conjunction with the proposed project, additional projects would have a **less-than-significant cumulative** impact on these resources.

Santa Clara Valley Habitat Plan

The City participates in the Santa Clara Valley Habitat Plan, and the project is a covered activity that is within the permit area for the Habitat Plan. The proposed project would implement SCA BI-1, Santa Clara Valley Habitat Plan (refer to Section 3.3.2, *Regulatory Framework*). Although an encroachment into riparian setback defined by Condition 11 of the Habitat Plan would be requested (as described in Impact BI-6), Mitigation Measures BI-1a, BI-1b, BI-1c, and BI-2a would avoid impacts to riparian habitat. Therefore, impacts would be less than significant with mitigation incorporated with respect to compliance with the Habitat Plan. Other projects in the region with the potential to conflict with the Habitat Plan, including covered activities within the Habitat Plan permit area, would be required to comply with SCA BI-1. In conjunction with the proposed project, additional projects would have a less-than-significant impact related to a potential conflict with the Habitat Plan.

In conclusion, with implementation of the City's SCAs, design standards and guidelines, and policies and ordinances, and the mitigation measures described in this section, the proposed project would result in less-than-significant impacts on biological resources in the study area.

The cumulative projects under planning review, approved, or under construction near the project area are shown on Figure 3-1, *Cumulative Projects in the Project Vicinity*, and listed in Appendix B. These projects include primarily mixed-use residential/office/retail development, as well as a few hotels, located in the highly urbanized Downtown area. These projects are not expected to have impacts on special-status species, riparian habitat, EFH, sensitive natural communities, or jurisdictional wetland and waters; however, they could potentially impact wildlife corridors in a manner similar to those of the proposed project. Therefore, current and future development projects would be expected to implement similar protection measures as indicated under Impact BI-4, as required by the City.

When considered within the existing condition of biological resources in the project area and the greater Bay Area in the context of past, present, and reasonably foreseeable similar projects, the proposed project would add only a very minor, incremental contribution to impacts on riparian habitat or wetlands, and special-status wildlife species. The proposed project's contribution would not be cumulatively considerable. Therefore, in combination with past, present, and

reasonably foreseeable future projects, the proposed project's cumulative effects on biological resources would be **less than significant with mitigation incorporated**.

Mitigation Measures

Mitigation Measure BI-1a: General Avoidance and Protection Measures (refer to Impact BI-1)

Mitigation Measure BI-1b: In-Water Construction Schedule (refer to Impact BI-1)

Mitigation Measure BI-1c: Native Fish Capture and Relocation (refer to Impact BI-1)

Mitigation Measure BI-1d: Western Pond Turtle Protection Measures (refer to Impact BI-1)

Mitigation Measure BI-1e: Avoidance of Impacts on Nesting Birds (refer to Impact BI-1)

Mitigation Measure BI-1f: Roosting Bat Surveys (refer to Impact BI-1)

Mitigation Measure BI-2a: Avoidance of Impacts on Riparian Habitat (refer to Impact BI-2)

Mitigation Measure BI-2b: Frac-Out Contingency Plan (refer to Impact BI-2)

Mitigation Measure BI-2c: Monitor Effects of Shading and Heat Island Effect on Riparian Vegetation and Stream Temperature (refer to Impact BI-2)

Mitigation Measure BI-2d: Avoidance and Protection of Creeping Wild Rye Habitat (refer to Impact BI-2)

Mitigation Measure BI-3: Avoidance of Impacts on Wetlands and Waters (refer to Impact BI-3)

Mitigation Measure BI-4: Avian Collision Avoidance Measures (refer to Impact BI-4)

Mitigation Measure HY-3b: Plan for Ongoing Creek Maintenance (refer to Section 3.8, *Hydrology and Water Quality*)

Mitigation Measure NO-1a: Operational Noise Performance Standard (refer to Section 3.10, *Noise and Vibration*)

Significance after Mitigation: Less than significant.

This page intentionally left blank

3.3 Cultural Resources and Tribal Cultural Resources

This section assesses the potential for the proposed project to materially damage or disturb cultural resources (historic architectural resources, prehistoric and historic-era archaeological resources, and human remains) and tribal cultural resources. The section describes the existing environmental setting for cultural resources; discusses the federal, state, and local regulatory framework; and evaluates potential significant impacts of the proposed project on cultural and tribal cultural resources. Feasible mitigation measures are identified to avoid or minimize potentially significant impacts on these resources to the extent feasible.

The analysis used applicable information from the *San Jose Waterworks (SJW) Land Company Planned Development Rezoning Final Integrated EIR*[1] (2004) and Addendum (2016), the *Diridon Station Area Plan EIR* (2014), the *Baseball Stadium in the Diridon Area Draft EIR* (2006), and the *Downtown Strategy 2040 Integrated Final EIR* (2018). These data sources were supplemented by additional research using information from the California Historical Resources Information System, historic map research, and additional technical analysis as presented in **Appendix E1**.

3.3.1 Environmental Setting

Definitions

The term *cultural resource* describes historic architectural resources (also referred to as the *built environment*); archaeological sites (both prehistoric and historic-era) consisting of material evidence of past human use of the landscape; and tribal cultural resources as places of importance to Native American tribes.

Historic architectural resources include buildings, structures, objects, and historic districts. Residences, cabins, barns, military-related features, industrial buildings, and bridges are examples of historic resources. The CEQA Guidelines define a historical resource as:

(1) A resource in the California Register of Historic Resources (California Register);

(2) A resource included in a local register of historical resources as defined in Public Resources Code (PRC) Section 5020.1(k) or identified as significant in a historical resource survey meeting the requirements of PRC Section 5024.1(g); or

(3) Any object, building, structure, site, area, place, record, or manuscript that a lead agency determines to be historically significant or significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural annals of California—provided the lead agency's determination is supported by substantial evidence in light of the whole record.

[1] This project is also known as the Delmas Avenue Mixed Use Development.

The City of San José Historic Resources Inventory (HRI) was established to identify historic resources of varying significance.[2] It includes properties listed on or eligible for the National Register of Historic Places (National Register) and California Register, as well as those listed as or eligible for listing as City Landmarks/Districts, Candidate City Landmarks/Districts, Structures of Merit, and Identified Sites/Structures. City Landmarks are those properties that have "historical, architectural, cultural, aesthetic or engineering interest or value of a historical nature."[3] Structures of Merit and Identified Sites/Structures are considered of lesser historic significance, as defined in the *Envision San José 2040 General Plan* (General Plan), but do not meet the criteria for City Landmark or Candidate City Landmark status as set forth in San José Municipal Code Chapter 13.48. Only City Landmarks and Districts, Candidate City Landmarks and Districts, and their contributors are considered historical resources under CEQA because all are defined with locally adopted criteria listed in City Historic Preservation Ordinance Chapter 13.48. (The City Landmark designation also includes National Register– and California Register–listed and eligible properties.) Identified Sites/Structures and Contributing Sites/Structures outside of City Landmark and Candidate Landmark Districts are classifications of the HRI that may require additional research and evaluation to determine specific areas significance and levels of eligibility.

Archaeological resources include both prehistoric and historic-era archaeological resources. Prehistoric archaeological resources consist of village sites, temporary camps, lithic scatters, roasting pits/hearths, milling features, petroglyphs, rock features, and human burials. Associated artifacts include obsidian and chert flaked-stone tools (e.g., projectile points, knives, scrapers) or toolmaking debris; culturally darkened soil ("midden") containing heat-affected rocks, artifacts, or shellfish remains; and stone milling equipment (e.g., mortars, pestles, handstones, or milling slabs). Historic-era archaeological resources include town sites, homesteads, agricultural or ranching features, mining-related features, refuse concentrations, and features or artifacts associated with early military and industrial land uses. Associated artifacts include stone, concrete, or adobe footings and walls; artifact-filled wells or privies; and deposits of metal, glass, and/or ceramic refuse. If a lead agency determines that an archaeological site is a historical resource, the provisions of PRC Section 21084.1 and CEQA Guidelines Section 15064.5 regarding historical resources would apply (as described in Section 3.3.2, *Regulatory Framework*). If an archaeological site does not meet the CEQA Guidelines criteria for a historical resource, the site may still meet the threshold of PRC Section 21083.2 regarding unique archaeological resources.

Tribal cultural resources are sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American tribe that are listed, or determined to be eligible for listing, in the national, state, or local register of historical resources (CEQA Section 21074(a)(1)).

[2] The HRI is not a complete list of all historic resources in San José. It was last comprehensively updated in 2016 and is updated on a parcel-by-parcel basis through individual, project-based review. Parcels not listed on the HRI may qualify for listing upon further analysis and review.

[3] City of San José, City of San José Municipal Code Section 13.48.020(A).

Natural and Cultural Context

Natural Environment

The city of San José is in the northwestern part of the Santa Clara Valley, at the south end of San Francisco Bay. The hills surrounding the Santa Clara Valley are the source of many perennial streams, which extend from the hills to the bay. The project site is situated approximately 100 feet above mean sea level and is approximately 7 miles south of the bay shoreline.

The project vicinity contains an abundance of natural resources, which would have been used by its prehistoric and early historic-era populations. The South Bay area hosts a wide variety of natural communities including salt marsh, scrub brush, grassland, and foothill woodlands. Deer, elk, and waterfowl were plentiful in prehistory, as were marine and bay resources such as seals, otters, abalone, mussels, oysters, clams, and numerous fish species. Franciscan chert was an easily obtainable local raw material for stone tools. Obsidian for tools could be obtained from quarries to the north.[4]

Geological Setting

The San Francisco Bay Area, including the Santa Clara Valley, has undergone dramatic landscape changes since humans began to inhabit the region more than 13,000 years ago. Sea levels began rising about 15,000 years ago, at which time the coastline was located west of the Farallon Islands, and reached the present level of the bay about 5,000 years ago.

This dramatic change in stream base level resulted in increased deposition of sediment along the lower reaches of Bay Area streams, a condition that was exacerbated during the Gold Rush. In many places, the interface between older land surfaces and newer stream deposits (those less than 5,000 years old) is marked by a well-developed buried soil profile, or *paleosol*. Paleosols preserve the composition and character of the earth's surface before the sediment deposition; thus, paleosols may preserve archaeological resources if humans occupied or settled the area.

Because human populations have grown since the arrival of the area's first inhabitants, younger paleosols (late Holocene) are more likely to yield archaeological resources than older paleosols (early Holocene or late Pleistocene). Numerous deeply buried archaeological sites have been uncovered in the Santa Clara Valley, at depths varying between 1 foot and more than 10 feet below ground surface (bgs). In fact, more than 60 percent of recorded archaeological sites in this region have been found in a buried context.[5]

Prehistoric Background

Categorizing the prehistoric period into cultural stages allows researchers to describe a broad range of archaeological resources with similar cultural patterns and components during a given time frame, thereby creating a regional chronology. In 2007, Randall Milliken and others

[4] Moratto, M. J., *California Archaeology*. New York: Academic Press, 1984.
[5] Meyer, J., and J. Rosenthal, *Geoarchaeological Overview of the Nine Bay Area Counties in Caltrans District 4*. Prepared for California Department of Transportation, District 4, Oakland, June 2007.

provided a framework for interpreting the San Francisco Bay Area in four periods: the Paleoindian Period, the Early Period, the Middle Period, and the Late Period.[6] Economic patterns, stylistic aspects, and regional phases further subdivide these periods into shorter phases. This framework uses economic and technological types, socio-politics, trade networks, population density, and variations of artifact types to differentiate between cultural periods.

The Paleoindian Period (11500–8000 B.C.) was characterized by big-game hunters occupying broad geographic areas. Evidence of human habitation during the Paleoindian Period has not yet been discovered in the San Francisco Bay Area. During the Early Period (Lower Archaic; 8000–3500 B.C.), geographic mobility continued from the Paleoindian Period and is characterized by the millingslab and handstone, and by large wide-stemmed and leaf-shaped projectile points.

The first cut shell beads and the mortar and pestle are documented in burials during the Early Period (Middle Archaic; 3500–500 B.C.), indicating the beginning of a shift away from mobility to a practice of remaining in one location over time.

During the Middle Period—which consists of the Lower Middle Period (Initial Upper Archaic; 500 B.C.–A.D. 430) and Upper Middle Period (Late Upper Archaic; A.D. 430–1050)—geographic mobility may have continued, although groups began to establish longer term base camps in localities from which a more diverse range of resources could be exploited. The first rich black middens are recorded from this period. The addition of milling tools and obsidian and chert concave-base projectile points, and the occurrence of sites in a wider range of environments suggest that the economic base was more diverse. By the Upper Middle Period, mobility was being replaced by the development of numerous small villages. Around 1370 B.C., a cultural disruption occurred, evidenced by the sudden collapse of a trade network in beads.

During the Initial Late Period (Lower Emergent; A.D. 1050–1650), social complexity developed toward lifeways of large, central villages with resident political leaders and specialized activity sites, which are locations where archaeological sites may be discovered. Artifacts associated with the period include the bow and arrow, small corner-notched projectile points, and a diversity of beads and ornaments.

Ethnohistoric Background

Based on a compilation of ethnographic, historic, and archaeological data, Milliken describes a group known as the Ohlone, who once occupied the general vicinity of the project site.[7] Although traditional anthropological literature portrayed the Ohlone peoples as having a static culture, today it is better understood that many variations of culture and ideology existed within and between villages. Although these static descriptions of separations between native cultures of California make it easier for ethnographers to describe past behaviors, they mask Native adaptability and self-identity. California's Native Americans never saw themselves as members

[6] Milliken, R., R. Fitzgerald, M. Hylkema, R. Groza, T. Origer, D. Bieling, A. Leventhal, R. Wiberg, A. Gottsfield, D. Gillette, V. Bellifemine, E. Strother, R. Cartier, and D. A. Fredrickson, Punctuated Culture Change in the San Francisco Bay Area, in *California Prehistory: Colonization, Culture, and Complexity*, ed. T. L. Jones and K. A. Klar, Chapter 8, Lanham, Maryland: Altamira Press, 2007.

[7] Milliken, R. T., *A Time of Little Choice: The Disintegration of Tribal Culture in the San Francisco Bay Area 1769–1810*, Ballena Press Anthropological Papers, No. 43. Menlo Park, CA: Ballena Press, 1995.

of larger cultural groups, as described by some anthropologists. Instead, they saw themselves as members of specific villages, perhaps related to others by marriage or kinship ties, but viewing the village as the primary identifier of their origins.

Richard Levy describes the language group spoken by the Ohlone, known as "Costanoan."[8] This term is originally derived from a Spanish word designating the coastal peoples of Central California. Today "Costanoan" is used as a linguistic term that refers to a larger language family spoken by distinct sociopolitical groups that spoke at least eight languages (as different as Spanish is from French) of the same Penutian language group. The Ohlone once occupied a large territory from San Francisco Bay in the north to the Big Sur and Salinas Rivers in the south. Milliken sets the project site within the greater *Tamien* tribal area in Santa Clara Valley.

Economically, Ohlone engaged in hunting and gathering. Their territory encompassed both coastal and open valley environments that contained a wide variety of resources, including grass seeds, acorns, bulbs and tubers, bear, deer, elk, antelope, a variety of bird species, and rabbit and other small mammals. The Ohlone acknowledged private ownership of goods and songs, and village ownership of rights to land and/or natural resources; they appear to have aggressively protected their village territories, requiring monetary payment for access rights in the form of clamshell beads.[9] After European contact, Ohlone society was severely disrupted by missionization, disease, and displacement. Today, Ohlone representatives still have a strong presence in the San Francisco Bay Area and are highly interested in their historic and prehistoric past.

Historical Background[10]

Spanish Exploration and Colonialization of the Santa Clara Valley, 1769–1810

Spanish exploration of the Santa Clara Valley began with the Portola Expedition of 1769. Led by Gaspar de Portola, the company of 64 men was charged with settling Monterey Bay when they overshot their intended target and instead established a base camp in the San Pedro Valley near present-day Pacifica. Shortly thereafter, searches for suitable permanent settlements in the San Francisco Bay region began in earnest.

In 1776, Juan Bautista de Anza and Fray Pedro Font proposed a location on the banks of a river they named the *Nuestra Señora de Guadalupe* (Our Lady of Guadalupe) within the boundaries of modern-day San José. By early 1777, the new Mission Santa Clara de Asís was established on the west bank of the Guadalupe River near the present-day boundary between the cities of San José and Santa Clara (approximately 2 miles northwest of the project site). By the end of 1777, 66 settlers—including 9 retired Spanish soldiers and 51 women—established El Pueblo de San José de Guadalupe across the river from the mission. By 1797, the pueblo was relocated to an

8 Levy, R. S., Costanoan, in *California*, ed. R. F. Heizer, 485–495. *Handbook of North American Indians*, Vol. 8, gen. ed. W. C. Sturtevant. Washington, DC: Smithsonian Institution, 1978.

9 Levy, R. S., Costanoan, in *California*, ed. R. F. Heizer, 485–495. *Handbook of North American Indians*, Vol. 8, gen. ed. W. C. Sturtevant. Washington, DC: Smithsonian Institution, 1978.

10 Unless otherwise noted, all dates and contextual information are summarized from Architectural Resources Group, *Preliminary Draft Historic Context: Downtown West Mixed-Use Plan*, June 2020. Refer to Appendix E1 for citations and more in-depth discussion.

area roughly bounded by San Pedro Street to the west, St. John Street to the north, Market Street to the east, and San Carlos Street to the south.

Unpaved trails that served as the major transportation routes through the Santa Clara Valley include El Camino Real, which connected the mission and pueblo at San José to the presidios at Monterey to the south and San Francisco to the north. The modern-day streets known as The Alameda (Spanish for "tree-lined avenue") and West Santa Clara Street were segments of El Camino Real that connected the mission and pueblo, and they remain important urban arteries in modern San José.

Mexican Period, 1810–1846

The Spanish colony of Mexico declared war against Spain in 1810, and Mexico won its independence in 1821. By the end of April 1822, all of California had come under Mexican governance. Under a policy that ordered the colonization of vacant lands, much of the Santa Clara Valley (which included mission lands and the now separate and secularized pueblo lands) was allocated to 38 private land grants known as *ranchos* between 1833 and 1845. The project site includes land that was originally part of the Rancho El Potrero de Santa Clara and Rancho Los Coches. In 1847, Spanish-born Antonio Maria Sunol acquired Rancho Los Coches from Roberto Balermino. These lands were then subdivided in the late 19th century to become the "Sunol Addition" to San José.

By 1835, while California was still under Mexican governance, only 40 members of San José's population of 700 were foreign-born, and of these, most were Americans or English. By 1845, an influx of American immigrants had increased the city's population to 900, dramatically altering the population demographics of San José.

Early American Period, 1846–1860s

The Mexican-American War began in May 1846. The war officially ended in February 1848 with the signing of the Treaty of Guadalupe Hidalgo, which ceded much of Alta California from Mexico to the United States. On March 27, 1850, California Governor Peter Burnett incorporated the City of San José with boundaries that were generally defined as:

> *… beginning on the east bank of the Coyote river [Coyote Creek], two miles south of the center of Washington Square in the Pueblo of San José, and running due west to the west bank of the San José river [Guadalupe River]; thence following down the bank of said river to a point four miles distant in a straight line; thence due east to the east bank of the Coyote river; thence up the said bank to the place of beginning.*[11]

California, which had experienced a rapid increase in population beginning in 1848 as a result of the Gold Rush, was granted statehood on September 9, 1850. Santa Clara County was one of 27 counties created by the new state legislature, and San José was selected as the first state capital.

[11] Quoted in Arbuckle, C., *History of San José, San José, California: Memorabilia of San Jose*, 1986, page 27. Refer to Appendix E1.

During the subsequent two decades, Santa Clara County became connected by rail first to the larger Bay Area region (via the San Francisco & San José Railroad), and later to the country (via the Central Pacific Railroad, which connected San José with the Transcontinental Railroad). The railroads further increased the county's population, which led to intensified agricultural production, development of many towns along transportation routes, and the division of large land holdings.

Mid to Late 19th Century, 1840–1899

The fertile Santa Clara Valley and the region's desirable climate attracted farmers and ranchers with a variety of agricultural interests. Cattle ranching in rural areas was a major industry in the years following California's statehood. Wheat produced in Santa Clara County amounted to 30 percent of the state's total yield, and barley and oats were other important crops. Stone fruit orchards—specifically plums, apricots, and cherries—replaced many grain fields by the turn of the 20th century.

San José's early industrial tradesmen included blacksmiths and wagon makers, whose numbers grew from a single blacksmith in 1840 to 52 blacksmiths and 17 carriage and wagon shops in 1875. These light industrial operations produced agricultural tools, machines, and other equipment.

San José's growing commerce and industry was balanced by several residential subdivisions within the present-day project site, which at the time was still located just outside of the official city boundaries. Streets were shared by cottages, ice works, hay warehouses, grocers, and saloons. Subdivisions within the project site included Bradlee's Subdivision (approximately bounded by Cinnabar, Montgomery, and Julian Streets and Senter Road); Froment Survey (approximately bounded by West St. John, West Santa Clara, and Montgomery Streets and the Guadalupe River); Delmas Survey (an L-shaped subdivision approximately bounded by West Santa Clara Street, the Guadalupe River, the creek just south of West San Fernando Street, and the west side of Delmas Avenue); Lake House; and Sunol Addition (approximately bounded by Park Avenue, the Guadalupe River and Delmas Avenue, I-280, and Los Gatos Creek).

To the north of the project site was the Scull Tract. This tract appears on the 1876 atlas map as a single property bordered by present-day West St. John Street to the north, North Autumn Street to the west, the Froment Survey to the south, and the Guadalupe River to the east. It is just northeast of the fork between the Guadalupe River and Los Gatos Creek and is part of the modern-day park.[12] To the south of the project site was the Prevost Survey. This tract is pictured in the 1876 Thompson & West atlas as an irregularly shaped survey area that extends from slightly north of West San Carlos Street to just south of West William Street, between the Guadalupe River (east) and Delmas Avenue. It crosses Delmas Avenue from north to south to form the irregular tract.[13]

[12] Thompson & West, *City of San Jose, First Ward*. San Francisco, CA: Thompson & West, 1876.
[13] Thompson & West, *City of San Jose, First Ward*. San Francisco, CA: Thompson & West, 1876. Refer to Appendix E1 for more in-depth descriptions of the early subdivisions in the project vicinity.

Within the study area, historic resources related to this time period include:[14]

- The Lakehouse Historic District (Landmark District) and Contributors:
  - 131 Gifford Avenue (Assessor's Parcel Number [APN] 259-18-023)—Currlin Residence (circa [ca.] 1892)
  - 137 Gifford Avenue (APN 259-18-024)—Stojanovich Residence (ca. 1893)
  - 149 Gifford Avenue (APN 259-18-026)—Gunn Residence (ca. 1892)
  - 155 Gifford Avenue (APN 259-18-027)—Lewis Residence (ca. 1892)
  - 163 Gifford Avenue (APN 259-18-028)—Wilson Residence (ca. 1898)
  - 169 Gifford Avenue (APN 259-18-029)—Hartung Residence (ca. 1896)
  - 398 West San Fernando Street (APN 259-45-029)—Owen House (ca. 1888)
  - 396 West San Fernando Street (APN 259-45-029)—Chiappe House (ca. 1891)
  - 394 West San Fernando Street (APN 259-45-029)—Frolich-Maynard House (ca. 1889)
  - 446 West San Fernando Street (APN 259-45-029)—Ferrell House #1 (ca. 1892)
  - 436 West San Fernando Street (APN 259-45-029)—Dufie-Aguirre House (ca. 1885)
  - 416 West San Fernando Street (APN 259-45-055)—Parks-Rae House (1899)
  - 125 Gifford Avenue (APN 259-48-049)—Lutzen/Carto Residence (ca. 1892)
- 559 West Julian Street (APN 259-27-009)—residence (ca. 1883)*
- 563 West Julian Street (APN 259-27-009)—residence (ca. 1894)*
- 567 West Julian Street (APN 259-27-009)—residence (ca. 1892)*
- 237 North Autumn Street (APN 259-29-021)—Dennis Residence (1870)
- 203 North Autumn Street (APN 259-29-023)—residence (1893)

Early 20th Century, 1900–1930s

The first decades of the 20th century saw the project site fully incorporated into the City of San José. Incorporation began in the southern part of the project site with annexation of the hamlet of Gardner in 1911, followed in 1924 by annexation of the Stockton District to the north. The White Street District, including the Cahill Station area (present-day Diridon Station), was also annexed in 1924.

The mixed-use character of neighborhoods on the project site continued to develop through the 1920s. Manufacturers of heavy agricultural equipment curtailed operations, and new companies manufactured fruit processing and packaging machinery. By the 1920s, many successful companies, such as the Kearney Pattern Works and Foundry, had grown or been acquired by similar operations. They were supported by expansion of utility operations in the area including light, gas, and water works facilities.

[14] * indicates that this historic resource is located on the project site.

The early 20th century also saw the peak of agricultural development throughout the Santa Clara Valley, which was known around the world as the Valley of Heart's Delight. Fruit production came to dominate the regional economy. As a regional transportation hub, San José served as a central location for processing and shipment of orchard products. These industries and businesses spread along the railroad tracks throughout the project site.

Before the onset of the Great Depression in 1929, 38 canneries and 13 fruit packing plants operated in Santa Clara County, with many located in San José. The stock market crash acutely affected the agriculture industry, in which California played a major international role. There was a low demand for canned and preserved fruit around the world, which drastically reduced imports of California produce. Displaced farmers from the Great Plains traveled to California, where they joined a local workforce that was facing low wages, high unemployment, poor job security, and substandard working conditions. The labor movement of the 1930s was born out of this unrest, and union membership and related activism increased substantially during the Depression years. By the end of the 1930s, all San José canneries were unionized.

During the Depression era, the Richmond-Chase Company, Greco Canning Company, and California Packing Corporation (Calpak) operated large fruit processing facilities adjacent to the project site. A small farmers' cooperative named Orchard Supply Hardware was established in San José in 1931. It comprised approximately 30 horticulturists who lent and borrowed farming equipment, and this network helped to ease economic hardships. Orchard Supply Hardware operated out of warehouses before opening several retail locations in the post-war era, including a store on the project site at 720 West San Carlos Street in 1946.

Larger scale and more architecturally distinguished buildings were constructed on the project site during the Depression. These included the Southern Pacific Railroad (SPRR) depot, which was constructed in the early 1930s in conjunction with relocation of the railroad tracks to the west side of the city.

Within the study area, historic resources related to this time period include:[15]

- 160 North Montgomery Street (APN 259-29-004)—residence (ca. 1900)
- 199 North Autumn Street (APN 259-29-024)—residence (1900)
- 195 North Autumn Street (APN 259-29-025)—residence (1910)
- 374 West Santa Clara Street (APN 259-38-128)—San Jose Water Company (1934/1940)*
- 65 Cahill Street (APN 261-34-020)—Southern Pacific Depot Historic District/Diridon Station (1935)*
- 40 South Montgomery Street (APN 259-38-029)—Kearney Pattern Works and Foundry (1922)
- 145 South Montgomery Street (APN 259-35-027)—Sunlite Baking Company (1936)*
- 150 South Montgomery Street (APN 259-48-053)—Hellwig Iron Works (ca. 1935)*

[15] * indicates that this historic resource is located on the project site.

- The Lakehouse Historic District (Landmark District) and Contributors:
  - 420 West San Fernando Street (APN 259-45-029)—New Lake House Cottage (ca. 1924)
  - 410 West San Fernando Street (APN 259-45-056)—Graham House (1901)
  - 119 Delmas Avenue (APN 259-45-059)—Gagliardo House (ca. 1900)
  - 124 Delmas Avenue (APN 259-45-095)—Brohaska/Dalis Residence (1911)
  - 454 West San Fernando Street (APN 259-48-019)—Arata House (1911)
  - 117 Gifford Avenue (APN 259-48-048)—Carto Court (1925)

World War II, 1939–1945

After the Great Depression, the Santa Clara Valley's fruit industry regained some of its former robustness. The local economic resurgence was also influenced by the widespread presence of military personnel, training facilities, and wartime production during World War II that came about from the Bay Area's proximity to the Pacific theater. During this time, industrial plants were built in the cities of Sunnyvale and Santa Clara where marine engines and landing craft were constructed, and lucrative defense contracts supported the region's burgeoning electronics and manufacturing industries.

The San José–based Food Machinery and Chemical Corporation (which produced amphibious tanks) and the Joshua Hendy Iron Works in Sunnyvale (which produced engines and weapons parts for naval ships) were the two largest wartime defense contractors in Santa Clara County. These companies won contracts during the war totaling $289 million. Wartime activities and the burgeoning population would lead to significant physical, social, and economic changes in San José and the greater Santa Clara Valley during the post-war era.

Within the study area, historic resources related to this time period include:[16]

- 40 South Montgomery Street (APNs 259-38-028 and 259-38-029)—Kearney Pattern Works and Foundry Additions (ca. 1932 and 1948)*
- 343 North Montgomery Street (APN 259-27-014)—Advance Metal Spinning (1941)*
- 345 North Montgomery Street (APN 259-27-015)—Circus Ice Cream (1944)*

Post-war Development, 1945–1960s

The Santa Clara Valley experienced rapid, diversified economic growth in the post-war years. Driven by an increasing number of military defense contracts issued to local businesses during the Cold War (which began in 1947), the region's commercial activities shifted away from agriculture to manufacturing and electronics. The once-prevalent orchards were replaced by industrial parks and other residential and commercial development to accommodate the influx of people attracted by the region's rapidly expanding economy and availability of land.

[16] * indicates that this historic resource is located on the project site.

Aggressive development was aided by the actions of pro-growth public officials like San José City Manager Anthony P. "Dutch" Hamann, who facilitated 1,419 annexations between 1950 and 1969; real estate developers who built hundreds of new subdivisions in previously unincorporated areas and former agricultural land; and private homebuilders. In addition to a 467 percent population increase between 1950 and 1970, the physical footprint of San José expanded from approximately 17 square miles to nearly 137 square miles during the same period.

In line with national trends, the number of automobiles proliferated, resulting in traffic jams on congested freeways, long commutes, and the noticeable presence of smog. Freeways and major arterials were constructed in the 1950s and 1960s to improve accessibility and manage the increased volume of cars. This construction effectively carved up old neighborhoods and former agriculture fields and paved them with asphalt. The project site is located within the loop created by State Route (SR) 87 (Guadalupe Freeway), Interstate 280 (which connects San José to San Francisco), and Interstate 880. While all these highways were constructed over many years and across several decades, all were begun in the post-war period to address the growing reliance on automobile transportation.

Within the study area, historic resources related to this time period include:[17]

- 105 South Montgomery Street (APNs 261-35-003 and 261-35-010)—Stephen's Meat Products Sign (ca. 1948)*
- 580 Lorraine Avenue (APN 259-47-040)—Democracy Hall (1961)*

Contemporary Era, 1970–Present

By 1970, most of the valley's fruit orchards had been replaced by urban sprawl, and the region had transformed from an agricultural economy to a technology center. The name "Silicon Valley" was coined by a journalist in 1971, referring to the region's high production of silicon chips. Manufacturers and developers of electronics, scientific instruments, machines, and computer software took the lead in the region's economy, followed by business, health, and engineering services. By 1990, San José had surpassed San Francisco as the Bay Area's most populous municipality. By 2000, San José's population numbered nearly 900,000 and was 36.0 percent non-Hispanic white, 30.2 percent Hispanic, 27.3 percent Asian or Pacific Islander, 3.5 percent African American, and 0.8 percent Native American.[18]

Beginning in 1969, San José's policy of aggressive annexation that had defined the post-war period advanced to a new policy of urban redevelopment and revitalization. A redevelopment agency was established in 1956, and the San José City Council would take a more active role in redevelopment efforts beginning in the 1970s. Between 1979 and 1999, more than $2 billion was invested into development in and around Downtown San José that included new hotels, convention facilities, museums, theaters, housing, commercial buildings, and public spaces.

[17] * indicates that this historic resource is located on the project site.
[18] Bay Area Census, City of San Jose, Santa Clara County. Available at http://www.bayareacensus.ca.gov/cities/SanJose70.htm. Accessed December 30, 2019.

Major development has continued in recent decades. During the 1970s and 1980s, most commercial and industrial development occurred in northern San José, which drew workers away from residential suburbs and Downtown. Beginning in 1984, a countywide sales tax raised funds for investments in roads and public transit throughout Santa Clara County. Approval of a $100 million sports complex in Downtown San José was approved in 1988, and the San José Arena (later named the HP Pavilion and currently the SAP Center) was constructed near the center of the project site in the early 1990s. The 3-mile-long Guadalupe River Park and Gardens was developed north of the project site between 1992 and 2005.

Electronics and technology have remained the region's most prominent industries. As part of a public relations campaign to recruit high-tech companies, San José named itself "the capital of Silicon Valley" in 1988. By 1994, more than 3,650 technology companies were located within 30 miles of Downtown San José, many of which were located within San José city limits.

Within the study area, there are no historic resources associated with this time period.

Existing Cultural and Historical Setting

For the purposes of CEQA, the following analysis uses a historic architectural study area of the project site plus 200 feet.[19]

Historic Architectural Resources

The CEQA Guidelines (Section 15064.5(a)) define a *historical resource* as:

(a) A resource listed in, or determined to be eligible by the State Historic Resources Commission, for listing in the California Register;

(b) A resource included in a local register of historical resources, as defined in PRC Section 5020.1(k) or identified as significant in a historical resource survey meeting the requirements of PRC Section 5024.1(g); or

(c) Any object, building, structure, site, area, place, record, or manuscript that a lead agency determines to be historically significant or significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural annals of California, provided the lead agency's determination is supported by substantial evidence in light of the whole record.

In addition, Section 15064.5(a)(4) states that:

> *[T]he fact that a resource is not listed in, or determined to be eligible for listing in the California Register of Historical Resources, not included in a local register of historical resources (pursuant to PRC Section 5020.1(k)), or identified in an historical resources survey (meeting the criteria in PRC Section 5024.1(g)) does not preclude a lead agency from determining that the resource may be an historical resource as defined in PRC Sections 5020.1(j) or 5024.1.*

[19] The 200-foot radius was identified by the City of San José and is consistent with general CEQA methodologies undertaken in the city as the area in which an impact may occur.

Following the CEQA Guidelines, the City of San José considers properties to be historical resources under CEQA if they are listed or meet the criteria for listing in the National Register and/or the California Register. City Landmarks, Candidate City Landmarks, City Landmark Districts, Candidate City Landmark Districts, and contributors to City and Candidate City Landmark Districts, because they are defined in the City's Historic Preservation Ordinance (Section 13.48).

Structures of Merit, Identified Sites/Structures, Conservation Areas, and Contributing Sites/Structures that fall outside City Landmark and Candidate City Landmark Districts, as defined in the City of San José *Downtown Strategy 2040 Integrated Final Environmental Impact Report* (Final EIR), contribute to the historic fabric of the city and are eligible for inclusion on the City's Historic Resource Inventory. These resources are of lesser significance. Therefore, they are not considered historical resources under CEQA, and impacts on these categories of resources are not analyzed in this document.[20]

All age-eligible buildings in the project area were evaluated for eligibility for listing on the national, state, and local registers. While not historic resources for the purposes of CEQA, this study included evaluation for eligibility on the HRI as Structures of Merit or Identified Sites/Structures. Refer to Appendix E1 for the individual assessments and survey findings.

Background Research

The Historic Resource Technical Report (Appendix E1) was prepared by Architectural Resources Group (ARG) for this project. To complete the confirmation of eligibility of previously identified historic architectural resources and analysis of age-eligible resources, ARG did all of the following:

- Conducted site visits to examine and photograph the project site and surroundings in September 2019;
- Consulted the City of San José's online permit portal to review building permit records regarding properties on the project site;
- Reviewed recorded construction dates for properties within the project site on file at the Santa Clara County Office of the Assessor;
- Conducted archival research at local repositories, including History San José and the California Room at San José State University;
- Reviewed online repositories, including Newspapers.com, Ancestry.com, the California Digital Newspaper Collection, *Mercury News* (San José) archives, the *San Francisco Chronicle* Historical Database, the Online Archive of California, the Internet Archive, the U.S. Geological Survey EarthExplorer, and the David Rumsey Map Collection;
- Reviewed documents regarding the City of San José's preservation policies, including the City's Historic Preservation Ordinance (Municipal Code Chapter 13.48), the General Plan, and the City's Historic Resources Inventory;

[20] City Landmarks and Candidate City Landmarks and Districts are subject to nomination and review procedures as set forth in the San José Municipal Code Historic Preservation Ordinance (Chapter 13.48). The HRI includes a number of resources that contribute to the general character of San José but that do not meet the criteria set forth in the ordinance. Therefore, only those resources recognized as City Landmarks or Candidate City Landmarks are considered historic resources for the purposes of CEQA.

- Reviewed extensive historical documentation and numerous prior evaluations pertaining to properties on the project site; and
- Identified listed known historical resources under CEQA (National Register–listed, California Register–listed, and City Landmark–designated historic resources and districts) on the project site and within a 200-foot radius of the project site (i.e., within the historic architectural resource study area).

To support ARG's work, the cultural resources staff at Environmental Science Associates initiated a records search at the Northwest Information Center (NWIC) of the California Historical Resources Information System, which was completed on August 23, 2019 (File No. 19-0347). The records search included a review of previous studies, records, and maps on file at the NWIC for the project site and a surrounding half-mile radius. The records search included a review of the California Office of Historic Preservation's Historic Properties Directory, with summary information from the National Register, California Register, Registered California State Landmarks, California Historic Points of Interest, and Archaeological Determinations of Eligibility. This records search was augmented by supplementary research and information provided by the City. For historic architectural resources and potential resources located within the study area but outside the project boundary, ARG and Environmental Science Associates reviewed prior evaluations and conducted a visual inspection of the properties to verify continued eligibility as indicated by the current City HRI status. In addition, the City conducted additional reconnaissance-level surveying to confirm and/or modify current HRI status.

Previously identified historic architectural resources (at all levels of historical significance) and resources of lesser significance that do not qualify as historical resources under CEQA were identified on the project site. All of these resources were considered for further assessment to determine or confirm whether they qualify as historical resources under CEQA for purposes of this analysis (Appendix E1). Existing documentation, including evaluations completed for previous cultural surveys and studies, was reviewed and the assessments were updated as needed.

As a result of these efforts, 36 historical resources under CEQA were identified in the study area. These resources are summarized in **Table 3.3-1** and shown on **Figure 3.3-1**. Of these resources, nine are within the project site and 27 are located outside the project site but within the study area (i.e., the project site plus a 200-foot radius).

Of the 27 located off the project site but within the larger study area, 23 were determined or confirmed through intensive survey to be eligible for listing in the National Register, California Registers, City Landmarks, Candidate City Landmarks, or contributors to a City Landmark District. Four properties were determined by the City to be eligible for Candidate City Landmarks status through a reconnaissance-level survey.[21]

[21] Juliet Arroyo, (former) Historic Preservation Officer, City of San José, email, March 2, 2020.

TABLE 3.3-1
HISTORICAL ARCHITECTURAL RESOURCES UNDER CEQA IN THE STUDY AREA

APN	Address	Resource Name (Date)	Status	Source
		Lakehouse Historic District[d]	City Landmark District[c]	DPR (2006)
259-18-023	131 Gifford Avenue	Currlin Residence (ca. 1892)	Lakehouse Historic District Contributor[c]	DPR (2006)
259-18-024	137 Gifford Avenue	Stojanovich Residence (ca. 1893)	Lakehouse Historic District Contributor[c]	DPR (2006)
259-18-026	149 Gifford Avenue	Gunn Residence (ca. 1892)	Lakehouse Historic District Contributor[c]	DPR (2006)
259-18-027	155 Gifford Avenue	Lewis Residence (ca. 1892)	Lakehouse Historic District Contributor[c]	DPR (2006)
259-18-028	163 Gifford Avenue	Wilson Residence (ca. 1898)	Lakehouse Historic District Contributor[c]	DPR (2006)
259-18-029	169 Gifford Avenue	Hartung Residence (ca. 1896)	Lakehouse Historic District Contributor[c]	DPR (2006)
259-27-009[a]	**559 W. Julian Street 563 W. Julian Street 567 W. Julian Street**	**(ca. 1883) (ca. 1894) (ca. 1892)**	**Candidate City Landmark[b]**	**ARG (2020)**
259-27-014	**343 N. Montgomery Street**	**Advance Metal Spinning (1941)**	**Candidate City Landmark[b]**	**ARG (2020)**
259-27-015	**345 N. Montgomery Street**	**Circus Ice Cream (1944)**	**Candidate City Landmark[b]**	**ARG (2020)**
259-29-004	160 N. Montgomery Street	(ca. 1900)	Candidate City Landmark	City of San José
259-29-021	237 N. Autumn Street	Dennis Residence (1870)	NR/CR eligible,[b] City Landmark[c]	DPR (2005)
259-29-023	203 N. Autumn Street	(1893)	Candidate City Landmark	City of San José
259-29-024	199 N. Autumn Street	(1900)	Candidate City Landmark	City of San José
259-29-025	195 N. Autumn Street	(1910)	Candidate City Landmark	City of San José
259-35-027	**145 S. Montgomery Street**	**Sunlite Baking Co. (1936)**	**NR/CR eligible,[b] Candidate City Landmark[b]**	**ARG (2020)**
259-38-010[a]/ 259-38-011/ 259-38-028/ 259-38-029	**55 S. Autumn Street 57 S. Autumn Street 40 S. Montgomery Street**	**Kearney Pattern Works and Foundry (1922, ca. 1950s and ca. 1993 expansion)**	**NR/CR eligible,[b] Candidate City Landmark[b]**	**ARG (2020)**
259-38-128	**374 W. Santa Clara Street**	**San Jose Water Works (1934–1940)**	**NR/CR eligible,[b] City Landmark[c]**	**ARG (2020)**
259-45-029	398 W. San Fernando Street	Owen House (1888)	NR/CR Eligible,[b] Lakehouse Historic District Contributor[c]	A&A (2006)
259-45-030	396 W. San Fernando Street	Chiappe House (1891)	NR/CR Eligible,[b] Lakehouse Historic District Contributor[c]	A&A (2006)
259-45-031	394 W. San Fernando Street	Frolich-Maynard House (ca. 1889)	Lakehouse Historic District Contributor[c]	
259-45-051	446 W. San Fernando Street	Ferrell House #1 (1892)	Lakehouse Historic District Contributor[c]	
259-45-052	436 W. San Fernando Street	Dufie-Aguirre House (1885)	Lakehouse Historic District Contributor[c]	
259-45-053	426 W. San Fernando Street	New Lake House (1895)	Lakehouse Historic District Contributor[c]	
259-45-054	420 W. San Fernando Street	New Lake House Cottage (1924)	Lakehouse Historic District Contributor[c]	

TABLE 3.3-1
HISTORICAL ARCHITECTURAL RESOURCES UNDER CEQA IN THE STUDY AREA

APN	Address	Resource Name (Date)	Status	Source
259-45-055	416 W. San Fernando Street	Parks-Rae House (1899)	NR/CR Eligible,[b] Lakehouse Historic District Contributor[c]	A&A (2006)
259-45-056	410 W. San Fernando Street	Graham House (1901)	Lakehouse Historic District Contributor[c]	
259-45-059	119 Delmas Avenue	Gagliardo House (ca. 1900)	Lakehouse Historic District Contributor[c]	A&A (2006)
259-45-095	124 Delmas Avenue	Brohaska/Dalis Residence (1911)	City Landmark Structure, Lakehouse Historic District Contributor[c]	A&A (2006)
259-47-040	**580 Lorraine Avenue**	**(1961)**	**NR/CR Eligible,[b] Candidate City Landmark[c]**	**ARG (2020)**
259-48-019	454 W. San Fernando Street	Arata House (1911)	NR/CR Eligible,[b] Lakehouse Historic District Contributor[c]	A&A (2006)
259-48-048	117 Gifford Avenue	Carto Court (1925)	Lakehouse Historic District Contributor[c]	A&A (2006)
259-48-049	125 Gifford Avenue	Lutzen/Carto Residence (ca. 1892)	Lakehouse Historic District Contributor[c]	A&A (2006)
259-48-053	**150 S. Montgomery Street**	**Hellwig Ironworks (ca. 1935)**	**Candidate City Landmark[b]**	**ARG (2020)**
261-34-020	65 Cahill Street	Southern Pacific Depot Historic District (Diridon Station) (1935)	City Landmark, National Register Listed[c]	NR Nomination Form (1993)
261-35-003/ 261-35-010	**105 S. Montgomery Street**	**Stephen's Meat Products Sign (ca. 1948)**	**Contributing Structure pending Commercial Signage Discontiguous District**	**ARG (2020)**

NOTES:

A&A =Archives & Architecture; APN = Assessor's Parcel Number; ARG = Architectural Resources Group; ca. = circa; CEQA = California Environmental Quality Act; CR = California Register of Historic Resources; NR = National Register of Historic Places

Bold indicates resources located within the project site boundaries.

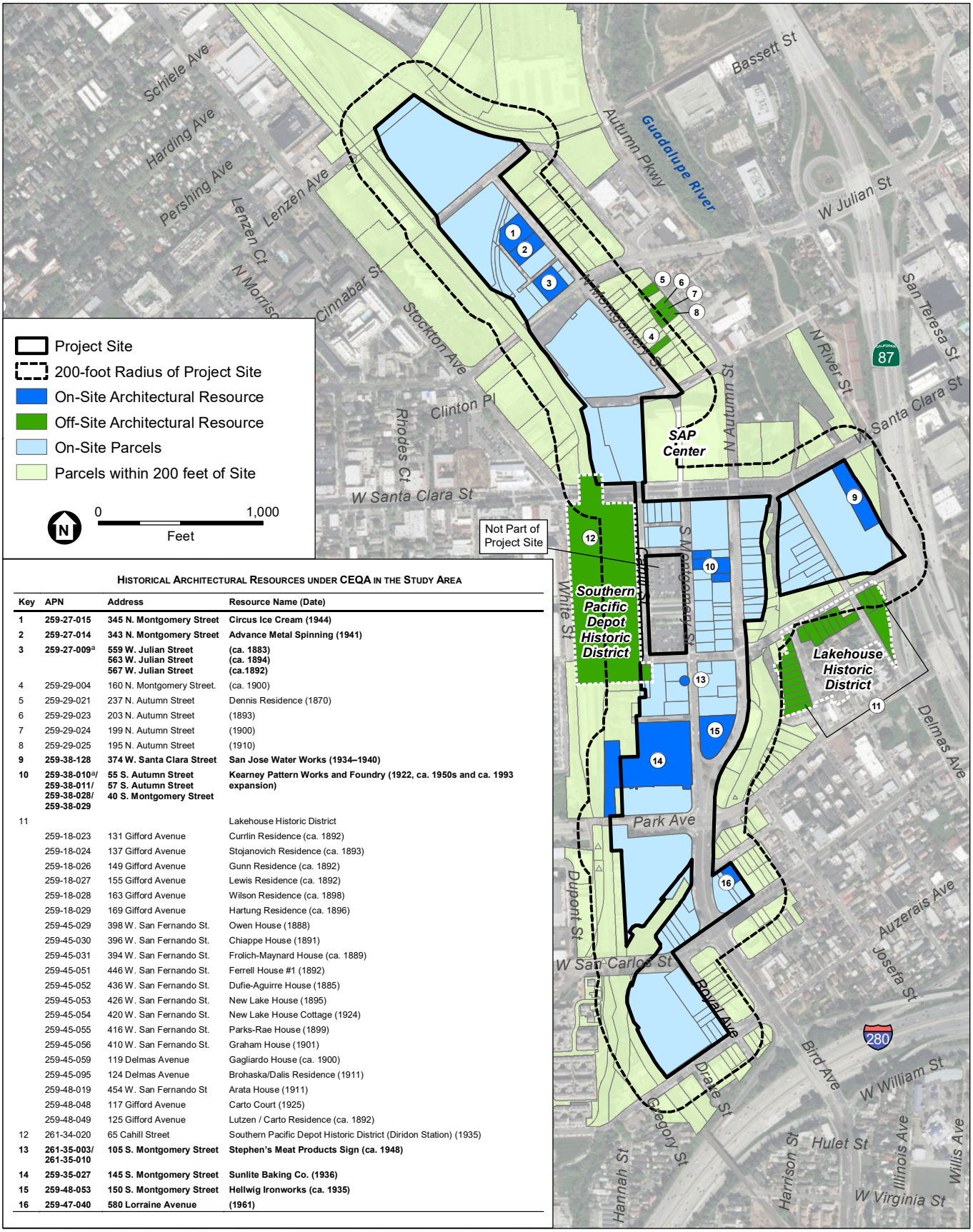
[a] Grouping of three properties evaluated as a single resource.

[b] Potential historical status based on the source documents noted.

[c] Determined status.

[d] Three additional contributors (369, 398, and 454 West San Fernando Street) are listed separately because they also qualify as individual resources under CEQA.

SOURCE: Architectural Resources Group, *Historical Resources Technical Report, Downton West Mixed-Use Plan, San José, California*, March 2020.



Historical Architectural Resources under CEQA in the Study Area

Key	APN	Address	Resource Name (Date)
1	**259-27-015**	**345 N. Montgomery Street**	**Circus Ice Cream (1944)**
2	**259-27-014**	**343 N. Montgomery Street**	**Advance Metal Spinning (1941)**
3	**259-27-009[a]**	**559 W. Julian Street 563 W. Julian Street 567 W. Julian Street**	**(ca. 1883) (ca. 1894) (ca.1892)**
4	259-29-004	160 N. Montgomery Street.	(ca. 1900)
5	259-29-021	237 N. Autumn Street	Dennis Residence (1870)
6	259-29-023	203 N. Autumn Street	(1893)
7	259-29-024	199 N. Autumn Street	(1900)
8	259-29-025	195 N. Autumn Street	(1910)
9	**259-38-128**	**374 W. Santa Clara Street**	**San Jose Water Works (1934–1940)**
10	**259-38-010[a]/ 259-38-011/ 259-38-028/ 259-38-029**	**55 S. Autumn Street 57 S. Autumn Street 40 S. Montgomery Street**	**Kearney Pattern Works and Foundry (1922, ca. 1950s and ca. 1993 expansion)**
11			Lakehouse Historic District
	259-18-023	131 Gifford Avenue	Currlin Residence (ca. 1892)
	259-18-024	137 Gifford Avenue	Stojanovich Residence (ca. 1893)
	259-18-026	149 Gifford Avenue	Gunn Residence (ca. 1892)
	259-18-027	155 Gifford Avenue	Lewis Residence (ca. 1892)
	259-18-028	163 Gifford Avenue	Wilson Residence (ca. 1898)
	259-18-029	169 Gifford Avenue	Hartung Residence (ca. 1896)
	259-45-029	398 W. San Fernando St.	Owen House (1888)
	259-45-030	396 W. San Fernando St.	Chiappe House (1891)
	259-45-031	394 W. San Fernando St.	Frolich-Maynard House (ca. 1889)
	259-45-051	446 W. San Fernando St.	Ferrell House #1 (1892)
	259-45-052	436 W. San Fernando St.	Dufie-Aguirre House (1885)
	259-45-053	426 W. San Fernando St.	New Lake House (1895)
	259-45-054	420 W. San Fernando St.	New Lake House Cottage (1924)
	259-45-055	416 W. San Fernando St.	Parks-Rae House (1899)
	259-45-056	410 W. San Fernando St.	Graham House (1901)
	259-45-059	119 Delmas Avenue	Gagliardo House (ca. 1900)
	259-45-095	124 Delmas Avenue	Brohaska/Dalis Residence (1911)
	259-48-019	454 W. San Fernando St	Arata House (1911)
	259-48-048	117 Gifford Avenue	Carto Court (1925)
	259-48-049	125 Gifford Avenue	Lutzen / Carto Residence (ca. 1892)
12	261-34-020	65 Cahill Street	Southern Pacific Depot Historic District (Diridon Station) (1935)
13	**261-35-003/ 261-35-010**	**105 S. Montgomery Street**	**Stephen's Meat Products Sign (ca. 1948)**
14	**259-35-027**	**145 S. Montgomery Street**	**Sunlite Baking Co. (1936)**
15	**259-48-053**	**150 S. Montgomery Street**	**Hellwig Ironworks (ca. 1935)**
16	**259-47-040**	**580 Lorraine Avenue**	**(1961)**

SOURCES: Esri, 2019, City of San Jose, 2019, ESA, 2020

Downtown West Mixed-Use Plan

Figure 3.3-1
Downtown West Mixed-Use Plan,
Historic Resource Study Area Map

Conservation Areas (and their contributing sites/structures), Structures of Merit, and Identified Structures are properties that do not qualify as City Landmarks, or as part of a City Landmark District, California Register listing, or National Register listing and are therefore not considered historic architectural resources for the purposes of CEQA. In the interest of disclosure, all properties in the study area that are listed or eligible for listing on the City's HRI at these lower levels of significance are presented in **Table 3.3-2**, later in this section. Four of these are located on the project site, and 10 are located within the larger study area.

Identified Resources on the Project Site

The project site covers approximately 81 acres and includes nine historic architectural resources under CEQA.[22] Of the historic architectural resources under CEQA within the project limits, six are individual resources, two are groupings of multiple structures, and one is a contributor to a discontiguous Candidate City Landmark District (**Figure 3.3-2**).[23] Each is described and summarized below; refer to Appendix E1 for the historic resource survey results and additional information about each resource.

559, 563, and 567 West Julian Street

This historic resource is a grouping of three individual residences located on a single assessor's parcel (APN 259-27-009). Together, the residences appear eligible for Candidate City Landmark status as a group. However, none of the structures appear to individually qualify as a historic architectural resources under CEQA.

The grouping of properties at 559, 563, and 567 West Julian Street has the following character-defining features:

- Wood channel drop siding
- Front-facing gable with bay window
- Spindlework and decorative wood trim
- Close proximity to front property line with prominent front entry
- Adjacency to houses similar in age, construction, massing, and design

[22] There is a slight overlap between the project boundaries and the National Register and Landmark District boundaries of the Southern Pacific Depot Historic District. This overlap is largely within or adjacent to the public right-of-way and does not encompass any contributing buildings or features. Therefore, for the purposes of this study, the Southern Pacific Depot Historic District is analyzed as adjacent to the project site and discussed with off-site resources located within 200 feet of the project.

[23] This discontiguous Candidate City Landmark District is in the process of being formally listed on the City of San José's Historic Inventory. As of February 5, 2020, the first 10 signs have been approved for listing by the Historic Landmarks Commission. District documentation is in process under the direction of the City of San José Historic Preservation Officer. Listing on the Historic Inventory does not qualify the sign as a historic architectural resources under CEQA however, the Stephen's Meat Market Sign would qualify as a historic architectural resources under CEQA upon adoption of the sign district, which is anticipated to occur before the proposed project is completed. Therefore, this analysis treats the sign as a historic architectural resources under CEQA.

SOURCE: ESA, 2020

Downtown West Mixed-Use Plan

Figure 3.3-2
On-Site Resources

The three buildings occupy the same parcel (APN 259-27-009) and are "a remnant cluster of worker housing characteristic of the late 19th and early 20th centuries in this historically mixed residential and industrial section of San José … All three dwellings are representative of the residential use that defined its immediate area in the late nineteenth and early twentieth century, and their proximity strengthens their ability to communicate this association."[24] All were constructed in the late 19th century, designed in the Folk Victorian style, and historically occupied by working-class residents.

559 West Julian Street is a ca. 1883 one-story residence constructed in the Folk Victorian style. It is a roughly T-shaped, wood-framed building with asphalt roll-roofing. All visible windows and the doorway on the primary façade have been replaced by vinyl siding and modern elements. Site features include a poured concrete walkway, shrubs that cover the bay window on the primary façade, and tall deciduous trees along the southeastern property boundary.[25]

563 West Julian Street is a ca. 1894 one-story, rectangular plan, Folk Victorian cottage on a raised foundation. It is clad with channel drop wood siding and capped with an asphalt shingle-clad hipped roof. Many of the original wood double-hung sash windows have been replaced by vinyl, single-hung modern windows. Spindlework, brackets, and other typical elements of Victorian architecture remain on the front façade. The front yard is enclosed with a wood fence and dominated by tall mature trees.[26]

568 West Julian Street was constructed ca. 1892 and is also a one-story, rectangular plan, Folk Victorian cottage. It is clad with horizontal channel drop wood siding with flat cornerboards and topped with a combination hip and gable roof covered with rolled roofing. Most windows on the front façade have been replaced with modern vinyl units. Original window sills, decorative wood trim, brackets, and a large bay window with a stained glass transom remain, although some portions of the front façade have recently been boarded up with plywood. Mature landscaping and a wood fence further separate the building from the sidewalk.[27]

The three buildings were previously individually evaluated and found to be ineligible for listing in the National Register and California Register.[28] ARG's analysis concurs with the previous findings. However, the grouping of the three buildings also appears to be eligible as a San José Candidate City Landmark because "[a]ll three dwellings are representative of the residential use that defined its immediate area in the late nineteenth and early twentieth century, and their proximity strengthens their ability to communicate this association." For this reason, the grouping of buildings at 559, 563, and 567 West Julian Street is considered a historical resource for the purposes of CEQA.[29]

[24] Refer to Appendix E1 for more information regarding these resources.
[25] Architectural Resources Group, DPR form-set for 559 West Julian Street, January 2020.
[26] Architectural Resources Group, DPR form-set for 563 West Julian Street, January 2020.
[27] Architectural Resources Group, DPR form-set for 567 West Julian Street, January 2020.
[28] 559 and 567 West Julian Street were evaluated in 1992 by Archives and Architecture. 563 West Julian Street was evaluated in 2011 by PBS&J.
[29] Architectural Resources Group, DPR form-set for 559 West Julian Street, January 2020.

343 North Montgomery Street (Advance Metal Spinning)

343 North Montgomery Street (APN 259-27-014) is a one-story, Streamline Moderne style industrial building located at the front lot line. The building is covered in smooth stucco and features thin, raised horizontal lines, sometimes referred to as speedlines, that are indicative of the style. Multi-lite, wood sash storefront, sidelight, and transom windows create a unified appearance on the primary façade. The building's massing is primarily rectangular and composed of a number of additions and adjacent construction projects that are not fully visible from the public right-of-way.[30]

The property at 343 North Montgomery Street has the following character-defining features:

- Speedlines and emphasis on horizontal decorative elements
- Multi-lite windows with horizontal panes
- Recessed storefront entry
- Full-width transom
- Simple, one-story rectangular form
- Smooth stucco cladding

This building was constructed in 1941 and first appears in the San José City Directory in 1943 as the location of Somers, O'Rear & Stephan Steel Fabricators and Engineers. By 1949, the building was owned by Edwin B. Pray, who also constructed 343 North Montgomery Street and operated a machine shop at 341 North Montgomery Street. The properties at 343 and 345 North Montgomery Street are physically connected.

343 North Montgomery Street was previously individually evaluated and found to be ineligible for listing in the National Register and California Register.[31] A 2019 analysis concurred with the previous findings. However, the building appears to be eligible as an individual San José Candidate City Landmark because it is a "local example of industrial architecture with Streamline Moderne elements and [conveys] the physical landscape of the neighborhood as it was during World War II and in the early postwar era." For this reason, 343 North Montgomery Street is considered a historical resource for the purposes of CEQA.[32]

345 North Montgomery Street (Circus Ice Cream)

345 North Montgomery Street (APN 259-27-015) is a one-story, Streamline Moderne style industrial building located at the front lot line. The building is covered with smooth stucco on its primary façade and vertical-groove engineered wood siding on its exposed northern façade. The primary façade is adorned with horizontal speedlines and a front-door awning with additional horizontal lines, both indicative of Streamline Moderne architectural design. A multi-lite wood sash storefront and sidelight windows further emphasize the horizontal nature of the design. A

30 Architectural Resources Group, DPR form-set for 343 North Montgomery Street, January 2020.
31 343 and 345 North Montgomery Street were evaluated in 2011 by PBS&J.
32 Architectural Resources Group, DPR form-set for 343 North Montgomery Street, January 2020.

one-story hyphen with a nine-light, steel-sash window connects this building to its neighbor at 343 North Montgomery Street.[33]

The property at 345 North Montgomery Street has the following character-defining features:

- Speedlines and emphasis on horizontal decorative elements
- Multi-lite windows with horizontal panes
- Simple, one-story rectangular form
- Smooth stucco cladding

This building was constructed in 1944 by and for Edwin B. Pray. Pray also constructed 343 North Montgomery Street (discussed above) and operated a machine shop at 341 North Montgomery Street (no longer extant).

345 North Montgomery Street was previously individually evaluated and found to be ineligible for listing in the National Register and California Register.[34] A 2019 analysis concurred with the previous findings. However, the building appears to be eligible as an individual San José Candidate City Landmark because it is a "local example of industrial architecture with Streamline Moderne elements and [conveys] the physical landscape of the neighborhood as it was during World War II and in the early postwar era." For this reason, 345 North Montgomery Street is considered a historical resource for the purposes of CEQA.[35]

40 South Montgomery Street and 55 and 57 South Autumn Street (Kearney Pattern Works and Foundry)

The former Kearney Pattern Works and Foundry complex is composed of attached buildings constructed in phases between 1922 and ca. 1993 (APNs 259-38-010, 259-38-011, 259-38-028, and 259-38-029). The complex is primarily one-story, with an irregular footprint that spans the block between South Montgomery and South Autumn Streets. The oldest portion of the complex (40 South Montgomery Street) was constructed in 1922 as a pattern shop. This building is a wood-frame structure with a gable roof and a gabled monitor. A variety of window types (wood and steel sash) punctuate the façades. The building is clad with a combination of wood and corrugated sheet metal. An outbuilding was added to the rear in 1932 and a southerly addition was added in 1948. Newer components of the complex (mostly facing South Autumn Street) are steel frame and clad with corrugated sheet metal. These sections have fewer windows, with roll-up metal doors providing vehicular and delivery access.[36]

The former Kearney Pattern Works and Foundry complex has the following character-defining features:

- One-story heights with a variety of rooftop windows and daylighting features (e.g., dormers, monitors)

[33] Architectural Resources Group, DPR form-set for 345 North Montgomery Street, January 2020.
[34] 343 and 345 North Montgomery Street were evaluated in 2011 by PBS&J.
[35] Architectural Resources Group, DPR form-set for 343 North Montgomery Street, January 2020.
[36] Architectural Resources Group, DPR form-set for 40 South Montgomery Street, 43–55 South Autumn Street, and 57 South Autumn Street, January 2020.

- Simple, flat-sawn window and door trim
- Combination of pedestrian and vehicular entrances
- Irregular plan indicative of phases of company growth

Alfred C. Kearney established the Kearney Pattern Works and Foundry at the site in 1922. The facility was enlarged in the 1930s, 1940s, 1950s, 1960s, and 1990s. The façade of the earliest structure was likely remodeled in the late 1950s to appear uniform with the newer additions. An important local manufacturer, Kearney Pattern Works and Foundry, continued to operate at the property until it was sold in 2019.

This resource was previously evaluated and found to be ineligible for listing in the National Register and California Register.[37] ARG's analysis differs from the previous findings and concludes that the subject property appears to be eligible for listing in both the National and California Registers under Criterion A/1: "Over the course of its one hundred years in operation, Kearney Pattern Works and Foundry's operations would come to reflect the broader shifts and patterns in the [region's] prevailing industries and play an important role in producing specialized tools and equipment required for their commercial success." The identified period of significance is 1922 (date of initial construction) through the end of World War II in 1949. The building also appears to be eligible for listing as a San José Candidate City Landmark. For these reasons, the Kearney Pattern Works and Foundry is considered a historical resource for the purposes of CEQA.[38] Only those portions that were constructed within the period of significance (1922–1949) are considered as contributing to the historical significance of the property. This includes the original 40 South Montgomery Street building built in 1922, the 1932 outbuilding, and the 1948 southerly addition. Excluded as contributors are the two additions on South Autumn Street, a 1962 connector between the South Montgomery Street and South Autumn Street buildings, and a small rectangular addition between the 1922 and 1948 buildings on South Montgomery Street; this last component was also added in 1962.

374 West Santa Clara Street (San Jose Water Works)[39]

The San Jose Water Works building (APN 259-38-128) was constructed in 1934 and expanded in 1940 by the San Jose Water Company. The San Jose Water Company was established in 1866 to provide water to San José and the surrounding communities. It remains in business today under private ownership. The property has been owned by the company since ca. 1880, occupying it as a well field, pumping station, and company offices. The 1934/1940 building was determined to be eligible for inclusion in the National and California Registers in 1990 under Criterion A/1 (Events and Trends)[40] for its association with the oldest privately owned water utility in California and

[37] This resource was evaluated in 1992 by Archives and Architecture, in 1999 by Archives and Architecture and Ward Hill, and in 2010 by PBS&J.
[38] Architectural Resources Group, DPR form-set for 40 South Montgomery Street, 43–55 South Autumn Street, and 57 South Autumn Street, January 2020.
[39] National Register nomination 1989.
[40] The National Register nomination form notes that water utilities in the Bay Area were "of paramount importance in the urban development of the region," thus qualifying it for listing under Criterion A as being associated with a "pattern of events or a historic trend that made a significant contribution to the development of a community, a State, or the nation."

under Criterion C/3 (Architecture) as an excellent example of a distinctive type of office building for its period, combining Moderne and Spanish Colonial Revival elements. The 1913 transformer building was also found to be a contributing element to the historic resource; however, all other portions of the complex were determined to be non-contributing.[41] The complex is City Landmark number HL91-57.[42]

San Jose Water Company was incorporated on November 21, 1866, by Donald McKenzie, John Bonner, Peter Carter, and Anthony Chabot, drawing from artesian wells to supply water to the growing population of San José. Demand increased rapidly, and the company continued to expand its infrastructure by constructing dams, reservoirs, flumes, and conduits. By 1900, it had water rights on Los Gatos Creek and owned more than 4,000 acres of watershed in the Santa Cruz Mountains (including four lakes) to augment the nine artesian well pumping stations in San José. At the turn of the century, the company supplied water to the cities of San José, Los Gatos, Saratoga, and Alma.[43] In the 20th century, expansion was concentrated in the areas east of San José and included additional reservoirs and distribution system infrastructure. In 1951, with the completion of Austrian Dam and the creation of Lake Elsman, San Jose Water Company crossed the 100,000 service connection threshold. In 2016, the company celebrated 150 years of service. Today, it serves more than 1 million customers in the greater San José metropolitan area.[44]

The San Jose Water Works site, also known as the Main Station, houses (currently and/or historically) a water source and pumping station. Pumps draw water from the artesian wells on-site and feed the water directly into the water distribution system, the site of the administration offices (as early as 1888), and maintenance and storage facilities.

The San Jose Water Works building is "an excellent local example of a 1930s office building combining elements of the Modern and Spanish Colonial Revival styles." The two-story, rectangular-plan building was built in two phases in 1934 and 1940. Both phases were designed by notable local architect Ernest N. Curtis (1888–1956) of the firm Binder & Curtis, and are unified in design and composition.[45] The first phase included the north two-story section and the first story of the central section. The second phase included the south two-story section and the second story of the central section. All portions are built of reinforced concrete, a signature material for Binder & Curtis, and the roofs are clad in red terra cotta tile. Original steel sash windows are set in bays demarcated by fluted piers. Cast stone ornament includes a Moderne

41 The eligibility for National and California Register listing, and for City Landmark status was reconfirmed in 2003 by Ward Hill, and in 2019 by ARG. Refer to Appendix E1 for more information.

42 The eligibility for National and California Register listing, and for City Landmark status was reconfirmed in 2003 by Ward Hill, and in 2019 by ARG. Refer to Appendix E1 for more information.

43 The town of Alma no longer exists. It was located at the current site of Lexington Reservoir.

44 San Jose Water Company, About San Jose Water: Who We Are. Available at www.sjwater.com/our-company. Accessed January 7, 2020.

45 Ernest Curtis and William Binder and their firm of Binder & Curtis designed many notable buildings and structures in the San José region, including the Carnegie Library Building and Garden City Bank Building (both 1906), numerous large theaters, the Commercial Building (1920s), the Benson Building (1933), the San Jose Civic Auditorium (1934–36), several buildings for Santa Clara University, and the main buildings of the Santa Clara County Hospital. Further information can be found in the National Register nomination for the San Jose Water Works Building.

frieze band and a sculptural pediment over the entry. The resource also includes an earlier pump house (1913) that now serves as a wing to the primary structure.

The San Jose Water Works complex has the following character-defining features:

- Uniform, symmetrical design
- Reinforced concrete and stucco-clad construction
- Cast stone decorative elements: frieze band, diamond and chevron panels, sculptural pediment over the entry, and bas-relief patterns in water-related themes (clouds, raindrops, waves)
- Red tile roof tiles
- "San Jose Water Company" integral signage
- Modern-style decorative elements (e.g., frieze band, diamonds with flanking chevron panels)

The resource at 374 West Santa Clara Street was determined eligible for listing in the National and California Registers under Criterion A/1 (Events and Trends) for its association with water utility development in San José and regionally, and under Criterion C/3 (Architecture) for its combined use of Moderne and Spanish Colonial Revival architectural styles. This eligibility was first determined by Woodruff Minor and Basin Research Associates in 1999, verified by Ward Hill and Basin Research Associated in 2003, and verified again by ARG in 2019. The 1989 assessment concluded that there were two contributing buildings (the main building and transformer house) and two non-contributing buildings (the pump house and data processing building) on the property. That determination has been confirmed in at least two subsequent evaluations, described further below (2004 and 2016).

In 2004, the San Jose Water Works parcel was the subject of an EIR for a proposed project that included adaptive reuse and rehabilitation of the main building, relocation and rehabilitation of the transformer house, and development of the remainder of the parcel to house commercial, retail and residential uses (State Clearinghouse No. 2002062017).[46] That project and its environmental review were amended in 2016 for increased density of development on the same parcel.[47] In both cases, the analysis concluded that rehabilitation of the San Jose Water Works building and relocation and rehabilitation of the transformer building would result in a less-than-significant impact on a historic resource.

Consistent with the 2016 environmental review and project approval (File No. PD15-061), the City of San José issued a building permit in March 2020 to demolish the non-contributing sections of the building and site in accordance with Historic Preservation Permit HP-002 and Historic Preservation Permit Adjustment HPAD20-007 (extension of permit expiration); to remove/abate selected building elements identified in the hazardous materials report; and to conduct fill and grading, including the installation of a storm area drain and other related

[46] City of San José, *SJW Land Company Planned Development Rezoning Final Integrated Environmental Impact Report*, April 2004.
[47] City of San José, *SJW Land Company Planned Development Rezoning Final Integrated Environmental Impact Report: Addendum,* April 2016.

infrastructure improvements (sewer and water) (**Figure 3.3-3**). This work was limited to the building's interior and non-contributing additions and will not result in any other exterior changes to the main building. Historic Preservation Permit Adjustment HPAD20-006 was issued in August 2020 for the rehabilitation of the main building and changes to the openings at both the west and south elevations in compliance with the Secretary of the Interior's Standards for the Treatment of Historic Buildings. Along the west elevation, a non-historic door is being replaced with modern aluminum doors that are more representative of the original door configuration (double-leaf glass-panel doors under a transom). The south (right) section of the building will have new sliding stacking aluminum frame and glass panel doors to replace the non-historic existing glazing. At the south façade, two recessed rectilinear outlines are being added to the left and center bays to illustrate the location of the building's original glazing configuration. Because historic materials are not extant at these locations, modern glass transoms and doors are being inserted into portions of these two bays. The Transformer House will be relocated and rehabilitated as a support structure on a new mat slab foundation. Exterior stucco and terra cotta roofing will be repaired as needed to match the original. The above changes to the historic resource for which work has commenced are considered a baseline condition for the impacts analysis in this EIR, and the August 2020 Historic Preservation Permit Adjustment (HPAD20-006) is an approved project for which CEQA review has been completed. Accordingly, none of the foregoing alterations are further evaluated in this analysis.

580 Lorraine Avenue

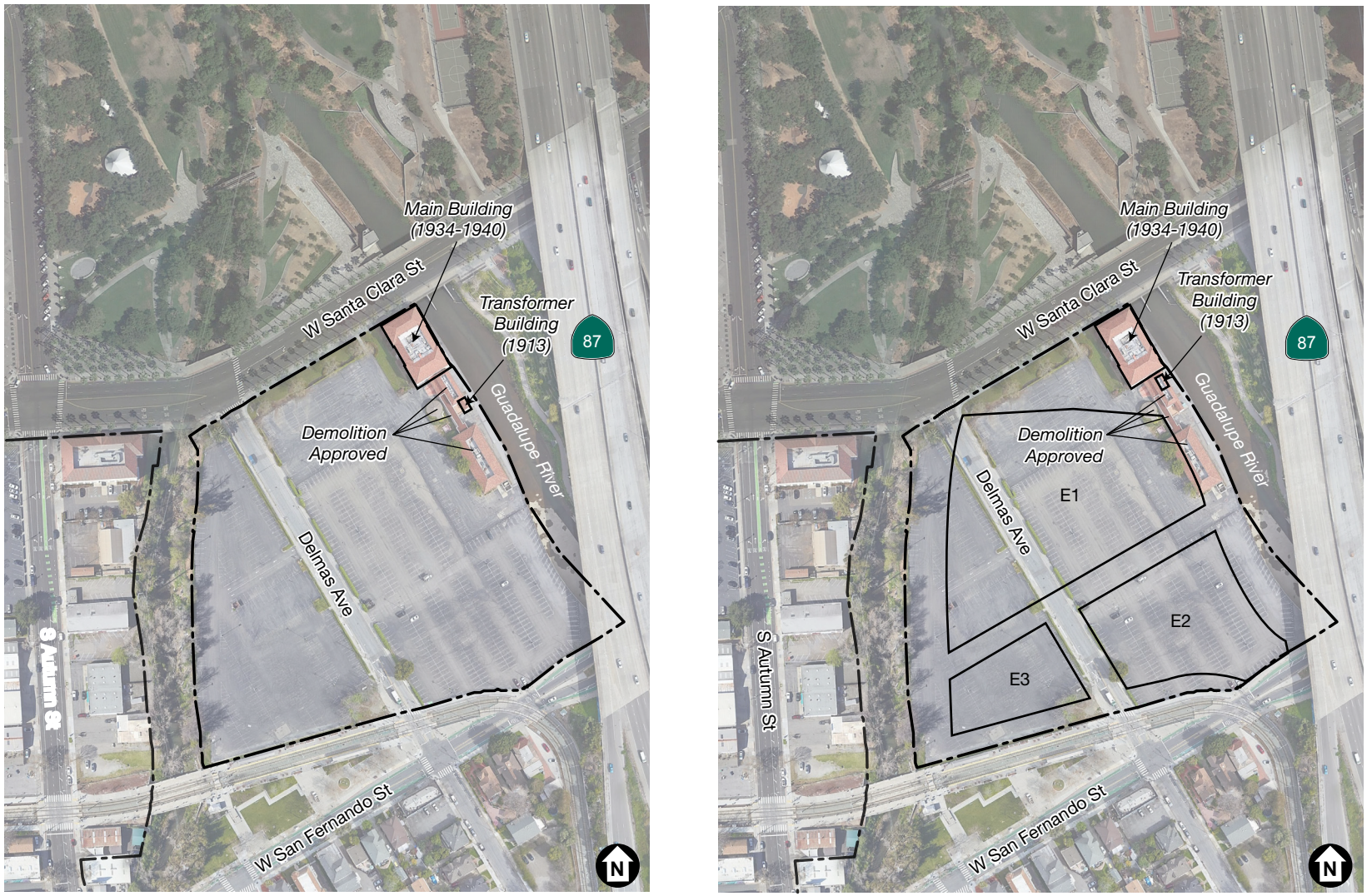
580 Lorraine Avenue (APN 259-47-040) is a "one-story, wood frame union hall [that] is irregular in plan and comprises two building components: one rhomboidal-plan component with a shed roof that slopes upward from east to west, and one narrower, trapezoidal-plan component with a shed roof that slopes downward from east to west." Both sections are primarily executed in concrete brick. All windows are fixed, steel sash in a variety of sizes and configurations. The main entry is set in a glazed wall on the eastern half of the northern façade. The site contains minimal landscaping and is surrounded on two sides by parking lots. No evidence of substantial alteration is visible.[48]

The property at 580 Lorraine Avenue has the following character-defining features:

- Complicated massing with rhomboidal-plan and trapezoidal-plan elements
- Sweeping shed roofs
- Minimal decorative elements consisting of textured construction materials and glass
- Steel sash windows including the glazed-wall primary entry

Constructed in 1961 and dedicated the following year, 580 Lorraine Avenue was originally home to a dispatching and meeting hall for the International Longshore and Warehouse Union Local 11 and Local 6, also known as Democracy Hall. It was designed by architects Henry Hill and John Kruse. The two union groups merged in 1973. The building was later occupied by the Greater Church of Jesus Christ. Research indicates that the property has been vacant since 2007.

[48] Architectural Resources Group, DPR form-set for 580 Lorraine Avenue, January 2020.



NOTE: Demolition of non-historic sections and relocation of the Transformer Building approved March 2020 (HP-002/HPAD20-007).

SOURCE: ESA, 2020; Google Earth, 2020

Downtown West Mixed-Use Plan

Figure 3.3-3
Existing and Previously Approved San Jose Water Company Contributing Element Locations

ARG concluded that 580 Lorraine Avenue appears to be eligible for listing in the National Register and California Register under Criterion C/3 as a rare non-residential example of master architect Henry Hill and his associate John Kruse, and as the only known extant example of Hill's work in San José. In addition, ARG concluded that 580 Lorraine Avenue appears to be eligible for listing as a San José Candidate City Landmark. For these reasons, 580 Lorraine Avenue is considered a historical resource for the purposes of CEQA.[49]

150 South Montgomery Street (Hellwig Ironworks)

150 South Montgomery Street (APN 259-48-053) is a two-story, rectangular plan building constructed in variegated clinker brick and composed of two building masses: a north-south, two-story, side gable section fronting South Montgomery Street and a shorter east-west, two-story side gable section spanning between South Montgomery Street and South Autumn Street. Windows are primarily steel sash. Important decorative features of the building include a plaster shield with the anvil and hammer motif of Hellwig Ironworks, brick sills, prominent circular attic vents, and a large sash for daylighting the original workshop.[50]

The property at 150 South Montgomery Street has the following character-defining features:

- Two-part composition with simple gable roofs
- Clinker brick exterior with brick window and door trim
- Hellwig Ironworks plaster shield
- Steel-sash industrial windows for interior daylighting

150 South Montgomery Street was constructed ca. 1934 by Harold Hellwig as an ironworks, which was in operation until 1963. Additions were constructed by Hellwig in 1944, 1945, and 1951. Navlet's Flowers, a company with operations throughout the Bay Area and one of San José's oldest florists, occupied the building in 1970, and the east façade and entrance were altered around this time.

The building was evaluated in 2005 for individual eligibility and found to be ineligible for listing in the National Register and California Register.[51] ARG's analysis concurs with the previous findings. However, 150 South Montgomery Street appears to be eligible as an individual San José Candidate City Landmark because it "is an example of an industrial property built during the second wave of development to occur in the area in the early twentieth century" and "embodies the distinctive use of building materials that is not typical of industrial buildings in the area." For these reasons, 150 South Montgomery Street is considered a historical resource for the purposes of CEQA.[52]

[49] Architectural Resources Group, DPR form-set for 580 Lorraine Avenue, January 2020.
[50] Architectural Resources Group, DPR form-set for 150 South Montgomery Street, January 2020.
[51] 150 South Montgomery Street was evaluated in 1992 by Archives and Architecture, in 2002 by JRP Historical Consulting Services, and in 2005 by LSA Associates.
[52] Architectural Resources Group, DPR form-set for 150 South Montgomery Street, January 2020.

145 South Montgomery Street (Sunlite Baking Co.)

145 South Montgomery Street (APN 261-35-027) is a one-story, L-plan, board-formed concrete industrial building constructed in multiple phases for the Sunlite Baking Company. The Art Moderne building has its primary entrance on South Montgomery Street marked by a scalloped cornice; projecting stepped-front surround; and fluted, semi-circular canopy. Triple banks of steel double-hung windows with blind arches flank the main entry. Remaining windows are also steel sash but lack the arched ornament. To the south, later additions are simple in decoration, lacking windows or distinctive detailing.[53]

The property at 145 South Montgomery Street has the following character-defining features:

- Board-formed concrete construction
- Prominent front entry with projecting surround and semi-circular canopy
- Blind arch window headers
- Symmetrical primary elevation
- Steel sash windows

145 South Montgomery Street was constructed ca. 1936 as a bakery for the Sunlite Baking Company. Architect Ralph Wyckoff also designed a 1943 addition to the building. Owners Allen T. Gilliland Sr. and Jenny Gilliland were prominent in the local business community and owned KNTV Channel 11. The Gilliland family sold the bakery in 1966, and it was later purchased by the Pacific Telephone and Telegraph Company, which remodeled the interior.

The building has been individually evaluated several times with conflicting findings.[54] ARG's analysis concurs with the most recent previous findings, which found that the property is eligible for listing in the National Register and California Register under Criterion B/2 for its significant association with the locally prominent Gilliland family, and also Criterion C/3 as a distinctive local example of the Art Moderne style designed by prominent architect Ralph Wyckoff. In addition, ARG concluded that 145 South Montgomery Street appears to be an eligible San José Candidate City Landmark. For these reasons, 145 South Montgomery Street is considered a historical resource for the purposes of CEQA.[55]

105 South Montgomery Street (Stephen's Meat Products Neon Sign)

The standalone neon sign was installed at the 105 South Montgomery Street location of Stephen's Meat Market (APNs 261-35-003 and 261-35-010). The associated building was demolished in 2007. The sign is presumed to date to the building's 1948 construction or to a 1950s addition, and was fabricated by the Electrical Products Corporation of California. It features the name "Stephen's Meat Products," the slogan "pure pork sausage," and a "dancing" cartoon pig. The sign was restored in 2019. Before the Stephen's Meat Market building was demolished, the

53 Architectural Resources Group, DPR form-set for 145 South Montgomery Street, January 2020.
54 145 South Montgomery Street was evaluated in 1992 by Archives and Architecture, in 2002 by JRP Historical Consulting Services, in 2005 by LSA Associates, and in 2010 by PBS&J.
55 Architectural Resources Group, DPR form-set for 145 South Montgomery Street, January 2020.

complex was evaluated twice and found to be ineligible for listing in the National Register and California Register.[56]

The City of San José Planning Division has identified the Stephen's Meat Products neon sign as a contributor to a Commercial Signage Discontiguous Historic District. These historic commercial signs are related to the mid-20th century time frame when "commercial signs were popular … as roadside attractions associated with commercial uses."[57] The Stephen's Meat Products sign has the following character-defining features:

- Neon lighting
- Animation
- Whimsical and playful iconography
- Graphic lettering
- Freestanding design

Full documentation of this district is in process. As of February 5, 2020, the Stephen's Meat Products sign is listed in the Historic Resources Inventory as a Contributing Site/Structure. Once a historic district is identified by the City, the sign would be considered a historical resource for the purposes of CEQA.[58] Therefore, this property is being treated as a historic architectural resource under CEQA for the purposes of this analysis.

Identified Resources within 200 Feet of the Project Site

The study area includes the project site plus a 200-foot radius around the project site. Collectively, for the purposes of the analysis of historic architectural resources, this total area (project site plus 200-foot radius) is referred to as the "study area." This is the area in which historic architectural resources may be affected by physical changes on the project site (Figure 3.3-2). Historical resources within 200 feet of the project site were identified through cross reference of the HRI with recent environmental review documents, status as noted on the City of San José Public GIS View, and confirmed through a reconnaissance-level survey conducted by the City of San José.

Within the 200-foot radius and outside of the project site, there is one individual historic architectural resource under CEQA (237 North Autumn Street) and two historic architectural districts under CEQA (the Southern Pacific Depot Historic District and a portion of the Lakehouse Historic District). In addition, five resources in the portion of the Lakehouse Historic District within the 200-foot radius (396, 398, 416, and 454 West San Fernando Street and 124 Delmas Avenue) are individual historic architectural resources under CEQA.

[56] 105 South Montgomery Street was evaluated in 2002 by JRP Historical Consulting Services and in 2005 by LSA Associates.
[57] City of San José, *City of San José Historic Landmarks Commission, Memorandum: Add Qualifying Properties to the Historic Resources Inventory, Attachment 3*, February 5, 2020.
[58] Architectural Resources Group, DPR form-set for Stephen's Meat Products Neon Sign, January 2020.

A reconnaissance-level survey conducted by the City of San José confirmed the status of four additional Candidate City Landmarks (150 North Montgomery Street and 195, 199, and 203 North Autumn Street). These residences along North Autumn Street form a group of period buildings that may qualify as a Candidate City Landmark District.[59]

Each of these historic architectural resources under CEQA is described and summarized below.

237 North Autumn Street (Dennis Residence)[60]

The neighborhood west of the Guadalupe River along Autumn Street evolved into a residential development in the late 1860s and 1870s. At that time, it was populated mostly by Irish immigrants. By the turn of the 20th century, the neighborhood predominantly comprised Italian residents. While a few large properties existed in the area, owned by prominent businessmen and politicians, most of the area was a working-class neighborhood populated by workers in the nearby mills and manufacturing companies.

At 237 North Autumn Street (APN 259-29-021) is a brick, Greek Revival residence constructed in 1870 for Joseph and Margaret Dennis and their infant daughter, Belle. Margaret died shortly after the house was constructed. Joseph soon married Sarah Moran and had another daughter, Teresa. Joseph was listed as a laborer on census documents, but it appears that the family also operated a grocery store out of the house by 1894. It remained in the Dennis family, through Teresa, until at least 1909.

237 North Autumn Street is "locally unique as one of the few remaining brick residences built in San José during the 19th century."[61] The property still retains a ca. 1885 barn near the rear lot line. It was designated City Landmark No. HL05-153 on September 8, 2005. It is notable for its representational use "of distinguishing characteristics of the Greek Revival architectural type" and "elements of brick residential architectural design detail, materials, and craftsmanship, which represent a uniqueness within [San José]."[62] The 2005 evaluation found the house and barn eligible for listing in the National Register and California Register under Criterion C/3 (Architecture) at the local level.

The property at 237 North Autumn Street has the following character-defining features:

- Greek Revival style executed in brick
- Arched, front-facing second-story window
- Multi-lite windows placed over heavy timber sills and capped with vertically placed bricks

59 Juliet Arroyo, (former) Historic Preservation Officer, City of San José, email, March 2, 2020.
60 Archives & Architecture, *Historic Landmark Designation for the Dennis House, Located at 237 North Autumn Street*, 2005.
61 Archives & Architecture, *Historic Landmark Designation for the Dennis House, Located at 237 North Autumn Street*, 2005. The DPR form submitted with the landmark designation packet describes the use of brick for residential construction, its limited usage to specific areas of the city, and the relatively brief period when it was used.
62 Archives & Architecture, *Historic Landmark Designation for the Dennis House, Located at 237 North Autumn Street*, 2005.

- Offset front door
- Fluted corner pilasters with capitals
- Multilayered soffit on all sides, discontinuous on the front and rear elevations

199, 195, and 203 North Autumn Street

This grouping of three individual residences is located on the west side of North Autumn Street between West Julian and West St. John streets. Based on the results of a reconnaissance-level survey, the residences appear eligible for Candidate City Landmark status as a group for their high architectural integrity as a cohesive grouping of late 19th- and early 20th-century residences.[63]

203 North Autumn Street is a two-story Queen Anne residence that has a compound plan and is topped with a combination hip and gable roof clad in asphalt shingles. Exterior walls are clad in wood channel siding and original windows are predominantly one-over-one wood double hung. Decorative features of the style include the prominent front gable with broken pediment and decorative bargeboard, asymmetrical façade, cutaway bay window with decorative corner brackets, eyebrow dormer, and partial front porch with turned porch supports, spindlework frieze, and incised corner brackets.

This building's architectural character is representative of the Queen Anne style that was once common throughout San José. Its integrity remains high, thus qualifying it for consideration as a Candidate City Landmark.

199 North Autumn Street is a two-story Queen Anne residence has a compound plan and is topped by a front-facing gable roof clad in in asphalt shingles. Exterior walls are clad in wood channel siding and original windows are predominantly one-over-one wood double hung. Decorative features characteristic of the style include the dominant front-facing gable with patterned shingles at the gable face and decorative bargeboard, asymmetrical front façade composition, boxed bay window with stained glass transom, and pedimented front porch with turned porch supports, decorative brackets, and spindlework frieze.

This building's architectural character is representative of the Queen Anne style that was one common throughout San José. Its integrity remains high, thus qualifying it for consideration as a Candidate City Landmark.

195 North Autumn Street is a two-story Queen Anne residence has a rectangular plan and is topped by a combination hip and gable roof clad in asphalt shingles. Exterior walls are clad in wood channel siding and patterned wood shingles and original windows are one-over-one wood double hung. Decorative features characteristic of the style include the asymmetrical front façade; dominant front gable with broken pediment, ornamental bargeboard, fishscale shingles, and ornamental vent surround at the gable face; cutaway bay window with starburst wood brackets

[63] Juliet Arroyo, (former) Historic Preservation Officer, City of San José, email, March 2, 2020.

and decorative wood trim; and pedimented porch roof with starburst ornamentation in the gable face and arched spindlework frieze.

This building's architectural character is representative of the Queen Anne style that was once common throughout San José. Its integrity remains high, thus qualifying it for consideration as a Candidate City Landmark.

160 North Montgomery Street

This two-story Italianate residence has a rectangular plan and is topped by a combination hip and gable roof covered in asphalt shingles. Exterior walls are clad in wood channel siding and original windows are one-over-one wood double hung. Decorative features of the style include the dominant front gable with broken pediment, arched second-story window, decorative modillions and trim at the eave lines, quoined corners, and bay window.

This building's architectural character is representative of the Italianate style that was once common throughout San José. Its integrity remains high, thus qualifying it for consideration as a Candidate City Landmark.

65 Cahill Street (Southern Pacific Depot Historic District/Diridon Station)[64]

Construction of the Southern Pacific Depot complex (APN 261-34-020) in 1935 on Cahill Street was "the culmination of a 30-year effort to relocate 4.5 miles of the South Pacific Coast line of the Southern Pacific Railroad (SPRR) away from the heavy traffic of the downtown area around the Market Street Depot to the west side of the city, an industrial neighborhood area in the nineteenth century and the [sic] formerly the location of rail facilities belonging to other railroads. The Southern Pacific Depot relocation was heralded as the first major railroading change in San José in nearly three-quarters of a century."[65]

The 1935 Southern Pacific Depot in San José is a multibuilding, multilevel combination (passenger and freight), Italian Renaissance Revival style rail depot. It was designed by John H. Christie and constructed at a cost of $100,000.[66] The main station is composed of a primary three-story, steel-frame and masonry central section that houses the passenger waiting room. The flanking two-story wings are wood-frame construction with brick cladding. These three sections form the building's main architectural mass and are topped with terra cotta tile. The smaller, utilitarian south and rear wings are flat roofed and only trimmed with terra cotta tile. Surrounding the main station are a number of support structures and utilitarian buildings, also constructed ca. 1935 (refer to the list below). The entire depot relocation project cost $3.25 million (1935 dollars) and was one of the last large-scale depot construction projects undertaken by SPRR.

64 McKee, E. A., California Department of Transportation, *National Register of Historic Places Registration Form: Southern Pacific Depot*, December 1992.

65 McKee, E. A., California Department of Transportation, *National Register of Historic Places Registration Form: Southern Pacific Depot*, December 1992, Section 8, p. 1.

66 John H. Christie designed a number of SPRR projects, including Union Station in Los Angeles and multiple remodels of the Fresno depot.

In total, the historic architectural district currently consists of four contributing buildings and four contributing structures and/or element types:

- Main station building
- Compressor house: Rectangular plan, wood frame, wood-sided shed
- Car cleaners' shack: Wood frame, gable roofed, board and batten shed
- Butterfly passenger sheds, connected by subterranean passageways
- Iron gate and fence with square classical posts and curvilinear details
- Railroad tracks: Four passenger tracks, mail/baggage/express track, freight tracks
- Santa Clara Underpass (California Department of Transportation Bridge No. 37-45)
- Beaux-arts luminaires cast by the Joshua Hendy Iron Works in Sunnyvale

The main station building has the following character-defining features:

- Italian Renaissance Revival design
- Multistory arched windows
- Polychrome brick with terra cotta decoration
- Red terra cotta roof tile
- Metal spandrel panels in the window bays
- Galvanized steel marquee
- Interior features in the main station building:
  - Terrazzo floors with stone inlay
  - Scored plaster walls above a marble wainscot
  - Coffered ceiling with a large decorated ridge beam and flanking purlins with decorated corbels
  - Mural by artist John MacQuarrie
  - Clock with flanking plaster grilles
  - Marble ticket counter

The Southern Pacific Depot Historic District is listed in the National Register under Criterion C (Architecture) as a late example of the Italian Renaissance Revival style in commercial architecture in the state of California. Because it is listed in the National Register, it is also listed in the California Register under Criterion 3 (Architecture). The Southern Pacific Depot Historic District is also listed as San José Landmark HL94-100. It is one of only four transportation facilities in the Italian Renaissance Revival style in California.

The National Register District boundaries and the City of San José Landmark District boundaries differ slightly. These differences are primarily along the western edge of the district where the National Register boundaries follow the layout of the tracks and the Landmark District Boundaries are more in line with the property lines. Both districts extend over West Santa Clara Street to include the Santa Clara Street underpass and extend across Cahill Street immediately south of West San Fernando Street. Both district boundaries just south of West San Fernando

Street and just north of West Santa Clara Street overlap slightly with the project site (**Figure 3.3-4**). However, no contributing structures or features are located within this overlap, and most of the overlapping area is within the public right-of-way. Therefore, the Southern Pacific Depot Historic District is considered an off-site historic resource for this study.

Lakehouse Historic District[67]

The Lakehouse Historic District is located between West San Fernando Street and Park Avenue, and between Los Gatos Creek and SR 87. This City Landmark District (HD07-158) is a single-family residential district of 39 properties that consists of Queen Anne, Craftsman, and Period Revival style buildings constructed between 1892 and 1925, 11 properties of which occur in the study area. This district is "distinguishable as a place within the larger context of downtown San José, and is easily recognized by the distinctive residential architecture built from 1885 to 1925."[68]

The area was first developed by Antoine Delmas, a French nurseryman who purchased a portion of the Los Coches Rancho from Antonio Maria Sunol ca. 1851. He created "French Gardens" and the area came to have a strong association with French settlement in the region. In 1869, the Lake House Hotel was built near the intersection of Delmas Avenue and West San Fernando Street and run as a summer resort. As San José expanded, the area was again redeveloped, this time for residential purposes. The district takes its name from its ca. 1869, resort-focused phase.

The Lakehouse Historic District is significant for its representation of historic development patterns in the area west of Downtown San José; association with residential development from 1885 to 1925; and the breadth and quality of period architectural styles found in the neighborhood. It maintains a high degree of historical and physical integrity and "presents a unique and distinct experience of the visual aspects of neighborhood life in a community for most of the historic period during which it was developed."[69]

The Lakehouse Historic District is a City of San José Landmark District. Twenty district contributors are located in the study area. Of these, three have been found individually eligible for listing in the National Register under Criterion C (Architecture): 396 West San Fernando Street (APN 259-45-030), 398 West San Fernando Street (APN 529-45-029), and 454 West San Fernando Street (APN 259-48-019). One district contributor has been found eligible for listing in the National Register through the Section 106 process: 416 West San Fernando Street (APN 529-45-055). One contributor is an individual City Landmark structure: 124 Delmas Avenue (APN 529-45-095). The individual historic architectural resources under CEQA in the Lakehouse Historic District are discussed separately below.[70]

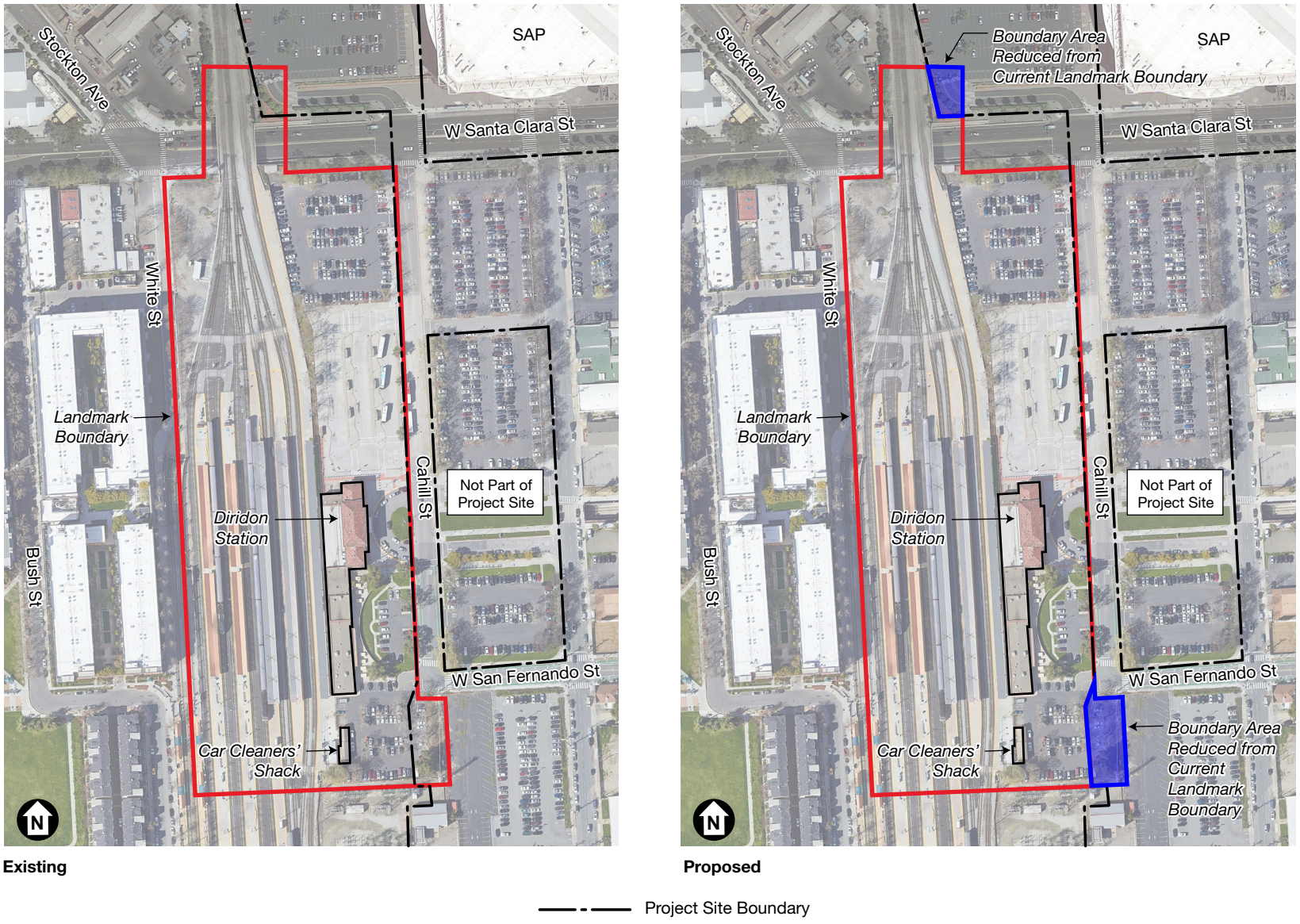
---

67 Archives & Architecture, *State of California Department of Parks and Recreation District Record: Lake House Neighborhood*, May 2006.

68 Archives & Architecture, *State of California Department of Parks and Recreation District Record: Lake House Neighborhood*, May 2006, p. 5.

69 Archives & Architecture, *State of California Department of Parks and Recreation District Record: Lake House Neighborhood*, May 2006, p. 5.

70 Archives & Architecture, *State of California Department of Parks and Recreation District Record: Lake House Neighborhood*, May 2006, p. 5; Archives & Architecture, *Primary Record: 396 San Fernando, West*, prepared for the City of San José, 1999/2006; Archives & Architecture, *Primary Record: 398 San Fernando, West*, prepared for the City of San José, 1999/2006.



SOURCE: Google LLC, 2020

Downtown West Mixed-Use Plan

Figure 3.3-4
Existing and Proposed Southern Pacific Depot Landmark District Boundaries

The Lakehouse District has the following character-defining features:

- Streetscapes of primarily wood frame, single-family houses
- Mix of Queen Anne and revival architectural styles from 1885–1925
- Similar scale of construction and setbacks with mature landscaping providing a "cohesive setting for the houses"
- Relatively consistent use of painted wood siding and stucco exterior finishes

Fifteen contributing, but not individually qualifying historic architectural resource properties are located outside the project site but in the study area. The properties at 394, 410, 420, 426, 436, and 446 West San Fernando Street, 119 Delmas Avenue, and 117, 125, 131, 137, 149, 155, 163, and 169 Gifford Avenue were constructed between 1885 and 1924. All are contributors to the Lakehouse District that have some portion of their property boundaries on or within the 200-foot project radius. Individual assessor's numbers, property names, and construction dates for these resources are listed in Table 3.3-1.

396 West San Fernando Street (Chiappe House)

396 West San Fernando Street (APN 259-45-030) was designed by local architect Theodore Lenzen and constructed in 1891 for the Fortunato Chiappe family. Chiappe was an Italian-born immigrant who arrived in California in 1865 and settled in San José in 1875. He and his family owned and operated a grocery store at 199 West San Fernando Street. The property at 396 West San Fernando Street has the following character-defining features:

- Queen Anne architectural styling
- Neoclassical accents—pilaster-like ornament within the window mullions, bas-relief swags in the window paneling, Corinthian columns on the front porch, eave dentils, gable end medallions
- Stained glass
- Extensive spindlework

In addition to being a contributing property to the locally significant Lakehouse Historic District, the house is individually significant for its association with prominent local architect Theodore Lenzen and for its exemplary use of Queen Anne architectural detail mixed with Neoclassical elements.[71] The property has been determined individually eligible for listing in the National and California Registers for Criterion C/3 (Architecture).

398 West San Fernando Street (Owen House)

398 West San Fernando Street (APN 259-45-029) was constructed in 1888 for Clifford J. Owen, the eldest son of *San José Mercury* publisher J. J. Owen. Clifford served as both an assistant editor and president of the *San José Mercury* until 1899. The residence is located on a prominent corner lot and is historically significant as for its exemplary use of the Queen Anne architectural style.[72]

[71] Primary: 396 W. San Fernando, 1999.
[72] Primary: 398 W. San Fernando, 1999.

The property at 398 West San Fernando Street has the following character-defining features:

- Queen Anne architectural styling
- Prominent tower with a steeply pitched bell-cast hipped roof
- Extensive porches
- Octagonal hoods over round dormer windows
- Decorative hoods over select rectangular windows
- Decoratively cut shingles
- Carved wood trim and decorative elements
- Extensive spindlework

In addition to being a contributing property to the Lakehouse Historic District, the property is historically significant for its architectural design as an "exceptional example of the Queen Anne style in San Jose."[73] The property has been determined individually eligible for listing in the National and California Registers under Criterion C/3 (Architecture).

416 West San Fernando Street (Parks-Rae House)

416 West San Fernando Street (APN 259-45-055) was constructed in 1899 for Edward E. Parks. The building was designed by architect H. F. Woehl. While constructed by Parks, the first known occupant was James A. Rae ca. 1900. At that time, the address was 426 West San Fernando Street. Rae's family lived in the house until 1931. By 1963, the Rebollar family occupied the building. It remained in their ownership until at least 2006.

This Queen Anne cottage exemplifies the residential design and character of the neighborhood before 1926. It is historically significant for its exemplary use of the Queen Anne architectural style. Before 2006, the property was given a status code of 2S2, signifying that it is an individual property determined eligible for the National Register by a consensus through the Section 106 process and that it is listed in the California Register.[74]

The property at 416 West San Fernando Street has the following character-defining features:

- Queen Anne architectural styling
- Front-facing gable with an angled bay window
- Leaded glass window
- Fishscale gabled siding
- Front porch with turned spindles and entry
- Cantilevered bay window on the east elevation
- Wood panel detailing above and below bay windows
- Wood frieze, water table, eave, and soffit decoration

[73] Primary: 398 W. San Fernando, 1999.
[74] Architectural Resources Group, DPR 523B: 416 W. San Fernando Street, 2006.

- Carved wood trim and decorative elements, including hanging brackets with arched supports
- Extensive spindlework

In addition to being a contributing property to the Lakehouse Historic District, the property has been found individually eligible for listing in the National Register and is listed in the California Register.[75]

454 West San Fernando Street (Arata House)

454 West San Fernando Street (APN 259-48-019) was constructed in 1911 by Colomba Arata.[76] The design was taken from the *Book of Designs*, published by famed local architects Frank D. Wolf and Charles McKenzine in 1907. It is a reversed version of plan number 64. Charles McKenzie was the architect of record. The property at 454 West San Fernando Street has the following character-defining features:

- Corner orientation with rounded corner-facing architectural features: roof, stairs, porch
- Complex, layered massing
- Variety of decorative window configurations: quatrefoil, spindle-muntins, multi-lite
- Bell-eave bay window
- Corinthian porch columns
- Decorative wood window brackets

This residence is on a prominent corner lot and is recognized as both a contributor to the pre-1926 architectural character of the Lakehouse District and for its association with the prominent architectural firm Wolfe and McKenzie. As such, the property has been determined individually eligible for listing in the National and California Registers.[77] The 2006 documentation notes the property is eligible for listing under Criteria A/1 (Events and Trends) and C/3 (Architecture).

124 Delmas Avenue (Brohaska-Dalis House)

124 Delmas Avenue (APN 259-45-095) was constructed in 1911 by Theodore Brohaska on a lot that he had owned as early as 1887.[78] The Brohaska family was known locally as a musically talented family who promoted the fine arts and performed widely throughout the area. At the time of construction, Theodore sat on the San José Common Council. The house was sold in the early 1920s to Peter and Mamie Dalis. Peter Dalis, a native of Greece, was orphaned at the age of 5 and raised in a Greek Orthodox monastery. While there, he learned to make hats, a profession that he

[75] Architectural Resources Group, DPR 523B: 416 W. San Fernando Street, 2006. The 2006 documentation for this property notes an existing (2006) status code of 2S2, indicating that the property has been determined individually eligible for listing in the National Register by consensus through the Section 106 process. This determination would also automatically list the property in the California Register. However, the reasons for this determination are not provided. The 2006 documentation is specific to contributions of the property to the Lakehouse Historic District.

[76] Architectural Resources Group, DPR 523B: 454 W. San Fernando Street, 2006.

[77] The 2006 documentation for this property notes an existing (2006) status code of ENR, indicating that the property has been determined individually eligible for listing in the National Register. However, the reasons for this determination are not provided. The 2006 documentation is specific to contributions of the property to the Lakehouse Historic District but does noted that it is eligible under Criteria 1 and 3.

[78] Architectural Resources Group, DPR 523B: 124 Delmas Avenue, 2006.

maintained in San José while operating the Dalis Hat Works and Cleaners for more than 60 years. Peter and Mamie resided at the residence until Peter's death in 1967.

Irene Dalis was born in 1925, while the family resided at 124 Delmas Avenue. Irene was a gifted singer who eventually became the lead mezzo-soprano with the Metropolitan Opera in New York City. When she retired in 1977, Irene returned to San José and facilitated the donation of the house to Santa Clara County and designation of the property as a City Landmark in 1980. As late as 2006, the house was used as an interim residence for visiting performers.

The property at 124 Delmas Avenue has the following character-defining features:

- Craftsman design including square columns, deep eaves, and mixed finished materials
- Recessed entry with front and side porch and Craftsman-style front door
- Multi-lite windows, including transoms
- Fieldstone stringers flanking the front steps
- Cantilevered square-bay window with simple shed roof

In addition to being a contributing property to the Lakehouse Historic District, the property is historically significant for "its associations with both the Brohaska and Dalis families."[79] The property is listed as a City Landmark.

Historic Resources Inventory Listed/Eligible Properties in the Study Area (Not Considered Historical Resources under CEQA)

In the study area, there are 14 properties that are listed or have been identified as eligible for listing on the City's HRI as Identified Structures or Structures of Merit. These properties do not qualify as historic architectural resources under CEQA and are not included in the impact analysis below. However, in the interest of full disclosure, these properties are listed in **Table 3.3-2** and described in Appendix E1 and/or **Appendix E2**.

Archaeological Resources Sensitivity Assessment

The prehistoric and historical contexts and background research outlined above provide information about the general activities that occurred in the project vicinity and the changes to the landscape that may affect the potential for the presence of archaeological resources.

Archaeological sensitivity considers both prehistoric and historic land uses, as well as historic and modern changes that may have previously affected archaeological resources. The archaeological sensitivity assessment analyzes whether the overall project site contains, or has *sensitivity* for, archaeological resources, independent of construction plans and planned project-related ground disturbance. The sensitivity assessment is then combined with an analysis of project-related ground disturbance to determine the *potential* to encounter archaeological resources during construction.

[79] Architectural Resources Group, DPR 523B: 124 Delmas Avenue, 2006.

TABLE 3.3-2
ARCHITECTURAL RESOURCES IN THE STUDY AREA LISTED OR ELIGIBLE FOR THE CITY OF SAN JOSÉ HISTORIC RESOURCES INVENTORY (NOT HISTORICAL RESOURCES UNDER CEQA)

APN	Address	Resource Name (Date)	Status	Source
259-25-037	541 W. Julian Street	(1885)	Structure of Merit	City of San José
259-27-003	**357 N. Montgomery Street**	**Puccio Machine & Welding Works (ca. 1941)**	**Structure of Merit**	**ARG (2020)**
259-29-008	210 N. Montgomery Street	(1895)	Structure of Merit	City of San José
259-29-013	270 N. Montgomery Street	(1905)	Structure of Merit	City of San José
259-29-020	255 N. Autumn Street	Holeman's Auto Repair (1946)	Structure of Merit	City of San José
259-29-022	211 N. Autumn Street	(1905)	Structure of Merit	City of San José
259-29-026	151 N. Autumn Street	(1930)	Structure of Merit	City of San José
259-29-087	263 N. Autumn Street	(1920)	Structure of Merit	City of San José
259-38-009	**35 S. Autumn Street**	**(ca. 1880)**	**Structure of Merit**	**ARG (2020)**
259-38-088	**91 S. Autumn Street**	**Poor House Bistro (ca. 1910)**	**Structure of Merit**	**ARG (2020)**
259-45-057	101 Delmas Avenue	Delmas Market (1940)	Structure of Merit	A&A (2006)
259-48-012	**102 S. Montgomery Street**	**Patty's Inn (ca. 1890s)**	**Structure of Merit**	**ARG (2020)**
259-48-012	338 Royal Street	(1900)	Structure of Merit	City of San José
264-20-059	562-564 W. San Carlos Street	(1950)	Identified Structure	City of San José

NOTES:

APN = Assessor's Parcel Number
Bold indicates property located within the project site boundaries.

SOURCE: Architectural Resources Group, *Historical Resources Technical Report, Downtown West Mixed-Use Plan, San José, California*, June 2020; City of San José.

Background Research

A records search of the project site at the NWIC of the California Historical Resources Information System was completed on August 23, 2019 (File No. 19-0347). The records search included a review of previous studies, records, and maps on file at the NWIC. The records search area consisted of the project site and a surrounding half-mile radius. The purpose of the records search was to:

- Determine whether known cultural resources have been recorded within or adjacent to the project site;
- Assess the likelihood for unrecorded cultural resources to be present based on historical references and the distribution of nearby cultural resources, including those outside of the site boundary; and
- Develop a context for the identification and preliminary evaluation of cultural resources.

The records search included a review of the California Office of Historic Preservation's Historic Properties Directory, with summary information from the National Register, Registered California State Landmarks, and California Historic Points of Interest; the Archaeological Determinations of Eligibility; and the California Inventory of Historical Resources.

Background research indicates that no previously recorded archaeological resources are within the project site, two previously recorded archaeological resources are immediately adjacent to the project site, and 13 additional recorded archaeological resources are within a half-mile radius (**Table 3.3-3**).

TABLE 3.3-3
ARCHAEOLOGICAL RESOURCES WITHIN 0.5 MILES OF THE PROJECT SITE

Primary Number	Trinomial	Site Type (Description)	Year(s) Analyzed
P-43-000141	CA-SCL-128/H	Prehistoric, historic (very large indigenous village site with numerous burials, artifact deposits, and features; historic foundations and artifacts)	1973, 1974, 1977, 1984, 2011
P-43-000369	CA-SCL-363H	Historic (remnants of the Amesquita Adobe, including artifacts and adobe foundations)	1979, 1984, 2003, 2017
P-43-000583	CA-SCL-588H	Historic (Rafael Rodriguez site, including redwood features and artifacts)	1984
P-43-000625	CA-SCL-693H	Historic (artifact deposit)	1990
P-43-000951	—	Prehistoric (burial)	1996
P-43-000952	—	Prehistoric (burial)	1996
P-43-000953	—	Prehistoric (burial)	1996
P-43-000954	—	Prehistoric (re-burial location)	1996
P-43-000955	—	Prehistoric (isolated buried mortar)	1996
P-43-001269	CA-SCL-837	Prehistoric (isolated human burial)	2000
P-43-001279	CA-SCL-846/H	Prehistoric, historic (large indigenous burial site with numerous artifacts; historic refuse related to railroad)	2002, 2003
P-43-001495	CA-SCL-844/H	Prehistoric, historic (large indigenous burial site with artifacts; historic artifacts)	2003, 2004
P-43-001617	CA-SCL-855/H	Historic (artifact scatter associated with railyards)	2004
P-43-003125	CA-SCL-938H	Historic (large artifact deposits)	2014
—	—	Historic (artifact deposits)	2019

SOURCE: Search of the California Historic Resources Information System, Northwest Information Center, in 2019.

The nearest recorded archaeological resources to the project site are P-43-000141 and P-43-000369. Prehistoric site P-43-000141 (CA-SCL-128/H) has been the focus of numerous archaeological investigations since the early 1970s. The urban environment of Downtown San José conceals all surface evidence of the site, as it is overlain with buildings, pavement, landscaping, and fill. More than 50 burials were identified, along with numerous features and artifacts. Mission-era beads, privies, and deposits and post–Gold Rush artifacts were also identified.

Historic-era site P-43-000369 (CA-SCL-363H) is the remains of the Amesquita Adobe, and includes adobe brick footings associated with the adobe and remnants of other former building foundations, including the Antonio Sunol Mill and the Dickey-Mano dwelling. Historic-era artifact deposits, including one associated with Chinatown, have been identified on the block.

Eight additional prehistoric archaeological resources have been previously recorded in the records search area. Site P-43-001495 included four prehistoric burials and associated funerary objects on the east side of the Guadalupe River. The burials were encountered during mechanical excavations for a box culvert, approximately 8 to 10 feet bgs. After recording, the burials and artifacts were reburied outside of the project site.

An extensive, multicomponent archaeological site (P-43-001279) consisting of both prehistoric and historic-era archaeological materials was identified on the east side of the Guadalupe River. The prehistoric component consisted of 49 burial features and associated funerary objects, which were encountered 6 to 7 feet bgs. The burials were beneath the historic-era component, which included a broad sheet refuse deposit associated with the San Francisco and San José Railroad.

Three individual prehistoric burials were uncovered on the west side of the Guadalupe River: P-43-000951, P-43-000952, and P-43-000953. The burials were excavated and reburied (P-43-000954; outside of the project site). In addition, an isolated groundstone mortar (P-43-000955) was identified in the vicinity.

A single isolated set of human remains (P-43-001269) was encountered southwest of the project site. Little information is known about this site, other than that the human remains consisted of 11 bone fragments and there were no associated artifacts or other cultural remains.

In addition to P-43-000141 and P-43-000369 described above, five other historic-era archaeological resources have been identified and recorded in the records search radius. Site P-43-001325 is a group of three historic-era features encountered and recorded during archaeological investigations for the Autumn Street alignment. Archaeological testing identified several historic-era features from the late 19th to early 20th centuries, three of which appear to be eligible for listing in the California Register. The features contained domestic items from three different households dating from the 1870s to early 1900s. In addition, the archaeologists encountered at least 23 other historic-era features and the presence of a 1-foot-thick paleosol (buried stable land surface) located 5.5 to 6 feet bgs. No prehistoric archaeological resources were observed in association with the paleosol.

Site P-43-001617, north of the project site, is a broad sheet refuse scatter associated with a former switchyard and maintenance facility for the Southern Pacific and Union Pacific Railroads. Two small historic-era domestic deposits (P-43-000583 and P-43-000625) have been recorded to the east/north of the project site: one on the west side of the Guadalupe River and one on the east side.

Recently, Environmental Science Associates identified 13 isolated, historic-era features on an intact 19th century land surface that extended across large areas on a block located approximately one block east of the project site. Five features were discrete artifact deposits and a single privy pit, recovered in its entirety, that are currently undergoing laboratory analysis.

Prehistoric Archaeological Sensitivity

For the purpose of this study, an analysis of prehistoric archaeological sensitivity is based on three factors:

- The archaeological sensitivity of geologic formations that underlie the project site;
- Whether the site was in the vicinity of present or former watercourses; and
- The presence of recorded prehistoric archaeological resources in the project vicinity.

The project site is underlain by Holocene-age alluvial deposits. Holocene-age alluvial deposits have the potential to contain buried paleosols. Numerous deeply buried sites have been uncovered in the Santa Clara Valley, at depths varying between 1 foot and more than 10 feet bgs. However, not all Holocene-age deposits are equally sensitive for buried archaeological resources. In addition, the project site is adjacent to the Guadalupe River and Los Gatos Creek (the nearest water sources), and numerous significant prehistoric archaeological resources have been recorded in the vicinity.

Archaeological sites generally occur in specific environmental settings, including level or near-level areas near present or former watercourses, such as perennial streams, or near water bodies such as lakes, bays, estuaries, and oceans at the mouths of perennial streams. This is the case because of the increased diversity and greater concentration of plant and animal populations in those environmental settings and the access to potable water. In the Bay Area, the majority of recorded prehistoric archaeological sites are within approximately 0.5 miles (2,500 feet) of the historic bay margin or perennial watercourses, and sensitivity for prehistoric archaeological sites diminishes substantially in areas greater than 0.5 miles from a water source.[80]

Although no prehistoric archaeological remains have been recorded within the project site, several prehistoric archaeological resources have been recorded in the vicinity. All of these sites are adjacent to the Guadalupe River.

If prehistoric archaeological resources are present, they could be at various depths on the project site, from immediately below the ground surface to buried beneath several feet of alluvial soils (10 feet or more). As described above, previous researchers encountered a substantial, 1-foot-thick paleosol at a depth of 5.5 to 6 feet bgs during archaeological investigations. This suggests that there is a sensitive subsurface stratum for prehistoric archaeological resources associated with the paleosol. This observation is consistent with findings from nearby prehistoric archaeological sites, where remains (including human burials) were encountered 6 to 10 feet bgs.

Table 3.3-4 provides a block-by-block assessment of the sensitivity for prehistoric archaeological resources on the project site, corresponding to Figure 2-3, *Land Use Plan*. In summary, there is high sensitivity for prehistoric archaeological resources across the project site. In areas where substantial ground disturbance has occurred, such as subsurface basements or major excavation, the potential could be lessened. Areas of moderate sensitivity reflect that some of the block may have archaeological potential while other portions of the block appear to have been highly disturbed.

[80] Meyer, J., and J. Rosenthal, *Geoarchaeological Overview of the Nine Bay Area Counties in Caltrans District 4*. Prepared for California Department of Transportation, District 4, Oakland, June 2007.

TABLE 3.3-4
OVERVIEW OF PREHISTORIC AND HISTORIC-ERA ARCHAEOLOGICAL SENSITIVITY

Block Number[a]	Sanborn Map 1884	Sanborn Map 1891	Sanborn Map 1915	Sanborn Map 1950	Existing Conditions	Prehistoric Archaeological Sensitivity	Historic-Era Archaeological Sensitivity
A1	No map	Scattered dwellings with associated outbuildings; J. Z. Anderson Fruit Drying [Sheet 60a]	Scattered dwellings; empty lots [Sheet 132]	Richmond Chase Co. canned goods warehouse [Sheet 132]	Pitco Foods warehouse	High sensitivity	High sensitivity
A1	No map	J. Z. Anderson Packing Company buildings [Sheet 60a]	Castle Bros. and J. K. Armsby fruit packing buildings [Sheet 132]	Richmond Chase Co. cooling and storage buildings; box factory [Sheet 132]	Parking lot	High sensitivity	Low sensitivity
A1	No map	Dwellings and associated outbuildings [Sheet 60b]	Dwellings and associated outbuildings; A&C Hamm fruit packing buildings [Sheet 133]	California Prune Growers Assoc.; storage; parking [Sheet 133]	Storage warehouse	High sensitivity	High sensitivity
B1	No map	Dwellings and associated outbuildings; hay barn [Sheet 60b]	Dwellings and associated outbuildings [Sheet 133]	Garage; boiler shop; machine shop; dwellings with outbuildings [Sheet 133]	Small shops; dwellings	High sensitivity	High sensitivity
C1/3	Scattered dwellings and associated outbuildings [Sheet 14b]	Dwellings and associated outbuildings; Rising Sun Bakery [Sheet 61a]	Lumber yard; San José Ice and Cold Storage; dwellings and associated outbuildings [Sheet 134]	Lumber yard; box distributors; gas tank [Sheet 134]	Parking lot	High sensitivity	High sensitivity
C2	Railroad line and associated buildings; Farmer's Lumber and Wood Yard; Garden City Gas Works; two dwellings and associated outbuildings; hay barns [Sheet 14b]	Railroad line and associated buildings; Garden City Gas Works; two dwellings and associated outbuildings [Sheet 61b]	Railroad line and associated buildings; San José Ice and Cold Storage [Sheet 152}	Pacific Gas and Electric Company [Sheet 152]	Parking lot	High sensitivity	High sensitivity
D1	Foundry and machine shop; Windmill manufacturer; Alameda Hotel; saloon; Chinese washhouse; numerous dwellings and associated outbuildings [Sheet 15b]	Poor-quality map [Sheet 65b]	Numerous stores; Chinese laundry; saloon; dense dwellings with outbuildings [Sheet 173]	Restaurant; saloons; motorcycle repair; junk yard; auto shop; dwellings [Sheet 173]	Parking lot	High sensitivity	High sensitivity

TABLE 3.3-4
OVERVIEW OF PREHISTORIC AND HISTORIC-ERA ARCHAEOLOGICAL SENSITIVITY

Block Number[a]	Sanborn Map 1884	Sanborn Map 1891	Sanborn Map 1915	Sanborn Map 1950	Existing Conditions	Prehistoric Archaeological Sensitivity	Historic-Era Archaeological Sensitivity
D4	Hay warehouse and stable; saloon; dwellings and associated outbuildings [Sheet 16a]	Dwellings and associated outbuildings; saloon; blacksmith; hay and feed barn [Sheet 62a]	Dwellings and associated outbuildings; machine shop [Sheet 163]	Western Pump Company; machine shop; auto sales; auto repair; welding shop; storage [Sheet 163]	Parking lot	High sensitivity	High sensitivity
D8-13	Scattered dwellings and associated outbuildings; hay barn; saloon [Sheet 16a]	Scattered dwellings and associated outbuildings [Sheet 62a]	Stores; saloon; dwellings and associated outbuildings [Sheet 163]	Stores; private garage; auto body shop; dwellings and associated outbuildings [Sheet 163]	Small shops; warehouses	High sensitivity	High sensitivity
E1/2/3	Numerous barns and outbuildings; one dwelling; Los Gatos Creek (dry in summer) [Sheet 16a]	Dwellings and associated outbuildings; San Jose Water Company; dwellings and associated outbuildings [Sheet 62b]	Hubbard & Carmichael Lumberyard; San Jose Water Company; dwellings and associated outbuildings [Sheet 88]; Lumber yard; dwellings and associated outbuildings [Sheet 163]	Steam laundry; dwellings and associated outbuildings; San Jose Water Company; dwellings and associated outbuildings [Sheet 88]	Parking lot; water company buildings	High sensitivity	High sensitivity
D5/6	Dwellings and associated outbuildings [Sheet 16a]	Dwellings and associated outbuildings [Sheet 62a]	Dwellings and associated outbuildings [Sheet 163]	Cabinet shop; auto shop; dwellings and associated outbuildings [Sheet 163]	Small shops; warehouses	High sensitivity	High sensitivity
D7	Dwellings and associated outbuildings [Sheet 16a]	Dwellings and associated outbuildings [Sheet 62a]	Dwellings and associated outbuildings [Sheet 163]	Dwellings and associated outbuildings [Sheet 163]	Buildings; parking	High sensitivity	High sensitivity
F1	Scattered dwellings and associated outbuildings; boarding house [Sheet 27b]	Poor-quality map [Sheet 66a]	Dwellings and associated outbuildings [Sheet 174]	Warehouses; dwellings and associated outbuildings [Sheet 174]	Parking lot	High sensitivity	High sensitivity
F2	One dwelling and associated outbuildings [Sheet 26a]	Scattered dwellings and associated outbuildings [Sheet 66a]	Dwellings and associated outbuildings [Sheet 165]	Laundry; wholesale electrical supplies; pipe warehouse; dwellings and associated outbuildings [Sheet 165]	Empty lot	High sensitivity	High sensitivity
F4/6	Scattered dwellings and associated outbuildings [Sheet 26a]	Poor-quality map [Sheet 66a]	Gillespie Lumber Yard [Sheet 165]	Iron Works buildings and storage [Sheet 165]	Buildings; parking	High sensitivity	Moderate sensitivity

TABLE 3.3-4
OVERVIEW OF PREHISTORIC AND HISTORIC-ERA ARCHAEOLOGICAL SENSITIVITY

Block Number[a]	Sanborn Map 1884	Sanborn Map 1891	Sanborn Map 1915	Sanborn Map 1950	Existing Conditions	Prehistoric Archaeological Sensitivity	Historic-Era Archaeological Sensitivity
F3/5	Scattered dwellings and associated outbuildings [Sheet 27b]	Poor-quality map [Sheet 66a]	Scattered dwellings and associated outbuildings [Sheet 174]	Sunlight Baking; contractors' storage yard; dwellings and associated outbuildings [Sheet 174]	Large warehouse; empty lot	High sensitivity	High sensitivity
G1	One dwelling and associated outbuildings [Sheet 27b]	Poor-quality map [Sheet 66a]	Scattered dwellings and associated outbuildings [Sheet 164]	Pacific Truck Service and Yard [Sheet 164]	Empty lot; buildings	High sensitivity	High sensitivity
H1	No map	No map	Empty lots [Sheet 164]	Auto service [Sheet 164]	Buildings; parking	High sensitivity	Unknown sensitivity
H2	No map	No map	Scattered dwellings and associated outbuildings [Sheet 164]	Scattered dwellings and associated outbuildings [Sheet 164]	Car wash; dwellings	High sensitivity	Moderate sensitivity
H3/4	No map	No map	No map	Dwellings and associated outbuildings [Sheet 169]; wholesale Orchard Supply buildings [Sheet 171]	Parking lot; warehouse and parking	High sensitivity	High sensitivity

NOTE:

[a] Block numbers correspond to an initial block numbering scheme provided by the project applicant that is similar to Figure 2-3, *Land Use Plan*.

SOURCES:
Sanborn, Fire Insurance Maps. Available at http://sanborn.umi.com;
Wentworth, C. M., M. C. Blake Jr., R. J. McLaughlin, and R. W. Graymer, *Preliminary Geologic Map of the San José 30x60-Minute Quadrangle, California: A Digital Database*; U.S. Geological Survey, Open-File Report 98-795, Menlo Park, CA, 2002.

Historical Archaeological Sensitivity

Varying degrees of development have occurred on the project site. The earliest Sanborn Fire Insurance maps from 1884 indicate that some blocks were fully developed with manufacturing facilities, businesses, and residences. Other blocks were sparsely developed with scattered residential dwellings. Some blocks remained undeveloped.

Manufacturing and processing, especially fruit packing and lumber yards, were established on the project site during the late 1800s and early 1900s, as shown on the subsequent series of Sanborn Fire Insurance maps from 1915. Proximity to the railroad had spurred development; however, large portions of the project site remained residential or moderately developed.

The 1950 Sanborn Fire Insurance maps indicate even more development, including demolition of blocks of residential dwellings for construction of large manufacturing warehouses. Since 1950, many additional buildings have been removed, and large surface parking lots have been established. Small pockets of historic-era development remain throughout the project site.

At least six documented historic-era archaeological sites are within a half-mile radius of the project site, including a number of historic-era features encountered adjacent to the project site. In addition, numerous other historic-era deposits have been recorded in San José, including the Woolen Mills/Market Street Chinatown projects and the Heinlenville/San José Corporation Yard Project.

Based on historic Sanborn Fire Insurance maps and the presence of nearby historic-era archaeological resources, there is generally high sensitivity for subsurface features associated with late 19th and early 20th century occupation to be preserved below the existing development across the project site. The presence of modern construction and surface parking lots does not lessen the likelihood that potentially eligible artifacts may be present, unless the modern construction included deep excavation to more than 12 feet deep for basements or subsurface parking garages.

San José has many examples of historic-era archaeological features preserved beneath modern development. Sensitivity is also based on the types of historic-era resources that would be present (i.e., artifact-filled wells and privies or industrial operations). Table 3.3-4 provides a block-by-block assessment of the sensitivity for historic-era archaeological resources. In addition, the proposed new footbridge that would cross Los Gatos Creek would be installed in an area that has a moderate historic-era archaeological sensitivity and could potentially affect historic-era archaeological materials and features.

For the off-site improvements that occur outside of the blocks identified in Table 3.3-4, work is generally expected to be minor (e.g., restriping, minor roadway reconfigurations) and is anticipated to only require up to 1 foot of subsurface disturbance. Historic-era archaeological sensitivity in existing roadways has a lessened potential and the with the limited ground disturbance the sensitivity of these areas is considered to be low.

3.3.2 Regulatory Framework

Federal

National Historic Preservation Act

The National Historic Preservation Act of 1966, as amended (U.S. Code Title 54, Section 306108), and its implementing regulations established the National Register of Historic Places as a comprehensive inventory of known historic resources throughout the United States. The National Register is administered by the National Park Service under the direction of the Secretary of the Interior. It includes buildings, structures, sites, objects, and districts that possess historic, architectural, archaeological, engineering, or cultural significance. A property is considered significant if it meets the criteria for listing in the National Register at Code of Federal Regulations Title 36, Section 60.4 (36 CFR 60.4), as stated below:

> The quality of significance in American history, architecture, archaeology, engineering, and culture is present in districts, sites, buildings, structures, and objects that possess integrity of location, design, setting, materials, workmanship, feeling, and association and that:
>
> A. Are associated with events that have made a significant contribution to the broad patterns of our history, or
>
> B. Are associated with the lives of persons significant in our past, or
>
> C. Embody the distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction, or
>
> D. Have yielded, or may be likely to yield, information important in prehistory or history.

If a federal action is required for implementation of a project, National Historic Preservation Act Section 106 requires federal agencies to consider the effects of the undertaking on historic properties (properties listed in or eligible for listing in the National Register) and to afford the Advisory Council on Historic Preservation a reasonable opportunity to comment on any undertaking that would adversely affect properties eligible for listing in the National Register. The Section 106 review normally involves a four-step procedure, which is described in detail in the implementing regulations (36 CFR Part 800). The four steps can be summarized as follows:

1. Identify historic properties in consultation with the State Historic Preservation Office and interested parties.
2. Assess effects.
3. Consult with the State Historic Preservation Office and others to develop and execute an agreement regarding the treatment of historic properties.
4. Proceed with the project according to the agreement.

Secretary of the Interior's Standards and Guidelines

The Secretary of the Interior's Standards for the Treatment of Historic Properties (Standards) outline four specific approaches to the treatment of historic properties: preservation, restoration,

rehabilitation, and reconstruction. CEQA references these standards when considering the significance of project impacts, or mitigation of said impacts on historic structures.

Of these approaches, rehabilitation is the most commonly applied set of standards. The Secretary of the Interior's Standards for Rehabilitation are as follows:[81]

1. A property shall be used for its historic purpose or be placed in a new use that requires minimal change to the defining characteristics of the building and its site and environment.
2. The historic character of a property shall be retained and preserved. The removal of historic materials or alteration of features and spaces that characterize a property shall be avoided.
3. Each property shall be recognized as a physical record of its time, place, and use. Changes that create a false sense of historical development, such as adding conjectural features or architectural elements from other buildings, shall not be undertaken.
4. Most properties change over time; those changes that have acquired historic significance in their own right shall be retained and preserved.
5. Distinctive features, finishes, and construction techniques or examples of craftsmanship that characterize a historic property shall be preserved.
6. Deteriorated historic features shall be repaired rather than replaced. Where the severity of deterioration requires replacement of a distinctive feature, the new feature shall match the old in design, color, texture, and other visual qualities and, where possible, materials. Replacement of missing features shall be substantiated by documentary, physical, or pictorial evidence.
7. Chemical or physical treatments, such as sandblasting, that cause damage to historic materials shall not be used. The surface cleaning of structures, if appropriate, shall be undertaken using the gentlest means possible.
8. Significant archeological resources affected by a project shall be protected and preserved. If such resources must be disturbed, mitigation measures shall be undertaken.
9. New additions, exterior alterations, or related new construction shall not destroy historic materials that characterize the property. The new work shall be differentiated from the old and shall be compatible with the massing, size, scale, and architectural features to protect the historic integrity of the property and its environment.
10. New additions and adjacent or related new construction shall be undertaken in such a manner that if removed in the future, the essential form and integrity of the historic property and its environment would be unimpaired.

State

California Register of Historical Resources

The California Register is "an authoritative listing and guide to be used by state and local agencies, private groups, and citizens in identifying the existing historical resources of the state and to indicate which resources deserve to be protected, to the extent prudent and feasible, from substantial adverse change" (PRC Section 5024.1(a)). Certain resources are determined by law to

[81] The exact wording of the standards varies depending on the source. These are taken from National Park Service, Technical Preservation Services website. Available at https://www.nps.gov/tps/standards.htm. Accessed March 30, 2020.

be automatically included in the California Register, including California properties formally determined eligible for, or listed in, the National Register.

To be eligible for the California Register, a historical resource must be significant at the federal, state, or local level under one or more of the following criteria (PRC Section 5024.1(c)):

(1) Is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage.

(2) Is associated with the lives of persons important in our past.

(3) Embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values.

(4) Has yielded, or may be likely to yield, information important in prehistory or history.

Integrity is the authenticity of a historic resource's physical identity as shown by the survival of characteristics that existed during the period of significance. For a resource to be eligible for the California Register, it must also retain enough integrity to be recognizable as a historic resource and to convey the reasons for its significance. Integrity is evaluated with regard to the retention of location, design, setting, materials, workmanship, feeling, and association. A resource that does not retain sufficient integrity to meet the National Register criteria may still be eligible for listing in the California Register.

California Public Resources Code and Tribal Cultural Resources

In 2014, the California Legislature enacted Assembly Bill (AB) 52, which added provisions to the Public Resources Code regarding the evaluation of impacts on tribal cultural resources under CEQA, and requirements to consult with California Native American tribes. In particular, AB 52 requires lead agencies to analyze project impacts on tribal cultural resources separately from archaeological resources (PRC Sections 21074 and 21083.09). AB 52 defines "tribal cultural resources" in PRC Section 21074 and requires lead agencies to engage in additional consultation procedures with respect to California Native American tribes (PRC Sections 21080.3.1, 21080.3.2, and 21082.3).

A *tribal cultural resource* is defined in PRC Section 21074 as either a site, feature, place, or cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:

1. Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in PRC Section 5020.1(k); or
2. A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in PRC Section 5024.1(c). In applying the criteria set forth in PRC Section 5024.1(c), the lead agency shall consider the significance of the resource to a California Native American tribe.

California Public Resources Code Sections 5097.98 and 5097.99

PRC Section 5097.98 (reiterated in CEQA Guidelines Section 15064.5(e)) identifies steps to follow in the event of the accidental discovery or recognition of any human remains in any location other than a dedicated cemetery. PRC Section 5097.99 prohibits obtaining or possessing any Native American artifacts or human remains that are taken from a Native American grave or cairn (stone burial mound).

California Health and Safety Code Section 7050.5

California Health and Safety Code Section 7050.5 protects human remains by prohibiting the disinterment, disturbance, or removal of human remains from any location other than a dedicated cemetery.

Senate Bill 18

Senate Bill 18 requires local governments to consult with tribes before making certain planning decisions and to provide notice to tribes at certain key points in the planning process. These consultation and notice requirements apply to adoption and amendment of both general plans (defined in California Government Code Section 65300 et seq.) and specific plans (defined in Government Code Section 65450 et seq.). The proposed project includes several General Plan amendments; therefore, the Senate Bill 18 consultation process is applicable.

Local

Historic Preservation Ordinance

The City of San José Historic Preservation Ordinance (Municipal Code Chapter 13.48) is designed to identify, protect, and encourage the preservation of significant resources as a means to stabilize neighborhoods, enhance property values, carry out the goals of the General Plan, foster civic pride in the city's cultural resources, and celebrate the unique historical identity of San José. The Historic Preservation Ordinance requires the City to do all the following:

- Establish a Historic Landmarks Commission and retain a City historic preservation officer.
- Maintain a Historic Resources Inventory.
- Preserve historic properties using a landmark designation process.
- Project the community character of historic neighborhoods by regulating Conservation Areas.
- Require a Historic Preservation (HP) permit for alterations of any designated City Landmark (excluding candidate landmarks) or property within a City Landmark historic district.
- Provide financial incentives through a Mills Act Historical Property Contract.

In addition to all other applicable laws and regulations, Municipal Code Section 13.48.210 requires HP permits for:

> *[C]onstruction, reconstruction, alteration, basic color change, repair, rehabilitation, restoration, remodeling, or any other changes to the exterior of any structure or any other similar activity … [including] installation of new or additional pavement or sidewalks or the erection of new or additional structures. Work [subject to the HP permit process] shall also include installation of new or additional pavement or sidewalks or the erection of new or additional structures. Work shall also include demolition, removal, or relocation of any structure or portion thereof.*

In accordance with Municipal Code Chapter 13.48, Part 3, additional reviews, assessments, and submission materials may be required during the HP permit process. This may include development of and required adherence to project design standards and guidelines by City staff in consultation with the Historic Landmarks Commission and as approved by the City Council.

City of San José Historic Resources Inventory

The City of San José HRI identifies known and potential historic resources of varying significance, including individual properties and districts listed in or eligible for listing in the California and National Registers, City Landmarks, Candidate City Landmarks, City Landmark Districts (and their contributing sites/structures), and Candidate City Landmark Districts (and their contributing sites/structures). In addition, the HRI identifies Structures of Merit, Identified Sites/Structures, Conservation Areas, and Conservation Area Contributing Sites/Structures. HRI properties are classified into one of 16 categories, depending on how they were evaluated at the time they were added. The HRI serves as a resource for conducting environmental and project review related to demolition permits, as well as for land use and development approvals. It is not a definitive list of all historic resources in the city of San José, and it is continually updated as new information, project-related evaluations, and neighborhood surveys are completed. The purpose of the HRI is to promote awareness of community resources and to further preservation of historic resources and community character.

City Landmarks, Candidate City Landmarks, Landmark Districts, and Candidate Landmark Districts

As presented in Municipal Code Section 13.48.020(C), designated or candidate City Landmarks and City Landmark Districts (and their contributors) are highly significant historic resources. They are designated by the City Council through a formal process as defined in the Historic Preservation Ordinance. These resources are considered historic resources under CEQA.

A designated City Landmark must conform to the General Plan and have special historical, architectural, cultural, aesthetic, or engineering value of a historic nature. In making a recommendation to the City Council on a proposed City Landmark, the Historic Landmarks

Commission may consider many relevant factors as outlined in Municipal Code Section 13.48.110(H) such as:

> *[I]ts character, interest or value as part of the local, regional, state or national history, heritage or culture; its location as a site of a significant historic event; its identification with a person or persons who significantly contributed to the local, regional, state or national culture and history; its exemplification of the cultural, economic, social or historic heritage of the City of San José; its portrayal of the environment of a group of people in an era of history characterized by a distinctive architectural style; its embodiment of distinguishing characteristics of an architectural type or specimen; its identification as the work of an architect or master builder whose individual work has influenced the development of the City of San José; and its embodiment of elements of architectural or engineering design, detail, materials or craftsmanship which represents a significant architectural innovation or which is unique.*

Structures of Merit, Identified Sites/Structures, and Conservation Areas

Structures of Merit, Identified Sites/Structures, Conservation Areas (including their contributing sites/structures), and Contributing Sites/Structures that are not associated with a Conservation Area or Candidate or Landmark District are categories of buildings that contribute to the historic fabric of the city or neighborhood and are typically placed on the HRI by the Historic Landmarks Commission. The General Plan presents several policies to prioritize preserving these categories of "historic structures of lesser significance." These policies are intended to promote awareness of community resources and to further preservation of historic resources.

It should be noted that many buildings listed in the HRI have been identified through reconnaissance-level surveys only. Therefore, the presence of a Structure of Merit, Identified Sites/Structures, or Contributing Sites/Structures not associated with a larger district in the HRI is not considered an official determination of eligibility for inclusion in the National Register or California Register, or designation as a City of San José Landmark. Rather, HRI listing is an indication that unless recently evaluated for national, state, or local listing, further research may be needed to determine whether or not an HRI resource is an eligible historic resource for the purposes of CEQA.[82]

Conservation Areas

City of San José Conservation Areas are defined in Municipal Code Section 13.48.610 as "a geographically definable area of urban or rural character with identifiable attributes embodied by: architecture, urban design, development patterns, setting, or geography; and history." The General Plan includes policies to encourage preservation of conservation areas under Goal LU-14, Historic Structures of Lesser Significances. No Conservation Areas or Conservation Area contributing sites/structures are located within the project site or the larger study area.

[82] In compliance with this provision, all properties located within the project site and containing buildings greater than 45 years of age have been subjected to further research and analysis. Refer to Appendix E1 for detailed information regarding this analysis.

City Council Policy on the Preservation of Historic Landmarks

The City Council Policy on the Preservation of Historic Landmarks (as adopted December 8, 1998 and amended May 23, 2006) calls for preservation of candidate or designated landmark structures, sites, or districts wherever possible. Projects involving these resources must include detailed analysis of the buildings and the feasibility of preserving and/or adaptively reusing them whenever possible and prudent to do so. To promote this policy, the City has developed historic design guidelines that promote various methods for the adaptive reuse and maintenance of older/historic structures and establish a general framework for evaluating applications involving historic preservation issues.

The City offers a number of historic preservation incentives, including use of the State Historic Building Code, Mills Act/Historical Property Contract, and various tax credits. This policy is also referred to as the "Early Referral Policy," requiring early project review by the Historic Landmarks Commission.[83] This policy requires the following when a project affects any historic architectural resource under CEQA including new construction within a qualifying historic district:

1. **Early Public Notification of Proposals to Alter or Demolish a Candidate or Designated Landmark Structure or to Impact the Integrity of a Historic District.** In order to allow greater public input into decisions affecting historic landmarks, early public notification should be initiated in response to either of the following: (1) receipt by the City of a development application for a project proposing to alter the original character of a candidate or designated landmark structure or to potentially impact the integrity of a landmark district, or (2) prior to action by the City Council or Redevelopment Agency Board of Directors to commit public funding or other assistance to such a project or for acquisition of property containing a candidate or designated landmark structure or potentially impacting the integrity of a landmark district. Such notification shall be provided to the City Council, Historic Landmarks Commission and representatives of the historic preservation community.
2. **Public Input and City Council Review.** As soon after the public notification as possible, public meetings on the proposed project shall be scheduled, as follows. In the case of a private development project with no City or Redevelopment Agency funding involved, the Historic Landmarks Commission shall hold a public meeting on the proposed project, to receive public comment and provide recommendations regarding information to be included in the analysis of the proposed project. In the case of a project incorporating City or Redevelopment Agency funding or other assistance, or acquisition of property containing a candidate or designated landmark structure or a structure or site located within a landmark district, the City Council shall agendize discussion of the project to receive public comment and provide early direction to the appropriate staff that either: (1) the project should continue forward through the appropriate review process, or (2) the Council does not support the proposed project and further staff work shall be discontinued.
3. **Preparation of Complete Information regarding Opportunities for Preservation of Landmark Structure [*sic*], and/or the Integrity of the Landmark District.** The analysis of a proposed project which will alter the original character of a candidate or designated landmark structure or potentially impact the integrity of a landmark district shall include complete historic, architectural, and cultural documentation of the significance of the candidate or designated landmark structure, site, district, or

[83] The proposed project was referred to the Historic Landmarks Commission, consistent with this policy, on January 15, 2020.

compatibility of new construction within a landmark district, a comprehensive evaluation of the economic and structural feasibility of preservation and/or adaptive reuse of the structure, and an analysis of potential funding sources for preservation. This information shall be carefully reviewed and then be given strong consideration in the decision making process for a project proposing to alter a candidate or designated landmark structure or the integrity of a district. Every effort should be made to preserve and incorporate existing landmark structures into the future plans for a site and the surrounding area, and to preserve the integrity of landmark districts.

4. **Findings Justifying Alteration or Demolition of a Landmark Structure, or Impact to the Integrity of a Landmark District.** Final decisions to alter or demolish a candidate or designated landmark structure or to impact the integrity of a landmark district, must be accompanied by findings which either (1) document that it is not reasonably feasible for any interested party to retain the candidate or designated landmark structure or the integrity of the district, or (2) which record the overriding considerations which warrant the loss of the candidate or designated landmark structure or district integrity. The financial profile and/or preferences of a particular developer should not, by themselves, be considered a sufficient rationale for making irreversible decisions regarding the survival of the City's historic resources.
5. **Financial Resources for Preservation.** The City and Redevelopment Agency should identify City, state, and federal funding resources to support and encourage the preservation and adaptive reuse of candidate or designated landmark structures, sites, or districts.

Envision San José 2040 General Plan

The General Plan includes numerous policies to promote reduction or avoidance of impacts on historic and cultural resources at a range of significance levels ranging from the National and California Registers, and local Landmark-level resource through those of lesser significance such as Structures of Merit and Conservation Areas. The policies listed in **Table 3.3-5** are relevant to the proposed project.

TABLE 3.3-5
GENERAL PLAN POLICIES REGARDING CULTURAL RESOURCES

Vibrations	
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 [inches per second peak particle velocity] will be used to minimize the potential for cosmetic damage to a building. 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.
Landmarks and Districts	
Policy LU-13.1	Preserve the integrity and fabric of candidate or designated Historic Districts.
Policy LU-13.2	Preserve candidate or designated landmark buildings, structures and historic objects, with first priority given to preserving and rehabilitating them for their historic use, second to preserving and rehabilitating them for a new use, or third to rehabilitation and relocation on-site. If the City concurs that no other option is feasible, candidate or designated landmark structures should be rehabilitated and relocated to a new site in an appropriate setting.
Policy LU-13.3	For landmark structures located within new development areas, incorporate the landmark structures within the new development as a means to create a sense of place, contribute to a vibrant economy, provide a connection to the past, and make more attractive employment, shopping, and residential areas.

TABLE 3.3-5
GENERAL PLAN POLICIES REGARDING CULTURAL RESOURCES

Policy LU-13.4	Require public and private development projects to conform to the adopted City Council Policy on the Preservation of Historic Landmarks.
Policy LU-13.6	Ensure modifications to candidate or designated landmark buildings or structures conform to the Secretary of the Interior's Standards for Treatment of Historic Properties and/or appropriate State of California requirements regarding historic buildings and/or structures, including the California Historical Building Code.
Policy LU-13.7	Design new development, alterations, and rehabilitation/remodels within a designated or candidate Historic District to be compatible with the character of the Historic District and conform to the Secretary of the Interior's Standards for the Treatment of Historic Properties, appropriate State of California requirements regarding historic buildings and/or structures (including the California Historic Building Code) and to applicable historic design guidelines adopted by the City Council.
Policy LU-13.8	Require that new development, alterations, and rehabilitation/remodels adjacent to a designated or candidate landmark or Historic District be designed to be sensitive to the character of the nearby Historic District or landmark.
Policy LU-13.10	The City's public works projects (street lights, street tree plantings, sidewalk design, etc.) shall promote, preserve, or enhance the historic character of Historic Districts.
Policy LU-13.11	Maintain and update an inventory of historic resources in order to promote awareness of these community resources and as a tool to further their preservation. Give priority to identifying and establishing Historic Districts.
Policy LU-13.13	Foster the rehabilitation of buildings, structures, areas, places, and districts of historic significance. Utilize incentives permitting flexibility as to the uses; transfer of development rights; tax relief for designated landmarks and districts; easements; alternative building code provisions for the reuse of historic structures; and financial incentives.
Policy LU-13.15	Implement City, State, and Federal historic preservation laws, regulations, and codes to ensure the adequate protection of historic resources.
Policy LU-13.20	Explore funding options and techniques to proactively conduct additional historic surveys and to maintain and update the City's Historic Resources Inventory. As funding allows, undertake comprehensive area-wide surveys of the city to identify potential Historic Districts, Cultural Landscapes at the City's edge, and significant buildings and/or structures, including Traditional Cultural Properties.
Action LU-13.21	Implement strategic General Plan and zoning changes as indicated by federal, state or municipal "historic" or "conservation area" designations, in order to maintain neighborhood vitality and character and to preserve the integrity of historic structures located within those neighborhoods. To preserve predominantly single family historic neighborhoods, rezone residential structures located in these areas to a single-family zoning designation.
Historic Structures of Lesser Significance	
Policy LU-14.2	Give high priority to the preservation of historic structures that contribute to an informal cluster or a Conservation Area; have a special value in the community; are a good fit for preservation within a new project; have a compelling design and/or an important designer; etc.
Policy LU-14.4	Discourage demolition of any building or structure listed on or eligible for the HRI as a Structure of Merit by pursuing the alternative of rehabilitation, re-use on the subject site, and/or relocation of the resource.
Site Development	
Policy IP-10.3	In addition to a Site Development permit, require an Historic Preservation permit for modifications to a designated Historic Landmark structure. This permit process fosters the implementation of the Historic Preservation goals and policies of this General Plan.

TABLE 3.3-5
GENERAL PLAN POLICIES REGARDING CULTURAL RESOURCES

Archaeology and Paleontology	
Policy ER-10.1	For proposed development sites that have been identified as archaeologically or paleontologically sensitive, require investigation during the planning process in order to determine whether potentially significant archeological or paleontological information may be affected by the project and then require, if needed, that appropriate mitigation measures be incorporated into the project design.
Policy ER-10.2	Recognizing that Native American human remains may be encountered at unexpected locations, impose a requirement on all development permits and tentative subdivision maps that upon their discovery during construction, development activity will cease until professional archaeological examination confirms whether the burial is human. If the remains are determined to be Native American, applicable state laws shall be enforced.
Policy ER-10.3	Ensure that City, State, and Federal historic preservation laws, regulations, and codes are enforced, including laws related to archaeological and paleontological resources, to ensure the adequate protection of historic and pre-historic resources

SOURCE: City of San José, *Envision San José 2040 General Plan*, adopted November 1, 2011 (amended March 16, 2020). Available at https://www.sanjoseca.gov/home/showdocument?id=22359. Accessed January 16, 2020.

Diridon Station Area Plan and Update

The Diridon Station Area Plan (DSAP) (2014) and Update (2017) include a number of land use and planning objectives regarding the future uses and character of neighborhoods surrounding Diridon Station. Specific objectives that concern cultural resources include:

- Expand Diridon Station to create a well-integrated center of architectural and functional significance.
- Enhance the existing neighborhoods and add high-density residential-commercial mixed-use development within the study area and to act as a catalyst for similar developments in surrounding areas.

In addition, the DSAP EIR identifies the following standard measures to which subsequent projects would be subject and that would reduce and avoid impacts on historic resources:

- **Supplemental Review.** Supplemental evaluation will be required for future projects that would affect properties that may meet the CEQA definition of historic resources, including properties greater than 45 years of age. If the property is less than 45 years of age, seek the comment of the San José Historic Preservation Officer regarding any concerns the City may have regarding the proposed action and its effects on the property.
  - At a minimum, the supplemental review effort shall include preparation of a site-specific historic resources report that involves a records search at the NWIC, a review of the San José Historic Resources Inventory, and where there is no evaluation within the last 5 years (using the Department of Parks and Recreation 523A and B forms), evaluation by a qualified historian or architectural historian to determine if the property meets the CEQA definition of a historic resource.
  - If the supplemental review effort does not identify any site or structure that meets the definition of a historic resource and could be affected by construction activities, then no further study or protection is necessary prior to project implementation.
  - The evaluations would include consideration of criteria for Traditional Cultural Properties and Cultural Landscapes.

- **Evaluate Potential Districts.** At the time redevelopment is proposed for the area bounded by North Montgomery Street, West Julian Street, West St. John Street, and the Guadalupe River (including the Dennis Residence), the area will be evaluated for its potential to be considered a historic district or Conservation Area. Other areas with a concentration of historic buildings will also be evaluated for potential district status.[84]
- **Secretary of the Interior's Standards.** New construction within historic districts or adjacent to a historic resource will be required to conform to the *Secretary of the Interior's Standards for the Treatment of Historic Properties with Guidelines for Preserving, Rehabilitating, Restoring, and Reconstructing Historic Buildings*, California Historic Building Code, and other applicable regulations.
- **Conform to Guidance.** A qualified historian or architectural historian should review all plans for any development within the Lakehouse Historic District to ensure conformity with applicable design guidelines, and, if necessary, provide technical assistance to achieve such conformity.

Evaluation of potential districts shall be in accordance with the criteria and designation processes outlined in Municipal Code Section 13.148, Part 2. Evaluations should include applicable criteria for national, state, and local program eligibility and be carried out by professionals who meet or exceed the Secretary of the Interior's Professional Qualification Standards for History or Architectural History. Evaluations shall be coordinated with, reviewed, and approved by the Director of Planning, Building and Code Enforcement, or the Director's designee.

The DSAP Final EIR goes on to state that:

> *If a future project proposes removal of a historic resource, the supplemental analysis shall address the feasibility of avoiding adverse impacts through project redesign, rehabilitation, or reuse of the resource. Preservation in place is always the preferred measure for mitigating direct impacts to historic resources. If the resource is to be preserved on the property, specific measures to protect the integrity of the structure and its setting will be identified. If impacts to the historic resource cannot be avoided, all feasible measures shall be implemented to reduce the magnitude of the impact. At a minimum, the City would require "Documentation" and "Commemoration" efforts. Additional measures could include relocation, incorporation of the resources into the project, and/or salvage. However, even with implementation of these measures, demolition of a historic resource would result in a significant unavoidable impact. In such cases, additional environmental review will be required.*[85]

In addition to planning policies dedicated to reduction of impacts on historic architectural resources under CEQA, the City of San José has General Plan policies in place to guide decision making with regard to properties that have historical value but do not meet the criteria for listing in the National Register or California Register, or for designation as City Landmark or Candidate City Landmark buildings or districts. Many properties listed in the HRI that are eligible as

[84] Where the DSAP area overlaps with the project site, these efforts have taken place. ARG evaluated the known and potential historic resources within the project area, including the potential for historic districts and conservation areas. No new historic architectural districts or conservation areas were identified as a result of this analysis. Refer to Appendix E1 for more information.

[85] City of San José, *Diridon Station Area Plan Integrated Final Program Environmental Impact Report*, State Clearinghouse No. 2011092022, August 2014, p. 222.

Structures of Merit fall into this category (Table 3.3-5). While not historic architectural resources under CEQA, they do require additional planning review with a treatment plan included in development permits. Where a project involves demolition of one or more Structures of Merit as listed in the City's HRI, the DSAP EIR identifies the following additional standard measures to which such a project would be subject:

- **Documentation.** Prior to the demolition of any Structure of Merit, the structure will be photo-documented to an archival level utilizing 35mm photography and consisting of selected black and white views of the building to the following standards:
  - *Cover sheet*—The documentation shall include a cover sheet identifying the photographer, providing the address of the building, common or historic name of the building, date of construction, date of photographs, and photograph descriptions.
  - *Camera*—A 35mm camera.
  - *Lenses*—No soft focus lenses. Lenses may include normal focal length, wide angle and telephoto.
  - *Filters*—Photographer's choice. Use of a pola screen is encouraged.
  - *Film*—Must use black and white film; tri-X, Plus-X, or T-Max film is recommended.
  - *View*—Perspective view–front and other elevations. All photographs shall be composed to give primary consideration to the architectural and/or engineering features of the structure with aesthetic considerations necessary, but secondary.
  - *Lighting*—Sunlight is usually preferred for exteriors, especially of the front façade. Light overcast days, however, may provide more satisfactory lighting for some structures. A flash may be needed to cast light into porch areas or overhangs.
  - *Technical*—All areas of the photograph must be in sharp focus.

  The project shall coordinate the submission of the photo-documentation, including the original prints and negatives, to History San José. Digital photos may be provided as a supplement to the above photo-documentation, but not in place of it. Digital photography shall be recorded on a CD and shall be submitted with the above documentation. The above shall be accompanied by a transmittal stating that the documentation is submitted as a Standard Measure to address the loss of the historic resource which shall be named and the address stated and coordinated with the Director of Planning, Building and Code Enforcement, or the Director's designee.
- **Relocation or Salvage.** Prior to demolition, the City will offer each of the buildings for relocation. If an entity or individual is interested in relocating the building to a new site, the costs and liability of the relocation will be borne entirely by that entity/individual. The City's "offer for relocation" will be placed in a newspaper of general circulation, posted on a website, and posted on the sites for a period of no less than 30 days. In the event that relocation is not possible, prior to demolition the structure and site shall be retained and made available for salvage to the general public and companies facilitating the reuse of historic building materials.

The DSAP EIR modifies the HP permit process to include specific steps for when the above actions are not sufficient to reduce or eliminate impacts on historic resources:

> *If a future project proposes removal of a historic resource, the supplemental analysis shall address the feasibility of avoiding adverse impacts through project*

redesign, rehabilitation, or reuse of the resource. Preservation in place is always the preferred measure for mitigating direct impacts to historic resources. If the resource is to be preserved on the property, specific measures to protect the integrity of the structure and its setting will be identified. If impacts to the historic resource cannot be avoided, all feasible measures shall be implemented to reduce the magnitude of the impact. At a minimum, the City would require "Documentation" and "Commemoration" efforts.[86] Additional measures could include relocation, incorporation of the resources into the project, and/or salvage. However, even with implementation of these measures, demolition of a historic resource would result in a significant unavoidable impact.

San José Standard Conditions of Approval

The City's Standard Conditions of Approval (SCAs) relevant to the proposed project's archeological and architectural resources impacts are presented below. If the proposed project is approved by the City, all applicable SCAs would be adopted as conditions of approval/permit conditions. The project applicant would be required, as applicable, to implement the SCAs during project construction and operation to address impacts on subsurface cultural resources and vibration impacts on historic buildings. The SCAs are incorporated and required as part of the project, so they are not listed as mitigation measures.

SCA CR-1: Subsurface Cultural Resources. If prehistoric or historic resources are encountered during excavation and/or grading of the site, all activity within a 50-foot radius of the find shall be stopped, the Director of Planning, Building and Code Enforcement or the Director's designee shall be notified, and a qualified archaeologist shall examine the find. The archaeologist shall:

1. Evaluate the find(s) to determine if they meet the definition of a historical or archaeological resource; and
2. Make appropriate recommendations regarding the disposition of such finds prior to issuance of building permits. Recommendations could include collection, recordation, and analysis of any significant cultural materials.

A report of findings documenting any data recovery shall be submitted to Director of Planning, Building and Code Enforcement, or the Director's designee, and the Northwest Information Center (if applicable). Project personnel shall not collect or move any cultural materials.

SCA CR-2: Human Remains. If any human remains are found during any field investigations, grading, or other construction activities, all provisions of California Health and Safety Code Sections 7054 and 7050.5 and PRC Sections 5097.9 through 5097.99, as amended per AB 2641, shall be followed. If human remains are discovered during construction, there shall be no further excavation or disturbance of the site or any nearby area reasonably suspected to overlie adjacent remains. The project applicant shall immediately notify the Director of Planning, Building and Code Enforcement, or the Director's designee, and the qualified archaeologist, who shall then notify the Santa Clara County Coroner. The Coroner will make a determination as to whether the remains are Native American. If the

[86] The DSAP Final EIR defines these terms: "'Documentation' refers to the completion of documentation in conformance with the Secretary of the Interior's Standards for Architectural and Engineering Documentation, Historical American Building Survey (HABS). 'Commemoration' refers to the creation of an interpretative exhibit(s) or documentary display(s) that increase public awareness of the resource and its historical significance."

remains are believed to be Native American, the Coroner will contact the Native American Heritage Commission (NAHC) within 24 hours. The NAHC will then designate a most likely descendant (MLD). The MLD will inspect the remains and make a recommendation on the treatment of the remains and associated artifacts. If one of the following conditions occurs, the landowner or his authorized representative shall work with the Coroner to reinter the Native American human remains and associated grave goods with appropriate dignity in a location not subject to further subsurface disturbance:

- The NAHC is unable to identify a MLD or the MLD failed to make a recommendation within 48 hours after being given access to the site;
- The MLD identified fails to make a recommendation; or
- The landowner or his authorized representative rejects the recommendation of the MLD, and mediation by the NAHC fails to provide measures acceptable to the landowner.

SCA CR-3: Vibration Impacts to Adjacent and Nearby Historic Buildings. The project applicant shall implement the following measures prior to and during construction:

- Prohibit impact, sonic, or vibratory pile driving methods. Drilled piles cause lower vibration levels where geological conditions permit their use. (Also refer to Mitigation Measure CU-4, below.)
- Limit other vibration-inducing equipment to the extent feasible.
- Submit a list of all heavy construction equipment to be used for this project known to produce high vibration levels (e.g., tracked vehicles, vibratory compaction, jackhammers, hoe rams) to the Director of Planning, Building and Code Enforcement or the Director's designee. This list shall be used to identify equipment and activities that would potentially generate substantial vibration and to define the level of effort required for continuous vibration monitoring.

3.3.3 Impacts and Mitigation Measures

Significance Criteria

For the purposes of this EIR, a cultural resources or tribal cultural resources impact would be significant if implementing the proposed project would:

- Cause a substantial adverse change in the significance of a historic resource pursuant to CEQA Guidelines Section 15064.5;
- Cause a substantial adverse change in the significance of a unique archaeological resource pursuant to CEQA Guidelines Section 15064.5;
- Disturb any human remains, including those interred outside of formal cemeteries; or
- Cause a substantial adverse change in the significance of a tribal cultural resource, as defined in PRC Section 21074.

As stated previously, for the purposes of CEQA, historic resources are those resources listed or determined eligible for listing in the National Register or California Register, or as being designated or meeting the criteria for designation as City Landmarks and City Landmark Districts, including Candidate City Landmarks and Candidate City Landmark Districts. These include contributors to

districts that also meet these criteria. Structures of Merit, Identified Sites/Structures, Conservation Areas (including their contributing sites/structures), and Contributing Sites/Structures that are not associated with a Candidate or Landmark District are eligible for listing in the HRI and contribute to the historic fabric of San José but do not qualify as historic resources for the purposes of CEQA. They are presented in the preceding discussion for disclosure purposes and are not included in the impacts discussion below.

Approach to Analysis

Historic Resources

Potential impacts on historic resources were assessed by identifying any activities (during either construction or operations) that could affect resources identified as historic resources for the purposes of CEQA.

CEQA and CEQA Guidelines

Once a resource has been identified as a CEQA historic resource, it must be determined whether the project's impacts would "cause a substantial adverse change in the significance" of the resource (CEQA Guidelines Section 15064.5(b)). A substantial adverse change in the significance of a historic resource means "physical demolition, destruction, relocation, or alteration of the resource or its immediate surroundings such that the significance of the historical resource would be materially impaired" (CEQA Guidelines Section 15064(b)(1)). A historical resource is considered materially impaired through the demolition or alteration of the resource's physical characteristics that convey its historical significance and that justify its inclusion in the California Register (CEQA Guidelines Section 15064.5(b)(2)(A)).

Where potential impacts on historical resources are identified, CEQA Guidelines Section 15126.4(b) states that compliance with the *Secretary of the Interior's Standards for the Treatment of Historic Properties with Guidelines for Preserving, Rehabilitating, Restoring, and Reconstructing Historic Buildings* will generally reduce potential impacts to a less-than-significant level. In addition, "in some circumstances, documentation of an historical resource … as mitigation for the effects of demolition of the resource will not mitigate the effects to a point where clearly no significant effect on the environment would occur" (CEQA Guidelines Section 15126.4(b)(2)).

City of San José Municipal Code

The City of San José requires additional review when modifications to historic architectural resources under CEQA are proposed. As outlined in Municipal Code Chapter 13.48, alteration to or demolition of a City Landmark Structure or City Landmark District must follow a series of additional planning, findings, and entitlement reviews as presented in Section 3.3.2, *Regulatory Framework*.

Diridon Station Area Plan Consistency

The project site substantially overlaps with the boundaries of the DSAP. The DSAP EIR states that:

> *Future development and infrastructure improvement projects in the Plan area could directly or indirectly affect historic resources, including those that are currently listed and those that have yet to be identified and evaluated. Examples of direct impacts include demolition, relocation, or inappropriate or unsympathetic modification (e.g., use of incompatible materials, designs, or construction techniques in a manner that alters character-defining features). Indirect impacts could occur if:*
>
> - *new construction conflicts with or isolates historic buildings or structures;*
> - *changes to the historic fabric or setting materially impair the resource's ability to convey its significance; and/or*
> - *there is deliberate incremental deterioration due to inaction/neglect, lack of occupancy, or inappropriate uses.*
>
> *Physical changes to a historic resource or its immediate surroundings such that the resource's ability to convey its significance is materially impaired would be considered a significant impact.*

To maintain consistency with the DSAP EIR, the analysis of the proposed project's impacts on historic resources presented below follows the above parameters.

Archaeological Resources

Archaeological resources can include historical resources according to CEQA Guidelines Section 15064.5, as well as unique archaeological resources as defined in CEQA Guidelines Section 21083.2(g). The significance of most prehistoric and historical archaeological sites is usually assessed under National Register and California Register Criteria D/4. These criteria stress the importance of the information potential contained within the site, rather than its significance as a surviving example of a type or its association with an important person or event. Although it is less common, archaeological resources may also be assessed under National Register and California Register Criteria A/1, B/2, and/or C/3, as described in Section 3.3.2, *Regulatory Framework*.

Impacts on unique archaeological resources or archaeological resources that qualify as historical resources are assessed pursuant to CEQA Section 21083.2, which states that the lead agency shall determine whether the project may have a significant effect on archaeological resources. As with architectural resources above, whether the impacts of the project would "cause a substantial adverse change in the significance" of the resource must be determined (CEQA Guidelines Section 15064.5(b)).

Human Remains

Human remains, including those buried outside of formal cemeteries, are protected under several state laws, including PRC Section 5097.98 and Health and Safety Code Section 7050.5. These

laws are identified in Section 3.3.2, *Regulatory Framework*. Specifically, CEQA Guidelines Section 15064.5(d) requires a lead agency to work with Native Americans to develop an agreement for treating, with appropriate dignity, human remains and any items associated with the burials. Upon discovery of human remains that the county coroner determines to be Native American in origin, the Native American Heritage Commission identifies the person or persons it believes to be the most likely descendant from the deceased Native American. This analysis considers impacts on human remains including intentional disturbance, mutilation, or removal of interred human remains.

Tribal Cultural Resources

A *tribal cultural resource* is defined as a site feature, place, cultural landscape, sacred place, or object that is of cultural value to a tribe that is either on or eligible for the California Register or a local historic register, or that the lead agency, at its discretion, chooses to treat as a tribal cultural resource. Impacts on tribal cultural resources are assessed in consultation with affiliated Native American tribes in accordance with PRC Section 21080.3. This analysis considers whether the project would cause a substantial adverse change in the significance of any tribal cultural resource.

Impact Analysis

Historic Architectural Resources

Impact CU-1: The proposed project would demolish historic architectural resources, resulting in a substantial adverse change in the significance of a historical resource as defined in CEQA Guidelines Section 15064.5. ***(Significant and Unavoidable)***

The project would result in the demolition of five historic architectural resources under CEQA: 343 North Montgomery Street/Advance Metal Spinning, 345 North Montgomery Street/Circus Ice Cream, 580 Lorraine Avenue/Democracy Hall, 145 South Montgomery Street/Sunlite Baking Co., and the grouping of residences at 559, 563, and 567 West Julian Street (refer to Figure 3.3-2). Each of these resources is described in more detail in Section 3.3.1, *Environmental Setting*, under *Existing Cultural and Historical Setting*, and briefly below. The properties would be demolished and replaced with open space, offices, and residential uses. This demolition would be a significant impact.

The project would also partially demolish one historic architectural resource under CEQA (40 South Montgomery Street/43-57 South Autumn Streets/Kearney Pattern Works and Foundry), which includes a series of building expansions that occurred over many decades. The resource is significant as a reflection on "the broader shifts and patterns in the region's prevailing industries … [and its] role in producing specialized tools and equipment required for their commercial success."[87] The complex is eligible for National Register and California Register listing under Criteria A/1 (Events and Trends) and as a Candidate City Landmark with a period of significance of 1922–1949, marking its establishment through the end of World War II. However, the project proposes demolition of the sections of the property located at 43–57 South Autumn Street, which were constructed between the 1950s and the 1990s, outside the period of significance for the

[87] Architectural Resources Group, DPR form-set for 40 S. Montgomery and 43–57 S. Autumn Streets, January 2020.

property. Thus, demolition of these non-contributing buildings and features would not result in a significant impact on this historic resource. Refer to Impact CU-2 for more information.

The project would demolish the following historical resources:

- **559, 563, and 567 West Julian Street (APN 259-27-009)**—This grouping of three small residences is significant because they "are representative of the residential use that defined its immediate area in the late nineteenth and early twentieth century, and their proximity strengthens their ability to communicate this association."[88] The grouping appears to be eligible for Candidate City Landmark Status.
- **343 North Montgomery Street (Advance Metal Spinning, APN 259-27-014)**—This Streamline Moderne commercial building is significant "because it is a local example of industrial architecture with Streamline Moderne elements and conveys the physical landscape of the neighborhood as it was during World War II and in the early postwar era."[89] The building appears to be eligible for Candidate City Landmark Status.
- **345 North Montgomery Street (Circus Ice Cream, APN 259-27-015)**—This Streamline Moderne commercial building is significant "because it is a local example of Streamline Moderne industrial architecture and conveys the physical landscape of the neighborhood as it was during World War II and in the early postwar era."[90] The building appears to be eligible for Candidate City Landmark Status.
- **580 Lorraine Avenue (Democracy Hall, APN 259-47-040)**—This Modernist-style masonry building is significant as a rare non-residential example of master architect Henry Hill along with his associate John Kruse, and as the only known extant example of Hill's work in San José.[91] The building appears to be eligible for National Register and California Register listing under Criteria C/3 (Architecture) and as a Candidate City Landmark.
- **145 South Montgomery Street (Sunlite Baking Co., APN 261-35-027)**—This building is the former Sunlite Baking Company. It is significant for its association with the Gilliland family and as a distinctive local example of the Art Moderne style designed by prominent architect Ralph Wyckoff.[92] The building appears to be eligible for National Register and California Register listing under Criteria B/2 (People) and C/3 (Architecture) and as a Candidate City Landmark.

Demolition is considered a substantial adverse change to an historic resource and a significant impact under CEQA.[93] Therefore, this impact would be **significant**. Demolition of a historic architectural resource (including the partial demolition of non-historic features on a Candidate City Landmark site described above) is subject to the Council Policy on Historic Landmarks, 2006, but not to the provisions for an HP permit, as set forth in Municipal Code Chapter 13.48, Part 3, because the properties are not designated City Landmarks.

The DSAP addresses impacts related to demolition by requiring supplemental analysis for individual projects such as this one, as well as implementation of "all feasible measures … to reduce the

88 Architectural Resources Group, DPR form-set for 559 West Julian Street, January 2020.
89 Architectural Resources Group, DPR form-set for 343 North Montgomery Street, January 2020.
90 Architectural Resources Group, DPR form-set for 345 North Montgomery Street, January 2020.
91 Architectural Resources Group, DPR form-set for 580 Lorraine Avenue, January 2020.
92 Architectural Resources Group, DPR form-set for 145 South Montgomery Street, January 2020.
93 California Office of Historic Preservation, *Technical Assistance Series #1: California Environmental Quality Act (CEQA) and Historical Resources*, 2001.

magnitude of the impact." The DSAP specifically stipulates documentation and commemoration efforts as well as "relocation, incorporation of the resources into the project, and/or salvage." The mitigation measures provided below are proposed for adoption as conditions of approval of the Downtown West Mixed-Use Plan and include all of the techniques called for in the DSAP with the exception of incorporation into the project, which is analyzed in Chapter 5, *Alternatives*. In addition, the action of building relocation is presented as an option only for those structures that are deemed to be reasonable candidates for relocation, meaning that the buildings are likely to survive a move with their historic fabric largely intact (or repairable) if a suitable site can be found.

To identify reasonable candidates for relocation, a historic-resource move feasibility study was prepared in June 2020 (Appendix E3).[94] The study identifies existing conditions for each resource proposed for demolition, its construction, and a proposed methodology for relocating each resource should an appropriate receiver site be identified. Reasonable candidates for relocation include portions of the 18,000-square-foot (sf) building at 145 South Montgomery Street constructed in 1936; the residential buildings at 559, 563, and 567 West Julian Street; the front office portion (but not the warehouse portion) of the building at 343 North Montgomery Street; and the building at 345 North Montgomery Street. The remainder of 145 South Montgomery Street and 343 North Montgomery Street and the entire building at 580 Lorraine Avenue are not deemed good candidates for relocation because of their irregular construction, poor construction quality, and instability if separated into movable segments; their walls would need to be cut vertically and horizontally into numerous manageable pieces, greatly affecting the historic fabric.[95]

Mitigation Measures

Mitigation Measure CU-1a: Documentation

Before the issuance of a demolition and/or relocation permit and under the direction of the Director of Planning, Building and Code Enforcement or the Director's designee, the project applicant shall prepare documentation of all historic architectural resources under CEQA subject to demolition and/or relocation. This includes **343 North Montgomery Street; 345 North Montgomery Street; 559, 563, and 567 West Julian Street; 145 South Montgomery Street; and 580 Lorraine Avenue**. Each resource shall be photo-documented to an archival level utilizing 35 mm photography and consisting of selected black-and-white views of the building to the following standards:

- *Cover sheet*—A cover sheet identifying the photographer, providing the address of the building, common or historic name of the building, date of construction, date of photographs, and photograph descriptions.
- *Camera*—A 35mm camera.
- *Lenses*—No soft-focus lenses. Lenses may include normal focal length, wide angle, and telephoto.
- *Filters*—Photographer's choice. Use of a pola screen is encouraged.

[94] Garden City Construction, "Downtown West Mixed Use Plan – Historic Resource Move Feasibility," memo, prepared for Google/Lendlease, June 29, 2020.
[95] Garden City Construction, "Downtown West Mixed Use Plan – Historic Resource Move Feasibility," memo, prepared for Google/Lendlease, June 29, 2020.

- *Film*—Black-and-white film only; tri-X, Plus-X, or T-Max film is recommended.
- *View*—Perspective view–front and other elevations. All photographs shall be composed to give primary consideration to the architectural and/or engineering features of the structure, with aesthetic considerations necessary but secondary.
- *Lighting*—Sunlight usually preferred for exteriors, especially of the front façade. Light overcast days, however, may provide more satisfactory lighting for some structures. A flash may be needed to cast light into porch areas or overhangs.
- *Technical*—Sharp focus required for all areas of the photograph.

The project applicant shall coordinate the submission of the photo-documentation, including the original prints and negatives, to History San José. Digital photos may be provided as a supplement to the above photo-documentation, but not in place of it. Digital photography shall be recorded on a CD and shall be submitted with the above documentation. The above shall be accompanied by a transmittal stating that the documentation is submitted as a Standard Measure to address the loss of the historic resource, which shall be named and the address stated, with a copy provided to the Director of Planning, Building and Code Enforcement or the Director's designee.

Mitigation Measure CU-1b: Relocation

In accordance with General Plan Policy LU-13.2, and consistent with the DSAP Final EIR's *Measures Included in the Project to Reduce and Avoid Impacts to Historic Resources,* relocation of a historic architectural resource shall be considered as an alternative to demolition. After implementation of Mitigation Measure CU-1a, Documentation, and prior to issuance of any permit that would allow demolition of a historic architectural resource, the project applicant shall take the following actions to facilitate historic architectural resource relocation. This applies to **343 North Montgomery Street (partial); 345 North Montgomery Street; 559, 563, and 567 West Julian Street; and 145 South Montgomery Street (partial)**:[96]

(1) **Relocation Outreach.** The project applicant shall advertise the availability for relocation of historic architectural resources subject to Mitigation Measure CU-1b, Relocation. A dollar amount equal to the estimated cost of demolition, as certified by a licensed contractor, and any associated Planning Permit fees for relocation shall be offered to the recipient of the building who is willing to undertake relocation and rehabilitation after relocation. Advertisement and outreach to identify an interested third party shall continue for no less than 60 days. The advertisements shall include notification in at least one newspaper of general circulation and on online platforms as appropriate, including at a minimum the *San Jose Mercury News* (print and online), and the City of San José Department of Planning, Building and Code Enforcement's Environmental Review website. Noticing shall be compliant with City Council Policy 6-30: Public Outreach Policy and shall include posting of a notice, on each building proposed for demolition, that is no smaller than 48 x 72 inches and is visible from the public right-of-way.[97] Satisfaction of the notification provisions shall be subject to review by the Director of Planning, Building and Code Enforcement or

[96] Garden City Construction, "Downtown West Mixed Use Plan – Historic Resource Move Feasibility," memo, prepared for Google/Lendlease, June 29, 2020.

[97] Current noticing protocols for *On-Site Noticing/Posting Requirements for Large Development Proposals* can be found at https://www.sanjoseca.gov/home/showdocument?id=15573.

the Director's designee following completion of the minimum 60-day public outreach period, before the issuance of demolition permits.

(2) **Relocation Implementation Plan(s).** If, before the end of the outreach period, an interested third party (or parties) expresses interest in relocating and rehabilitating one or more of the resources to a suitable site under their ownership or control, they shall be allowed a period of up to 60 days to prepare and submit a Relocation Implementation Plan, and an additional 120 days to complete removal of the resources from the project site. The Relocation Implementation Plan(s) shall be prepared in consultation with historic preservation professionals who meet or exceed the *Secretary of the Interior's Professional Qualification Standards*. The plan(s) shall be based on the findings of the *Downtown West Mixed-Use Plan—Historic Resource Move Feasibility* memo and *Site Selection Criteria for Relocation of Identified Historic Resources* memo (EIR Appendix E3) or subsequent relocation feasibility documentation, to support relocation of the historic resource to a site outside of the project site and acceptable to the City.[98]

The Relocation Implementation Plan for each resource shall include:

- A description of the intended relocation receiver site and an analysis of its compatibility with the unique character, historical context, and prior physical environment of the resource;
- A description and set of working drawings detailing methods and means of securing and bracing the building through all stages of relocation;
- A site plan for the receiver site demonstrating compliance with all setback and zoning requirements;
- A travel route survey that records the width of streets, street lamp and signal arm heights, heights of overhead utilities that may require lifting or temporary removal, and other details necessary for coordinating the relocation;
- A scope of work for building rehabilitation following completion of relocation, and anticipated timing to initiate and complete such rehabilitation; and
- Roles and responsibilities between the interested party, project applicant, City staff, and outside individuals, groups, firms, and/or consultants as necessary.

Once the Relocation Implementation Plan(s) have been reviewed and approved by the Director of Planning, Building and Code Enforcement or the Director's designee, implementation of the approved relocation shall occur within 120 days.

(3) **Rehabilitation after Relocation.** After relocation of the resource(s) and pursuant to General Plan Policy LU-13.6 and CEQA Section 15064.5(3), parties responsible for relocation shall also be responsible for rehabilitation of the building(s) on their new site(s) as specified in the Relocation Implementation Plan. Resource(s) shall be secured on a foundation and repaired to ensure that each resource remains in good condition and is usable for its intended purpose, and that all modifications are sensitive to those elements that convey the

[98] Garden City Construction, "Downtown West Mixed Use Plan – Historic Resource Move Feasibility," memo, prepared for Google/Lendlease, June 29, 2020; Architectural Resources Group, *Site Selection Criteria for Relocation of Identified Historic Resources*, memo, prepared for Google/Lendlease, August 7, 2020.

resource's historical significance. All repairs and modifications shall be consistent with the *Secretary of the Interior's Standards and Guidelines for Rehabilitation* and related permits shall be subject to review by the Director of Planning, Building and Code Enforcement or the Director's designee.

Mitigation Measure CU-1c: Interpretation/Commemoration

As part of the Downtown West Design Standards and Guidelines conformance review for each new building on the site of one or more demolished resources, the project applicant, in consultation with a qualified architectural historian and design professional, and under the direction of the Director of Planning, Building and Code Enforcement or the Director's designee, shall develop an interpretive program that may include one or more interpretive displays, artworks, electronic media, smartphone apps, and other means of presenting information regarding the site's history and development. The program shall concentrate on those contextual elements that are specific to the resources that have been demolished. Display panels, if included in the interpretive program, shall be placed at, or as near as possible to, the location where the resource was historically located. The interpretive program shall be approved prior to the issuance of demolition permit(s) for the historical resource(s) to be demolished and shall be fully implemented and/or installed before the issuance of a certificate of occupancy for the applicable new building(s).

Mitigation Measure CU-1d: Salvage

Before the demolition of any historic resource on the site that is not relocated, the subject building shall be made available for salvage to companies or individuals facilitating reuse of historic building materials, including local preservation organizations. Noticing for salvage opportunities shall include notification in at least one newspaper of general circulation and online platforms as appropriate, including at a minimum the *San Jose Mercury News* (print and online) and the City of San José Department of Planning, Building and Code Enforcement's Environmental Review website. Noticing shall be compliant with City Council Policy 6-30: Public Outreach Policy and shall include a notice, on each building proposed for demolition, that is no smaller than 48 x 72 inches and is visible from the public right-of-way.[99] The time frame for materials salvage shall be 30 days after the initial 60 days noticing for relocation.

Significance after Mitigation: Complete implementation of Mitigation Measures CU-1a and CU-1b, including successful relocation of historic architectural resources to appropriate receiver sites and completion of rehabilitation according to the Secretary of the Interior's Standards, would substantially reduce impacts on these resources. However, impacts cannot be reduced to a less-than-significant level. First, the building at 580 Lorraine Avenue and portions of two other buildings are not reasonable candidates for relocation; therefore, it is not feasible to implement Mitigation Measure CU-1b with respect to the entirety of those resources. Additionally, with respect to the other resources proposed for demolition, there are no appropriate receiver sites within the project boundary that would allow for development of the project as proposed. It is likely that one or more resources could not be feasibly relocated off-site because of the lack of a party willing to accept the relocated resource and/or the inability to identify an appropriate receiver site that is legally and commercially available. In addition, even with

[99] Current noticing protocols for *On-Site Noticing/Posting Requirements for Large Development Proposals* can be found at https://www.sanjoseca.gov/home/showdocument?id=15573.

off-site relocation, the historic resources would be removed from their historical surroundings and isolated from the any related buildings in the area. Their setting and historical context would be irrevocably altered. Because of this loss of context and setting, while successful relocation would reduce the severity of the impact, impacts cannot be mitigated to a less-than-significant level.

In the event that relocation is not feasible for one or more of the resources, Mitigation Measures CU-1a, CU-1c, and CU-1d would lessen the severity of the impacts associated with demolition by documenting and commemorating each resource's historical features, and making historic building materials available for salvage. However, these measures would not reduce the impact to a less-than-significant level, and no other feasible measures are available that could be assured to reduce the impact to a less-than-significant level. The impact on historic architectural resources as a result of demolition remains **significant and unavoidable**.

Impact CU-2: The proposed project would relocate, construct an addition to, and adaptively reuse the historic portions of 40 South Montgomery Street (Kearney Pattern Works and Foundry). This could result in a substantial adverse change in the significance of a historical resource as defined in CEQA Guidelines Section 15064.5. ***(Less than Significant with Mitigation)***

The 40 South Montgomery Street building, a Candidate City Landmark, was constructed in phases between 1922 and 1993. Those sections constructed before 1950 (APNs 259-38-028 and 259-38-029) are considered as contributing to the historical significance of the resource.[100] These portions primarily front South Montgomery Street, with side elevations facing the parking lot to the north and adjacent development to the south. The project proposes to extend Post Street between South Montgomery and South Autumn Streets. This would necessitate relocating the historic portions of 40 South Montgomery Street approximately 30 feet to the south to create the necessary clearance for the Post Street extension. The historic portions of 40 South Montgomery Street have been assessed as a candidate for relocation. This assessment concluded that the building is a viable candidate for relocation and that the process could be completed by moving it in one or more parts to its new location 30 feet to the south.[101] The orientation and relationships between the historic portions of 40 South Montgomery Street and the surrounding environment would remain the same. Non-historic portions of the building, primarily fronting South Autumn Street, would be demolished.

The 40 South Montgomery Street property is currently built out to the west and north lot lines. It faces South Montgomery Street (west) and surface parking (north). The building is visible from a wide angle, approximating a corner lot placement. As such, the entire north and west elevations of the building are visible. The proposed relocation would maintain these relationships. The building would be moved south approximately 30 feet and Post Street would be extended along the building's north elevation. The building would continue to front onto South Montgomery

[100] ARG, DPR: Kearney Pattern Works and Foundry, January 2020.
[101] Garden City Construction, *Downtown West Mixed Use Plan – 40 South Montgomery – Kearny [sic] Pattern Works Move* Feasibility, memo, prepared for Google/Lendlease, August 7, 2020.

Street with no setback. The new relationship between Post Street (extended) and the continued location at the lot line along South Montgomery Street would maintain the building's corner placement.[102] After relocation, the historic portion of 40 South Montgomery Street would maintain its present context, albeit approximately 30 feet south of its current location.

Although the proposed relocation would maintain the resource's historical relationships to the street grid, the potential exists for the building to be damaged during the relocation process. Without development and implementation of plans to stabilize the building during relocation and to repair and rehabilitate the building after relocation, impacts from relocation would be **potentially significant**.

Once relocated, the building would be expanded and adaptively reused to accommodate new retail, cultural, arts, education, and/or other active uses. The project proposes one or more additions on Block D5. The Downtown West Design Standards and Guidelines limit the size of additions at this location to a total footprint of 25,000 sf and up to 40 feet in height. These additions may connect to 40 South Montgomery Street through the rear (east) and face South Autumn Street in areas currently occupied by non-historic portions of the building. The additions could be taller than the existing building by up to 15 feet. While the additions would also be taller than any of the surrounding buildings on this block, this height is compatible with the general low-scale character of the primarily industrial developments nearby. In addition, by replacing non-historic portions of the building, additions in this location would not obscure or affect any currently visible character-defining features of 40 South Montgomery Street.

Historically, 40 South Montgomery Street has been used for industrial purposes. The building has a flexible layout that is adaptable to a number of potential uses and lends itself to reuse for office, retail, and/or community-oriented purposes. The interior is primarily open and suitable for a variety of uses. It also contains a high number of glazed openings, including a sawtooth monitor roof, providing ample natural light.

To avoid significant impacts, additions to and reuse of historic buildings must be sensitive to those unique architectural and historical elements that help to communicate the resource's significance. As noted earlier, these character-defining features include the building's one-story heights with a variety of rooftop windows and daylighting features (e.g., dormers, monitors), its simple, flat-sawn window and door trim, its combination of pedestrian and vehicular entrances, and its irregular plan indicative of phases of company growth. Such character-defining features must be carefully considered when adding or removing elements of the building to enable new uses or to accommodate new occupants. Without guidance or consideration, these modifications have the potential to result in substantial adverse changes to the resources. This impact would be **potentially significant**.

Because 40 South Montgomery Street is a Candidate City Landmark, and not a designated City Landmark, it is not subject to the HP permit process that applies to City Landmarks. The *Secretary of the Interior's Standards and Guidelines for Rehabilitation* provide guidance on

[102] The building does not currently sit at an intersection of two streets. However, it appears to be at the corner of its block because of the openness of the parking lot to the north.

modifying historic buildings for new and expanded uses (refer to Section 3.3.2, *Regulatory Framework*). They allow for moderate changes to historic buildings, including modernization of building systems, additions to expand usable space, and introduction of contemporary materials. Projects that comply with the Standards for Rehabilitation are generally accepted to have less-than-significant impacts on historic resources (CEQA Guidelines Section 15064.5(b)(3)). Therefore, the following mitigation measures would reduce the impact of the relocation and adaptive reuse of the historical resource to a less-than-significant level.

Mitigation Measures

Mitigation Measure CU-2a: Relocation On-site

Before the issuance of any permit that would allow disturbance of the historic resource at 40 South Montgomery Street, the project applicant shall prepare a Relocation Implementation Plan that includes a detailed description of the proposed relocation methodology. At a minimum, this plan shall include detailed descriptions and drawings that indicate:

- The means and methods of securing and bracing the building through all stages of relocation;
- The proposed locations of cuts to facilitate relocation, with sections that are as large as feasible to limit damage to the historic fabric;
- Proposed siting and foundation details; and
- The approximate timetable for the completion of work, including major milestones.

All work shall be undertaken in consultation with an architect or professional who meets the *Secretary of the Interior's Historic Preservation Professional Qualifications Standards*. The Relocation Implementation Plan shall be subject to review and approval by the Director of Planning, Building and Code Enforcement or the Director's designee.

Mitigation Measure CU-2b: Compliance with the Secretary of the Interior's Standards

Before the issuance of any permit to move or modify or expand the building at 40 South Montgomery Street, the project applicant shall submit detailed designs prepared by a qualified historic preservation architect demonstrating that all proposed relocation methodologies, including satisfaction of the provisions of Mitigation Measure CU-2a, Relocation On-site, repairs, modifications, and additions, are consistent with the Standards for Rehabilitation.

The submitted designs shall be subject to review and approval by the Director of Planning, Building and Code Enforcement or the Director's designee.

Significance after Mitigation: By ensuring that appropriate steps are taken to protect the historic resource during relocation, preserve its character-defining features, and rehabilitate and reuse it in conformance with the Secretary of the Interior's Standards, Mitigation Measures CU-2a and CU-2b would reduce the impact on 40 South Montgomery Street to **less than significant**.

Impact CU-3: The proposed project would construct one or more additions to and adaptively reuse 150 South Montgomery Street (Hellwig Ironworks). The proposed additions and modifications would result in a substantial adverse change in the significance of a historical resource as defined in CEQA Guidelines Section 15064.5. ***(Significant and Unavoidable)***

The project calls for expansion of 150 South Montgomery Street (Hellwig Ironworks, APN 259-48-053) through one or more additions and adaptive reuse of the building to accommodate new arts and cultural uses. Modifications would incorporate general design characteristics of the existing building, such as its brick construction, angled roof, and street orientation with the intent of constructing a contemporary addition or set of additions. The building at 150 South Montgomery Street is located in the project area that would be known as "The Meander." This area represents the geographic center of the project site and space programming calls for a variety of arts and community-focused uses to be located in and around 150 South Montgomery Street. As such, vertical and/or horizontal potential additions may be implemented at this location, designated as Block F6 in the project site plan.

The project proposes one or more vertical additions above and/or horizontal additions south of the existing structure. The Downtown West Design Standards and Guidelines (refer to Chapter 2, *Project Description*, Section 2.12, *Downtown West Design Standards and Guidelines*) would limit the cumulative size of additions to no more than 100 percent of the existing structure's square footage (i.e., approximately 8,500 sf). Any vertical addition would not exceed one additional story, and any horizontal additions would not be taller than one story and would be set back 30 feet from the west façade of the original structure to maintain visibility to the original two-story structure. The Downtown West Design Standards and Guidelines would also require that new development on the blocks west and east of 150 South Montgomery Street maintain a minimum separation of 60 feet from the west facade of the building, and that development on the block to the north must maintain a minimum separation of 20 feet from the building's north façade.

As stated in the applicant's objectives for the project (refer to Chapter 2, *Project Description*, Section 2.14, *Project Objectives*), the new addition would be intended to help create an architecturally iconic civic/cultural center through a combination and juxtaposition of historic and contemporary design elements. (Figure 2-17 in Chapter 2, *Project Description*, provides an illustrative rendering of one potential design for the addition to 150 South Montgomery Street.) Construction of new additions or design features that alter, obscure, or otherwise minimize the import of the building's character-defining features—such as the building's two-part composition with simple gable roofs—or otherwise affect the building's overall integrity would result in a substantial adverse change to the resource. In this case, the scale and intent of the proposed modifications to the building, including the wide range of potential styles, sizes, locations, and design implications of possible additions, make it highly likely that the changes would alter the building form and affect its integrity and thus result in a substantial adverse change in its historical significance, resulting in a **significant** impact.

Mitigation Measure

Mitigation Measure CU-1a, Documentation, and **Mitigation Measure CU-1c, Interpretation/Commemoration**, shall be implemented to document and commemorate the historic appearance, character, and significance of 150 South Montgomery Street.

> **Mitigation Measure CU-1a, Documentation** (refer to Impact CU-1)
>
> **Mitigation Measure CU-1c, Interpretation/Commemoration** (refer to Impact CU-1)
>
> **Significance after Mitigation:** Because the purpose of the proposed building alteration is to create an architecturally iconic center by juxtaposing historical and contemporary design elements, the alteration would not likely conform to the Secretary of the Interior's Standards. Documentation and commemoration of the historic resource would reduce the severity of the impact, but would not prevent alterations or additions that are inconsistent with the Secretary of the Interior's Standards from affecting the building's integrity and resulting in a substantial adverse change in its historical significance. For this reason, the impact would be **significant and unavoidable**.

Impact CU-4: The proposed project could result in significant impacts on historical resources resulting from construction-related vibrations. ***(Less than Significant with Mitigation)***

Construction on the project site would introduce new temporary sources of vibration in the vicinity of historic architectural resources. Historical masonry structures can be particularly sensitive to ground vibrations, resulting in material damage to the historic fabric. Maintaining vibration levels below a site-specific threshold would limit the potential for damage associated with construction activities. Implementing **SCA CR-3, Vibration Impacts to Adjacent and Nearby Historic Buildings**, in combination with **Mitigation Measure NO-2a, Master Construction Vibration Avoidance and Reduction Plan**, and General Plan Policy EC-3.2, would reduce potential impacts. However, this impact would be **potentially significant**. Implementation of **Mitigation Measure CU-4, Construction Vibration Operation Plan for Historic Structures**, would be required, to provide site-specific guidance related to the particular soil conditions, construction methodologies, and sensitivities of adjacent historic architectural resources.

Mitigation Measures

> **Mitigation Measure CU-4: Construction Vibration Operation Plan for Historic Structures**
>
> As presented in General Plan Policy EC-3.2, building damage for sensitive historic structures is generally experienced when vibration levels exceed 0.08 in/sec PPV. Section 3.10, Table 3.10-13, *Vibration Levels for Construction Activity*, lists a number of construction activities with their estimated PPVs at various distances. At distances up to 170 feet, vibration levels can approach the 0.08 PPV recommended threshold. Therefore, before the issuance of any demolition, grading, or building permit (whichever comes first) for work within 170 feet of a historic resource, the project applicant shall submit a Construction Vibration Operation Plan prepared by an acoustical and/or structural engineer or other appropriate qualified professional to the Director of Planning, Building and Code Enforcement, or the Director's designee, for review and approval.

The Construction Vibration Operation Plan shall establish pre-construction baseline conditions and threshold levels of vibration that could damage the historic structures located within 170 feet of construction, regardless of whether the historic structures are located on the project site or adjacent to it. The plan shall also include measures to limit operation of vibration-generating construction equipment near sensitive structures to the greatest extent feasible.

In addition, the Construction Vibration Operation Plan shall address the feasibility and potential implementation of the following measures during construction:

- Prohibit impact, sonic, or vibratory pile driving methods where feasible. Drilled piles cause lower vibration levels where geological conditions permit their use.
- Limit other vibration-inducing equipment to the extent feasible.
- Submit a list of all heavy construction equipment to be used for this project known to produce high vibration levels (e.g., tracked vehicles, vibratory compaction, jackhammers, hoe rams) to the Director of the City of San José Department of Planning, Building and Code Enforcement or the Director's designee. This list shall be used to identify equipment and activities that would potentially generate substantial vibration and to define the level of effort required for continuous vibration monitoring.
- Where vibration-inducing equipment is deemed necessary for construction work within 170 feet of a historic resource, include details outlining implementation of continued vibration monitoring.

All construction contracts and approved plans shall include notes with reviewer-identified limitations and diagrams to avoid impacts on historic resources.

Mitigation Measure NO-2a: Master Construction Vibration Avoidance and Reduction Plan (refer to Section 3.10, *Noise and Vibration*)

Significance after Mitigation: With required construction vibration monitoring and implementation of measures to avoid or reduce vibration near historic resources—SCA CR-3, Mitigation Measure NO-2a, and Mitigation Measure CU-4—the impact of construction vibration on historic resources would be reduced to **less than significant**.

Impact CU-5: The proposed project would not result in significant impacts on 374 West Santa Clara Street (San Jose Water Works) or the Southern Pacific Depot Historic District from modifications to the City Landmark designation boundaries. *(Less than Significant)*

The San Jose Water Works property (374 West Santa Clara Street) is a City Landmark and has been found eligible for listing in the National and California Registers under Criteria A/1 (Events and Trends) for its association with water utility development in San José and under Criteria C/3 (Architecture) as an excellent example of a distinctive type of office building for its period, combining Moderne and Spanish Colonial Revival elements.[103] The historic architectural resources under CEQA include the main building, constructed between 1934 and 1940, and the

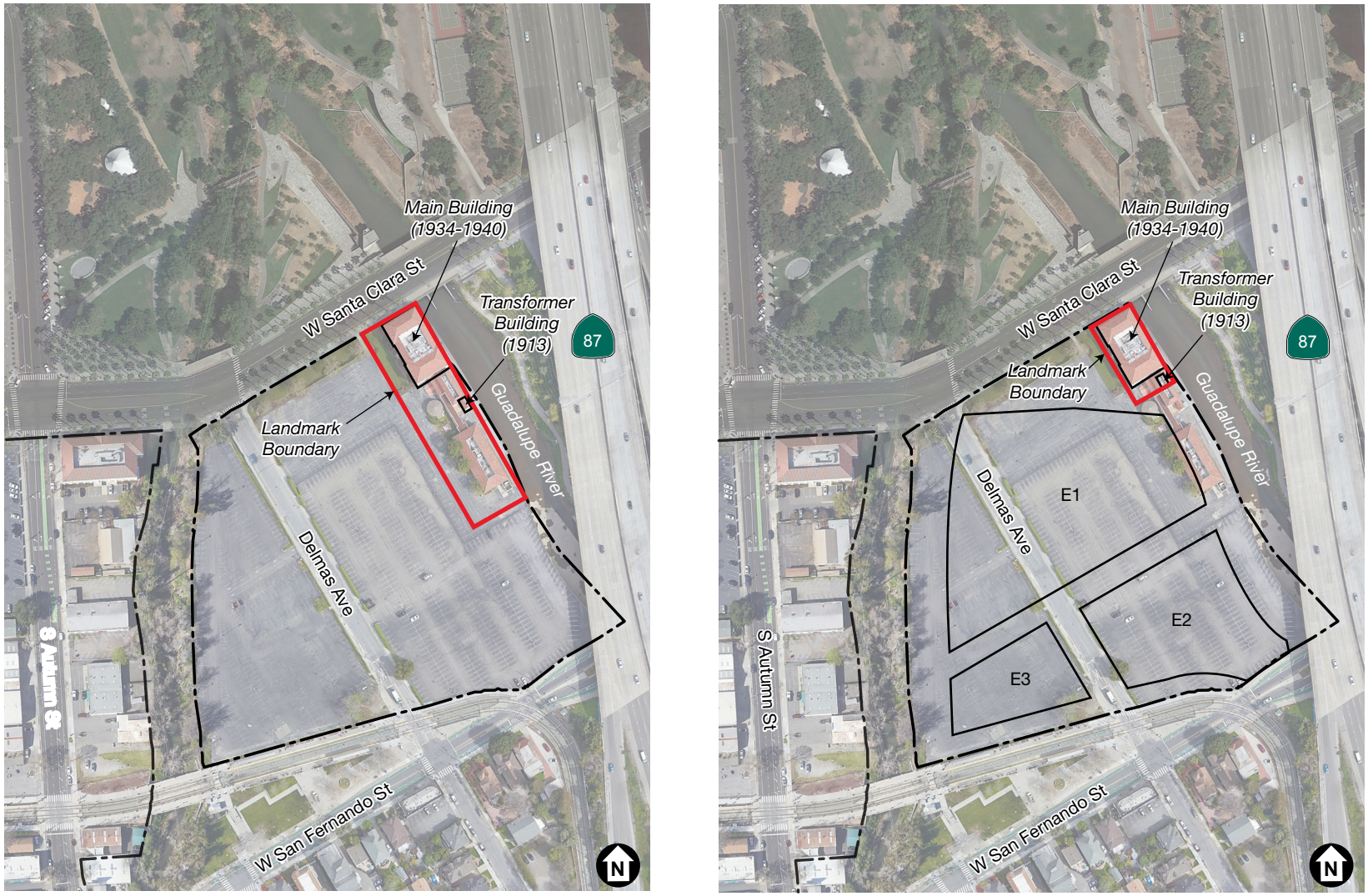
[103] Minor, W. C., Basin Research Associates, *National Register of Historic Places Registration Form: San Jose Water Works Building*, September 1989.

transformer building, constructed in 1913. These buildings occupy less than one-third of the current parcel; however, the remaining two-thirds of the parcel is part of the existing City Landmark, and therefore, currently subject to the HP permit process as stipulated in Municipal Code Chapter 13.48, Part 3. The non-contributing buildings on the site will be removed under an existing permit as described previously. The Downtown West Mixed-Use Plan would modify the boundaries of the City Landmark to more closely conform to that portion of the site occupied by the primary historic resource (main building) and the relocated contributing structure (transformer building), thereby removing the remaining portions of the site from the provisions of the HP permit process (**Figure 3.3-5**).

The Southern Pacific Depot Historic District is listed in the National and California Registers under Criteria C/3 (Architecture) as a late example of the Italian Renaissance Revival style in commercial architecture in the state of California. It is also listed as San José Landmark HL94-100. It is one of only four transportation facilities in the Italian Renaissance Revival style in California. The district includes eight contributing buildings and structures and the boundaries of the National Register district vary slightly from the City Landmark District. These differences are located primarily along the western edge of the district, where the National Register boundaries follow the layout of the tracks and the Landmark District boundaries are more in line with the property lines. Both districts extend over West Santa Clara Street to include the Santa Clara Street underpass and extend across Cahill Street immediately south of West San Fernando Street. The project would modify the boundaries of the City Landmark District to conform with the parcel boundaries, thus eliminating minor areas of overlap between the project site and the Landmark District just south of West San Fernando Street and just north of West Santa Clara Street. No contributing structures or features are located within this overlap, and most of the overlapping area is within the public right-of-way (Figure 3.3-4). Adjustment of the City Landmark District boundaries would remove Blocks C2 and F1 from the provisions of the HP permit process. Modifying the boundaries of the landmark requires a modification to the City Landmark designation. Municipal Code Section 13.148.130 states that "The procedure for amending or rescinding the designation shall be the same as that for designation of a landmark …" As such, the boundary modifications are subject to review by the Director of Planning, Building and Code Enforcement, followed by either the Historic Landmarks Commission (HLC) or the City Council.[104] Ultimately, the City Council must approve or disapprove the proposed boundary modification with input from the HLC and the public.

If approved, the boundary modifications to the City Landmark at 374 West Santa Clara Street would result in Landmark boundaries that would continue to encompass the portion of the lot occupied by the 1934–1940 portion of the buildings, as well as the relocated 1913 transformer building. The boundary modifications to the Southern Pacific Depot Historic District would result in Landmark boundaries that would continue to encompass the entire area bounded by the current lot lines for parcels within the district, including all the extant contributing buildings and structures. All parcels or portions of parcels located within both modified Landmark boundaries would retain the local protections afforded to landmarks, including being subject to the HP permit process.

[104] The initial reviewing body is determined by who initiates the designation. Both the HLC and the City Council hold this review power.



NOTE: Demolition of non-historic sections and relocation of the Transformer Building approved March 2020 (HP-002/HPAD20-007).

SOURCE: ESA, 2020; Google Earth, 2020

Downtown West Mixed-Use Plan

Figure 3.3-5
Existing and Proposed San Jose Water Company Landmark Boundary

For the reasons stated above, reduction of the Landmark boundaries would not alter 374 West Santa Clara Street or the Southern Pacific Depot Historic District in a material way, and both resources would retain their historical significance and the protections currently afforded them in Municipal Code Chapter 13.48, Part 3–Historic Preservation Permits. Therefore, any direct or indirect impacts on the historic architectural resources at 374 West Santa Clara Street or the Southern Pacific Depot Historic District resulting from modification of the City Landmark designation boundaries would be **less than significant**.

Mitigation: None required.

Impact CU-6: The proposed project would not result in significant impacts on 374 West Santa Clara Street (San Jose Water Works), 65 Cahill Street (the Southern Pacific Depot Historic District), the 19th century residences between North Montgomery and North Autumn Streets (160 North Montgomery Street and 195, 199, and 203 North Autumn Street), 237 North Autumn Street (Dennis Residence), 40 South Montgomery Street (Kearney Pattern Works and Foundry), and/or contributors to the Lakehouse Historic District including the individual historic architectural resources under CEQA of 396, 398, 416, and 454 West San Fernando Street and 124 Delmas Avenue from increased density of surrounding development, changes in adjacent land use, or changes in circulation patterns. *(Less than Significant)*

As noted in the DSAP Final EIR, "future development and infrastructure improvement projects in the Plan area could directly or indirectly affect historic resource[s] …" While potential direct impacts such as demolition or adaptive reuse are relevant to resources on the project site and are described in Impact CU-1 through Impact CU-5, indirect impacts to historic resources could occur if changes to the historic context or setting of those resources materially impair their ability to convey their significance. In other words, if the increased density and height of surrounding development, changes in adjacent land use, or changes in circulation patterns resulting from the project affect the significance of historic architectural resources in the study area, an indirect impact would occur.

The analysis below considers the extent to which the project would result in physical changes that could affect the significance of historic resources on and adjacent to the site, examining the proximity and orientation of historic resources, as well as character-defining features that convey each resource's significance. The analysis also describes requirements of the proposed Downtown West Design Standards and Guidelines, which are intended to function similar to the Downtown Design Guidelines with the shared goal of ensuring that new adjacent buildings "respect and enhance historic structures, not overwhelm them. A building with *historic adjacency* should respond to prominent characteristics and patterns… to improve the building's fit within the [physical and historic] context."[105]

Because the project site is located within the boundaries of the area subject to the Downtown Design Guidelines, they would continue to be applicable to the project where they are not superseded by Downtown West Design Standards and Guidelines. A select list of applicable

[105] City of San José, *San Jose Downtown Design Guidelines and Standards,* 2019, p. 38.

Downtown Design Guidelines and Standards that influence design adjacent to historic resources is presented in **Table 3.3-6**.

TABLE 3.3-6
APPLICABLE PROJECT-WIDE DOWNTOWN SAN JOSE DESIGN STANDARDS FOR HISTORIC RESOURCES

Section 4.2.1	**Form, Proportion and Organizing Ideas**
Standard 4.2.1a	Coordinate and link the building's *Skyline Level*, *Podium Level*, and *Pedestrian Level* with vertical elements.
Standards 4.2.1b	Design *Image-Defining Frontages* with the same level of detail and quality as the primary building frontage (if they are not the same frontage.)
Section 4.2.4	**Historic Adjacency**
Standards 4.2.4a-d	Superseded
Standard 4.2.4e	Use articulation that creates facade divisions with widths similar to Historic Context buildings on the same side of the same block (if the new building is wider). A variety of techniques can achieve this articulation, including facade design, material variations, and color variations. For example, if the street facades of most nearby Historic Context buildings are vertical in proportion, taller than they are wide, then maintaining the vertical orientation of the building facade will result in a more compatible design.
Standard 4.2.4f	Do not simulate historic architecture to achieve these guidelines and standards. Do not design new facades to create a false historic appearance or copy historic architectural features unless such features are integral to the design of the new construction.
Standard 4.2.4g	Place windows on facades visible from the windows of the adjacent Historic Context structure even if this requires that the facade be set back from the property line.
Standard 4.2.4h	Use some building materials that respond to Historic Context building materials, such as masonry, terra cotta, limestone, stucco, glass, mosaic, cast stone, concrete, metal, glass, and wood (trim, finishes and ornament only.)
Standard 4.2.4i	The new materials should be compatible with historic materials in scale, proportion, design, finish, texture, and durability.
Standard 4.2.4j	Space pedestrian entries at similar distances to Historic Context building entries.
Standard 4.2.4k	Create a ground floor with a similar floor to ceiling height as nearby Historic Context buildings, provided the ground floor finish ceiling is no lower than the minimum height identified in this document.
Section 4.4.1	**Façade Pattern and Articulation**
Standard 4.4.1.c	Reflect the scale of neighboring buildings in the facade at the Podium Level and Pedestrian Level.

SOURCE: City of San José, *San Jose Downtown Design Guidelines and Standards*, September 8, 2020.

Like the Downtown Design Guidelines, the Downtown West Design Standards and Guidelines include historic adjacency standards to promote compatible design where new construction is in close proximity to historic resources. (A draft of the Downtown West Design Standards and Guidelines is provided in Appendix M.)

The Downtown West Design Standards and Guidelines incorporate a series of adjacency zones that vary depending on the level of significance of the resources (national and local) and the concentration of resources. New construction is considered to have historic adjacency if:

- It is adjacent to a building listed on or eligible for the HRI;
- It is across the street from or adjacent to a Landmark/Landmark District or Candidate City Landmark/District; or

- It is across the street from or adjacent to a National Register or California Register listed or eligible resource.

In addition, they also include general controls to address design with relation to the existing built environment, including:

- **Building height controls**—Blocks D5 and F6 shall have a maximum height of 40 feet and Block D6 shall have a maximum height of 80 in areas historically defined by low-scale industrial development. These heights are less than the maximum allowed under the current or proposed zoning.[106]
- **Pedestrian level design**—Throughout the project, design at the pedestrian level will utilize design strategies to maintain compatibility with the traditional developments of construction in the project area. This includes, single-lot development with the associated street-pattern of facades that are generally less than 50 feet in width with a variety of architectural styles and materials. Specifically, the Downtown West Design Standards and Guidelines include modulation of facades to maintain perceived intervals of 35 feet in width or less, modulation of long facades (greater than 350 feet) to incorporate double-height architectural expression within 200 feet of the building corner. Transparent façade materials and high transparency windows are required at street-level for 70% or more of a building's street-facing façade. The project standards also require use of architectural features to create a more pedestrian-friendly experience.[107] These include:
  - Horizontal projections, including bay windows and balconies
  - Horizontal recesses
  - Canopies
  - Shading devices
  - Awnings
  - Expressed structural element
- **Podium level design (up to 70 feet in height)**—Related to pedestrian level design controls, articulation of the façade up to the first 70 feet of height is an addition design method used to create a pedestrian-friendly experience. The Downtown West Design Standards and Guidelines require that modulation be applied in vertical intervals of 40 to 80 feet, depending on location, to maintain the rhythm of openings and architectural expression at street-level. Where elevations face parks, semi-public spaces, or private streets, above-grade modulations may include balconies, bay windows, or other projections provided they are less than 200 square feet in size. For those buildings that have façade greater than 350 feet in length, a greater amount of material and design modulation is required to provide shadow lines and visual breaks similar to that in more traditional, single-lot development neighborhoods.[108]
- **Skyline level design (above 70 feet in height)**—Above 70 feet modulation of the façade is also required. For facades greater than 200 feet in length, changes in plane must occupy 1/3 of the façade area and to an average depth of 4 feet. Additional variation of the roofline includes application of stepbacks, changes in material, or modulations of

[106] Building height control standards include: Standard 5.6.3.
[107] Pedestrian level standards include: Standard 5.8.4, Standard 5.8.6, Standard 5.8.7, Standard 5.8.8, and Standard 5.17.4.
[108] Podium level design standards include: Standard 5.9.1, Standard 5.9.2, and Standard 5.9.4.

heights. For residential buildings, balconies, bay windows, or other projects shall be allowed where they face parks, semi-public space, or private streets.[109]

- **Residential design**—For new residential construction that has ground floor units with external entries (i.e., townhomes), those units shall have an average width no greater than 30 feet. Additional requirements for these units include a maximum stoop height of 5 feet, a minimum porch size of 4x5 feet, where such features are included. Where new development is across the street from single-family residential uses, it shall establish an architectural height reference within the podium level of the building. These references shall be a minimum of nine-inches in depth and may include stepbacks, volumetric shifts, materials changes, or other architectural modulation[110]
- **Historic Resource Adjacency**—Where new development meets specific historic adjacency criteria, that development shall establish an architectural height reference at the nearest floor to the historic resource's top of structure or prominent eave. An architectural height reference shall have a horizontal length that is greater than or equal to the width of the historic resource. Like the general residential design requirements, this architectural height reference shall have a minimum depth of nine inches. Strategies include but are not limited to stepbacks, tapering, horizontal projection, structural or architectural elements, and dimensional change in material. In addition, Blocks E2 and E3 are subject to a 150-foot height cap because of proximity to the Lakehouse Historic District. [111]

The Downtown West Design Standards and Guidelines would be subject to City review and approval concurrent with the project's Planned Development Permit and, in combination with applicable Downtown Design Guidelines and Standards (Table 3.3-6), would address building design, land coverage, density, setbacks, the open space program, and the character of the public realm, along with other design controls for development. New construction and other improvements proposed as part of the project would be reviewed for consistency with these standards and guidelines during the Conformance Review process outlined in the Downtown West Design Standards and Guidelines.

374 West Santa Clara Street (San Jose Water Works, APN 259-38-128)

Environmental review for a prior proposed redevelopment of this parcel for commercial and retail uses concluded that there was the potential to significantly affect the historic resource.[112] To address potential impacts resulting from new construction both adjacent to the historic resource and within the Guadalupe River riparian zone, project-specific design standards and guidelines relating to the placement and design of new construction were included in the proposed development to reduce these impacts to less than significant. The Final EIR (State Clearinghouse No. 2002062017) for that project concluded that "a future development designed in conformance with these design guidelines would not result in an adverse impact to the historic integrity of the San Jose Water [Works]

[109] Skyline level design standards include: Standards 5.10.1-5 and Standards 5.11.1-2.
[110] Residential design standards include: Standard 5.12.1, Standard 5.12.2, Standard 5.12.3, Standard 5.12.6, and Standard 5.16.1.
[111] Project-wide historic adjacency standards include: Standard 5.15.1. All other historic adjacency standards apply to specific locations on the project site.
[112] City of San José, *SJW Land Company Planned Development Rezoning Final Integrated Environmental Impact Report*, 2004; City of San José, *Delmas Avenue Mixed-Use Development Final Environmental Impact Report Addendum*, SCH #2002062017, 2016.

building."[113] These standards required a primary setback zone along West Santa Clara Street and within 40 feet extending from the exterior of the building. In this zone, no permanent buildings other than landscape structures were permitted in order to maintain views of the building and the river as seen looking east along West Santa Clara Street.[114] Between 40 and 55 feet from the building, construction was prohibited from exceeding 45 feet in height. Between 56 and 100 feet from the building, heights were prohibited from exceeding 70 feet. As an added measure, land use development standards for structures in the second setback zone were required to be consistent with the architecture, materials, color, etc., of the San Jose Water Works.

Supplemental review to redistribute uses across the San Jose Water Works project site evaluated building heights that ranged from 210 to 226 feet. The 2016 revised project retained the 2004 approved Planned Development zoning setback zones and design standards for new construction adjacent to the historic main building as part of the project's Land Use Development Standards. With these provisions, development of the surrounding land with up to 1 million sf of commercial uses was determined to result in the same less-than-significant impact as the original project on the historic resource.

Under the Downtown West Mixed-Use Plan, building heights on the parcel could extend up to 260 feet above grade. To address potential impacts on historic resources related to adjacent development, the proposed Downtown West Design Standards and Guidelines incorporate aspects of the prior site-specific standards and guidelines for Block E1 (refer to Appendix M). Specifically, the project would develop a public plaza along West Santa Clara Street on this block. The open space would maintain the current and historical views of the resource and the river, as approached from the west along West Santa Clara Street, maintaining the view corridor along West Santa Clara Street. New construction would be located at a 40-foot minimum distance from the closest exterior elevation of the 1934–1940 building. In addition, the north façade of the adjacent new construction would be subject to historical adjacency design considerations. These include:[115]

- The view corridor along West Santa Clara Street, as viewed from the west toward downtown, would be maintained. In this zone, no permanent construction is allowed within 40 feet south of 374 West Santa Clara Street. Temporary structures, site furniture, and landscaping would be permitted.
- The north façade of Block E1 would incorporate height references within the design of new construction. These references would be within 10 feet of the height of 374 West Santa Clara Street.[116] This reference would extend horizontally from the west façade of the 1934–1940 building.
- The north façade of Block E1 would incorporate a vertical massing reduction plane of 5 degrees above the podium level. This may include utilization of step-backs, sloping of the façade, or other design modulation.

[113] City of San José, *SJW Land Company Planned Development Rezoning Final Integrated Environmental Impact Report*, 2004; City of San José, *Delmas Avenue Mixed-Use Development Final Environmental Impact Report Addendum*, 2016.
[114] City of San José, *SJW Land Company Planned Development Rezoning Final Integrated Environmental Impact Report*, 2004; City of San José, *Delmas Avenue Mixed-Use Development Final Environmental Impact Report Addendum*, 2016.
[115] These standards include: Standard 5.15.1, Standard 5.15.2, Standard 5.17.1, and Standard 5.17.3.
[116] 374 West Santa Clara Street is approximately 25 feet tall and 125 feet wide.

- The east façade of Blocks E1 and E2 would maintain an average setback of 100 feet from the Los Gatos Creek Riparian Corridor.
- New development on Block E1 would be required to apply a 7.5 percent skyline level area reduction within 150 feet from the Los Gatos Creek Riparian Corridor.

The San Jose Water Works resource is a City Landmark. It is also eligible for listing on the National and California Registers for its association with early water utility development, a critical enabler of the early development of San Jose and Santa Clara County (Criteria A/1), and for its combined use of Moderne and Spanish Colonial Revival styles (Criteria C/3). The resource has a number of character-defining features related to both of these areas of significance, including a uniform and symmetrical design visible from both the east and west directions along West Santa Clara Street, reinforced concrete and stucco-clad construction combined with a wide variety of water-themed cast stone decorative elements, a red clay tile roof, and prominent placement of integrated "San Jose Water Company" signage within the east and west frieze bands.

The Downtown West Design Standards and Guidelines require that an open space along West Santa Clara Street be maintained, preserving views of the building and its signage as approached from the west. From the east, this view is also maintained by the open area within the Guadalupe River Park. The Downtown West Design Standards and Guidelines also require a 40-foot separation between the resource and new development as well as additional measures to create differential and compatible design on the north façade of Block E1. Further, none of the integrated architectural features would be altered by the project, nor would its association as an early water utility be materially impaired by the project, as no construction would take place on or within the building as part of the Downtown West project.

Application of the Downtown West Design Standards and Guidelines would be consistent with similar standards approved for earlier projects and would maintain historic view corridors and guide compatible adjacent development. The resulting scale, density, site placement, and uses would be similar to those already found to be less than significant with similar design standards under prior environmental review. Therefore, impacts on 374 West Santa Clara Street resulting from increased density or changes in setting would be **less than significant**.

65 Cahill Street (Southern Pacific Depot Historic District)

The Southern Pacific Depot Historic District is a City Landmark District. It contains eight contributing buildings and features: the main station building, the compressor house, the car cleaners' shack, the butterfly passenger sheds, an iron gate and fence with architectural detailing, the Santa Clara underpass also with architectural detailing, Beaux-arts luminaries, and the railroad tracks. These features, when viewed together, clearly demonstrate the totality of the railroad depot and represent the various functions and uses contained in the district: passenger services, passenger and freight rail lines, circulation through the depot, and necessary security and accommodation of rail in an urban setting. The district is also listed on the National and California Registers as a late example of the Italian Renaissance Revival style in commercial architecture in the state of California (Criteria C/3). Character-defining features of the main station building related to this significance and include multistory arched windows, polychrome brick with terra cotta decoration, the red terra cotta roof tile on the main station, metal spandrel

panels in the window bays of the main station building, an oversized galvanized steel marquee, as well as various features in the publically accessible interior spaces. The landmark district is an interconnected complex of rail uses that are visually and spatially related to each other, and spans several city blocks.

Immediately north of the district, on Block C2, the proposed project calls for development up to 260 feet in height for office uses. Block D1, at the corner of Cahill and West Santa Clara Streets, is proposed for residential uses in a building up to 280 feet in height. Block F2, at the corner of West San Fernando and Cahill Streets, would be developed for office uses in a building up to 300 feet in height. The area immediately east of the district, including the current entry plaza fronting the station and serving as the main pedestrian entrance to the district, is not part of the project.

The 2006 San José Ballpark Draft EIR concluded that development adjacent to the district would "result in the alteration of the character of the depot's setting and feeling," resulting in a significant impact on a historic resource.[117] That project included redevelopment of all of the parcels fronting the district.

This EIR analyzes a project that excludes development on the seven Caltrain-owned parcels immediately facing the station building at the heart of the district. These parcels occupy about 3 acres between West San Fernando Street and about 325 feet south of West Santa Clara Street. Because these parcels are not part of the project, the area would maintain wide visibility of the low-scale character of the district and differentiate the current project from the Ballpark project noted above. In addition, although the overall scale and scope of the current project would exceed that analyzed under prior environmental review efforts, the current project would be largely concentrated in the vicinity of the northern and southern edges of the district, and outside of the primary view corridor between downtown San José and the rail terminal.

To further address the potential to affect historic architectural resources, the Downtown West Design Standards and Guidelines require the maintenance of sight lines to and from the district from downtown along the current Santa Clara Valley Transit Authority (VTA) right-of-way. This includes a moratorium on building within 20 feet of the northern edge of the existing VTA tunnel and a 60-foot separation between new development on Blocks D6 and D7 to maintain the current view corridor along the VTA tracks.[118] The Downtown West Design Standards and Guidelines do not include additional site-specific standards for development related to the Southern Pacific Depot Historic District because most project development is not located across the street from or adjacent to any district-contributing building.[119]

[117] LSA Associates, Inc., *Baseball Stadium in the Diridon/Arena Area Draft Environmental Impact Report,* prepared for the City of San José, February 2006, p. 244.

[118] Downtown West Design Standards and Guidelines Standard 5.15.12.

[119] While Block F1 is across the street from the car cleaners' shack, a contributing structure to the Southern Pacific Historic District, the car cleaners' shack is a small, one-story structure, and the Downtown West Design Standards and Guidelines do not require architectural references to this structure beyond pedestrian-level requirements of the ground floor as identified in Section 5.8 of the Downtown West Design Standards and Guidelines, as well as Downtown Design Guidelines sections 4.2.4, 5.3.1.a, 5.3.1.b, and 5.3.2. Additionally, the car cleaners' shack is set back some 125 feet from the western curb line of Cahill Street.

Block D1 is not subject to the Downtown West Design Standards and Guidelines but would be subject to equivalent design standards incorporated into the General Development Permit (GDP). These standards would also be equivalent to the Downtown Design Guidelines as presented in Table 3.3-6, and would include similar historic adjacency considerations. It should be noted, however, that Block D1 is located more than 200 feet from any contributing building for the Southern Pacific Depot Historic District. As such, it would not be subject to historic adjacency consideration under the Downtown Design Guidelines, or equivalent criteria in the GDP.

With the exception of the northwest corner of Block F1, the project does not include development on those blocks facing the historic district along Cahill Street. Instead, development would be located outside of the district's core and concentrated beyond the northern and southern district boundaries. This construction would not obstruct access to or views of the district or its eight contributing buildings and structures, and would not alter the circulation or function of the district as a historical transportation hub. It would not alter the design or architecture of the district. Additional design standards for new construction in the Downtown West Design Standards and Guidelines would further reduce potential impacts on setting by maintaining a key sight line along the VTA right of way and through general design considerations as presented in Table 3.3-6 and the discussion above. None of the contributing building/elements would be altered. The architecture of the district would remain unchanged. No construction would take place within or adjacent to the district. Therefore, the integrity of the district would remain unaltered. As a result, the project would result in a different, and lesser, impact on the Southern Pacific Depot Historic District than that found in prior analyses. Thus, the impact on the district's integrity of setting and feeling as a result of the increased development associated with the proposed project would not result in a substantial adverse change in the district's historical significance. Accordingly, the impact would be **less than significant**.

19th Century Residences between North Montgomery and North Autumn Streets

The four Candidate City Landmark and period residential buildings located at 160 North Montgomery Street (APN 259-29-004), 195 North Autumn Street (APN 259-29-025), 199 North Autumn Street (APN 259-29-024), and 203 North Autumn Street (APN 259-29-023) represent the type of modest residential buildings that once surrounded the industrial blocks lining the railroad tracks. Late-19th-century subdivisions in the area included the Foment Survey roughly bounded by West St. John Street to the north, the Guadalupe River to the east, West Santa Clara Street to the south, and residential parcels to the west (refer to Appendix E1 for more information). The four buildings noted here are associated with this subdivision.

The proposed project would result in changes to the overall setting of these resources through the increased scale and density of new construction on the blocks facing 160 North Montgomery Street. On these blocks, the project calls for new construction ranging from 215 feet (Block C1) to 220 feet (Block C3). Consistent with the DSAP Final EIR, this would constitute an indirect impact on the low-scale mixed industrial and residential character of the block upon which all four buildings are located. The DSAP Final EIR relied on implementation of General Plan policies and existing regulations to reduce impacts on historic resources to less than significant

(Table 3.3-5).[120] Additional, applicable DSAP Final EIR provisions to reduce impacts included supplemental review of specific projects for CEQA compliance.

The proposed Downtown West Design Standards and Guidelines would include a site-specific standard for 160 North Montgomery Street, which is a Candidate City Landmark that directly faces proposed new construction within 100 feet of its primary façade. The site-specific standards would require development on Block C3 to respond to the architectural qualities of the block in general and would require the east façade of Block C3 to incorporate an architectural height reference within 10 feet of the height of 160 North Montgomery Street (approximately 40 feet from grade). This reference would be included for a horizontal distance within 30 feet of the east façade width of 160 North Montgomery Street (approximately 35 feet wide).[121]

The remaining resources (203, 199 and 195 North Autumn Street) are Candidate City Landmarks. They are not located across the street from or adjacent to the project and, therefore, do not meet the requirements for historic adjacency. Accordingly, the Downtown West Design Standards and Guidelines do not include site-specific design standards for them.

Together, the resources' architectural integrity and close proximity create a cohesive grouping of late-19th-century residential development. Also on this block are low-scale industrial uses that speak to the association of this residential neighborhood with the working class families who settled close to their places of business. It once was a common development pattern at the edges of downtown San José and near the railroad tracks, but is now disappearing though development of low-scale lots for denser, non-industrial uses.[122] Character-defining features shared by this grouping include wood frame construction, two-story heights with a raised first floor, front porches with decorative architectural woodwork, prominent front-facing multilite windows, and gable roofs.

No architectural modifications to the resources are included as part of the project, nor does the project include development on the same block as the resources. Additionally, the residences on North Autumn Street face east, away from the project, with no views of the project site from their primary, east-facing elevations. They are located 200 feet or more from proposed new construction, and that new construction would be subject to the general, project-wide design standards noted above. Additionally, historic adjacency standards from the Downtown Design Guidelines would apply to these resources except where they are superseded by project-specific standards and guidelines.

The historical significance of these resources is related to their architecture and their proximity to each other. These conditions would not be changed by the project; no architectural changes are proposed and no development would occur within the block between North Montgomery and North Autumn Streets to disrupt their proximity to each other. Additionally, as stated above, the Downtown West Design Standards and Guidelines require façade modifications that would increase design compatibility between new construction and 160 North Montgomery Street, the one resource that directly faces new construction, and all remaining applicable project design

[120] City of San José, *Diridon Station Area Plan Integrated Final Program Environmental Impact Report*, State Clearinghouse No. 2011092022, August 2014, p. 220-222
[121] This includes Standard 5.15.13.
[122] Juliet Arroyo, (former) Historic Preservation Officer, City of San José, email, March 2, 2020.

standards and guidelines would apply. For these reasons, the impact of the project on historical significance of the 19th century residences in this block would be **less than significant**.

237 North Autumn Street (Dennis Residence, APN 259-29-021)

The Dennis Residence is a City Landmark and appears to be eligible for individual listing in the National and California Registers for its Greek Revival design and for the craftsmanship of that design as executed in brick (C/3).[123] As such it retains character-defining features such as front-facing arched and multi-lite windows with heavy timber sills, vertical brick headers, fluted corner pilasters with capitals, a front porch, and an offset front door.

The closest project development would be located on Blocks C2 and C3 where new buildings up to 220 feet in height are proposed. This construction is located more than 200 feet from the rear elevation of the resource.

The current setting of this property is a mix of residential and light industrial uses. The surrounding parcels have buildings that are two stories or less in a mix of late-19th-century and early-20th-century residential styles and utilitarian commercial buildings. The largest land use within a one-block radius is a surface parking lot west of the resource, which is used for SAP Center events. The SAP Center is located approximately one block south of 237 North Autumn Street and is the only building taller than two stories in the immediate vicinity.

The project would not alter the physical conditions on the block containing 237 North Autumn Street. West of this property and within the project site, the project would replace a large surface parking lot with a mix of uses: hotel, residential, office, flex space, and open space. Maximum proposed building height limits would be approximately 250 feet above grade, taller than the SAP Center. The increased bulk and density would alter the residential character of the immediate neighborhood surrounding 237 North Autumn Street. However, 237 North Autumn Street is significant for its Greek Revival architectural style and for its status as a rare example of 19th century brick residential construction.[124] These traits would remain unaltered as a result of the project.

The resource is located more than 200 feet east of the closest project parcel. Between the resource and the project are several industrial and residential buildings that are of the same approximate height as the resource, and they block all direct views between the historic resource and the project. Thus, although the project would allow buildings between 215 and 220 feet in height on Blocks C1 and C3, the new construction would be screened by the intervening, existing development. In addition, the historic resource faces east and away from the project, fronting North Autumn Street, with no direct views or relationship to the project site from the primary façade. Because this resource is primarily significant for its architecture and its immediate setting or context (i.e., within 200 feet) would not be altered, its significance would not be materially impaired by the project. Additionally, historic adjacency standards from the Downtown Design

[123] Archives & Architecture, *Historic Landmark Designation for the Dennis House, Located at 237 North Autumn Street*, 2005.
[124] Archives & Architecture, *Historic Landmark Designation for the Dennis House, Located at 237 North Autumn Street*, 2005.

Guidelines would apply to these resources except where they are superseded by project-specific standards and guidelines.

The distance from the resource to the project site and the lack of direct impacts on the primary feature of historical significance (architecture) of the resource would result in **less-than-significant** impacts on 237 North Autumn Street.

40 South Montgomery Street (Kearney Pattern Works and Foundry, APNs 259-38-028 and 259-38-029)

40 South Montgomery Street has been recommended eligible for listing on the National and California Registers under criterion A/1 for its representation of "the broader shifts and patterns in the [region's] prevailing industries and play an important role in producing specialized tools and equipment required for their commercial success." It has an identified period of significance is 1922 (date of initial construction) through the end of World War II in 1949. The building also appears to be eligible for listing as a San José Candidate City Landmark.[125] As an industrial building its character-defining features include its low-scale, simple design and detailing, combination of vehicular and pedestrian entrances, and irregular plan indicative of phases of company growth.

The project proposes construct an addition to the east (rear) of the building (Block D5) as discussed in Impact CU-2. It also proposes new development adjacent to the building on Block D6 as well as directly facing, and within 200 feet of the building on Block D4. Under the project, building heights could be up to 255 feet on Block D4 and 265 feet on Block D5.

The current setting of this property is a mix of light industrial, commercial, and community uses. The surrounding parcels have buildings that are two stories or less in a mix of late-19th-century and early-20th-century utilitarian commercial buildings. Parking lots face the building on two sides.

The increased bulk and density proposed with the project would alter the low-scale character of the immediate neighborhood surrounding 40 South Montgomery Street. However, 40 South Montgomery Street is significant for its representation of the industrial growth of the area.[126] This is represented in its character-defining features, its orientation to the street, and in its architectural design. New construction on Blocks D4 and D5 do not alter these traits. Therefore, impacts to the historical significance of 40 South Montgomery Street from surrounding development would be **less than significant.**

Nonetheless, the Downtown West Design Standards and Guidelines include historic adjacency standards to address potential indirect impacts. These site-specific standards include:[127]

- A minimum separation of 48 feet from the north façade of 40 South Montgomery Street. This would apply to Block D4.

[125] ARG, DPR: Kearney Pattern Works and Foundry, January 2020.
[126] ARG, DPR: Kearney Pattern Works and Foundry, January 2020.
[127] This includes: Standard, 5.6.3 and Standard 5.15.5.

- New construction on Block D6 will maintain a minimum separation of 40 feet from 40 South Montgomery Street and be limited to 80 feet in height.
- Between 40 South Montgomery Street and Block D6 no permanent or temporary structures are allowed within 20 feet of the south façade of the resource.
- The south facade of block D4 and north facade of block D6 shall each establish an architectural height reference within 10 feet of the Project resource's height for a horizontal length greater than or equal to the north and south facades, respectively.

Lakehouse Historic District

The Lakehouse Historic District is a City of San José Landmark District; 20 district contributors are located within the project study area. Of these, four have been found individually eligible for listing in the National Register: 396 West San Fernando Street (APN 259-45-030), 398 West San Fernando Street (APN 259-45-029), 416 West Fernando Street (APN 259-48-019), and 454 West San Fernando Street (APN 259-45-055). One district contributor is individually listed as a City Landmark: 124 Delmas Avenue (APN 259-45-095).

North of the VTA tracks, the project proposes residential development fronting the VTA right-of-way and West San Fernando Street. Maximum proposed heights for residential development on these blocks would be up to 290 feet. At this height, new construction would be taller than the existing adjacent buildings and structures, including SR 87. The project would maintain the existing open space on the blocks fronting the Lakehouse Historic District along West San Fernando Street and include an additional buffer of open space along Los Gatos Creek. This area is currently a public plaza/open space with a VTA platform on the block fronting the district along West San Fernando Street. However, the increased bulk and density on Blocks E2 and E3 would still alter the park-like setting of the blocks fronting West San Fernando Street and the Lakehouse Historic District.

As noted above, the project applicant proposes the Downtown West Design Standards and Guidelines, which would be subject to City review and approval concurrent with the project's Planned Development Permit, and would address building design, land coverage, density, setbacks, the open space program, and the character of the public realm, along with other design controls for development. Site-specific standards in the Downtown West Design Standards and Guidelines for addressing potential impacts on the Lakehouse Historic District include:[128]

- A 100-foot separation would be maintained between new construction and the Lakehouse Historic District.
- The south façades of new construction on Blocks E2 and E3 would incorporate an architectural height reference within 10 feet of the average height of the facing district-contributing buildings (approximately 25 to 35 feet above grade).
- This height reference would extend horizontally for up to 40 feet.
- Incorporation of façade modulation as noted above for residential design.

[128] These standards include: Standard 5.15.9, and Standard 5.15.10, and Standard 5.15.11.

- New development on Blocks E2 and E3 would step back all levels above 60 feet for an average depth of 20 feet from the property line or 50% of the linear distance of the Lakehouse District along West San Fernando Street.
- New development on Blocks E2 and E3 would be subject to a 150-foot height cap in a 200-foot zone extending across the street from the Lakehouse District.

The Lakehouse Historic District is significant for "its representation of a comprehensive pattern of historic development to the west of the downtown frame area; its association with residential development during the period 1885–1925; and its embodiment, within the boundaries of the neighborhood, of architectural styles that represent the breadth of design of the period."[129] Four of the individual historic architectural resources under CEQA (396, 398, 416, and 454 West San Fernando Street) are also significant for their architecture.[130] The district's character-defining features include a predominance of wood frame, single family homes, a mix of architectural styles that represent popular residential designs from Queen Anne through the revival styles of the early 20th century, cohesiveness of setbacks, massing, and construction, and a relatively consistent use of cladding materials and colors (wood and stucco). None of these traits for the district, nor representation of these traits through individual resources would be altered as a result of the project. However, the increased bulk and density of new buildings would alter the district's setting by affecting blocks immediately outside of the district and fronting it across West San Fernando Street.

The Downtown West Design Standards and Guidelines include site-specific standards for the Lakehouse Historic District that would addresses the design compatibility of the new construction to the residential and low-scale neighborhood feel of historic resource, and Los Gatos Creek would maintain open space and separation between new construction and the historic resource. As a result, all new construction would be located a minimum of 100 feet away from the closest district contributor. Also, those characteristics that help to communicate the historical significance of the neighborhood as an eclectic mix of residential architecture from 1885–1925—one- to three-story wood frame houses, cohesive setbacks, massing, and construction, predominance of wood and stucco cladding, range of architectural styles—would remain intact and unaltered. Therefore, with implementation of the Downtown West Design Standards and Guidelines, the project would result in **less-than-significant** impacts on the historical significance of the Lakehouse Historic District.

Summary

All new construction on the project site would be evaluated by the City of San José for consistency with the Downtown West Design Standards and Guidelines elements presented here or (in the case of Block D1) equivalent elements in the GDP.[131] These standards, together with relevant standards in the Downtown Design Guidelines (see Table 3.3-6), would ensure that new construction within the vicinity of historic resources would include design modulations to maintain compatibility with the nearby resources. For this reason, and because character-defining features of each resource would remain intact and changes to their setting would not materially

[129] Architectural Resources Group, DPR 523B: 124 Delmas Avenue, 2006. 124 Delmas Avenue is locally significant for its association with the Brohaska and Dalis families.
[130] Architectural Resources Group, DPR 523B: 124 Delmas Avenue, 2006. 124 Delmas Avenue is locally significant for its association with the Brohaska and Dalis families; Archives & Architecture, DPR A and B: 396 San Fernando, West, 1999/2006; Archives & Architecture, DPR A and B: 398 San Fernando, West, 1999/2006.
[131] Block D1 would be subject to design consistency with the standards and guidelines in the GDP.

affect their significance, impacts on historic architectural resources from density increases resulting from surrounding development, changes in adjacent land use, or changes in circulation patterns would be **less than significant**.

Mitigation: None required.

Impact CU-7: The proposed project could result in significant impacts at 105 South Montgomery Street (Stephen's Meat Projects sign), a historic resource, as a result of its removal, storage, and relocation within the project site. ***(Less than Significant with Mitigation)***

The City of San José recognizes the historical significance of its collection of period commercial signage found within the city's boundaries. These signs include illuminated, moving, and static commercial signage. Some signs are directly related to the buildings upon which they sit, while others are important for their artistic or associative properties. A full survey of signage is in process; when complete, this survey will include a detailed historical citywide context for signage of various types and will identify contributors to a discontiguous commercial sign historic district. This district would be a Candidate City Landmark District and its contributors would qualify as historic architectural resources under CEQA.

The Stephen's Meat Products sign at 105 South Montgomery Street features a dancing pig outlined in neon next to the words "Stephen's Meat Products." Prior evaluations for eligibility as a CEQA resource considered the associative value of the sign to a business and building that no longer exists. These evaluations found the sign ineligible for listing at the national, state, or local level. However, the City of San José has determined that the sign is historically significant for its representation of neon commercial promotion and for its overall design and local iconic standing. It was listed in the City's HRI in February 2020 and is considered a contributor to the pending discontiguous commercial sign Candidate City Landmark District. The proposed project would redevelop the former Stephen's Meat Products parcel, currently a parking lot, with buildings up to 250 feet in height. This would necessitate removing the sign from its current location. Loss of the sign would directly affect a historic resource. This impact would be **significant**.

Mitigation Measures

Mitigation Measure CU-7: Sign Relocation

Before the issuance of the first permit for site preparation or construction on the site within 100 feet of the Stephen's Meat Product sign, the project applicant, in consultation with a qualified historic preservation professional, shall remove the sign from the site. If the sign is not immediately relocated to a receiver site, it shall be placed in secure storage. Storage shall be indoors, or otherwise protected from weather, impacts, and vandalism. The location of the storage facility shall be communicated to the Director of Planning, Building and Code Enforcement or the Director's designee.

During design development, a receiver site shall be identified on the project site with the following characteristics:

- The site shall be similar to the existing location along a public right-of-way.

- The sign shall be placed upon a single support pole of similar dimension.
- Views of the sign shall be permitted from a minimum of 150 feet along both directions of the public right-of-way.
- The sign shall be repaired, as needed, to return it to its current functional state.
- Interpretive signage indicating the sign's age, association, and original location shall be located at the base of the structural support.

The selected site shall be subject to approval by the Director of Planning, Building and Code Enforcement, or the Director's designee. Relocation of the sign shall be completed within no more than five years from the date of its removal, with the potential for an extension not to exceed an additional five years upon approval by the Director of Planning, Building and Code Enforcement or the Director's designee.

Significance after Mitigation: Implementing Mitigation Measure CU-7 would allow the Stephen's Meat Products sign to maintain its historical and artistic integrity, and ensure its relocation to an appropriate nearby location visible to the public. Therefore, implementing this mitigation measure would reduce the impact on the historical significance of the resource to **less than significant**.

Archaeological Resources

Impact CU-8: The proposed project could cause a substantial adverse change in the significance of an archaeological resource as defined in CEQA Guidelines Section 15064.5. ***(Less than Significant with Mitigation)***

This section discusses archaeological resources, both as historical resources according to CEQA Guidelines Section 15064.5 and as unique archaeological resources as defined in PRC Section 21083.2(g).

Based on the sensitivity analysis conducted for the proposed project (provided above in Section 3.3.1, *Environmental Setting*), there is high sensitivity across most of the project site for prehistoric archaeological resources to be present in areas that have not been previously disturbed by extensive, deep ground disturbance. Similarly, based on the high level of historic-era use of the project site, there is high sensitivity for historic-era archaeological resources, such as artifacts, wells, privies, and foundations associated with former residential, commercial, and industrial uses to be encountered during excavation.

Given the potential to uncover prehistoric and historic-era archaeological materials and features on the project site, the discovery of these types of resources, if not appropriately evaluated and treated following discovery, would be a **potentially significant** impact.

Implementation of **Mitigation Measures CU-8a, Cultural Resources Awareness Training**; **CU-8b, Archaeological Testing Plan**; **CU-8c, Archaeological Evaluation**; and **CU-8d, Archaeological Treatment Plan**, would reduce impacts on archaeological resources by requiring that all construction personnel attend a mandatory pre-project cultural resources awareness training, and that an Archaeological Testing Plan be developed to determine the extent of cultural

resources on the project site so that resources could be evaluated for significance and treated appropriately, as warranted. In addition, **SCA CR-1, Subsurface Cultural Resources**, would ensure that work would halt in the vicinity of a find until it is evaluated by a Secretary of the Interior–qualified archaeologist. With implementation of these mitigation measures, potential impacts would be **less than significant with mitigation incorporated**.

Mitigation Measures

The following mitigation measures, consistent with the DSAP Final EIR, Downtown Strategy Final EIR, and Envision San José 2040 General Plan Final EIR (as amended), shall be implemented before the start of construction activities to avoid impacts on unrecorded subsurface prehistoric and historic-era archaeological resources. The following mitigation measures build upon each other to provide a methodology for reducing impacts.

Mitigation Measure CU-8a: Cultural Resources Awareness Training

Before any ground-disturbing and/or construction activities, a Secretary of the Interior–qualified archaeologist shall conduct a training program for all construction and field personnel involved in site disturbance. On-site personnel shall attend a mandatory pre-project training that will outline the general archaeological sensitivity of the area and the procedures to follow in the event an archaeological resource and/or human remains are inadvertently discovered. A training program shall be established for new project personnel before project work.

Mitigation Measure CU-8b: Archaeological Testing Plan

Before the issuance of any demolition or grading permits (whichever comes first) for each of the three construction phases, the project applicant shall be required to complete subsurface testing to determine the extent of possible cultural resources on-site. Subsurface testing shall be completed by a qualified archaeologist based on an approved Archaeological Testing Plan prepared and submitted to the Director of the City of San José Department of Planning, Building and Code Enforcement, or the Director's designee, for review and approval. The Testing Plan shall include, at a minimum:

- Identification of the property types of the expected archaeological resource(s) that could be affected by construction;
- The testing method to be used (hand excavation, coring, and/or mechanical trenching);
- The locations recommended for testing; and
- A written report of the findings.

The purpose of the archaeological testing program shall be to determine the presence or absence of archaeological resources to the extent possible and to evaluate whether any archeological resource encountered on the site constitutes an historical resource under CEQA.

Mitigation Measure CU-8c: Archaeological Evaluation

The project applicant shall ensure that all prehistoric and historic-era materials and features identified during testing are evaluated by a qualified archaeologist based on

California Register of Historical Resources criteria and consistent with the approved Archaeological Testing Plan. Based on the findings of the subsurface testing, a qualified archaeologist shall prepare an Archaeological Resources Treatment Plan addressing archaeological resources, in accordance with Mitigation Measure CU-8d, Archaeological Resources Treatment Plan.

Mitigation Measure CU-8d: Archaeological Resources Treatment Plan

The project applicant shall submit the Archaeological Resources Treatment Plan to the Director of the City of San José Department of Planning, Building and Code Enforcement, or the Director's designee, for review and approval before the issuance of any demolition and grading permits. The treatment plan shall contain the following elements, at a minimum:

- Identification of the scope of work and range of subsurface effects (with a location map and development plan), including requirements for preliminary field investigations;
- Development of research questions and goals to be addressed by the investigation (what is significant vs. what is redundant information);
- Detailed field strategy used to record, recover, or avoid the finds and address research goals;
- Analytical methods;
- Report structure and outline of document contents;
- Disposition of the artifacts; and
- Appendices: Site records, correspondence, and consultation with Native Americans and other interested parties.

The project applicant shall implement the approved Archaeological Treatment Plan before the issuance of any demolition or grading permits. After completion of the fieldwork, all artifacts shall be cataloged in accordance with 36 CFR Part 79, and the State of California's *Guidelines for the Curation of Archeological Collections*. The qualified archaeologist shall complete and submit the appropriate forms documenting the findings with the Northwest Information Center of the California Historical Resources Information System at Sonoma State University.

Significance after Mitigation: Less than significant.

Human Remains

Impact CU-9: The proposed project would disturb human remains, including those interred outside of formal cemeteries. ***(Less than Significant with Mitigation)***

Based on known conditions and previous archaeological research, human burials are present in the project vicinity, and the potential exists for the discovery of human remains during construction activities that involve ground disturbance. Disturbance of human remains would be a significant impact; however, implementing the City's SCA CR-2, Human Remains, for the inadvertent discovery of human remains would ensure that impacts on human remains would be

less than significant, by requiring that in the event of an inadvertent discovery of human remains, the legal procedures are followed, including contacting the county coroner. In addition, Mitigation Measure CU-8a (refer to Impact CU-8) would ensure that all construction personnel would attend a mandatory pre-project cultural resources awareness training.

With implementation of Mitigation Measure CU-8a and the required SCA CR-2 for the inadvertent discovery of human remains, impacts on human remains would be **less than significant**.

Mitigation Measure

> **Mitigation Measure CU-8a: Cultural Resources Awareness Training** (refer to Impact CU-8)

Tribal Cultural Resources

Impact CU-10: The proposed project could cause a substantial adverse change in the significance of a tribal cultural resource as defined in Public Resources Code Section 21074. ***(Less than Significant with Mitigation)***

CEQA requires the lead agency to consider the effects of a project on tribal cultural resources. As defined in PRC Section 21074, tribal cultural resources are sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American tribe that are listed, or determined to be eligible for listing, in the national, state, or local register of historical resources.

To mitigate impacts on tribal cultural resources, PRC Section 21084.3 provides the following:

(a) Public agencies shall, when feasible, avoid damaging effects to any tribal cultural resource.

(b) If the lead agency determines that a project may cause a substantial adverse change to a tribal cultural resource, and measures are not otherwise identified in the consultation process provided in Section 21080.3.2, the following are examples of mitigation measures that, if feasible, may be considered to avoid or minimize the significant adverse impacts:

  (1) Avoidance and preservation of the resources in place, including, but not limited to, planning and construction to avoid the resources and protect the cultural and natural context, or planning greenspace, parks, or other open space, to incorporate the resources with culturally appropriate protection and management criteria.

  (2) Treating the resource with culturally appropriate dignity taking into account the tribal cultural values and meaning of the resource, including, but not limited to, the following:

    (A) Protecting the cultural character and integrity of the resource.

    (B) Protecting the traditional use of the resource.

    (C) Protecting the confidentiality of the resource.

  (3) Permanent conservation easements or other interests in real property, with culturally appropriate management criteria for the purposes of preserving or utilizing the resources or places.

(4) Protecting the resource.

On October 7, 2019, Environmental Science Associates sent a letter to the NAHC requesting a search of the NAHC's Sacred Lands File and a list of Native American representatives who may have interest in the proposed project. The NAHC replied by email on October 10, 2019, indicating that the Sacred Lands File has records of sacred sites and tribal cultural resources in the vicinity of the proposed project. The NAHC recommended contacting the Ohlone Indian Tribe and other Native American representatives included on the provided contact list.

On October 23, 2019, the City sent letters to Native American tribes that have requested consultation according to the procedures outlined in PRC Section 21080.3.1(b) and California Government Code Section 65351. The letters provided a description of the project, a map showing the project site, and an invitation to respond to a request for consultation within 30 days (as required by PRC Section 21080.3.1(d)) and 90 days (as required by California Government Code Section 65352.3). No responses have been received, and consultation under PRC Section 21080.3.1(b) and California Government Code Section 65352.3 is considered complete.

Based on a review of site distribution and the environmental context, the proposed project has a high potential to uncover previously undiscovered archaeological resources, that could also be considered tribal cultural resources. However, the project would implement the required SCA for the inadvertent discovery of human remains (refer to Impact CU-9). Implementing Mitigation Measures CU-5a, Cultural Resources Awareness Training; CU-5b, Archaeological Testing Plan; CU-5c, Archaeological Evaluation; and CU-5d, Archaeological Treatment Plan, as described above (refer to Impact CU-8), would reduce impacts on tribal cultural resources by requiring that archaeological resources be treated appropriately in consultation with a Native American representative. In addition, SCA CR-1, Subsurface Cultural Resources, would ensure that work would halt in the vicinity of a find until it is evaluated by a Secretary of the Interior–qualified archaeologist who would make additional recommendations including contacting the appropriate Native American tribe(s), as warranted. With implementation of these mitigation measures, this impact would be **less than significant with mitigation incorporated**.

Mitigation Measures

Mitigation Measure CU-8a: Cultural Resources Awareness Training (refer to Impact CU-8)

Mitigation Measure CU-8b: Archaeological Testing Plan (refer to Impact CU-8)

Mitigation Measure CU-8c: Archaeological Evaluation (refer to Impact CU-8)

Mitigation Measure CU-8d: Archaeological Treatment Plan (refer to Impact CU-8)

Significance after Mitigation: Less than significant.

Cumulative Impacts

The geographic scope for cumulative effects on cultural resources and tribal cultural resources includes the immediate vicinity of locations where the project could disturb unique archaeological resources, human remains, and/or tribal cultural resources. The geographic scope for cumulative effects on historic architectural resources includes downtown San José and the DSAP area.

Impact C-CU-1: The proposed project would make a cumulatively considerable contribution to previously identified significant cumulative adverse impacts on Downtown historical resources as defined in CEQA Guidelines Section 15064.5. *(Significant and Unavoidable)*

The DSAP Final EIR concluded that implementation of the DSAP "has the potential to contribute to cumulative impacts to historic resources at the City level."[132] The analysis recognized that "downtown San Jose has the highest concentration of historic era buildings in the City. Construction of SR 87 and I-280 and modern development have destroyed many of the 19th and early 20th century homes in the Plan area …"[133] Because the boundaries of the DSAP and those of the proposed project substantially overlap, these conclusions can be equally applied to the project, which would itself result in significant and unavoidable impacts on historic architectural resources.

Several other developments in the vicinity of the project site are in various stages of review or construction. Each looked at the potential for impacts to historic resources from downtown San Jose west to the railroad tracks. While some of these projects were not found to have a significant impact on historic resources, they cumulatively contribute to the changing character of the historically low-scale, mixed use neighborhoods between downtown San Jose and the railroad tracks. For that reason, they are presented here for consideration in combination with the Downtown West project.

- **440 West Julian Street**—Known as the Platform 16 project, the site is currently under construction to include 1.1 million sf of office space spread over three six-story buildings on a 5.45-acre site on the block bounded by the Union Pacific Railroad tracks to the north, Autumn Parkway to the east, West Julian Street to the south, and North Autumn Street to the west. This project would be visible to those resources located along North Autumn and North Montgomery Streets. The project was determined to have a less-than-significant impact on 237 North Autumn Street (Dennis Residence). No other historic architectural resources were identified or analyzed. While this project was not found to have a significant impact on historic resources, it does contribute to the changing character of the historically low-scale, mixed use neighborhoods between downtown San Jose and the railroad tracks. For that reason, it is presented here for consideration of cumulative impacts on historic architectural resources.
- **374 West Santa Clara Street**—Already permitted work for this address includes hazardous materials removal from the historic San Jose Water Works building, demolition of non-contributing additions to the building, and rehabilitation of the historic resource (1934/1940 building and 1913 transformer building). This site has been incorporated into the proposed Downtown West project, and the impacts from

[132] City of San José, *Diridon Station Area Plan Integrated Final Program Environmental Impact Report*, State Clearinghouse No. 2011092022, August 2014, p. 223.
[133] City of San José, *Diridon Station Area Plan Integrated Final Program Environmental Impact Report*, State Clearinghouse No. 2011092022, August 2014, p. 223.

development of this site are considered as part of this project; however, because previously approved work on the site is already under way, it is identified in this cumulative impact assessment. As originally approved, the project was determined to have impacts that were less than significant with mitigation with regard to historic architectural resources, specifically the San Jose Water Works building.

- **VTA's Bay Area Rapid Transit (BART) Silicon Valley Phase II Extension Project**—This project includes underground work (tunneling and excavation) and surface improvements to facilitate access to a 6-mile extension of the BART line from the Berryessa Station to the Santa Clara Caltrain station. This report concluded that potential direct and indirect impacts on historic architectural resources would be less than significant (no direct or indirect adverse effects).
- **Diridon Integrated Station Concept Plan (DISC)**—This plan is currently in development and proposes reconfiguration of a large portion of the current Southern Pacific Depot Historic District. This includes the potential demolition of or modifications to the primary station building and other contributing elements to the Southern Pacific Depot Historic District. Depending on the final plan that is ultimately adopted, the DISC could result in direct significant impacts on the historic resource.
- **High-Speed Rail San Jose to Merced Project Section**—The Southern Pacific Depot historic district is a central component that connects two sections of the High Speed Rail (HSR) project: San Francisco to San Jose and San Jose to Merced. The project-level EIR/EIS for the San Jose to Merced line concluded there would be significant impacts to the historic district under all alternatives. Alternatives 1, 2, and 3 would reuse Diridon Station but would demolish the fence, iron gate, butterfly sheds, car cleaner's shack, and train tracks. These alternatives also include the introduction of new buildings and features within the district including a new depot building, aerial tracks, and viaduct structure. Alternative 4 would retain the pedestrian concourse and eliminate the proposed viaduct but would remove other features as noted for Alternatives 1–3. All would result in a significant and unavoidable impact on the integrity of the resource. While mitigation measures are identified, they would not reduce the impacts to a less-than-significant level.

  Realignment of the tracks included in all alternatives for this section of the HSR project would result in varying degrees of demolition of 145 South Montgomery Street (APN 261-35-027, Sunlite Bakery). Alternatives 1, 2, and 3 include total demolition of the building. Alternative 4 includes demolition of the rear 50 feet of the building where it faces the railroad tracks. Alternatives 1, 2, and 3 would result in a significant and unavoidable impact. Identified mitigation measures would not reduce impacts to less than significant. Alternative 4 would result in a less-than-significant impact on the historic resource and would require no further mitigation for that site.
- **DSAP Amendment and Lots A, B, and C Replacement Parking**—With the proposed amendment to the DSAP, there would likely be additional development in the area that could affect historic architectural resources, although individual projects and their site-specific impacts are unknown at this time and would be subject to policies in the DSAP, as amended. Also, project-related development of the surface parking lots around the SAP Center (commonly known as Lots A, B, and C) would require amending the Arena Management Plan between the City and San Jose Arena Management, LLC (San Jose Sharks) to allow replacement parking to be provided in another location, which may require construction of additional parking facilities adjacent to the project area. No specific site or parking space replacement plan has been developed, but one option under discussion includes parcels located within the architectural resource study area. The

"Lot E" option would redevelop a number of parcels at the southern end of the block bounded by West Julian Street (north), North Autumn Street (east), West St. John Street (south), and North Montgomery Street (west). This block currently contains a mix of residential and light industrial uses, and includes five historic architectural resources: 237 North Autumn Street (Dennis Residence); 203, 199, and 195 North Autumn Street; and 160 North Montgomery Street. Development of Lot E for Lots A, B, and C replacement parking may require relocation or demolition of one or more of these historic architectural resources. Thus, although any future development of Lot E remains speculative, demolition and/or relocation to facilitate development of Lot E would have the potential to result in a significant and unavoidable impact on historic resources.

Another option under discussion would develop parking on the Milligan Site, a group of parcels at the south end of the block bounded by West Julian Street (north), the Guadalupe River (east), West St. John Street (south), and North Autumn Street (west). This block currently contains a mix of residential and light industrial uses. Immediately north of the Milligan Site is a grouping of early 20th century residences centered on Autumn Court. Several of these residences are listed on the HRI as Structures of Merit or Identified Structures/Sites.[134] The site itself includes 447 West St. John Street (Forman's Arena), a building determined eligible for listing on the National and California Registers under Criteria A/1 and B/1.[135] Development of the Milligan Site for Lots A, B, and C replacement parking could result in the demolition and/or relocation of this historic architectural resource. Thus, demolition and/or relocation to facilitate development of the Milligan Site has the potential to result in a significant and unavoidable impact on historic resources.

- **CityView Plaza**—This recently approved (June 2020) project is located in downtown San José on the block bounded by Almaden Boulevard, Park Avenue, Market Street, and West San Fernando Street. The project includes construction of 3.5 million sf of new office space and 65,000 sf of new ground-floor retail in three 19-story buildings with a maximum height of 293 feet. To facilitate development, Park Center Plaza (eligible for listing as a historic district on the California Register under Criterion 1, Candidate City Landmark District) will be demolished. Park Center Plaza includes the Wells Fargo Building (individually eligible for the California Register under Criterion 3, Candidate City Landmark); the Bank of America Building (individually eligible for the California Register under Criterion 3, Candidate City Landmark); the United California Bank/Morton's Steakhouse building (individually eligible for the California Register under Criterion 3, Candidate City Landmark); and the Bank of California/Sumitomo Bank Building (individually eligible for the California Register under Criterion 3, Candidate City Landmark). The CityView Plaza EIR (2020) concluded that the project would both result in a significant and unavoidable impact on individual historic resources and make a cumulatively considerable impact to a citywide cumulative impact on historic resources. Both impacts stem from the demolition of the above-noted historic resources.

The proposed project includes demolition of five historic architectural resources: the grouping of buildings at 559, 563, and 567 West Julian Street; 343 North Montgomery Street (Advance Metal Spinning); 345 North Montgomery Street (Circus Ice Cream); 580 Lorraine Avenue; and 145 South Montgomery Street (Sunlite Baking Co.) No grouping of historic architectural resources within the project site constitutes a historic district and none of the resources individually

[134] City of San José, *Coleman Avenue / Autumn Street Improvement Project, Final Integrated Focused EIR*, January 2008. This document does not go so far as to evaluate the grouping as a district.
[135] City of San José, *Coleman Avenue / Autumn Street Improvement Project, Final Integrated Focused EIR*, January 2008. This document does not go so far as to evaluate the grouping as a district.

contributes to a historic district. However, all individually contribute to the late-19th- and early-20th-century architectural setting of the project site.

Individually, demolition of the resources is considered a significant and unavoidable impact. The loss of these individual resources would alter the character of the area and diminish the number and variety of historic architectural resources within Downtown San José. This is the type of change that is constituted in the findings of at least three recent EIRs. The Downtown Strategy 2040 Final EIR concluded that "[b]ased on the number of historic [architectural] resources that have been lost within the Downtown (and the city in general) and the potential for remaining historic buildings to be replaced or otherwise adversely effected, the proposed project could make a substantial contribution to the significant impacts previously identified in the Downtown Strategy 2000" (Impact C-CU-1). Similar findings are stated in the DSAP Final EIR (Impact CU-1).

In addition, the proposed project would result in a significant and unavoidable impact on 150 South Montgomery Street (Hellwig Ironworks) as a result of additions and modifications to the building that could be as large as 8,500 sf and alter the character-defining features of the resource.

As noted above, demolition of historic architectural resources cannot be mitigated to a less-than-significant level, and anticipated changes to 150 South Montgomery Street may significantly affect the ability of the resource to convey its historical significance. These significant and unavoidable project impacts would reduce the variety and quantity of 19th- and early-20th-century historic resources in the city of San José. As a result, the project's contribution to the previously identified significant impact on historic resources in Downtown would be cumulatively considerable. Therefore, the project, in combination with past, present, and projects anticipated in the foreseeable future, would result in a significant cumulative impact on historic resources in Downtown. Implementing Mitigation Measures CU-1a through CU-1d would reduce but not eliminate the significant and unavoidable impact associated with the demolition of 559, 563, and 567 West Julian Street, 343 North Montgomery Street (Advance Metal Spinning), 345 North Montgomery Street (Circus Ice Cream), 580 Lorraine Avenue, and 145 South Montgomery Street (Sunlite Baking Co.). Nor would implementation of Mitigation Measures CU-1a, CU-1c, or CU-1d reduce the significant and unavoidable impact associated with modifications and additions to 150 South Montgomery Street (Hellwig Ironworks) to a less-than-significant level. Therefore, the project would result in a **significant and unavoidable** impact.

Mitigation Measures

Mitigation Measure CU-1a: Documentation (refer to Impacts CU-1 and CU-3)

Mitigation Measure CU-1b: Relocation (refer to Impact CU-1)

Mitigation Measure CU-1c: Interpretation/Commemoration (refer to Impacts CU-1 and CU-3)

Mitigation Measure CU-1d: Salvage (refer to Impacts CU-1 and CU-3)

Significance after Mitigation: Significant and unavoidable.

Impact C-CU-2: The proposed project would not make a cumulatively considerable contribution to previously identified significant impacts on the Southern Pacific Depot Historic District. ***(Less than Significant)***

The DSAP Final EIR included analysis of the cumulative impacts from potential changes associated with expansion of the station to accommodate high-speed rail, the BART Phase II Extension, and redevelopment of the adjacent blocks. The High-Speed Rail Program EIR (2008) and San Jose to Merced Project Section Draft EIR/EIS (2020) determined that the project had the potential to result in adverse impacts on the historic district and included mitigation measures to address these impacts. Project planning for station improvements (DISC) currently includes designs that would demolish or substantially alter the Southern Pacific Depot Historic District, including the central Southern Pacific Depot (Diridon Station) building.[136] The BART Environmental Impact Statement (EIS) (2010) and Phase II Extension Final Supplemental EIS/Subsequent EIR (2018) concluded that there would be no adverse impact on the historic district because alterations would occur in areas already previously modified. Therefore, BART work would not result in a significant impact on the Southern Pacific Depot Historic District. In considering the body of work represented in these studies, the DSAP Final EIR concluded that "new station elements, circulation improvements, and future development in the Central Zone could alter the historic district's setting and feeling. New construction within and adjacent to the district could cause a substantial adverse change in the significance of the historic district." [137]

The Downtown West Mixed-Use Plan includes development of approximately 81 acres and is centered near the Southern Pacific Depot Historic District. However, with the exception of the northwest corner of Block F1, the blocks that immediately front the district along Cahill Street are not proposed for development under the project. Unlike the development projections under the DSAP EIR, no development is proposed for those blocks as part of the proposed project, thus maintaining the open space, low-scale character, and transportation-oriented setting along the majority of the primary edge (eastern edge) of the district. Development is limited to small areas of visual obscuring from the mass, height, and density of construction at the extreme north and south ends of the district (Blocks F2, D1, and C2).

For these reasons, the project would result in less-than-significant impacts on the district's setting and character (refer to Impact CU-7), and the project's contribution to the previously identified cumulative impact on the Southern Pacific Depot Historic District would be less than cumulatively considerable. Moreover, although the DISC and/or High-Speed Rail improvements could result in demolition of the existing Diridon Station building or otherwise result in a significant impact on the Southern Pacific Depot Historic District, these direct impacts would be of a different magnitude and nature than the project's indirect, adjacent effects. The project would not make a considerable contribution to such a direct impact. Therefore, the project would result in a **less-than-significant cumulative** impact on the historic resource.

---

[136] Peninsula Corridor Joint Powers Board, *Staff Report: Update on the San Jose Diridon Integrated Station Concept Plan*, June 6, 2019.

[137] City of San José, *Diridon Station Area Plan Integrated Final Program Environmental Impact Report*, State Clearinghouse No. 2011092022, August 2014, p. 224.

Impact C-CU-3: The proposed project, in combination with past and foreseeable future projects, would not result in a cumulative adverse impact on 374 West Santa Clara Street (San Jose Water Works), a historic architectural resource as defined in CEQA Guidelines Section 15064.5. ***(Less than Significant)***

The San Jose Water Works property at 374 West Santa Clara Street was determined eligible for listing in the National and California Registers under Criterion A/1 (Events and Trends) for its association with water utility development in San José and regionally, and under Criterion C/3 (Architecture) for its combined use of Moderne and Spanish Colonial Revival architectural styles. This eligibility was first determined by Woodruff Minor and Basin Research Associates in 1999, verified by Ward Hill and Basin Research Associates in 2003, and again verified by ARG in 2019. The 1989 assessment concluded that there were two contributing buildings and two non-contributing buildings on the property. The boundaries of the nominated resource are listed as "that portion of the block containing the San Jose Water Works Building and associated buildings and structures (APN 259-38-128)."[138] This documentation explains there was considerable change to the site in the 1980s when much of the supporting infrastructure (shops and sheds) and "non-company" buildings were demolished. In their place, landscaping and a lawn were installed. New construction also took place to both connect existing buildings and house new functions such as data processing.

In 2003, a historic resource evaluation (HRE) was completed by Ward Hill. The HRE looked more closely at the 1989 nomination and updated the integrity evaluations, adding greater clarity regarding the conditions and qualities of those remaining elements that contributed to the historical significance of the resource. The 2003 report identified the primary resource as the main office building at 374 West Santa Clara Street, with the 1913 transformer house named as a contributing element to the primary historic resource. All other buildings on the property were evaluated and determined to be non-contributing and non-historic.

Based on the results of the 2003 HRE, the 2004 SJW Land Company Planned Development Rezoning Final Integrated EIR and the 2016 Delmas Avenue Mixed Use Development Final EIR Addendum concluded that the impacts on 374 West Santa Clara Street as a result of demolition of non-historic buildings and construction on the adjacent property would be less than significant with implementation of design guidelines and adherence to the *Secretary of the Interior's Standards and Guidelines for Rehabilitation*. The City of San José issued a building permit in March 2020 for removal of these non-historic portions of the building (data processing center and pump house) in accordance with Historic Preservation Permit HP-002 and Historic Preservation Permit Adjustment HPAD20-007 (extension of permit expiration).

Historic Preservation Permit Adjustment HPAD20-006 was issued in August 2020 for the rehabilitation of the main building and changes to the openings at both the west and south elevations in compliance with the Secretary of the Interior's Standards for the Treatment of Historic Buildings.

[138] Minor, W. C., Basin Research Associates, *National Register of Historic Places Registration Form: San Jose Water Works Building*, September 1989, p. 8-5.

The proposed project includes modification to the City Landmark designation boundaries from the entire 1-acre parcel to that portion currently occupied by the main building and relocated transformer building (Figure 3.3-5). These modifications would not remove any regulatory protections for the historic resource and would not directly or indirectly affect the historic integrity of the resource. In addition, development on Block E1 would conform to the proposed Downtown West Design Standards and Guidelines, which contain standards related to setbacks, views, and design of new construction, resulting in a less-than-significant impact on the setting of the historic resource.

The project also proposes development in the area immediately west and south of the City Landmark. The block closest to the resource, Block E1, would be developed with an office tower up to 230 feet in height. Project-specific design standards require this development to maintain a minimum separation of 40 feet from the south and west elevations of the resource, as well as design modifications to new construction to create compatibility of design and reduce impacts. As discussed above under Impact CU-6, implementation of the Downtown West Design Standards and Guidelines would reduce impacts on the historic resource to a less-than-significant level.

Because neither the proposed landmark boundary modifications or the adjacent development included in the current project would affect the significance of the historic resource, and because modifications to the Landmark approved previously would confirm with the Secretary of the Interior's standards, and no other development is reasonably foreseeable in the vicinity that could affect the significance of the resource (reference Figure 3-1, *Cumulative Projects in the Project Vicinity*), and any new development that did occur in the vicinity would be required to conform with the Downtown Design Guidelines, there would not be a significant cumulative impact on the historical significance of this resource. This cumulative impact would be **less than significant**.

Impact C-CU-4: The proposed project would combine with other projects to result in significant cumulative effects on archaeological resources as defined in CEQA Guidelines Section 15064.5; human remains, including those interred outside of formal cemeteries; and tribal cultural resources as defined in Public Resources Code Section 21074. *(Less than Significant with Mitigation)*

Similar to the proposed project, cumulative projects in the project vicinity could have a significant impact on buried prehistoric and historic-era archaeological resources, including human remains interred outside of formal cemeteries, during ground-disturbing activities. The potential impacts of the proposed project, when considered together with similar impacts from other probable future projects in the vicinity, could result in a **significant** cumulative impact on buried archaeological resources or human remains (including resources determined to be tribal cultural resources).

However, the proposed project would implement the required SCA for the inadvertent discovery of human remains. In addition, implementation of Mitigation Measures CU-8a, CU-8b, CU-8c, and CU-8d and SCAs CR-1 and CR-2 would require that archaeological resources be treated appropriately in consultation with a Native American representative. In addition, cumulative projects undergoing CEQA review would have similar types of inadvertent-discovery measures.

Therefore, with implementation of Mitigation Measures CU-8a, CU-8b, CU-8c, and CU-8d, and SCAs CR-1 and CR-2, the proposed project's contribution to cumulative impacts would not be considerable, and the impact would be **less than significant with mitigation incorporated**.

Mitigation Measures

Mitigation Measure CU-8a: Cultural Resources Awareness Training (refer to Impact CU-8)

Mitigation Measure CU-8b: Archaeological Testing Plan (refer to Impact CU-8)

Mitigation Measure CU-8c: Archaeological Evaluation (refer to Impact CU-8)

Mitigation Measure CU-8d: Archaeological Resources Treatment Plan (refer to Impact CU-8)

Significance after Mitigation: Less than significant.

This page intentionally left blank

3.4 Energy

This section describes and evaluates effects on energy resources such as electricity, natural gas, and transportation fuels that could result from construction and operation of the proposed project. The section describes the existing energy infrastructure serving the project site and energy consumption from existing uses; summarizes the federal, state, regional, and local laws and regulations related to energy demand and conservation; analyzes the potential impacts of the proposed project related to energy demand; and identifies potentially feasible measures that could mitigate significant impacts.

The information has been prepared in accordance with Public Resources Code (PRC) Section 21100(b)(3), CEQA Guidelines Section 15126.2(b), and CEQA Guidelines Appendix F. Section 15126.2(b) and Appendix F provide that an EIR should evaluate potential impacts of a proposed project as a result of the demand for energy during the project's construction and operational phases and encourage measures to avoid or reduce inefficient, wasteful, or unnecessary consumption of energy.

The analysis in this section was developed based on project-specific construction and operational features described in Chapter 2, *Project Description*, and Section 3.14, *Utilities and Service Systems*. The analysis also accounts for and is consistent with Section 3.6, *Greenhouse Gas Emissions*, and Section 3.13, *Transportation*.

3.4.1 Environmental Setting

State Energy Profile

Total energy usage in California was 7,881 trillion British thermal units (Btu) in 2017 (the most recent year for which these specific data are available), which equates to an average of 200 million Btu per capita per year. These figures place California second among the 50 states in total energy use and 48th in per-capita consumption. Of California's total energy usage, the breakdown by sector is roughly 40 percent transportation, 23 percent industrial, 19 percent commercial, and 18 percent residential. Electricity and natural gas in California are generally consumed by stationary users such as residences and commercial and industrial facilities, whereas petroleum-based fuel consumption is generally accounted for by transportation-related energy use.[1]

California relies on a regional power system composed of a diverse mix of natural gas, renewable, hydroelectric, coal, and nuclear generation resources. Approximately 68 percent of the electrical power needed to meet California's demand is produced in the state; the balance, approximately 32 percent, is imported from the Pacific Northwest and the Southwest. In 2018, California's in-state electricity use was derived from natural gas (35 percent); coal (3 percent); large hydroelectric resources (11 percent); nuclear sources (9 percent); renewable resources that

[1] U.S. Energy Information Administration, California State Profile and Energy Estimates, updated February 21, 2019. Available at http://www.eia.gov/state/data.cfm?sid=CA#ConsumptionExpenditures. Accessed January 2020.

include geothermal, biomass, small hydroelectric resources, wind, and solar (31 percent); and unspecified sources (11 percent).[2]

Regional Setting

Electricity

Electricity, as a consumptive utility, is a man-made resource. The production of electricity requires the consumption or conversion of resources—including water, wind, oil, gas, coal, solar, geothermal, and nuclear resources—into usable energy. The delivery of electricity involves a number of system components for distribution and use. Electricity is distributed through a network of transmission and distribution lines commonly called a power grid.

Energy capacity, or electrical power, is generally measured in watts (W), while energy use is measured in watt-hours. For example, if a light bulb has a capacity rating of 100 W, the energy required to keep the bulb on for 1 hour would be 100 watt-hours. If ten 100 W bulbs were on for 1 hour, the energy required would be 1,000 watt-hours or 1 kilowatt-hour. On a utility scale, the capacity of a generator is typically rated in megawatts (MW), which is 1 million watts, while energy usage is measured in megawatt-hours (MWh) or gigawatt-hours, which is one billion watt-hours.

Pacific Gas and Electric Company (PG&E) provides electrical and natural gas services to approximately 16 million people throughout its 70,000-square-mile service area, across central, coastal, and Northern California, an area bounded by Humboldt County to the north and Kern County to the south.[3] PG&E produces and purchases energy from a mix of conventional and renewable generating sources.

PG&E generates power from a variety of energy sources, including large hydropower (greater than 30 MW), natural gas, nuclear sources, and renewable resources, such as wind, solar, small hydropower (less than 30 MW), and geothermal sources. Approximately 39 percent of PG&E's 2018 electricity purchases were from renewable sources, which is 31 percent greater than the statewide percentage of electricity purchases from renewable sources.[4] In 2018, PG&E sold approximately 87,375,000 MWh to customers.[5] Refer to **Table 3.4-1** for a summary of electricity use.

[2] California Energy Commission, California Total Electricity System Power. Available at https://www.energy.ca.gov/almanac/electricity_data/total_system_power.html. Accessed January 2020.
[3] Pacific Gas and Electric Company, Company Profile. Available at https://www.pge.com/en_US/about-pge/company-information/profile/profile.page. Accessed January 2020.
[4] Pacific Gas and Electric Company, *2018 Power Content Label*, 2019. Available at https://www.pge.com/pge_global/common/pdfs/your-account/your-bill/understand-your-bill/bill-inserts/2019/1019-Power-Content-Label.pdf. Accessed January 2020.
[5] Pacific Gas and Electric Company, *2018 Integrated Resource Plan*, August 1, 2018. Available at https://www.pge.com/pge_global/common/pdfs/for-our-business-partners/energy-supply/integrated-resource-planning/2018-PGE-Integrated-Resource-Plan.pdf. Accessed January 2020.

TABLE 3.4-1
EXISTING ANNUAL STATE AND REGIONAL ENERGY USE

Source	Amount
Electricity (State/PG&E)[a]	284,436,262 MWh / 87,375,000 MWh
Natural Gas (State/PG&E)[b]	12,327,096,996 MMBtu / 1,016,713,000 MMBtu
Gasoline (Statewide/Santa Clara County)[c]	15,471,000,000 gallons / 643,000,000 gallons
Diesel (Statewide/Santa Clara County)[c]	3,702,083,333 gallons / 100,000,000 gallons

NOTES:
MMBtu = million British thermal units; MWh = megawatt-hours; PG&E = Pacific Gas and Electric Company

SOURCES:
[a] California Energy Commission, California Energy Consumption Database, 2019. Available at https://ecdms.energy.ca.gov/; Pacific Gas and Electric Company, *2018 Integrated Resource Plan*, August 1, 2018. Available at https://www.pge.com/pge_global/common/pdfs/for-our-business-partners/energy-supply/integrated-resource-planning/2018-PGE-Integrated-Resource-Plan.pdf. Accessed January 2020.
[b] Pacific Gas and Electric Company, Supply and Demand Archives. Available at https://www.pge.com/pipeline/operations/cgt_supplydemand_search.page.
[c] California Energy Commission, 2018 California Retail Fuel Outlet Annual Reporting (CEC-A15) Results, 2019. Available at https://ww2.energy.ca.gov/almanac/transportation_data/gasoline/piira_retail_survey.html. Accessed January 2020.

In San José, electricity is provided by San José Clean Energy (SJCE), a Community Choice Program organized under California law. SJCE purchases electricity directly from generators, which is then delivered by PG&E over its existing utility lines. Residents and businesses of San José are automatically enrolled in the GreenSource program, which provides 86 percent greenhouse gas (GHG) emissions–free electricity, or can elect to enroll in the "TotalGreen" program, which provides 100 percent GHG emissions–free electricity from entirely renewable sources. Customers can also opt out at any time and continue purchasing electricity from PG&E.

Electricity at distribution voltage (12.47 kilovolts [kV] and 4.16 kV) and sub-distribution voltage is currently provided to the project area by two substations: San José A and San José B. The San José A substation is located adjacent to Diridon Station within the project boundary, while San José B is located approximately one-quarter mile northeast of the project site, at Coleman Avenue between the Guadalupe River and State Route 87. PG&E is expected to provide electrical power for the proposed project at transmission voltage (115 kV) to a project area substation within the Southern Zone for District Infrastructure (described in Chapter 2, Section 2.8.6, *Central Utility Plants and District Utilities*).

Natural Gas

Natural gas is a combustible mixture of simple hydrocarbon compounds (primarily methane) that is used as a fuel source. Natural gas consumed in California is obtained from naturally occurring reservoirs and delivered through high-pressure transmission pipelines. Natural gas provides almost one-third of California's total energy requirements. Natural gas is measured in terms of both cubic feet and Btu.

PG&E provides natural gas transportation services to "core" customers and to "non-core" customers (industrial, large commercial, and natural gas–fired electric generation facilities) that are connected to its gas system in its service territory. Core customers can purchase natural gas

procurement service (natural gas supply) from either PG&E or non-utility third-party gas procurement service providers (referred to as "core transport agents"). When core customers purchase gas supply from a core transport agent, PG&E still provides gas delivery, metering, and billing services to those customers. When PG&E provides both transportation and procurement services, PG&E refers to the combined service as "bundled" natural gas service. Currently, more than 95 percent of core customers, representing nearly 80 percent of the annual core market demand, receive bundled natural gas service from PG&E.

PG&E does not provide procurement service to non-core customers, who must purchase their gas supplies from third-party suppliers. PG&E offers backbone gas transmission, gas delivery (local transmission and distribution), and gas storage services as separate and distinct services to its non-core customers. Access to PG&E's backbone gas transmission system is available for all natural gas marketers and shippers, as well as non-core customers. PG&E also delivers gas to off-system customers (i.e., outside of PG&E's service territory) and to third-party natural gas storage customers.

Transportation Energy

According to the California Energy Commission (CEC), transportation accounted for nearly 41.1 percent of total energy consumption in California during 2017.[6] In 2018, 15.4 billion gallons of gasoline and 3.7 billion gallons of diesel fuel were consumed in California.[7] Petroleum-based fuels currently account for more than 90 percent of transportation fuel use in California.[8]

The state is now working on developing flexible strategies to reduce petroleum use. Over the last decade, California has implemented several policies, rules, and regulations to improve vehicle efficiency, increase the development and use of alternative fuels, reduce air pollutants and GHG emissions from the transportation sector, and reduce vehicle miles traveled (VMT). Accordingly, total gasoline consumption in California has declined. The CEC predicts that the demand for gasoline will continue to decline over the next 10 years, and there will be an increase in the use of alternative fuels.[9] According to fuel sales data from the CEC, fuel consumption in Santa Clara

6 California Energy Commission, *Final 2019 Integrated Energy Policy Report*, January 2020, p. 42. Available at https://efiling.energy.ca.gov/getdocument.aspx?tn=231858. Based on the transportation sector accounting for 41.1 percent of the state's GHG emissions in 2017.

7 California Energy Commission, 2018 California Retail Fuel Outlet Annual Reporting (CEC-A15) Results, 2019. Available at https://ww2.energy.ca.gov/almanac/transportation_data/gasoline/piira_retail_survey.html. Accessed January 2020. Diesel is adjusted to account for retail (52 percent) and non-retail (48 percent) diesel sales. CEC-A15 results for diesel sales do not include non-retail diesel sales, which are 48 percent of total diesel sales. For purposes of this analysis, the 48 percent of non-retail diesel sales were accounted, and therefore, reported statewide diesel sales are higher than reported in the A15 results. Refer to footnote in the CEC-A15 results.

8 California Energy Commission, *2016–2017 Investment Plan Update for the Alternative and Renewable Fuel and Vehicle Technology Program*, CDC-600-2015-014-CMF, May 2016. Available at https://ww2.energy.ca.gov/2015publications/CEC-600-2015-014/CEC-600-2015-014-CMF.pdf.

9 California Energy Commission, *2017 Integrated Energy Policy Report*, CEC-100-2017-001-CMF, February 2018, p. 213. Available at https://efiling.energy.ca.gov/getdocument.aspx?tn=223205.

County was approximately 643 million gallons of gasoline and 100 million gallons of diesel fuel in 2018.[10] Refer to Table 3.4-1 for a summary of statewide fossil fuel consumption in 2018.

Local Setting

Baseline annual energy use on the project site includes mobile sources and energy usage associated with the existing on-site structures that would be removed and replaced with construction of the proposed project. The 81-acre project site currently contains approximately 100 individual parcels. The total floor area of buildings within the project site accounts for approximately 755,000 square feet, with many of the existing buildings vacant. Unbuilt parcels within the project site are generally used as surface parking lots. Refer to Chapter 2, *Project Description*, for a detailed discussion of existing and proposed land uses.

3.4.2 Regulatory Framework

Federal

National Energy Conservation Policy Act

The National Energy Conservation Policy Act (NECPA) serves as the underlying authority for federal energy management goals and requirements. Signed into law in 1978, NECPA has been regularly updated and amended by subsequent laws and regulations. This law is the foundation of most federal energy requirements. NECPA established energy-efficiency standards for consumer products and includes a residential program for low-income weatherization assistance, grants and loan guarantees for energy conservation in schools and hospitals, and energy-efficiency standards for new construction. Initiatives in these areas continue today.

Energy Policy Act of 1992

The Energy Policy Act of 1992 was enacted to reduce U.S. dependence on foreign petroleum and improve air quality. This law includes several provisions intended to build an inventory of alternative-fuel vehicles in large, centrally fueled fleets in metropolitan areas. The Energy Policy Act of 1992 requires certain federal, state, and local government and private fleets to purchase a percentage of light-duty alternative fuel vehicles capable of running on alternative fuels each year. Financial incentives are also included. Federal tax deductions are allowed for businesses and individuals to cover the incremental cost of alternative fuel vehicles. The Energy Policy Act of 1992 also requires states to consider a variety of incentive programs to help promote alternative-fuel vehicles.

Energy Policy Act of 2005

The Energy Policy Act of 2005 includes provisions for renewed and expanded tax credits for electricity generated by qualified energy sources, such as landfill gas; provides bond financing,

[10] California Energy Commission, 2018 California Retail Fuel Outlet Annual Reporting (CEC-A15) Results, 2019. Available at https://ww2.energy.ca.gov/almanac/transportation_data/gasoline/piira_retail_survey.html. Accessed January 2020. Diesel is adjusted to account for retail (52 percent) and non-retail (48 percent) diesel sales. CEC-A15 results for diesel sales do not include non-retail diesel sales, which are 48 percent of total diesel sales. For purposes of this analysis, the 48 percent of non-retail diesel sales were accounted, and therefore, reported countywide diesel sales are higher than reported in the A15 results. Refer to footnote in the CEC-A15 results.

tax incentives, grants, and loan guarantees for clean renewable energy and rural community electrification; and establishes a federal purchase requirement for renewable energy.

Executive Order 13423 (Strengthening Federal Environmental, Energy, and Transportation Management), signed in 2007, strengthens the key energy management goals for the federal government and sets more challenging goals than the Energy Policy Act of 2005. The energy reduction and environmental performance requirements of Executive Order 13423 were expanded upon in Executive Order 13514 (Federal Leadership in Environmental, Energy, and Economic Performance), which was signed in 2009.

Corporate Average Fuel Economy Standards

Established by the U.S. Congress in 1975, the Corporate Average Fuel Economy (CAFE) standards reduce energy consumption by increasing the fuel economy of cars and light trucks. The National Highway Traffic Safety Administration (NHTSA) and U.S. Environmental Protection Agency (EPA) jointly administer the CAFE standards. Congress has specified that CAFE standards must be set at the "maximum feasible level" with consideration given to (1) technological feasibility; (2) economic practicality; (3) effect of other standards on fuel economy; and (4) the need for the nation to conserve energy.[11]

Fuel-efficiency standards for medium- and heavy-duty trucks have been jointly developed by EPA and NHTSA. The Phase 1 heavy-duty truck standards applied to combination tractors, heavy-duty pickup trucks and vans, and vocational vehicles for model years 2014–2018, and required a reduction in fuel consumption by 6 to 23 percent over the 2010 baseline, depending on the vehicle type.[12] EPA and NHTSA have also adopted the Phase 2 heavy-duty truck standards, which cover model years 2021–2027 and require the phase-in of a 5 to 25 percent reduction in fuel consumption over the 2017 baseline, depending on the compliance year and vehicle type.[13]

In September 2019, EPA finalized the Safer Affordable Fuel-Efficient Vehicles Rule Part One: One National Program and announced its decision to withdraw the Clean Air Act preemption waiver granted to the State of California in 2013.[14]

Influence of the U.S. Department of Transportation, U.S. Department of Energy, and U.S. Environmental Protection Agency on Transportation Energy

On the federal level, the U.S. Department of Transportation, U.S. Department of Energy, and EPA have substantial influence over energy policies related to fuel consumption in transportation. Generally, federal agencies influence transportation energy consumption by establishing and

11 For more information on the CAFE standards, refer to https://www.nhtsa.gov/laws-regulations/corporate-average-fuel-economy.

12 U.S. Environmental Protection Agency, *Fact Sheet: EPA and NHTSA Adopt First-Ever Program to Reduce Greenhouse Gas Emissions and Improve Fuel Efficiency of Medium- and Heavy-Duty Vehicles*, 2011.

13 U.S. Environmental Protection Agency, *Federal Register*/Vol. 81, No. 206/Tuesday, *Greenhouse Gas Emissions and Fuel Efficiency Standards for Medium- and Heavy-Duty Engines and Vehicles—Phase 2*, October 25, 2016. Available at https://www.govinfo.gov/content/pkg/FR-2016-10-25/pdf/2016-21203.pdf.

14 U.S. Environmental Protection Agency and National Highway Traffic Safety Administration, *One National Program Rule on Federal Preemption of State Fuel Economy Standards*, 2019. Available at https://nepis.epa.gov/Exe/ZyPDF.cgi?Dockey=P100XI4W.pdf. Accessed January 16, 2020.

enforcing fuel economy standards for automobiles and light trucks, and by funding projects for energy-related research and development for transportation infrastructure.

State

California Public Utilities Commission

The California Public Utilities Commission (CPUC) is a state agency created by a constitutional amendment to regulate privately owned utilities providing telecommunications, electric, natural gas, water, railroad, rail transit, and passenger transportation services, and in-state moving companies. The CPUC is responsible for assuring that California utility customers have safe, reliable utility services at reasonable rates, while protecting utility customers from fraud. The CPUC regulates the planning and approval for the physical construction of electric generation, transmission, and distribution facilities, and the local distribution pipelines for natural gas.[15]

California Energy Commission

The CEC is the primary energy policy and planning agency in California. Created by the California Legislature in 1974, the CEC has five major responsibilities: (1) forecast future energy needs and keep historical energy data; (2) license thermal power plants 50 MW or larger; (3) promote energy efficiency through appliance and building standards; (4) develop energy technologies and support renewable energy; and (5) plan for and direct the state response to energy emergencies.

Senate Bill 1389

Senate Bill (SB) 1389 (PRC Sections 25300–25323) requires the CEC to prepare a biennial integrated energy policy report that assesses major energy trends and issues facing the electricity, natural gas, and transportation fuel sectors in California, and to provide policy recommendations to conserve resources; protect the environment; ensure reliable, secure, and diverse energy supplies; enhance the state economy; and protect public health and safety (PRC Section 25301(a)).

The 2017 Integrated Energy Policy Report provides the results of CEC assessments on a variety of energy issues facing California:

- Energy efficiency;
- Strategies related to data for improved decisions in the Existing Buildings Energy Efficiency Action Plan;
- Building energy efficiency standards;
- The impact of drought on California's energy system;
- Achieving 50 percent renewables by 2030;
- The California Energy Demand Forecast;
- The Natural Gas Outlook;

[15] California Public Utilities Commission, California Public Utilities Commission website. Available at http://www.cpuc.ca.gov/. Accessed January 2020.

- The Transportation Energy Demand Forecast;
- Alternative and Renewable Fuel and Vehicle Technology Program benefits updates;
- An update on electricity infrastructure in Southern California;
- An update on trends in California sources of crude oil;
- An update on California nuclear plants; and
- Other energy issues.

California Global Warming Solutions Act of 2006

In 2006, Governor Arnold Schwarzenegger signed Assembly Bill (AB) 32, the California Global Warming Solutions Act of 2006 (codified in the California Health and Safety Code, Division 25.5), which focused on reducing GHG emissions in California to 1990 levels by 2020. Under Health and Safety Code Division 25.5, the California Air Resources Board (CARB) has the primary responsibility for reducing GHG emissions in California; however, AB 32 also tasked the CEC and CPUC with providing information, analysis, and recommendations to CARB regarding strategies to reduce GHG emissions in the energy sector.

In 2016, Governor Jerry Brown signed SB 32 and its companion bill, AB 197. SB 32 and AB 197 amended Health and Safety Code Division 25.5 and established a new climate pollution reduction target of 40 percent below 1990 levels by 2030, with provisions to ensure that the benefits of state climate policies reach into disadvantaged communities. Refer to Section 3.6, *Greenhouse Gas Emissions*, for additional details regarding these statutes.

Senate Bills 1078, 107, and 100, and Executive Order S-14-08

The State of California adopted standards to increase the percentage of electricity that retail sellers, including investor-owned utilities and community choice aggregators, must provide from renewable resources.[16] The standards are referred to as the Renewables Portfolio Standard (RPS). The legislation requires utilities to increase the percentage of electricity obtained from renewable sources to 33 percent by 2020 and 50 percent by 2030.

On September 10, 2018, Governor Brown signed SB 100, which further increased the California RPS and requires retail sellers and local publicly owned electric utilities to procure eligible renewable electricity for 44 percent of retail sales by December 31, 2024; 52 percent by December 31, 2027; and 60 percent by December 31, 2030. SB 100 also specifies that CARB should plan for 100 percent eligible renewable energy resources and zero-carbon resources by December 31, 2045.

CPUC and the CEC jointly implement the RPS program. The responsibilities of the CPUC are to: (1) determine annual procurement targets and enforce compliance; (2) review and approve the renewable energy procurement plan of each investor-owned utility; (3) review contracts for RPS-eligible energy; and (4) establish the standard terms and conditions used in contracts for eligible

[16] SB 1078 (Chapter 526, Statutes of 2002); SB 107 (Chapter 464, Statutes of 2006); Executive Order S-14-08.

renewable energy.[17] Refer to Section 3.6, *Greenhouse Gas Emissions*, for additional details regarding this program.

California Building Standards Code (Title 24, Parts 6 and 11)

The California Building Energy Efficiency Standards for Residential and Nonresidential Buildings (California Code of Regulations [CCR] Title 24, Part 6) were adopted to ensure that building construction and system design and installation achieve energy efficiency and preserve outdoor and indoor environmental quality. The current California Building Energy Efficiency Standards (Title 24 standards) are the 2019 Title 24 standards, which became effective on January 1, 2020.[18] The 2019 Title 24 standards include requirements for solar photovoltaic systems in all new homes, requirements for newly constructed healthcare facilities that were previously not included, the encouragement of demand response and light-emitting diode (LED) technology for both residential and nonresidential buildings, and the use of more efficient air filters to trap hazardous particulates.[19]

The current (2019) version of the California Green Building Standards Code (CCR Title 24, Part 11), commonly referred to as the CALGreen Code, became effective on January 1, 2020.[20] The 2016 CALGreen Code includes mandatory measures for non-residential development related to site development, energy efficiency, water efficiency and conservation, material conservation and resource efficiency, and environmental quality.[21] Most changes to the mandatory measures, compared to the previous 2013 CALGreen Code, were related to the definitions and to the clarification or addition of referenced manuals, handbooks, and standards. For example, several energy-related definitions that were added or revised affect electric vehicle (EV) chargers and charging, and hot water recirculation systems. For new multifamily dwelling units, the residential mandatory measures were revised to provide additional EV charging requirements, including quantity, location, size, single EV space, multiple EV spaces, and identification. For non-residential mandatory measures, Table 5.106.5.3.3 of the CALGreen Code, identifying the number of required EV charging spaces, has been revised in its entirety. Refer to Section 3.6, *Greenhouse Gas Emissions*, for additional details regarding these standards.

A discussion of the consistency of the proposed project with the requirements of the CALGreen Code and Title 24 is provided under Impact EN-2 below.

---

17 California Public Utilities Commission, RPS Program Overview, 2020. Available at http://www.cpuc.ca.gov/RPS_Overview/. Accessed January 2020.

18 California Energy Commission, 2019 Building Energy Efficiency Standards, 2020. Available at https://www.energy.ca.gov/programs-and-topics/programs/building-energy-efficiency-standards/2019-building-energy-efficiency. Accessed January 2020.

19 California Energy Commission, 2019 Building Energy Efficiency Standards, 2020. Available at https://www.energy.ca.gov/programs-and-topics/programs/building-energy-efficiency-standards/2019-building-energy-efficiency. Accessed January 2020.

20 As adopted by the San José City Council in October 2019, the 2019 California Building Standards Codes, including CALGreen, do not apply to already filed building permits. The new codes do, however, apply to projects that have filed for planning permits but not building permits.

21 California Building Standards Commission, *Guide to the 2016 California Green Building Standards Code Nonresidential*, 2017.

Assembly Bill 1493

The transportation sector accounts for more than half of carbon dioxide (CO_2) emissions in California. AB 1493 (commonly referred to as the Pavley regulations), enacted on July 22, 2002, requires CARB to set GHG emissions standards for new passenger vehicles, light-duty trucks, and other vehicles manufactured in and after 2009 whose primary use is non-commercial personal transportation. Phase I of the legislation established standards for model years 2009–2016 and Phase II established standards for model years 2017–2025.[22,23] Refer to Section 3.6, *Greenhouse Gas Emissions*, for additional details regarding this regulation.

Airborne Toxic Control Measure to Limit Diesel-Fueled Commercial Motor Vehicle Idling

In 2004, CARB adopted the Airborne Toxic Control Measure to Limit Diesel-Fueled Commercial Motor Vehicle Idling to reduce public exposure to diesel particulate matter emissions (13 CCR Section 2485). The measure applies to diesel-fueled commercial vehicles with gross vehicle weight ratings greater than 10,000 pounds that are licensed to operate on highways, regardless of where they are registered. This measure prohibits diesel-fueled commercial vehicles from idling for more than 5 minutes at any given location. While the goal of this measure is primarily to reduce public health impacts from diesel emissions, compliance with the regulation also results in energy savings in the form of reduced fuel consumption from unnecessary idling.

Airborne Toxic Control Measure for Stationary Compression Ignition Engines

In 2004, CARB adopted an Airborne Toxic Control Measure to reduce public exposure to emissions of diesel particulate matter and criteria pollutants from stationary diesel-fueled compression ignition engines (17 CCR Section 93115). The measure applies to any person who owns or operates a stationary compression ignition engine in California with a rated brake horsepower greater than 50, or to anyone who either sells, offers for sale, leases, or purchases a stationary compression ignition engine. This measure outlines fuel and fuel additive requirements; emissions standards; recordkeeping, reporting and monitoring requirements; and compliance schedules for compression ignition engines.

Low Carbon Fuel Standard

The Low Carbon Fuel Standard (LCFS), established in 2007 through Executive Order S-1-07 and administered by CARB, requires producers of petroleum-based fuels to reduce the carbon intensity of their products, starting with 0.25 percent in 2011 and culminating in a 10 percent total reduction in 2020. Petroleum importers, refiners, and wholesalers can either develop their own low-carbon fuel products or buy LCFS credits from other companies that develop and sell low-carbon alternative fuels, such as biofuels, electricity, natural gas, and hydrogen.

---

22 California Air Resources Board, Clean Car Standards—Pavley, Assembly Bill 1493. Available at http://www.arb.ca.gov/cc/ccms/ccms.htm. Last reviewed January 11, 2017. Accessed March 27, 2019.

23 U.S. Environmental Protection Agency, *EPA and NHTSA Set Standards to Reduce Greenhouse Gases and Improve Fuel Economy for Model Years 2017–2025 Cars and Light Trucks*, August 2012.

Truck and Bus Regulation

In addition to limiting exhaust from idling trucks, in 2008 CARB approved the Truck and Bus Regulation to reduce the emissions of oxides of nitrogen and particulate matter from existing diesel vehicles operating in California (13 CCR Section 2025). The phased regulation aims to reduce emissions by requiring installation of diesel soot filters and encouraging the retirement, replacement, or retrofit of older engines with newer emission-controlled models. This regulation will be implemented in phases, with full implementation by 2023.

CARB also promulgated emissions standards for off-road diesel construction equipment of greater than 25 horsepower such as bulldozers, loaders, backhoes, and forklifts, as well as many other self-propelled off-road diesel vehicles. The In-Use Off-Road Diesel-Fueled Fleets regulation adopted by CARB on July 26, 2007, aims to reduce emissions by installing diesel soot filters and encouraging the retirement, replacement, or repowering of older, dirtier engines with newer emissions-controlled models (13 CCR Section 2449). The compliance schedule requires full implementation by 2023 in all equipment for large and medium fleets and by 2028 for small fleets.

While the goals of these measures are primarily to reduce public health impacts from diesel emissions, compliance with the regulation has shown an increase in energy savings in the form of reduced fuel consumption from more fuel-efficient engines.[24]

California Air Resources Board Advanced Clean Trucks Program

On June 25, 2020, CARB adopted the Advanced Clean Trucks rule, which requires truck manufacturers to transition from diesel vehicles to electric zero-emission vehicles beginning in 2024, with the goal of reaching 100 percent zero-emission vehicles by 2045. The goal of the legislation is to help California meet its climate targets of a 40 percent reduction in GHG emissions and a 50 percent reduction in petroleum use by 2030, and an 80 percent reduction in GHG emissions by 2050.

Truck manufacturers will be required to sell zero-emission vehicles as an increasing percentage of their annual sales from 2024 through 2035. Companies with large distribution fleets (50 or more trucks) will be required to report information about their existing fleet operations in an effort to identify future strategies for increasing zero-emission fleets statewide.[25]

Zero-emission vehicles are two to five times more energy efficient than diesel vehicles, and the Advanced Clean Trucks rule will reduce GHG emissions with the co-benefit of reducing dependence on petroleum fuels.

[24] Cummins Inc., *Cummins Tier-4-Final Field Test Showed 10% Lower Fuel Consumption*, 2014. Available at https://cumminsengines.com/cummins-tier-4-final-field-test-program. Accessed January 2020.

[25] California Air Resources Board, Advanced Clean Trucks Rule Fact Sheet, 2020. Available at https://ww2.arb.ca.gov/resources/fact-sheets/advanced-clean-trucks-fact-sheet. Accessed July 2020.

California Air Resources Board Advanced Clean Car Program

The Advanced Clean Cars emissions-control program, approved by CARB in 2012, is closely associated with the Pavley regulations.[26] The program requires a greater number of zero-emissions vehicle models for years 2015 through 2025, to control smog, soot, and GHG emissions. This program includes the Low-Emissions Vehicle regulations to reduce emissions of criteria air pollutants and GHGs from light- and medium-duty vehicles; and the Zero-Emissions Vehicle regulations, which require manufacturers to produce an increasing number of pure zero-emissions vehicles (battery and fuel cell electric vehicles) and include the provision to produce plug-in hybrid electric vehicles between 2018 and 2025. The increase in low- and zero-emissions vehicles will result in a decrease in the consumption of non-renewable fuels such as gasoline and diesel.

Sustainable Communities and Climate Protection Act of 2008 (SB 375)

Signed into law on October 1, 2008, SB 375 supplements the GHG emissions reductions from new vehicle technology and fuel standards with reductions from more efficient land use patterns and improved transportation. Under the law, CARB approved GHG reduction targets in February 2011 for California's 18 federally designated regional planning bodies, known as Metropolitan Planning Organizations. The target reductions for the Bay Area are a regional reduction of per-capita CO_2 emissions from cars and light-duty trucks by 7 percent by 2020 and by 15 percent by 2035, compared to a 2005 baseline. The Association of Bay Area Governments (ABAG) addresses these goals in *Plan Bay Area*, which identifies Priority Development Areas near transit options to reduce use of on-road vehicles.

California Environmental Quality Act

Under CEQA (PRC Section 21100(b)(3)), EIRs are required to discuss the potential significant energy impacts of proposed projects, with particular emphasis on avoiding or reducing inefficient, wasteful, and unnecessary consumption of energy. If the analysis of a proposed project shows that the project may result in significant environmental effects due to the wasteful, inefficient, or unnecessary use of energy, or wasteful use of energy resources, then the EIR must identify mitigation measures to address that energy use. This analysis should include the project's energy use for all project phases and components, including transportation-related energy, during construction and operation. In addition to building code compliance, other relevant considerations may include project size, location, orientation, equipment use, and any renewable energy features that could be incorporated into the project (CEQA Guidelines Section 15126.2(b)).

CEQA Guidelines Appendix F lists the energy-related topics that should be analyzed in the EIR, and more specifically identifies the following topics for consideration in the evaluation of energy impacts in an EIR, to the extent the topics are applicable or relevant to the proposed project:

- The project's energy requirements and its energy use efficiencies by amount and fuel type for each stage of the project, including construction, operation, maintenance, and/or removal. If appropriate, the energy intensiveness of materials may be discussed.

[26] California Air Resources Board, Clean Car Standards—Pavley, Assembly Bill 1493. Available at http://www.arb.ca.gov/cc/ccms/ccms.htm. Last reviewed January 11, 2017. Accessed March 27, 2019.

- The effects of the project on local and regional energy supplies and on requirements for additional capacity.
- The effects of the project on peak and base-period demands for electricity and other forms of energy.
- The degree to which the project complies with existing energy standards.
- The effects of the project on energy resources.
- The project's projected transportation energy use requirements and its overall use of efficient transportation alternatives.[27]

The effects of the project relevant to each of these issues are addressed in this section.

Regional

Plan Bay Area 2040

The Metropolitan Transportation Commission (MTC) is the federally recognized Metropolitan Planning Organization for the nine-county Bay Area, which includes Santa Clara County and the city of San José. On July 18, 2013, *Plan Bay Area* was jointly approved by ABAG's Executive Board and the MTC. The plan includes the region's Sustainable Communities Strategy, as required under SB 375, and the 2040 Regional Transportation Plan. The Sustainable Communities Strategy lays out how the region will meet GHG reduction targets set by CARB. CARB's current targets call for the region to reduce per-capita vehicular GHG emissions 10 percent by 2020 and 19 percent by 2035 from a 2005 baseline.[28]

A central GHG emissions reduction strategy of *Plan Bay Area* is to concentrate future growth in Priority Development Areas and Transit Priority Areas. To be eligible for designation as a Priority Development Area, an area must be within an existing community, near existing or planned fixed transit or served by comparable bus service, and planned for more housing. A Transit Priority Area is an area within one-half mile of an existing or planned major transit stop such as a rail transit station, a ferry terminal served by transit, or the intersection of two or more major bus routes.[29] The project site is located in both a Priority Development Area and a Transit Priority Area.

On July 26, 2017, the MTC adopted *Plan Bay Area 2040*, a focused update that builds upon the growth pattern and strategies developed in the original *Plan Bay Area*, but with updated planning assumptions that incorporate key economic, demographic, and financial trends since the original plan was adopted.[30]

---

27 CEQA Guidelines Appendix F(II)(C).

28 California Air Resources Board, *SB 375 Regional Greenhouse Gas Emissions Reduction Targets*. Available at https://www.arb.ca.gov/cc/sb375/finaltargets2018.pdf. Accessed January 2020.

29 Metropolitan Transportation Commission and Association of Bay Area Governments, *Plan Bay Area*, adopted July 18, 2013. Available at http://files.mtc.ca.gov/pdf/Plan_Bay_Area_FINAL/Plan_Bay_Area.pdf. Accessed January 2020.

30 Metropolitan Transportation Commission and Association of Bay Area Governments, *Plan Bay Area*, adopted July 18, 2013. Available at http://files.mtc.ca.gov/pdf/Plan_Bay_Area_FINAL/Plan_Bay_Area.pdf. Accessed January 2020.

While not directly related to reduced energy consumption, *Plan Bay Area 2040*'s GHG reduction targets have energy implications, including the reduction of VMT, which effectively reduces consumption of fossil fuels by transportation sources.

Local

Envision San José 2040 General Plan

The *Envision San José 2040 General Plan* (General Plan) contains goals and policies related to the City's commitment to sustainability. The City's sustainability goals include improvements to energy efficiency, renewable energy generation, and building design aimed at overall energy reduction. The following policies are directly related to energy and are relevant to the proposed project:

Policy MS-1.1: Demonstrate leadership in the development and implementation of green building policies and practices. Ensure that all projects are consistent with or exceed the City's Green Building Ordinance and City Council Policies as well as State and/or regional policies which require that projects incorporate various green building principles into their design and construction.

Policy MS-2.2: Encourage maximized use of on-site generation of renewable energy for all new and existing buildings.

Policy MS-2.3: Utilize solar orientation, (i.e., building placement), landscaping, design, and construction techniques for new construction to minimize energy consumption.

Policy MS-2.8: Develop policies which promote energy reduction for energy-intensive industries. For facilities such as data centers, which have high energy demand and indirect greenhouse gas emissions, require evaluation of operational energy efficiency and inclusion of operational design measures as part of development review consistent with benchmarks such as those in EPA's EnergyStar Program for new data centers.

Policy MS-2.11: Require new development to incorporate green building practices, including those required by the Green Building Ordinance. Specifically target reduced energy use through construction techniques (e.g., design of building envelopes and systems to maximize energy performance), through architectural design (e.g., design to maximize cross ventilation and interior daylight) and through site design techniques (e.g., orienting buildings on sites to maximize the effectiveness of passive solar design).

Policy MS-3.1: Require water-efficient landscaping, which conforms to the State's Model Water Efficient Landscape Ordinance, for all new commercial, institutional, industrial, and developer-installed residential development unless for recreation or other area functions.

Policy MS-3.3: Promote the use of drought tolerant plants and landscaping materials for nonresidential and residential uses.

Policy MS-14.3: Consistent with the California Public Utilities Commission's California Long Term Energy Efficiency Strategic Plan, as revised and when technological advances make it feasible, require all new residential and commercial construction to be designed for zero net energy use.

Policy MS-14.4: Implement the City's Green Building Policies (see Green Building Section) so that new construction and rehabilitation of existing buildings fully implements industry best practices, including the use of optimized energy systems, selection of materials and resources, water efficiency, sustainable site selection, and passive solar building design and planting of trees and other landscape materials to reduce energy consumption.

Policy MS-14.5: Consistent with State and Federal policies and best practices, require energy efficiency audits and retrofits prior to or at the same time as consideration of solar electric improvements.

Policy MS-15.9: Train City code enforcement and development review staff in state-of-the-art Heating, Ventilation, and Air Conditioning (HVAC) and insulation industry standards, best practices, and resources to ensure buildings are constructed in compliance with those industry standards and best practices.

Policy TR-1.4: Through the entitlement process for new development fund needed transportation improvements for all modes, giving first consideration to improvement of bicycling, walking and transit facilities. Encourage investments that reduce vehicle travel demand.

Policy TR-2.8: Require new development where feasible to provide on-site facilities such as bicycle storage and showers, provide connections to existing and planned facilities, dedicate land to expand existing facilities or provide new facilities such as sidewalks and/or bicycle lanes/paths, or share in the cost of improvements.

Policy TR-3.3: As part of the development review process, require that new development along existing and planned transit facilities consist of land use and development types and intensities that contribute toward transit ridership. In addition, require that new development is designed to accommodate and to provide direct access to transit facilities.

Climate Smart San José

The City of San José adopted its *Climate Smart San José* plan in 2018. The General Plan's goals and policies serve as a foundation for the plan, which provides additional analysis, recommendations, and corresponding metrics. The plan creates a measurable pathway to meeting the City's GHG emission reduction targets and has the co-benefit of reducing energy consumption. Listed below are the plan's nine key strategies:

- **1.1:** Transitioning to a renewable energy future and providing clean electricity that supplies the entire city.
- **1.2:** Embracing our Californian climate means creating an urban landscape, in our homes and public places, that is not just low water use, but attractive and enjoyable.
- **2.1:** Densifying our city in focused growth areas increases walkability and cycling and also makes our neighborhoods more vibrant, distinctive, and enjoyable.
- **2.2:** Making our homes energy efficient and fully electric can make them affordable for our families and more comfortable to live in.
- **2.3:** New technology can enable clean, electric, and personalized mobility choices that make it convenient to move between any two points in the city.

- **2.4:** Developing integrated, accessible public and active transport infrastructure reduces the dependency on the car to move within the city.
- **3.1:** Creating local jobs in our city makes it possible for our residents to work close to where they live, saving time, money, and gas spent commuting.
- **3.2:** Making our commercial buildings high-performance and siting them close to transit lowers water and energy use.
- **3.3:** Moving commercial goods through our city efficiently with new technology and practices.

City of San José Reach Code

The City of San José has adopted a reach code, which is a building code that is more advanced than those required by the state. Reach codes that support energy efficiency, electrification, and renewable energy can save energy and reduce GHG emissions. In September 2019, the San José City Council approved a building reach code ordinance that encourages building electrification and energy efficiency, requires solar readiness on non-residential buildings, and requires EV readiness and installation of EV equipment.

In October 2019, the City Council approved an ordinance (Ordinance No. 30330) prohibiting natural gas infrastructure in new detached accessory dwelling units, single-family, and low-rise multifamily buildings. This new ordinance supplements the reach code ordinance.

Municipal Code Chapter 17.845

The City of San José adopted Municipal Code Chapter 17.845, also known as Ordinance No. 30330, in November 2019. Chapter 17.845 prohibits natural gas infrastructure in newly constructed single-family dwellings, low-rise residential buildings (three stories or less), and detached accessory dwelling units. This requirement became effective on January 1, 2020.[31]

3.4.3 Impacts and Mitigation Measures

Significance Criteria

For the purposes of this EIR, an energy impact would be significant if implementing the proposed project would:

- Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation; or
- Conflict with or obstruct a state or local plan for renewable energy or energy efficiency.

Approach to Analysis

This section describes the data, assumptions, and methodology used to calculate energy use and assess potential impacts of the proposed project.

[31] City of San José, Ordinance No. 30330, 2019. Available at https://records.sanjoseca.gov/Ordinances/ORD30330.pdf.

Project Construction

Project construction would consume energy from transportation fuels (e.g., diesel and gasoline) used for haul trucks, heavy-duty construction equipment, construction workers traveling to and from the project site, electricity consumed to power the construction trailers (lights, electronic equipment, and heating and cooling), and any electrically driven construction equipment. Natural gas would not be used during construction.

Construction activities could vary substantially from day to day, depending on the phase and specific type of construction activity and the number of workers and vendors who would travel to the project site. This analysis considered these factors and provides the estimated maximum construction energy consumption for the purposes of evaluating the associated impacts on energy resources.

Construction fuel use was forecasted by applying mobile-source emission factors derived from CARB's Emission Factors (EMFAC2017) database for on-road equipment and CARB's OFFROAD2017 for off-road equipment to the construction equipment expected to be used for each phase of project development. Construction equipment and hours are consistent with the emissions modeling described in Section 3.1, *Air Quality*, and Section 3.6, *Greenhouse Gas Emissions*.

As described in Chapter 2, *Project Description*, this analysis conservatively assumes that construction would begin in 2021 and continue through 2031 (for a total of 11 years). Actual phased implementation could be constrained by external factors such as construction staging for the BART Downtown extension, and thus could extend over a longer period. The development schedule could also be affected by market forces. The specific type of construction work would also vary by phase, but would generally consist of the following sequence for each of the three phases:

1. Demolition and site clearance
2. Excavation and soils removal (and remediation, as needed)
3. Foundation and/or basement level/garage work; utilities and sub-surface infrastructure
4. Vertical construction
5. Surface street/right-of-way work
6. Streetscape and open space improvements

Phase 1 would be the most intensive of the three construction phases, representing approximately 45 percent of total construction by area, and the annual average energy use from Phase 1 was used as a conservative estimate of the project's maximum annual energy use. Because the individual phase-out schedule of each existing use is not known, the analysis also conservatively assumes that all existing uses would operate through Phase 1 construction. The energy consumption from existing uses was added to the overall construction energy consumption.

If, for various site planning, financial, or other reasons, the onset of construction were to be delayed to a later date than assumed in the analysis, construction impacts would be similar to or less than those analyzed. A more energy-efficient construction equipment and vehicle fleet mix would be expected in the future, because the In-Use Off-Road Diesel-Fueled Fleets Regulation and Advanced Clean Trucks Program implemented by CARB require construction equipment

fleet operators to phase in less-polluting, more fuel-efficient heavy-duty equipment and trucks over time.[32]

Electricity

Electricity use during project construction was estimated for the temporary construction offices, for construction equipment that would use electricity as an alternative to diesel fuel (e.g., aerial lifts, air compressors, concrete saws), and for the tunnel-boring machine for the utility corridor (i.e., the "utilidor"). (See Section 3.1, *Air Quality*, for a detailed description of construction equipment and fuel type.) The CalEEMod emissions model, described further in Section 3.6, *Greenhouse Gas Emissions*, was used to estimate project emissions of criteria air pollutants and GHGs, as well as electricity, natural gas, and water use. The same model used for the air quality and GHG analyses in this EIR was also used for estimating energy use.

The construction offices were assumed to be two 2,500-square-foot trailers and energy consumption was modeled using the CalEEMod land use category for "General Office." Electricity demand by construction equipment was estimated using default horsepower and load factors from CalEEMod and hours of operation per day and is consistent with the methodology described in Section 3.1, *Air Quality*.[33] The total horsepower-hours were then converted to kilowatt-hours, using a standard conversion factor.[34] The electricity demand under existing baseline conditions was then subtracted from the construction electricity use to determine the net electricity use during construction of the proposed project.

Transportation Fuels

Transportation fuels would be consumed for transportation of construction workers and materials to and from the project site, and operation of construction equipment on the project site throughout the three construction phases.

Fuel consumption by on-site heavy-duty construction equipment was calculated based on the equipment mix estimated by the project applicant and usage factors provided in the CalEEMod construction output files included in Appendix C1. The total horsepower was then multiplied by fuel usage estimates per horsepower-hours from the CARB off-road vehicle (OFFROAD) model.[35]

Fuel consumption by construction on-road worker, vendor, and delivery/haul trucks was calculated using the trip rates and distances consistent with the air quality and GHG emissions modeling worksheets and CalEEMod construction output files. Total VMT for these on-road vehicles were then calculated for each type of construction-related trip and divided by the corresponding county-specific miles per gallon factor, using CARB's EMFAC2017 model. The model was used to calculate fuel consumed based on the total annual VMT for each vehicle type.

[32] California Air Resources Board, *In-Use Off-Road Diesel-Fueled Fleets Regulation*, 2011, revised October 2016.
[33] South Coast Air Quality Management District, *CalEEMod Users Guide Appendix D: Default Data Tables*, October 2017.
[34] Iowa State University, *Energy Measurements and Conversions*, 2008.
[35] California Air Resources Board, *Off-Road Diesel Emission Factor Update for NO_X and PM*, 2017.

A combination of CalEEMod-assumed trip lengths and client-provided specific trip lengths was used for worker commutes, vendor and concrete trucks, and haul truck trips. Consistent with CalEEMod, construction worker trips were assumed to include a mix of light-duty gasoline automobiles and light-duty gasoline trucks. Construction vendor trucks were assumed to be a mix of medium-heavy-duty and heavy-duty diesel trucks, and concrete and haul trucks were assumed to be heavy-duty diesel trucks. Fuel consumption under baseline conditions was then subtracted from construction fuel consumption to determine the net fuel consumption during construction of the proposed project. Refer to Appendix F1 for detailed energy calculations.

The energy usage required for construction of the proposed project was estimated based on the number and types of equipment that would be used during all three construction phases by assuming a conservative estimate of construction activities (i.e., maximum daily equipment usage levels). Energy for construction worker commuting trips was estimated based on the predicted number of workers for the various phases of construction and the estimated VMT based on the conservative values in the CalEEMod and EMFAC2017 models. The assessment also includes a discussion of the proposed project compliance with relevant energy-related regulatory requirements and incorporation of design features discussed in Section 3.6, *Greenhouse Gas Emissions*, that would minimize the amount of energy usage during construction. These measures are also discussed in Chapter 2, *Project Description*, and Section 3.1, *Air Quality*.

The estimated fuel economy for heavy-duty construction equipment was based on fuel consumption factors from the CARB OFFROAD emissions model, a state-approved model for estimating emissions from off-road heavy-duty equipment. The estimated fuel economy for haul trucks, vendor trucks, concrete trucks, and worker commute vehicles was based on fuel consumption factors from CARB's EMFAC2017 emissions model, a state-approved model for estimating emissions from on-road vehicles and trucks.

Operation

Operational energy impacts were assessed based on the increase in energy demand compared to baseline conditions described in Section 3.4.1, *Environmental Setting*. The assumptions used here are the same as those used in Section 3.6, *Greenhouse Gas Emissions*. Therefore, operational energy associated with existing conditions was subtracted from energy associated with the total operations of the project to calculate the net energy consumed by the proposed project. Within the CalEEMod software, building electricity and natural gas usage rates were adjusted to account for prior Title 24 Building Energy Efficiency Standards for the existing uses.[36]

As stated above, the net change in operational energy demand was based on the difference between the existing-condition energy demand and the energy demand of the proposed project at full buildout. The following discusses only the methodology for the new operations at the project site; the methodology for determining energy usage from the baseline conditions is described above.

[36] California Air Resources Board, *CalEEMod Users Guide*, 2016, Appendix E, Section 5. Factors for the prior Title 24 standard are extrapolated based on the technical source documentation.

Electricity

Electrical power for the proposed project is expected to be provided by SJCE or PG&E at transmission voltage (115 kV) to a project area substation in the Southern Zone for District Infrastructure. The 115 kV electricity would be stepped down at the substation to 12.47 kV or 21 kV and distributed to the various buildings on the project site through new on-site distribution lines (i.e., a "microgrid"). Modifications to three PG&E substations for the transmission infrastructure (such as protection services) would be required, and a new electrical switching station would be installed. The project is also considering the addition of up to two central utility plants to efficiently manage utility infrastructure in a centralized location. Refer to Chapter 2, *Project Description*, for details on the existing and planned utility infrastructure.

The project's estimated electricity demand was analyzed relative to the state's existing and planned energy supplies in 2030 (the closest projected year to the project buildout year)[37] to determine whether PG&E would be able to meet the proposed project's energy demands. Annual consumption of electricity (including electricity usage associated with the supply and conveyance of water) from operation of the proposed project was calculated using demand factors provided in CalEEMod and adjusted for project compliance with the 2019 Title 24 building energy efficiency standards, which went into effect on January 1, 2020. In addition, the project's energy demand was analyzed relative to PG&E's maximum peak demand of 19,245 MW.[38]

A total of 656 EV charging stations, or 10 percent of total parking spaces (increasing to 15 percent or 984 parking spaces with Mitigation Measure AQ-2g incorporated), would be installed on the project site in underground or aboveground parking structures.[39] Electricity demand from the charging stations was estimated by multiplying the number of spaces, days of operation, charge hours per day, and charging station capacity, resulting in the total annual electricity.

Electricity demand from water use associated with operation of the proposed project was calculated using CalEEMod and the electrical intensity factors for water supply and distribution. Water-related energy intensities in CalEEMod are based on the CEC report *Refining Estimates of Water-Related Energy Use in California*.[40]

Natural Gas

The proposed project's residential uses, office buildings, and all but 20,000 square feet of restaurant kitchens would not use natural gas, so operational natural gas demand would be generated by the active uses (which include restaurants) and mobile sources, which are described in greater detail under *Transportation Fuels*, below. Natural gas combustion emissions for

37 California Energy Commission, *California Energy Demand 2018–2030 Revised Forecast*, January 2018.
38 California Independent System Operator, *2018–2019 Transmission Plan*, March 29, 2019. Available at http://www.caiso.com/Documents/ISO_BoardApproved-2018-2019_Transmission_Plan.pdf. Accessed January 2020.
39 Electric vehicle charging stations were estimated as 10 percent of the total planned parking spaces pursuant to the City of San José's Reach Code ordinances, which require a minimum of 10 percent of parking spaces be equipped for electric charging.
40 California Energy Commission, *Refining Estimates of Water-Related Energy Use in California, PIER Final Project Report*, CEC-500-2006-118, December 2006.

cooking in 20,000 square feet of restaurant kitchens were estimated using energy use rates from the U.S. Energy Information Administration's Commercial Buildings Energy Consumption Survey and emission factors from the Climate Registry. The project's estimated natural gas demand was analyzed relative to the state's existing and planned energy supplies in 2030 (the closest projected year to the proposed project buildout year)[41] to determine whether PG&E would be able to meet projected energy demand. Natural gas demand generated under existing conditions was calculated using demand factors provided in CalEEMod and subtracted from the project's natural gas demand to obtain the net annual natural gas demand.

Transportation Fuels

Energy demand from employees, vendors and suppliers, and visitors traveling to and from the project site was estimated based on the predicted number of trips to and from the project site taken from the analysis in Section 3.13, *Transportation*, and the estimated GHG emissions for the proposed project.

Based on the proposed project's annual mobile-source GHG emissions, gasoline and diesel consumption rates were calculated using the county-specific vehicle fleet mixes in EMFAC2017 and a standard conversion factor from GHG emissions to gallons of fossil fuels (i.e., gasoline, diesel, and natural gas). Supporting calculations are provided in Appendix F2.

LEED Neighborhood Development Gold Certification Requirements

The development program is divided into multiple blocks of various land uses such as offices, residential units, district systems and logistics, limited-term corporate accommodations, retail, hotel, and event space. These blocks would result in energy use from electricity, natural gas, water use, and wastewater generation. As required by AB 900, at least one building would be certified Leadership in Energy and Environmental Design (LEED) Gold in each phase. The project applicant has further committed to constructing all office buildings to LEED Gold standards. In addition, the project would comply with the City's New Construction Green Building Requirements. Although the exact emission reduction strategies that would be used to secure LEED certification are not known at this time, the project would integrate Low Impact Development, transportation demand management, energy efficiency, water conservation, and other green building practices.

[41] California Gas and Electric Utilities, *2018 California Gas Report*, pp. 101–103. While the estimated life of the proposed project would be 30 years, comparison to the analyzed first full operational year of 2024 provides a conservative analysis as supply projections for electricity and natural gas increase in future years.

Impact Analysis

Impact EN-1: The proposed project would not result in potentially significant environmental impacts due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation. ***(Less than Significant)***

Construction

During construction of the proposed project, energy would be consumed in the form of electricity for powering the construction trailers (lights, electronic equipment, and heating and cooling), powering electric equipment, and powering the tunnel boring machine for the utilidor. Natural gas would not be used. Project construction would also consume energy in the form of petroleum-based fuels used by off-road construction vehicles and equipment on the project site, for travel by construction workers to and from the site, and for delivery and haul truck trips (e.g., hauling of demolished and excavated material to off-site reuse and disposal facilities).

Table 3.4-2 summarizes the estimated annual average consumption of electricity, natural gas, gasoline fuel, and diesel fuel during Phase 1 of project construction. Note that construction energy use is presented as an annual average of construction activities. Phase 1 would be the most intensive of the three construction phases, representing approximately 45 percent of total construction by area; therefore, the annual average energy use from Phase 1 was used as a conservative estimate of the project's maximum annual energy use. Because the individual phase-out schedule of each existing use is not known, the analysis conservatively assumes that all existing uses would operate through Phase 1 construction. The energy consumption from existing uses is added to the overall construction energy consumption, as shown in Table 3.4-2.

Electricity

During construction of the proposed project, electricity would be used to power lighting, heating, and cooling in the construction trailers; electric equipment (including all aerial lifts, air compressors, concrete saws, and sweepers/scrubbers); and the tunnel boring machine. Transmission electricity would be delivered by PG&E to the project site via existing electrical lines that connect to the project site. Once built, the project's later phases of construction may draw power from either PG&E or private on-site distribution lines in the utilidor that would run throughout the site as a combination of direct-bury utility trenches, utilities within basement parking garages, and underground tunnel structures.

TABLE 3.4-2
ANNUAL ENERGY USE DURING PROJECT CONSTRUCTION

	Annual Average Quantity during Construction[a]	
Energy Type	**Project Energy Usage[b]**	**Unit of Measure**
Electricity		
Existing Uses	5,095	MWh
Off-Road Equipment	2,212	MWh
Construction Office	65	MWh
Total Annual Electricity	**7,372**	**MWh**
Natural Gas		
Existing Uses	8,842	MMBtu
Construction	0	MMBtu
Total Annual Natural Gas	**8,842**	**MMBtu**
Gasoline		
Existing Uses	1,751,600	Gallons
On-Road Construction Equipment	202,756	Gallons
Off-Road Construction Equipment	0	Gallons
Total Annual Gasoline	**1,954,356**	**Gallons**
Diesel		
Existing Uses	313,704	Gallons
On-Road Construction Equipment	212,448	Gallons
Off-Road Construction Equipment	487,007	Gallons
Total Annual Diesel	**1,013,160**	**Gallons**

NOTES:
MMBtu = million British thermal units; MWh = megawatt-hours
Detailed calculations are provided in Appendix F1.
[a] Totals may not add up due to rounding of decimals.
[b] Existing use operations are conservatively assumed to continue through Phase 1 of project construction. Therefore, the existing energy use is added to the energy use from project construction.
SOURCES: Data compiled by Environmental Science Associates in 2020; CalEEMod, 2020; EMFAC, 2017

As shown in Table 3.4-2, annual average electricity usage during construction would be approximately 2,277 MWh and the existing electricity usage at the project site is approximately 5,095 MWh annually, for a total of 7,372 MWh of electricity. Although there would be a temporary increase in electricity consumption at the site during construction, the electricity consumption would be within the supply and infrastructure capabilities of PG&E (47,986 gigawatt-hours net energy for 2018).[42] The electricity demand at any given time would vary throughout the construction period based on the construction activities being performed, and would cease upon completion of construction. Electricity use from construction would be short-term, limited to the working hours, used for necessary construction-related activities, and would represent a small fraction of the proposed project's net annual operational electricity. Furthermore, the electricity

[42] Pacific Gas and Electric Company, *2018 Integrated Resource Plan*, August 1, 2018, p. 45. Available at https://www.pge.com/pge_global/common/pdfs/for-our-business-partners/energy-supply/integrated-resource-planning/2018-PGE-Integrated-Resource-Plan.pdf. Accessed January 2020.

used for off-road light construction equipment, including all aerial lifts, air compressors, concrete saws, and sweepers/scrubbers, would have the effect of reducing construction-related emissions of air pollutants and GHGs compared to traditional diesel-powered equipment. Therefore, impacts from construction-related demand for electricity would be **less than significant** and would not result in the wasteful, inefficient, and unnecessary consumption of energy.

Natural Gas

As stated above, construction activities, including the construction of new buildings and facilities, would not consume natural gas. Existing uses on the project site could continue to use natural gas totaling 8,842 million British thermal units (MMBtu) for operations during Phase 1 of construction. However, the demand for natural gas would not increase over existing conditions and therefore would remain within the supply and infrastructure capabilities of PG&E. Therefore, **no impact** would occur from construction-related demand for natural gas, and the project would not result in the wasteful, inefficient, and unnecessary consumption of natural gas for construction.

Transportation Energy

Table 3.4-2 reports the amount of petroleum-based transportation energy that could potentially be consumed annually during construction of the proposed project, based on the conservative set of assumptions provided in Appendix F1. The current annual demand associated with use of the project site is approximately 1,751,600 gallons of gasoline and 313,704 gallons of diesel fuel. During project construction, on- and off-road vehicles would consume an estimated annual average of approximately 202,756 gallons of gasoline and 699,455 gallons of diesel. The combination of operation of existing uses and Phase 1 construction would consume 1,954,356 gallons of gasoline and 1,013,160 gallons of diesel. For informational purposes only, and not for the purpose of determining significance, total fuel usage during existing operations and Phase 1 project construction would represent approximately 0.01 percent of the state's 2018 annual on-road gasoline-related energy consumption and 0.03 percent of its 2018 annual diesel fuel-related energy consumption,[43] as shown in Appendix F1.

Transportation fuels (gasoline and diesel) are produced from crude oil, which can be domestic or imported from various regions around the world. Based on current proven reserves, crude oil production would be sufficient to meet more than 50 years of worldwide consumption.[44] The proposed project would comply with CAFE fuel economy standards, which would result in more efficient use of transportation fuels (lower consumption). Vehicles used for project-related trips would also comply with AB 1493 and the LCFS, which are designed to reduce vehicular GHG emissions, but would also result in additional fuel savings.

Construction of the proposed project would use fuel-efficient equipment consistent with federal and state regulations, such as fuel-efficiency regulations in accordance with CARB's Pavley Phase II standards; the anti-idling regulation in accordance with 13 CCR Section 2485; and fuel

[43] California Energy Commission, 2018 California Retail Fuel Outlet Annual Reporting (CEC-A15) Results, 2019. Available at https://ww2.energy.ca.gov/almanac/transportation_data/gasoline/piira_retail_survey.html. Accessed January 2020.

[44] BP Global, *Oil Reserves*. Available at https://www.bp.com/en/global/corporate/energy-economics/statistical-review-of-world-energy/oil.html. Accessed January 2020.

requirements for stationary equipment in accordance with 17 CCR Section 93115 (concerning Airborne Toxic Control Measures). Project construction would also comply with state measures to reduce the inefficient, wasteful, and unnecessary consumption of energy, such as petroleum-based transportation fuels. While these regulations are intended to reduce construction emissions, compliance with the anti-idling and emissions regulations discussed above would also result in fuel savings from the use of more fuel-efficient engines. Further, the proposed project has committed to using Tier 4 equipment, and this commitment was reflected in the emissions modeling and energy consumption calculations. Mitigation Measure AQ-2a in Section 3.1, *Air Quality*, considers alternative fuels and best available emissions control techniques that could further reduce energy consumption and emissions. Because of the uncertainty of the technology, these reductions were not quantified.

In addition, the project proposes to divert mixed construction and demolition debris to City-certified construction and demolition waste processors, using City-certified waste haulers, to achieve a waste diversion standard that is higher than the requirement of 75 percent identified in the City's Construction and Demolition Diversion Program (Chapter 9, Part 5 of the San José Municipal Code). Diverting mixed construction and demolition debris would reduce truck trips to landfills, which are typically located some distance away from city centers, and would increase the amount of waste recovered (e.g., recycled, reused) at material recovery facilities, thereby further reducing fuel consumption for transportation. Based on these project features, the emissions modeling and energy analysis assumes that 84 percent of waste would be diverted.

As analyzed above, construction would use energy for on-site activities, for construction worker travel, and to transport construction materials and demolition debris to and from the project site. Idling restrictions and the use of cleaner, energy-efficient equipment would result in relatively less fuel combustion and energy consumption. Thus, the proposed project's construction-related energy use would be minimized. Therefore, construction of the proposed project would not result in the wasteful, inefficient, or unnecessary consumption of energy, and construction-related impacts would be **less than significant**.

Operations

During operation of the proposed project, energy would be consumed for multiple purposes, including stationary sources such as HVAC (including pumps, chillers, and cooling towers associated with on-site district utilities [central utility plants], lighting, EV charging, and emergency generators). Energy would also be consumed during proposed project operations for water usage, solid waste disposal, and vehicle trips.

Table 3.4-3 summarizes the project's on- and off-site annual operational energy use after buildout. On- and off-site energy use associated with existing uses on the site are netted out of the annual totals, which are compared to state and county totals for informational purposes.

As shown in Table 3.4-3, the proposed project's annual net new energy demand would be approximately 215,895 MWh of electricity, 1,214 MMBtu of natural gas, 4,420,874 gallons of gasoline, and 1,034,778 gallons of diesel.

TABLE 3.4-3
TOTAL ANNUAL ENERGY USE DURING PROJECT OPERATION (PROJECT BUILDOUT)

Source	Electricity (MWh/yr)	Natural Gas (MMBtu/yr)[a,b]	Gasoline (gal)	Diesel (gal)
Existing Annual Use	**5,095**	**8,842**	**1,751,600**	**313,704**
Project				
Total Annual Building Energy—Buildout[c]	229,055	2,410	—	—
Solar Array[d]	(12,436)	—	—	—
EV Charging	4,437	—	—	—
Emergency Generators	—	—	—	78,165
Wastewater Treatment Plant[e,f]	(65)	—	—	—
Mobile Sources[g]	—	7,646	6,172,474	1,270,318
Project Total Annual Use	**220,990**	**10,056**	**6,172,474**	**1,348,483**
Net Total Annual Use (Project Buildout—Existing)	**215,895**	**1,214**	**4,420,874**	**1,034,778**
Statewide Annual Use	**284,436,262**	**12,327,096,996**	**15,471,000,000**	**3,702,083,333**
% of State Total	**0.08%**	**0.00001%**	**0.03%**	**0.03%**
Countywide Annual Use	**16,708,080**	**440,030,822**	**643,000,000**	**100,000,000**
% of Santa Clara County Total	**1.3%**	**0.0003%**	**0.69%**	**1.03%**

NOTES:
EV = electric vehicle; gal = gallons; MMBtu/yr = million British thermal units; MWh/yr = megawatts per year
All mobile-source fuel consumption calculated using fleet mixes, vehicle types, fuel efficiencies, and fuel types from EMFAC2017.
a EMFAC2017 includes natural gas vehicles, which are incorporated into natural gas totals in this table.
b Natural gas consumption includes consumption of natural gas through vehicles that would access the project site.
c Building energy totals account for the conservative approach of assuming individual cooling/heating units for buildings and do not assume use of the district-wide thermal network.
d Solar generation estimated using the total photovoltaic (PV) capacity of 7.8 megawatts (MW) inputted into the PVWatts solar tool. The PVWatts tool accounts for different environmental factors such as daily sunlight, angle of solar panels, the geographical location of the site, and panel efficiency ratings. Available online at https://pvwatts.nrel.gov/. For detailed assumptions, refer to Appendix F2.
e The wastewater treatment electricity savings derive from the project treating and distributing wastewater at its on-site plant rather than pumping wastewater off-site for treatment and distribution. Electricity used by the on-site wastewater treatment plant is incorporated as part of the total building energy. For assumptions and calculations, refer to Appendix 2F.
f If an on-site wastewater treatment plant is not constructed and the project instead uses the regional wastewater treatment facility, electricity usage would increase by 65 MWh per year.
g The mobile-source energy use reported here does not include reductions associated with Mitigation Measure AQ-2h, Enhanced Transportation Demand Management Program and, therefore, overstates mobile source energy consumption for the proposed project with mitigation.

SOURCES:
Data compiled by Environmental Science Associates in 2020.
CalEEMod, 2020.
EMFAC, 2017.
California Energy Commission, California Energy Consumption Database, 2019. Available at https://ecdms.energy.ca.gov/.
California Energy Commission, California Annual Retail Fuel Outlet Report Results (2018), available online at https://ww2.energy.ca.gov/almanac/transportation_data/gasoline/piira_retail_survey.html.

Electricity

Assuming compliance with 2019 Title 24 standards and applicable 2019 CALGreen Code requirements, at buildout the proposed project would result in a projected net increase in the annual demand for electricity totaling approximately 215,895 MWh. In addition to complying with the CALGreen Code, the proposed project would incorporate project design features necessary to achieve the LEED for Neighborhood Development (ND) Gold certification level as

well as LEED Gold for office buildings. Mitigation Measure GR-2 would ensure the implementation of these design features.

Renewable energy, coming entirely from wind, accounted for 48 percent of SJCE's overall energy mix in 2018.[45] Thus, electricity provided to meet the project's energy demand would include some mix of renewable energy. Based on data collected by the CEC's California Energy Consumption Database, the state's total electricity consumption for 2018 (the latest data available) was 284,436,262 MWh of electricity and Santa Clara County's total electricity consumption for 2018 was 16,708,080 MWh.[46] As such, the project-related net increase in annual electricity consumption, 215,895 MWh, would represent approximately 0.08 percent of statewide electricity and 1.3 percent of countywide electricity. Furthermore, statewide energy demand for 2030 (the closest projected year to the proposed project's opening year) is estimated at 326,026,000 MWh.[47] The project's future energy use would represent about 0.007 percent of future state consumption, and would be within projected electricity supplies.

With regard to peak-load conditions, the state's grid system experienced an annual high peak of 46,424 MW on July 5, 2018. On the same day, PG&E experienced a peak annual demand of 19,245 MW.[48] In comparison, the proposed project would consume a net increase of 215,895 MWh on an annual basis; assuming 12 hours of active electricity demand per day, that would be equivalent to approximately 49.3 MW at buildout (peak demand assuming 4,380 hours per year of active electricity demand).[49]

This estimate also conservatively excludes the benefits of improvements in demand response attributable to the Title 24 energy standards, which would further reduce peak demand. The Title 24 Building Energy Efficiency Standards include measures that encourage load shifting and demand response. Title 24 energy use performance standards are based on the time-dependent valuation of energy, which uses the value of the electricity or natural gas used at every hour of the year to incentivize load shifting off of the peak. The proposed project would not have a substantial impact on the peak- and base-period demands for electricity or other forms of energy. Therefore, the project's operational electricity consumption would have a negligible effect on peak-load conditions of the power grid.

The district-wide thermal network would be consistent with the City's Climate Smart Plan, enabling the project to be combustion-free by providing heating and cooling only through electric equipment. Equipment would be selected to comply with Title 24 Building Energy Efficiency Standards and would support achievement of a LEED ND Gold rating for the project.

As described previously, the proposed project would incorporate a variety of energy and water conservation measures and features to reduce energy usage and minimize energy demand, as evidenced by the reduced contribution of the proposed project to overall sales between 2018 and

45 San José Community Energy, 2018 Power Content Label, 2019. Available at https://www.energy.ca.gov/sites/default/files/2020-01/2018_PCL_San_Jose_Clean_Energy.pdf.
46 California Energy Commission, *California Energy Demand 2018–2030 Revised Forecast*, January 2018.
47 California Energy Commission, *California Energy Demand 2018–2030 Revised Forecast*, January 2018.
48 California Independent System Operator, *2018–2019 Transmission Plan*, March 29, 2019. Available at http://www.caiso.com/Documents/ISO_BoardApproved-2018-2019_Transmission_Plan.pdf. Accessed January 2020.
49 Calculated as follows: 165,822 MWh / 4,380 hours = 37.9 MW.

2030. Therefore, with the incorporation of these measures and features, operation of the proposed project would not result in the wasteful, inefficient, or unnecessary consumption of electricity, and the impact would be **less than significant**.

Natural Gas

With compliance with 2019 Title 24 standards and applicable CALGreen Code requirements, at buildout, the proposed project would use natural gas primarily for mobile source fuel and for cooking in up to 20,000 square feet of new project commercial kitchen space and would generate an estimated net increase in the on-site annual demand for natural gas totaling approximately 1,214 MMBtu. Building energy natural gas use for the proposed project would be less than from the existing uses. The proposed project would not provide natural gas in residential uses, office buildings, or the remainder of the retail uses.

As discussed above, in addition to complying with applicable regulatory requirements regarding energy conservation (e.g., California Building Energy Efficiency Standards and the CALGreen Code), the proposed project would incorporate design features to further reduce energy use. In addition, the project would implement project design features and Mitigation Measure GR-2 as described in Section 3.6, *Greenhouse Gas Emissions*, which includes achievement of the LEED ND Gold certification level.

In the 2018 California Gas Report, PG&E accounts for anticipated regional demand based on various factors, including growth in employment by economic sector, growth in housing and population, and increasingly demanding state goals for reducing GHG emissions. PG&E accounts for an increase in employment and housing from 2018 to 2035. The proposed project would add jobs within the PG&E region and would be consistent with the growth projections set forth in the 2018 California Gas Report.[50]

Furthermore, the 2018 California Gas Report estimates that the future supply of natural gas within the PG&E planning area will be approximately 1,177,147,000 MMBtu.[51] As stated above, the proposed project's annual net increase in demand for natural gas is estimated to be approximately 1,214 MMBtu. Thus, the proposed project would account for approximately 0.0001 percent of the forecasted annual consumption in the PG&E planning area; would fall within PG&E's projected consumption for the area; and would be consistent with PG&E's anticipated regional demand from population or economic growth.[52] Therefore, with incorporation of the project design features described above, operation of the proposed project would not result in the wasteful, inefficient, or unnecessary consumption of natural gas, and the impact would be **less than significant**.

Transportation Energy

During operation, project-related vehicle use would consume petroleum-based fuels for vehicular travel to and from the project site. The project site is located in a Priority Development Area and

[50] California Gas and Electric Utilities, *2018 California Gas Report*, p. 38.
[51] California Gas and Electric Utilities, *2018 California Gas Report*, p. 59.
[52] Note that although actual operations would only occur for part of 2024, the energy analysis assumes a full year of operations to present a conservative estimate, because energy efficiencies will increase in subsequent years, thus reducing energy consumption from the same activities.

Transit Priority Area, which designate the site as an area for future growth due to transit access and proximity to job centers, shopping districts, and other services. The site is also adjacent to Diridon Station, a central passenger rail hub that is served by Caltrain, the Altamont Corridor Express, Santa Clara Valley Transportation Authority (VTA) light rail, the Amtrak Capitol Corridor, and the Amtrak Coast Starlight. In addition, Diridon Station is currently served by bus lines including local and express VTA bus lines, the DASH Downtown Area Shuttle, Monterey-Salinas Transit, Santa Cruz Metro, Amtrak Thruway Bus, Greyhound Lines, Megabus, and employer shuttles. Additionally, as of spring 2020, BART service to Diridon Station is anticipated to begin in approximately 2030 as a subsurface extension of the BART line to Berryessa Station in East San José.

The proposed project would place a mix of land uses including residential, office, and retail uses close to Diridon Station, thereby minimizing VMT and vehicle trips. The vehicle fleet that would be used by project employees and visitors would consist primarily of light-duty automobiles and light-duty trucks, which are subject to fuel-efficiency standards. Other trips to the project site would include trips associated with residential uses, the hotel, corporate accommodations, conferences, and logistics. Most of these trips would also be subject to fuel-efficiency standards and/or compliance with anti-idling regulations for medium- and heavy-duty vehicles.

As reported in Table 3.4-3, the project's mobile sources would result in an annual net increase in petroleum-based fuel usage of approximately 4,420,874 gallons of gasoline and 1,034,778 gallons of diesel. Based on the California Energy Commission's *California Annual Retail Fuel Outlet Report*, residents and employees statewide consumed 15,471,000,000 gallons of gasoline and 3,702,083,333 gallons of diesel. Santa Clara County consumed 643,000,000 gallons of gasoline and approximately 100,000,000 gallons of diesel fuel in 2018.[53] The proposed project would account for 0.03 percent of statewide consumption for both gasoline and diesel, and for 0.69 percent and 1.03 percent of countywide consumption of gasoline and diesel, based on the available county fuel sales data for the year 2018.

Transportation fuels (gasoline and diesel) are produced from crude oil, which can be domestic or imported from various regions around the world. Based on current proven reserves, crude oil production would be sufficient to meet more than 50 years of worldwide consumption.[54] Fuels used for vehicle trips resulting from the proposed project would be required to comply with CAFE fuel economy standards, which would result in more efficient use of transportation fuels (lower consumption). Vehicles used for project-related vehicle trips would also comply as applicable with AB 1493 and the LCFS, which are designed to reduce vehicular GHG emissions, but would also result in additional fuel savings.

The proposed project would support statewide efforts to improve transportation energy efficiency and reduce transportation energy consumption with respect to private automobiles. As discussed in detail in Section 3.9, *Land Use*, the proposed project's design and characteristics would be

53 California Energy Commission, 2018 California Retail Fuel Outlet Annual Reporting (CEC-A15) Results, 2019. Available at https://ww2.energy.ca.gov/almanac/transportation_data/gasoline/piira_retail_survey.html. Accessed January 2020.

54 BP Global, Oil Reserves. Available at https://www.bp.com/en/global/corporate/energy-economics/statistical-review-of-world-energy/oil.html. Accessed January 2020.

consistent with and would not conflict with the goals of *Plan Bay Area 2040*. As discussed in Impact EN-2, the mixed-use design of the proposed project would increase the density of an infill site served by a variety of transit options.

Further, the project energy analysis presented in Table 3.4-3, takes a conservative approach and does not include reductions associated with the enhanced transportation demand management program (see Mitigation Measure AQ-2h in Section 3.1, *Air Quality*). With implementation of Mitigation Measure AQ-2h, energy use from mobile sources would be reduced below the values presented herein.

For the reasons described above, the proposed project would reduce operational transportation fuel demand, consistent with and not in conflict with state, regional, and City goals. Therefore, operation of the proposed project would not result in the wasteful, inefficient, and unnecessary consumption of energy, and the impact would be **less than significant**.

Mitigation: None required.

Impact EN-2: The proposed project would not conflict with or obstruct a state or local plan for renewable energy or energy efficiency. *(Less than Significant)*

CALGreen Code and Title 24

The proposed project would be designed in a manner that would be consistent with relevant energy conservation plans designed to encourage development resulting in the efficient use of energy resources. The proposed project would comply with CALGreen Code and Title 24 requirements to reduce energy consumption by implementing energy-efficient building designs, reducing indoor and outdoor water demands, providing EV charging spaces, and installing energy-efficient appliances and equipment.

The proposed project would be designed to obtain a LEED ND Gold level of certification and LEED Gold certification for office buildings. While the exact energy reduction strategies that would be used to secure this certification are not known at this time, the project would integrate low-impact development, transportation demand management, energy efficiency, water conservation, and other green building practices.

Building-level design details for the proposed project are still being refined; therefore, specific green building strategies to obtain LEED certification for each proposed building have not been fully identified. The strategies and measures identified in the project's AB 900 application demonstrate that the project would meet LEED ND Gold certification, which requires that at least one building in each phase be certified LEED Gold, consistent with AB 900 certification. The project applicant has further committed to constructing all office buildings to LEED Gold standards. In addition, the project would comply with the City's New Construction Green Building Requirements.

The LEED scorecards would be key components of the proposed project's Basis of Design documentation required for compliance with the Title 24 commissioning requirements and the

LEED collaborative design requirements. Compliance with LEED requirements would be demonstrated in a two-step process; a first submittal would occur at the completion of design and the second would occur when construction is complete. The credit strategies identified on the LEED scorecard would be monitored and approved through each design submittal.

The proposed project would implement LEED efficiency strategies and incorporate water conservation, energy conservation, and other features consistent with the CALGreen Code, Title 24, and City sustainability goals. As a result, the proposed project would not conflict with or obstruct a state plan for renewable energy or energy efficiency. Thus, the impact would be **less than significant**.

Plan Bay Area 2040

As discussed in Section 3.6, *Greenhouse Gas Emissions*, and Section 3.9, *Land Use,* the proposed project would be consistent with *Plan Bay Area 2040,* the Bay Area's sustainable communities strategy developed pursuant to SB 375. *Plan Bay Area 2040* outlines the Bay Area's strategies for meeting the region's SB 375 goals. This includes the goals of (1) reducing per-capita CO_2 emissions from cars and light-duty trucks, and (2) providing sufficient housing for the entire region's projected population growth, regardless of income.

Overall, the proposed project would be consistent with the goals and policies of *Plan Bay Area 2040* because the project site is an infill site accessible to transit and the project would support reductions in VMT to and from the project site by including a comprehensive transportation demand management program. Although *Plan Bay Area 2040* is not technically an energy efficiency plan, consistency with the plan has energy implications, including the reduction of VMT, which would reduce GHG emissions and fossil fuel consumption from travel to and from the project site. For these reasons, the impact would be **less than significant**.

Climate Smart San José

As discussed in Section 3.6, *Greenhouse Gas Emissions*, the proposed project would be consistent with the goals and strategies of *Climate Smart San José,* the City's plan for reducing air pollution, conserving water, and creating a stronger and healthier community. *Climate Smart San José* builds on the 15-year Green Vision sustainability plan by charting a path to achieve the GHG emissions reductions contained in the international Paris Agreement on Climate Change.

The proposed project includes multiple green features under the LEED ND Gold certification that align with the goals of *Climate Smart San José* to transition to renewable energy, increase density, accommodate new technologies, and create local jobs sited near public transit. The proposed project would include a 7.8 MW solar photovoltaic array to generate renewable energy and a district-wide thermal network, enabling the project to be combustion-free by providing heating and cooling only through electric equipment, other than natural gas that would be used for cooking in up to 20,000 square feet of commercial kitchen space. The project would also co-locate a mix of different land uses to promote walking, biking, and alternative forms of transit, and would designate a minimum of 10 percent of total parking spaces as EV charging spaces. Furthermore, the project site is near a number of different public transit options that could reduce the number of vehicles traveling to and from the site. Therefore, the proposed project would support the goals of *Climate Smart San José*, and the impact would be **less than significant**.

Envision San José 2040 General Plan

As discussed in detail in Section 3.6, *Greenhouse Gas Emissions*, the proposed project would be consistent with the General Plan's major strategies. The General Plan centers on 14 major strategies that outline the City's plan for growth and taking on a growing environmental and economic leadership role. The project's LEED ND commitments would promote energy conservation, water conservation, waste diversion, and environmental leadership through design aspects such as solar photovoltaic, public transit accessibility, and co-location of land uses that create a walkable network. Therefore, the proposed project would be consistent with the General Plan, and the impact would be **less than significant**.

Mitigation: None required.

Cumulative Impacts

Impact C-EN-1: The proposed project would not result in a cumulatively considerable contribution to a significant energy impact. *(Less than Significant)*

The geographic area for cumulative energy impacts is the state of California. Past, present, and future development projects contribute to the state's energy impacts. If a project is determined to have a significant energy impact, it is concluded that the impact would be cumulatively considerable. As discussed under Impacts EN-1 and EN-2, the proposed project would not result in significant energy impacts or conflict with or obstruct a state or local plan for energy efficiency. The proposed project, therefore, would not have a cumulatively considerable contribution to a significant cumulative energy impact. As a result, this impact would be **less than significant**.

Mitigation: None required.

3.5 Geology, Soils, and Paleontological Resources

This section addresses potential impacts of the proposed project on geology, soils, seismicity, and paleontological resources. The section describes existing local conditions, summarizes pertinent regulations, and analyzes the potential impacts of project construction and operation. Where appropriate, mitigation measures are provided to address potential impacts. The resource-specific study area for these impacts is defined as the project site and vicinity, including all areas of temporary and/or permanent ground disturbance.

Analyses in this section are based partly on the following prior geotechnical investigations that were performed within the project site boundary[1]:

- *Diridon Station – Project Spartan, Preliminary Geotechnical Assessment for Lots A, B, and C*[2]
- *Diridon Station – Project Spartan, Preliminary Geotechnical Exploration for Lot D*[3]
- *Proposed Mixed-Use Development, 138 Stockton Avenue, San Jose, California Geotechnical Investigation. October 2016*[4]
- *Geotechnical Engineering Investigation, Proposed Orchard Supply Hardware Store, 720 West San Carlos Street, San Jose, California*[5]

3.5.1 Environmental Setting

Geology and Soils

Regional and Local Geology

The project area lies within the geologically complex Coast Ranges Geomorphic Province[6] in the City of San José. The tectonics of the San Andreas Fault and other major faults in the western part of California have played a major role in the geologic history of the area, driven by the interaction of the Pacific and North American Tectonic Plates. The region is marked by northwest-trending elongated ranges and narrow valleys that roughly parallel the coast and the San Andreas Fault Zone. Geologic materials are mostly composed of marine sedimentary deposits, metamorphic rocks, and volcanic rocks.

The geotechnical reports by ENGEO and Moore Twining indicate that there is undocumented fill beneath the project site, ranging in depth from 1 foot to 30 feet. These reports indicate that the elevation at the project site ranges from 80 to 100 feet. Geologic mapping indicates that the

1 These four geotechnical reports were selected to represent the geological conditions throughout the entire project site. Each report represents the conditions at the northern, central, and southern portions of the project site.
2 ENGEO, *Diridon Station—Project Spartan, Preliminary Geotechnical Assessment for Lots A, B, and C*, 2018.
3 ENGEO, *Diridon Station—Project Spartan, Preliminary Geotechnical Exploration for Lot D*, 2018.
4 Silicon Valley Soil Engineering, *Proposed Mixed-Use Development, 138 Stockton Avenue, San Jose, California Geotechnical Investigation*, October 2016.
5 Moore Twining Associates Inc., *Geotechnical Engineering Investigation, Proposed Orchard Supply Hardware Store, 720 West San Carlos Street, San Jose, California*, 2013.
6 A geomorphic province is a regional area that possesses similar bedrock, structure, history, and age.

project site is underlain by Holocene-age[7] alluvium of four types, described in **Table 3.5-1**.[8] Additionally, while not mapped at the surface on the project site, older surficial sediments are mapped in the region and may be present at depth.

TABLE 3.5-1
GEOLOGIC UNITS IN THE STUDY AREA

Symbol	Unit Name	Epoch (Age, from youngest to oldest)	Description
Units Mapped Within the Project Site			
Qhb	Basin deposits	Holocene	Dark-colored clay and very fine silty clay, rich in organic material.
Qhl	Levee deposits	Holocene	Sandy and clayey silt ranging to sandy and silty clay, loose and moderately- to well-sorted.
Qht	Stream terrace deposits	Holocene	Unconsolidated sand, silt, and gravel, poorly to well-sorted.
Qhf2	Alluvial fan deposits (Older)	Holocene	Brown gravelly sand and sandy and clayey gravel; deposited by flood steams; includes terrace deposits; subdivided into younger and older deposits.
Units Mapped in Proximity to the Project Site			
Qhf1	Alluvial fan deposits (Younger)	Holocene	Morphologically distinct young fans that overlie larger Holocene or older deposits.
Qhfp	Floodplain deposits	Holocene	Gray, dense, sandy to silt clay; may locally contain lenses of silt and fine gravel.
Qpf	Alluvial fan deposits	Upper Pleistocene	Tan- to reddish-brown gravel. Clasts typically cobble-sized in clayey and sandy matrix; crudely bedded.
Qof	Older alluvial fan deposits	Middle to Upper Pleistocene	Tan- to reddish-brown gravely and clayey sand and clayey gravel.
QTi	Irvington gravels	Pleistocene	Poorly to well-consolidated, distinctly bedded conglomerate, gray conglomeratic sandstone, and gray, coarse-grained, cross-bedded sandstone. The gravels have yielded several Pleistocene vertebrate fossils.

SOURCE: U.S. Geological Survey, *Preliminary Geologic Map of the San José 30x60-Minute Quadrangle, California: A Digital Database*, compiled by C. Wentworth, M. Blake R. McLaughlin, and R. Graymer, Open-File Report 98-795, 1999. Map Scale 1:100000.

Faults and Seismicity

This section characterizes the region's existing faults, describes historical earthquakes, estimates the likelihood of future earthquakes, and describes probable ground shaking effects.

Earthquake Terminology and Concepts

Earthquake Mechanisms and Fault Activity

Faults are planar features within the earth's crust that have formed to release strain caused by the dynamic movements of the earth's major tectonic plates. An earthquake on a fault is produced when these strains overcome the inherent strength of the earth's crust, and the rock ruptures. The rupture causes seismic waves that propagate through the earth's crust, producing the ground-

[7] Holocene time is from the present to 11,700 years ago.
[8] U.S. Geological Survey, *Preliminary Geologic Map of the San José 30x60-Minute Quadrangle, California: A Digital Database*, compiled by C. Wentworth, M. Blake R. McLaughlin, and R. Graymer, Open-File Report 98-795, 1999. Map Scale 1:100000.

shaking effect known as an earthquake. The rupture also causes variable amounts of slip along the fault, which may or may not be visible at the earth's surface. Geologists commonly use the age of offset rocks as evidence of fault activity: The younger the displaced rocks, the more recently earthquakes have occurred. To evaluate the likelihood that a fault would produce an earthquake, geologists examine the magnitude and frequency of recorded earthquakes and evidence of past displacement along a fault.

The California Geological Survey (CGS) defines an active fault as one that has had surface displacement within Holocene time (within the last 11,700 years). A Quaternary fault is defined as a fault that has shown evidence of surface displacement during the Quaternary period (the last 2.6 million years), unless direct geologic evidence demonstrates inactivity for all of the Holocene or longer.

This definition does not mean that a fault lacking evidence of surface displacement is necessarily inactive. For the purpose of delineating fault rupture zones, CGS historically sought to zone faults defined as potentially active, meaning that they have shown evidence of surface displacement during the Quaternary period. In late 1975, the State Geologist made a policy decision to zone only those faults that had a relatively high potential for ground rupture, determining that a fault should be considered for zoning only if it was sufficiently active and "well defined."[9] Faults that are confined to pre-Quaternary rocks are considered inactive and incapable of generating an earthquake.

Earthquake Magnitude

When an earthquake occurs along a fault, its size can be determined by measuring the energy released during the event. A network of seismographs records the amplitude and frequency of the seismic waves that an earthquake generates. Richter magnitude was historically the primary measure of earthquake magnitude; however, seismologists now use Moment Magnitude (M_w) as the preferred way to express the size of an earthquake. The M_w scale is related to the physical characteristics of a fault, including the rigidity of the rock, the size of fault rupture, and the style of movement or displacement across the fault. Although the formulae of the scales are different, they both contain a similar continuum of magnitude values, except that M_w can reliably measure larger earthquakes and do so from greater distances. The M_w scale, like the Richter scale, is a logarithmic scale with a theoretical maximum value of M_w 10.0, although the largest recorded earthquake was M_w 9.5 in Chile in 1960.[10]

Faults

The magnitude and nature of fault rupture can vary for different faults or even along different strands of the same fault. Future faulting is generally expected along different segments of faults with recent activity.[11] Structures, transportation facilities, and utility systems crossing fault traces are at risk during a major earthquake due to ground rupture caused by differential lateral and vertical movement on opposite sides of the active fault trace. This region of California is

[9] A fault is well-defined if its trace is clearly detectable by a trained geologist as a physical feature at or just below the ground surface.
[10] U.S. Geological Survey, *20 Largest Earthquakes in the World*, 2012.
[11] California Geological Survey, *Guidelines for Evaluating and Mitigation Seismic Hazards*, CGS Special Publication 117A, 2008.

seismically active, but no active faults cross the project site (refer to **Figure 3.5-1**). **Table 3.5-2** lists the nearest active and potentially active faults.

TABLE 3.5-2
FAULTS NEAR THE STUDY AREA

Fault Name	Approximate Distance (miles) from Study Area and Direction (relative to study area)	Status
San José Fault	1.5 miles southwest	Quaternary—Potentially Active
Silver Creek Fault	1.5 miles east	Quaternary—Potentially Active
Hayward Fault Zone (Southeast Extension section)	5.0 miles east	Historic—Active (151 years since last event)
Monte Vista Fault	8.0 miles west	Holocene—Active
Calaveras Fault Zone (Central Calaveras section)	9.0 miles east	Historic—Active (35 years since last event)
San Andreas Fault Zone (Peninsula Section)	14.5 miles west	Historic—Active (113 years since last event)

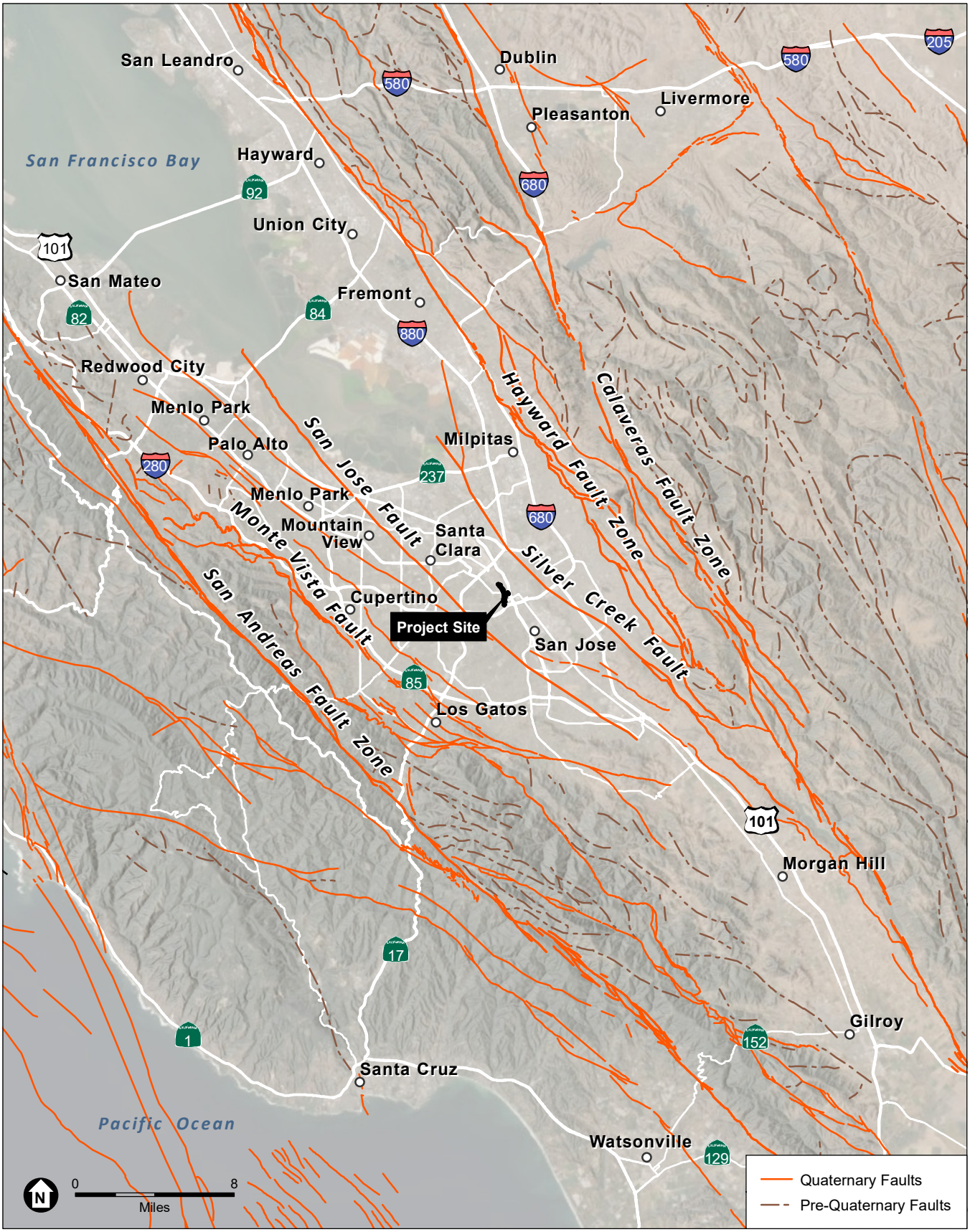
SOURCES:
California Geological Survey, Fault Activity Map of California interactive map, 2010. Available online at https://maps.conservation.ca.gov/cgs/fam/app/. Accessed September 25, 2019.
E.H. Field, G.P. Biasi, P. Bird, T.E. Dawson, K.R. Felzer, D.D. Jackson, K.M. Johnson, T.H. Jordan, C. Madden, A.J. Michael, K.R. Milner, M.T. Page, T. Parsons, P.M. Powers, B.E. Shaw, W.R. Thatcher, R.J. Weldon II, and Y. Zeng, Long-Term Time-Dependent Probabilities for the Third Uniform California Earthquake Rupture Forecast (UCERF3), *Bulletin of the Seismological Society of America* 105(2A):511–543, April 2015.

The closest active fault to the project site is the Southeast Extension section of the Hayward fault zone. This fault is located approximately 5 miles east of the project site, and has the potential to produce an earthquake with an estimated M_w of 7.5.[12] The Hayward, San Andreas, and Calaveras fault zones have been identified as Earthquake Fault Zones (Alquist-Priolo Zones) by CGS. Given the distances from the project site, any surface rupture of these faults would not affect the site.

Ground Shaking

The Working Group on California Earthquake Probabilities (WGCEP) is a collaboration between the U.S. Geological Survey (USGS), CGS, and the Southern California Earthquake Center. The WGCEP recently evaluated the probability of one or more earthquakes of M_w 6.7 or higher occurring in California over the next 30 years. The WGCEP estimated that the San Francisco Bay Area as a whole has a 72 percent chance of experiencing an earthquake of M_w 6.7 or higher over the next 30 years, with the Hayward and San Andreas Faults being the most likely to cause such an event.[13]

[12] California Geological Survey, Hayward Fault Fact Sheet, 2008.
[13] E.H. Field, G.P. Biasi, P. Bird, T.E. Dawson, K.R. Felzer, D.D. Jackson, K.M. Johnson, T.H. Jordan, C. Madden, A.J. Michael, K.R. Milner, M.T. Page, T. Parsons, P.M. Powers, B.E. Shaw, W.R. Thatcher, R.J. Weldon II, and Y. Zeng, Long-Term Time-Dependent Probabilities for the Third Uniform California Earthquake Rupture Forecast (UCERF3), *Bulletin of the Seismological Society of America* 105(2A):511–543, April 2015. doi: 10.1785/0120140093.



SOURCES: Esri, 2015; CGS, 2018; ESA, 2019

Downtown West Mixed-Use Plan

Figure 3.5-1
Regional Faults

The entire San Francisco Bay Area region, including the project site, could be subject to strong ground shaking during earthquakes. ShakeMap is a product of the USGS Earthquake Hazards Program; ShakeMap earthquake scenarios represent one realization of a potential future earthquake by assuming a particular magnitude and location.[14] According to the ShakeMaps that correspond with the earthquake planning scenario generated by USGS, if a large earthquake were to occur on any of the active faults in the region (the Hayward, Calaveras, and/or San Andreas Faults), the project site would be subjected to strong to very strong seismic ground shaking.[15,16,17]

Liquefaction and Lateral Spreading

Liquefaction is a phenomenon in which unconsolidated, water-saturated sediments become unstable as a result of the effects of strong seismic shaking. During an earthquake, these sediments can behave like a liquid, potentially causing severe damage to overlying structures.

Lateral spreading is a variety of minor landslide that occurs when unconsolidated liquefiable material breaks and spreads due to the effects of gravity, usually down gentle slopes. Liquefaction-induced lateral spreading is defined as the finite, lateral displacement of gently sloping ground as a result of pore-pressure buildup or liquefaction in a shallow underlying deposit during an earthquake. The occurrence of this phenomenon is dependent on many complex factors, including the intensity and duration of ground shaking, particle-size distribution, and density of the soil.

The potential damaging effects of liquefaction include differential settlement, loss of ground support for foundations, ground cracking, heaving and cracking of structure slabs due to sand boiling, and buckling of deep foundations due to ground settlement. Dynamic settlement (pronounced consolidation and settlement from seismic shaking) may also occur in loose, dry sands above the water table, resulting in settlement of and possible damage to overlying structures. In general, a relatively high potential for liquefaction exists in loose, sandy soils that are within 50 feet of the ground surface and are saturated (below the groundwater table). Lateral spreading can move blocks of soil, placing strain on buried pipelines that can lead to leaks or pipe failure.

According to geotechnical investigations performed throughout the project site, the site is underlain by sediments (i.e., loose, sandy material that is water saturated) that are susceptible to

[14] U.S. Geological Survey, Earthquake Hazards Program—ShakeMap and Earthquake Scenarios. Available at https://earthquake.usgs.gov/scenarios/. Accessed March 6, 2020.
[15] U.S. Geological Survey, Earthquake Planning Scenario (M 6.8 Scenario Earthquake—Hayward-Rodgers Creek; Hayward S.—ShakeMap, 2016. Scale unknown. Accessed September 30, 2019.
[16] U.S. Geological Survey, Earthquake Planning Scenario (M 6.4 Scenario Earthquake—Calaveras Central—ShakeMap, 2016. Scale unknown. Accessed September 30, 2019.
[17] U.S. Geological Survey, Earthquake Planning Scenario (M 7.2 Scenario Earthquake—N. San Andreas Peninsula—ShakeMap, 2016. Scale unknown. Accessed September 30, 2019.

liquefaction.[18,19,20,21] The Liquefaction Susceptibility Map published by USGS indicates that the project site is in an area susceptible to liquefaction as well.[22]

Subsidence

Subsidence is the gradual lowering of the land surface due to compaction of underlying materials. Subsidence can result from extraction of groundwater and oil, which can cause subsurface clay layers to compress and lower the overlying land surface. Subsidence occurs because the presence of water in the pore spaces in between grains helps to support the skeletal structure of the geologic unit. If the water is removed, the structure becomes weaker and can subside. Long-term, post-construction dewatering is not anticipated at the project site. Subsidence should be minimal and only occur during dewatering for construction.

Landslides

Landslides are one of the various types of downslope movements in which rock, soil, and other debris are displaced by the effects of gravity. The potential for material to detach and move down slope depends on a variety of factors including the type of material, water content, steepness of terrain, and more. The Landslide Inventory Map of the San José West Quadrangle by Weigers indicates that there are no active or historic landslides within the project site;[23] therefore, there is no landslide hazard.

Soils

Expansive Soils

Expansive soils are soils that possess a "shrink-swell" characteristic, also referred to as linear extensibility. Shrink-swell is the cyclic change in volume (expansion and contraction) that occurs in fine-grained clay sediments from the process of wetting and drying; the volume change is reported as a percent change for the whole soil. Changes in soil moisture can result from rainfall, landscape irrigation, utility leakage, roof drainage, or perched groundwater.[24] Expansive soils are typically very fine-grained and have a high to very high percentage of clay. Structural damage may occur incrementally over a long period of time, usually as a result of inadequate soil and foundation engineering or the placement of structures directly on expansive soils.

Linear extensibility is used to determine the shrink-swell potential of soils. If the linear extensibility is more than 3 percent, shrinking and swelling may cause damage to building, roads, and other

18 ENGEO, *Diridon Station—Project Spartan, Preliminary Geotechnical Assessment for Lots A, B, and C*, 2018.
19 ENGEO, *Diridon Station—Project Spartan, Preliminary Geotechnical Exploration for Lot D*, 2018.
20 Silicon Valley Soil Engineering, *Proposed Mixed-Use Development, 138 Stockton Avenue, San Jose, California Geotechnical Investigation*, October 2016.
21 Moore Twining Associates Inc., *Geotechnical Engineering Investigation, Proposed Orchard Supply Hardware Store, 720 West San Carlos Street, San Jose, California*, 2013.
22 U.S. Geological Survey, *Maps of Quaternary Deposits and Liquefaction Susceptibility in the Central San Francisco Bay Region, California—Liquefaction Susceptibility*, 2006. Scale 1:200,000.
23 M.O. Weigers, *Landslide Inventory Map of the San Jose West Quadrangle, Santa Clara County, California*, 2011. Scale 1:24,000.
24 Perched groundwater is a local saturated zone above the water table that typically exists above an impervious layer (such as clay) of limited extent.

structures.[25] According to the geotechnical investigations performed for several parcels within the project boundary, the soils underlying the project site are considered highly expansive.[26,27]

Paleontological Resources

Paleontological resources are the fossilized remains of plants and animals: vertebrates (animals with backbones; e.g., mammals, birds, fish), invertebrates (animals without backbones; e.g., starfish, clams, coral), and microscopic plants and animals (microfossils). Paleontological resources can include mineralized body parts, body impressions, or footprints and burrows. They are valuable, non-renewable, scientific resources used to document the existence of extinct life forms and to reconstruct the environments in which they lived.

Fossils can be used to determine the relative ages of the depositional layers in which they occur and of the geologic events that created those deposits. The age, abundance, and distribution of fossils depend on the geologic formation in which they occur and the topography of the area in which they are exposed. The geologic environments within which plants or animals became fossilized usually were quite different from the present environments in which the geologic formations exist.

The Society of Vertebrate Paleontology (SVP) established guidelines for the identification, assessment, and mitigation of adverse impacts on non-renewable paleontological resources.[28] Most practicing paleontologists in the United States adhere closely to the SVP's assessment, mitigation, and monitoring requirements as outlined in these guidelines, which were approved through a consensus of professional paleontologists. Many federal, state, county, and city agencies have either formally or informally adopted the SVP's standard guidelines for the mitigation of adverse construction-related impacts on paleontological resources.

The SVP has helped define the value of paleontological resources. In particular, the SVP indicates that geologic units of high paleontological potential are those from which vertebrate or significant invertebrate or plant fossils have been recovered in the past (i.e., are represented in institutional collections). Geologic units of low paleontological potential are those that are not known to have produced a substantial body of significant paleontological material. As such, the sensitivity of an area with respect to paleontological resources hinges on its geologic setting and whether significant fossils have been discovered in the area or in similar geologic units.

Paleontological sensitivity is defined as the potential for a geologic formation to produce scientifically important fossils. This is determined by the rock type, the past history of the geologic unit in producing significant fossils, and the fossil localities recorded from that unit.

---

25 Natural Resources Conservation Service, *National Soil Survey Handbook*, 2018. Title 430-VI; Part 618, Soil Properties and Qualities; Subpart B, Exhibits; Section 618.80, Guides for Estimating Risk of Corrosion Potential for Uncoated Steel, p. 618-B.1.

26 ENGEO, *Diridon Station—Project Spartan, Preliminary Geotechnical Exploration for Lot D*, 2018.

27 Silicon Valley Soil Engineering, *Proposed Mixed-Use Development, 138 Stockton Avenue, San Jose, California Geotechnical Investigation*, October 2016.

28 Society of Vertebrate Paleontology, *Standard Procedures for the Assessment and Mitigation of Adverse Impacts to Paleontological Resources*, prepared by SVP Impact Mitigation Guidelines Revision Committee, 2010.

Paleontological sensitivity is derived from the known fossil data collected from the entire geologic unit, not just from a specific survey. In its *Standard Procedures for the Assessment and Mitigation of Adverse Impacts to Paleontological Resources*, the SVP[29] defines four categories of paleontological sensitivity for rock units, reflecting their potential for containing additional significant paleontological resources:

1. *High Potential:* Rock units from which vertebrate or significant invertebrate, plant, or trace fossils have been recovered;
2. *Low Potential:* Rock units that are poorly represented by fossil specimens in institutional collections, or that based on general scientific consensus only preserve fossils in rare circumstances, with the presence of fossils being the exception, not the rule;
3. *Undetermined Potential:* Rock units for which little information is available concerning their paleontological content, geologic age, and depositional environment; and
4. *No Potential:* Rock units such as high-grade metamorphic rocks (e.g., gneisses and schists) and plutonic igneous rocks (e.g., granites and diorites) that will not preserve fossil resources.

Previous Studies

As mentioned above, geologic mapping indicates that the surficial geology within the project site consists of four Holocene-age deposits (described below), with several other similar aged deposits in the surrounding area. Mapping also indicates Pleistocene-age deposits (also described below) in proximity to the project site. While not mapped at the surface, the Pleistocene-age deposits are present at depth. While in some cases Pleistocene deposits may be several feet beneath the surface, recent vertebrate fossil discoveries in the Guadalupe River (within one mile of the project site) indicate that Pleistocene-age deposits are close to the surface around the project area.[30]

In 2016, Kaitlin Maguire and Patricia Holroyd documented three new vertebrate fossil localities in Santa Clara County that have yielded several specimens, including mammoth, horse, sloth, and bison fossils.[31]

Holocene-Age Deposits Within the Project Site (Qhb, Qhl, Qht, Qhf2)

As presented in Table 3.5-1, these deposits date to the Holocene and generally consist of sand, silt, and clay.[32] These sediments are present across the project site. Generally, because of the age of these deposits, they have low paleontological sensitivity at the surface; however, these sediments increase in age—and in paleontological potential—with depth. Therefore, fossil

[29] Society of Vertebrate Paleontology, *Standard Procedures for the Assessment and Mitigation of Adverse Impacts to Paleontological Resources*, prepared by SVP Impact Mitigation Guidelines Revision Committee, 2010.
[30] K. Maguire and P. Holroyd, Pleistocene Vertebrates of Silicon Valley (Santa Clara County, California), *PaleoBios* 33, 2016.
[31] K. Maguire and P. Holroyd, Pleistocene Vertebrates of Silicon Valley (Santa Clara County, California), *PaleoBios* 33, 2016.
[32] U.S. Geological Survey, *Preliminary Geologic Map of the San José 30x60-Minute Quadrangle, California: A Digital Database*, compiled by C. Wentworth, M. Blake R. McLaughlin, and R. Graymer, Open-File Report 98-795, 1999. Map Scale 1:100000.

resources may be encountered in the deeper levels of this unit (i.e., depths that correspond to 5,000 radiocarbon years or older).

The depth at which the units transition from Holocene to Pleistocene[33] alluvium is approximately between 40 and 50 feet below ground surface;[34] however, fossils have been discovered in central California as shallow as 5 to 10 feet below ground surface.[35,36,37] Additionally, new Pleistocene-age vertebrate discoveries in Santa Clara County indicate that Pleistocene-age sediments are much closer to the surface than previously thought.[38] Alluvial sediments that date to the middle Holocene or beyond have a rich fossil history in California, very similar to that discussed for older alluvium below.

Holocene and Pleistocene Deposits Outside of the Project Site (Qhf1, Qhfp, Qpf, Qof, QTi)

Pleistocene alluvial sediments have a rich fossil history in central California.[39,40] The most common Pleistocene terrestrial mammal fossils include the bones of mammoth, bison, deer, and small mammals. Other taxa have been reported, including horse, lion, cheetah, wolf, camel, antelope, peccary, mastodon, capybara, and giant ground sloth,[41] as well as amphibians and reptiles such as frogs, salamanders, and snakes.[42] These deposits are similar to the Holocene deposits discussed above, but older, dating to the Pleistocene.[43] Older alluvium occurs at the surface outside of the project site; these sediments are present underlying the Holocene alluvium, at approximately 40 to 50 feet below ground surface in some places, and as close to the surface as approximately 10 feet near the Guadalupe River. Several vertebrate fossils have recently been uncovered from the Guadalupe River, downstream from the Norman Y. Mineta San José International Airport, specifically, mammoth, horse, and camel fossils.[44]

33 Pleistocene time is from 11,700 to 2.58 million years ago.
34 ENGEO, *Diridon Station—Project Spartan, Preliminary Geotechnical Exploration for Lot D*, 2017.
35 G.T. Jefferson, A Catalogue of Late Quaternary Vertebrates from California: Part One, Nonmarine Lower Vertebrate and Avian Taxa, *Natural History Museum of Los Angeles County Technical Reports* No. 5, 1991.
36 G.T. Jefferson, A Catalogue of Late Quaternary Vertebrates from California: Part Two, Mammals, *Natural History Museum of Los Angeles County Technical Reports* No. 7, 1991.
37 K. Maguire and P. Holroyd, Pleistocene Vertebrates of Silicon Valley (Santa Clara County, California), *PaleoBios* 33, 2016.
38 K. Maguire and P. Holroyd, Pleistocene Vertebrates of Silicon Valley (Santa Clara County, California), *PaleoBios* 33, 2016.
39 R.G. Dundas, F.J. Harmsen, and J. Wakabayashi, *Mammuthus and Camelops from Pleistocene Strata along the Caltrans State Route 180 West Project, Fresno, California*, Geological Society of America Annual Meeting, Portland, Paper No. 32–49, 2009.
40 M.M. Ngo, J.A. Canchola, and R.G. Dundas, Avifaunas of the Middle Pleistocene Irvingtonian and Fairmead Landfill Localities in California, *Geological Society of America Cordilleran Section Meeting* 45:10, 2013.
41 R.W. Graham and E.L. Lundelius, FAUNMAP: A Database Documenting the Late Quaternary Distributions of Mammal Species in the United States, *Illinois State Museum Scientific Papers* XXV (1).
42 D. Hudson and B. Brattstrom, A Small Herpetofauna from the Late Pleistocene of Newport Beach Mesa, Orange County, California, *Bulletin of the Southern California Academy of Sciences* 76:16–20, 1977.
43 U.S. Geological Survey, *Preliminary Geologic Map of the San José 30x60-Minute Quadrangle, California: A Digital Database*, compiled by C. Wentworth, M. Blake R. McLaughlin, and R. Graymer, Open-File Report 98-795, 1999. Map Scale 1:100000.
44 K. Maguire and P. Holroyd, Pleistocene Vertebrates of Silicon Valley (Santa Clara County, California), *PaleoBios* 33, 2016.

Known Resources and Sensitivity Assessment

The online collections database of the University of California Museum of Paleontology (UCMP) was searched for fossil localities from the geologic units mapped within the project site. Data provided through the UCMP's online database include taxonomic identification, locality number and name, age, and county, and sometimes geologic formation. Precise locality data are not provided; in some cases, however, the locality name can be used to further refine the general vicinity of the locality within the county. Holocene Alluvium has low-to-high paleontological potential, increasing with depth. The older Pleistocene-age deposits have a high potential as well.

Holocene-Age Alluvium Within the Project Site (Qhb, Qhl, Qht, Qhf2)

Generally, Holocene-age deposits have a low to high paleontological sensitivity, which increases with depth. Recent research by Maguire and Holroyd[45] indicates that the Holocene-age deposits found at the project site are closer to early Holocene in age, and would have a higher potential to yield significant fossils.

The UCMP database lists 10 invertebrate fossil specimens from 21 localities in Holocene-aged sediments in Santa Clara County.[46] Of the localities for which more precise location could be inferred from the locality name, several are located within 10 miles of the project site.

Holocene and Pleistocene Units Outside of the Project Site (Qhf1, Qhfp, Qpf, Qof, QTi)

While the Holocene deposits are mapped at the surface, the highly sensitive Pleistocene deposits are mapped in the surrounding area and are present at depth. The research from Maguire and Holroyd indicates that the Pleistocene-age deposits are much closer to the surface than originally thought, which increases the likelihood of fossil deposits close to the surface.

The UCMP database lists 12 vertebrate fossil specimens and two invertebrate fossil specimens from 14 localities in Pleistocene-aged sediments in Santa Clara County.[47] Of the localities for which more precise location could be inferred from the locality name, several are located within 10 miles of the project site.

3.5.2 Regulatory Framework

Federal

Clean Water Act

In 1972, the Clean Water Act (CWA) established the basic structure for regulating discharges of pollutants into the waters of the U.S. and gave the U.S. Environmental Protection Agency (EPA) the authority to implement pollution control programs. The CWA sets water quality standards for contaminants in surface waters. The statute employs a variety of regulatory and non-regulatory tools to reduce direct pollutant discharges into waterways, to finance municipal wastewater

45 K. Maguire and P. Holroyd, Pleistocene Vertebrates of Silicon Valley (Santa Clara County, California), *PaleoBios* 33, 2016.
46 University of California Museum of Paleontology (UCMP), UCMP fossil locality database, 2019.
47 University of California Museum of Paleontology (UCMP), UCMP fossil locality database, 2019.

treatment facilities, and to manage polluted runoff. EPA has delegated responsibility for implementation of portions of the CWA, including water quality control planning and programs, in California to the State Water Resources Control Board and the nine Regional Water Quality Control Boards (Regional Water Boards).

Section 402 of the CWA authorizes EPA to establish a nationwide surface water discharge permit program for municipal and industrial point sources known as the National Pollutant Discharge Elimination System (NPDES) program. Under Section 402, the Regional Water Board has set standard conditions for each permittee including construction requirements, as discussed further below in the *State* subsection.

Clean Water Act Section 404, which is administered by the U.S. Army Corps of Engineers (USACE), regulates the discharge of dredged and fill material into waters of the United States. USACE has established a series of nationwide permits that authorize certain activities in waters of the United States, provided that the proposed activity can demonstrate compliance with standard conditions. Normally, USACE requires an individual permit for an activity that would affect an area in excess of 0.3 acres of waters of the United States. Projects that result in impacts on less than 0.3 acres of waters of the United States can normally be conducted under one of the nationwide permits, if consistent with the standard permit conditions. Use of any nationwide permit is contingent on compliance with Section 7 of the federal Endangered Species Act (FESA).

More detailed information regarding the CWA is presented in Section 3.8, *Hydrology and Water Quality*.

State

Alquist-Priolo Earthquake Fault Zoning Act

The Alquist-Priolo Earthquake Fault Zoning Act (Alquist-Priolo Act) was enacted in 1972 to mitigate the hazard of surface faulting to structures for human occupancy. In accordance with the Alquist-Priolo Act, the State Geologist established regulatory zones, called "Earthquake Fault Zones," around the surface traces of active faults and published maps showing the earthquake fault zones. Within the fault zones, buildings for human occupancy cannot be constructed across the surface trace of active faults. Each earthquake fault zone extends approximately 200 to 500 feet on either side of the mapped fault trace because many active faults are complex and consist of more than one branch that may experience ground surface rupture. California Code of Regulations (CCR) Title 14, Section 3601(e) defines buildings intended for human occupancy as those that would be inhabited for more than 2,000 hours per year.

The project site is not mapped within an active earthquake fault zone under the Alquist-Priolo Special Studies Zone Act.

Seismic Hazards Mapping Act

The Seismic Hazards Mapping Act was enacted in 1990 after the Loma Prieta earthquake to reduce threats to public health and safety and minimize property damage caused by earthquakes.

This act requires the State Geologist to delineate various seismic hazard zones, and cities, counties, and other local permitting agencies to regulate certain development projects within these zones. For projects that would locate structures for human occupancy within designated Zones of Required Investigation, the Seismic Hazards Mapping Act requires project applicants to perform a site-specific geotechnical investigation to identify the potential site-specific seismic hazards and corrective measures, as appropriate, before receiving building permits.[48] The *CGS Guidelines for Evaluating and Mitigating Seismic Hazards* (Special Publication 117A) provides guidance for evaluating and mitigating seismic hazards.[49] CGS is in the process of producing official maps based on USGS topographic quadrangles, as required by the Act.

California Building Code

The California Building Code (CBC), codified in CCR Title 24, Part 2, was promulgated to safeguard the public health, safety, and general welfare by establishing minimum standards for structural strength, means of egress to facilities (entering and exiting), and general stability of buildings. The purpose of the CBC is to regulate and control the design, construction, quality of materials, use/occupancy, location, and maintenance of all buildings and structures within its jurisdiction.

CCR Title 24 is administered by the California Building Standards Commission, which, by law, is responsible for coordinating all building standards. Under state law, all building standards must be centralized in Title 24 or they are not enforceable. The provisions of the CBC apply to the construction, alteration, movement, replacement, location, and demolition of every building or structure or any appurtenances connected or attached to such buildings or structures throughout California.

The 2019 edition of the CBC is based on the 2018 International Building Code published by the International Code Council, which replaced the Uniform Building Code. The code is updated triennially; the 2019 edition of the CBC was published by the California Building Standards Commission on July 1, 2019, and took effect starting January 1, 2020. The 2019 CBC contains California amendments based on the American Society of Civil Engineers (ASCE) Minimum Design Standard ASCE/SEI 7-16, *Minimum Design Loads for Buildings and Other Structures*. The CBC provides requirements for general structural design and includes means for determining earthquake loads, as well as other loads (such as wind loads), for inclusion in building codes.

CBC Chapter 18 covers the requirements of geotechnical investigations (Section 1803), excavation, grading, and fills (Section 1804), load bearing of soils (Section 1806) and foundations (Section 1808), shallow foundations (Section 1809), and deep foundations (Section 1810).

Requirements for geotechnical investigations are included in CBC Appendix J, Section J104, *Engineered Grading Requirements*. As outlined in Section J104, applications for a grading permit must be accompanied by plans, specifications, and supporting data consisting of a soils engineering report and engineering geology report. Additional requirements for subdivisions

[48] California Department of Conservation, *Seismic Hazards Mapping Act 1990, California Public Resources Code* Division 2, Geology, Mines, and Mapping, 2007.
[49] California Geological Survey, *Guidelines for Evaluating and Mitigation Seismic Hazards*, CGS Special Publication 117A, 2008.

requiring tentative and final maps and for other specified types of structures are in California Health and Safety Code Sections 17953–17955 and in 2019 CBC Section 1802. Samples from subsurface investigations, such as from borings or test pits, must undergo testing. Studies must be done as needed to evaluate slope stability, soil strength, position and adequacy of load-bearing soils, the effect of moisture variation on load-bearing capacity, compressibility, liquefaction, differential settlement, and expansiveness.

The design of the proposed project's buildings, structures, and infrastructure would be required to comply with CBC requirements, which would make the proposed project consistent with the CBC.

California Occupational Safety and Health Administration

Occupational safety standards exist in federal and state laws to minimize worker safety risks from both physical and chemical hazards in the workplace. In California, the California Division of Occupational Safety and Health (Cal/OSHA) and the federal Occupational Safety and Health Administration (OSHA) are the agencies responsible for ensuring worker safety in the workplace.

The OSHA Excavation and Trenching standard (Code of Federal Regulations Title 29, Section 1926.650) covers requirements for excavation and trenching operations, which are among the most hazardous construction activities. OSHA requires protecting all excavations in which employees could potentially be exposed to cave-ins, by sloping or benching the sides of the excavation, supporting the sides of the excavation, or placing a shield between the side of the excavation and the work area. Cal/OSHA is the implementing agency for both federal and state OSHA standards. All contractors must comply with OSHA regulations, which would make the proposed project consistent with OSHA.

National Pollutant Discharge Elimination System Construction General Permit

Construction for the proposed project would disturb more than one acre of land surface, potentially affecting the quality of stormwater discharges into waters of the United States. The project would therefore be subject to the National Pollutant Discharge Elimination System (NPDES) *General Permit for Stormwater Discharges Associated with Construction and Land Disturbance Activities* (Order 2009-0009-DWQ, NPDES No. CAS000002, Construction General Permit; as amended by Orders 2010-0014-DWQ and 2012-006-DWQ).

The Construction General Permit regulates discharges of pollutants in stormwater associated with construction activity to waters of the United States from construction sites that disturb one or more acres of land surface, or that are part of a common plan of development or sale that disturbs more than one acre of land surface. The permit regulates stormwater discharges from construction or demolition activities, such as clearing and excavation; construction of buildings; and linear underground projects, including installation of water pipelines and other utility lines.

The Construction General Permit requires that construction sites be assigned a risk level of 1 (low), 2 (medium), or 3 (high), based both on the sediment transport risk at the site and the risk to receiving waters during periods of soil exposure (e.g., grading and site stabilization). The sediment risk level reflects the relative amount of sediment that could be discharged to receiving

water bodies, and is based on the nature of the construction activities and the location of the site relative to receiving water bodies. The receiving-waters risk level reflects the risk to receiving waters from the sediment discharge. Depending on the risk level, the construction projects could be subject to the following requirements:

- Effluent standards
- Good site management "housekeeping"
- Non-stormwater management
- Erosion and sediment controls
- Run-on and runoff controls
- Inspection, maintenance, and repair
- Monitoring and reporting requirements

The Construction General Permit requires the development and implementation of a Storm Water Pollution Prevention Plan (SWPPP) that includes specific best management practices (BMPs) designed to prevent sediment and pollutants from coming into contact with stormwater and moving off-site into receiving waters. The BMPs fall into several categories, including erosion control, sediment control, waste management, and good housekeeping. They are intended to protect surface water quality by preventing eroded soil and construction-related pollutants from migrating off-site from the construction area. Routine inspection of all BMPs is required under the Construction General Permit. In addition, the SWPPP must contain a visual monitoring program, a chemical monitoring program for non-visible pollutants, and a sediment monitoring plan if the site discharges directly to a water body listed on the 303(d) list for sediment.

The SWPPP must be prepared before construction begins. The SWPPP must contain a site map(s) that delineates the construction work area, existing and proposed buildings, parcel boundaries, roadways, stormwater collection and discharge points, general topography both before and after construction, and drainage patterns across the project area. The SWPPP must list BMPs and the placement of those BMPs that the applicant would use to protect stormwater runoff.

Examples of typical construction BMPs include scheduling or limiting certain activities to dry periods, installing sediment barriers such as silt fence and fiber rolls, and maintaining equipment and vehicles used for construction. Non-stormwater management measures include installing specific discharge controls during certain activities, such as paving operations, and washing and fueling of vehicles and equipment. The Construction General Permit also sets post-construction standards (i.e., implementation of BMPs to reduce pollutants in stormwater discharges from the site after construction).

In the project area, the Construction General Permit is implemented and enforced by the San Francisco Bay Regional Water Quality Control Board, which administers the stormwater permitting program. Dischargers must electronically submit a notice of intent and permit registration documents to obtain coverage under this Construction General Permit. Dischargers are to notify the San Francisco Bay Regional Water Quality Control Board of violations or incidents of non-compliance, and submit annual reports identifying deficiencies in the BMPs and explaining how the deficiencies were corrected. The risk assessment and SWPPP must be prepared by a State Qualified SWPPP Developer, and implementation of the SWPPP must be overseen by a State Qualified SWPPP Practitioner. A legally responsible person, who is legally authorized to sign and certify permit registration documents, is responsible for obtaining coverage under the permit.

Public Resources Code Sections 5097.5 and 30244

California Public Resources Code (PRC) Sections 5097.5 and 30244 specify state requirements for paleontological resource management. These statutes prohibit the removal of any paleontological site or feature from public lands without permission of the jurisdictional agency, defining their removal as a misdemeanor. PRC Sections 5097.5 and 30244 require reasonable mitigation of adverse impacts on paleontological resources from developments on public (state, county, city, district) lands.

Local

The Diridon Station Area Plan (DSAP)

The Diridon Station Area Plan (DSAP) outlined specific measures that would be required for future projects constructed under the DSAP. The proposed project would implement the following standard measures during construction. In cases where impacts would remain significant after implementation of the standard measures, mitigation measures are recommended as necessary to reduce impacts to less-than-significant levels.

Standard Measures for Erosion Control

Projects under the DSAP would be required to implement the following standard measures during construction:

- Standard erosion control and grading BMPs will be implemented during construction to prevent substantial erosion from occurring during site development. The BMPs shall be included in all construction documents, and are listed below:
    a. Restrict grading to the dry season or meet City requirements for grading during the rainy season.
    b. Use effective, site-specific erosion and sediment control methods during the construction periods. Provide temporary cover of all disturbed surfaces to help control erosion during construction. Provide permanent cover as soon as is practical to stabilize the disturbed surfaces after construction has been completed.
    c. Cover soil, equipment, and supplies that could contribute non-visible pollution prior to rainfall events or perform monitoring of runoff with secure plastic sheeting or tarps.
    d. Implement regular maintenance activities such as sweeping driveways between the construction area and public streets. Clean sediments from streets, driveways, and paved areas on-site using dry sweeping methods. Designate a concrete truck washdown area.
    e. Dispose of all wastes properly and keep site clear of trash and litter. Clean up leaks, drips, and other spills immediately so that they do not contact stormwater.
    f. Place fiber rolls or silt fences around the perimeter of the site. Protect existing storm and sewer inlets in the project area from sedimentation with filter fabric and sand or gravel bags.
- Prior to issuance of a Public Works Clearance, the project applicant must obtain a grading permit before commencement of excavation and construction. In accordance with General Plan Policy EC-4.12, the project applicant may be required to submit a Grading

Plan and/or Erosion Control Plan for City review and approval, prior to issuance of a grading permit (Note: It its assumed that the project applicant will be required to submit Grading Plans and Erosion Control Plans).

- Projects over 1 acre in size would be required to prepare an SWPPP under the NPDES Construction General Permit and City Municipal Code, and to file a notice of intent.

Measures to Reduce and Avoid Impacts during Dewatering

Consistent with mitigation measures identified in the Strategy 2000 EIR,[50] future projects that involve dewatering will be required to implement the following:

- If dewatering is necessary during construction, a design-level geotechnical investigation shall be prepared to evaluate the underlying sediments and determine the potential for settlement to occur. If unacceptable settlements may occur, then alternative groundwater control systems shall be required.

Envision San José 2040 General Plan

The Envision San José 2040 General Plan (General Plan) contains goals and policies related to geologic and seismic hazards. The following policies are relevant to the proposed project:

Policy EC-3.1: Design all new or remodeled habitable structures in accordance with the most recent California Building Code and California Fire Code as amended locally and adopted by the City of San José, including provisions regarding lateral forces.

Policy EC-3.3: The City of San José Building Official shall require conformance with state law regarding seismically vulnerable unreinforced masonry structures within the city.

Policy EC-3.4: The City of San José will maintain up-to-date seismic hazard maps with assistance from the California Geological Survey (or other state agencies) under the Alquist-Priolo Earthquake Fault Zoning Act and the California Seismic Hazards Mapping Act.

Policy EC-3.10: Require that a Certificate of Geologic Hazard Clearance be issued by the Director of Public Works prior to issuance of grading and building permits within defined geologic hazards zones related to seismic hazards.

Policy EC-4.1: Design and build all new or remodeled habitable structures in accordance with the most recent California Building Code and municipal code requirements as amended and adopted by the City of San José, including provisions for expansive soil, and grading and storm water controls.

Policy EC-4.2: Approve development in areas subject to soils and geologic hazards, including un-engineered fill and weak soils and landslide-prone areas, only when the severity of hazards have been evaluated and if shown to be required, appropriate mitigation measures are provided. New development proposed within areas of geologic hazards shall not be endangered by, nor contribute to, the hazardous conditions on the site or on adjoining properties. The City of San José Geologist will review and approve geotechnical and geological investigation reports for projects within these areas as part of the project approval process.

[50] In 2005, the City of San José approved the San José Downtown Strategy 2000 Project ("Strategy 2000" and associated Program EIR ("Strategy EIR"). The Downtown Strategy was prepared to guide development and redevelopment in the greater downtown area. The DSAP tiers off of the Strategy 2000 EIR.

Policy EC-4.3: Locate new public improvements and utilities outside of areas with identified soils and/or geologic hazards (e.g., deep seated landslides in the Special Geologic Hazard Study Area and former landfills) to avoid extraordinary maintenance and operating expenses. Where the location of public improvements and utilities in such areas cannot be avoided, effective mitigation measures will be implemented.

Policy EC-4.4: Require all new development to conform to the City of San José's Geologic Hazard Ordinance.[51]

Policy EC-4.5: Ensure that any development activity that requires grading does not impact adjacent properties, local creeks and storm drainage systems by designing and building the site to drain properly and minimize erosion. An Erosion Control Plan is required for all private development projects that have a soil disturbance of one acre or more, are adjacent to a creek/river, and/or are located in hillside areas. Erosion Control Plans are also required for any grading occurring between October 15 and April 15.

Policy EC-4.6: Evaluate development proposed in areas with soils containing naturally occurring asbestos (i.e., serpentinite) that would require ground disturbance and/or development of new residential or other sensitive uses, for risks to people from airborne asbestos particles during construction and post-construction periods. Hazards shall be assessed, at minimum, using guidelines and regulations of the Bay Area Air Quality Management District and the California Air Resources Board.

Policy EC-4.7: Consistent with the San José Geologic Hazard Ordinance, prepare geotechnical and geological investigation reports for projects in areas of known concern to address the implications of irrigated landscaping to slope stability and to determine if hazards can be adequately mitigated.

Policy EC-4.10: Require a Certificate of Geologic Hazard Clearance to be issued by the Director of Public Works prior to issuance of grading and building permits within defined geologic hazard zones.

Policy EC-4.11: Require the preparation of geotechnical and geological investigation reports for projects within areas subject to soils and geologic hazards, and require review and implementation of mitigation measures as part of the project approval process.

Policy EC-4.12: Require review and approval of grading plans and erosion control plans (if applicable) prior to issuance of a grading permit by the Director of Public Works.

City of San José Geological Hazard Review

For development sites located within a City Geologic Hazard Zone or within the State of California Seismic Hazard Zone of Required Investigation for Earthquake Induced Landslides, a Geologic Hazard Clearance must be obtained from the Director of Public Works before any discretionary approval for development, including site development, special use, lot line adjustment, zoning approval, or grading or building permits. For development sites located within a State of California Seismic Hazard Zone of Required Investigation for Liquefaction, a Geologic Clearance approval must be obtained from the City Geologist prior issuance of a grading or

[51] See Chapter 17.10, *Geologic Hazard Regulations*, within the City of San José Code of Ordinances. Available at https://library.municode.com/ca/san_jose/codes/code_of_ordinances?nodeId=TIT17BUCO_CH17.10GEHARE.

building permit. Because the Project site is within City Geologic Hazard Zones for ground shaking and liquefaction, these geologic clearances would apply.

City of San José Grading Ordinance

All construction and/or demolition projects must comply with the City of San José's Grading Ordinance, which requires the use of erosion and sediment controls to protect water quality while the site is under construction. The ordinance applies to any project that would involve excavation, grading, or installation of on-site storm drainage or construction retaining walls within the City of San José. Before the issuance of a permit for grading activity slated to occur during the rainy season (October 15–April 15), an Erosion Control Plan must be submitted to the San José Department of Public Works detailing BMPs that would prevent the discharge of stormwater pollutants. The City of San José inspects construction sites regularly.

City of San José Municipal Code

San José Municipal Code Title 24 adopts the 2019 California Building, Plumbing, Mechanical, Electrical, Existing Building, and Historical Building Codes. The Building Codes include requirements for building foundations, walls, and seismic resistant design. Requirements for building safety and earthquake hazard reduction are also addressed in City Municipal Code Chapter 17.40, Dangerous Buildings, and Chapter 17.10, Geologic Hazards Regulations. Requirements for grading, excavation, and erosion control are included in Chapter 17.04 (Building Code, Part 6, Excavation and Grading). In accordance with the Municipal Code, the Director of Public Works must issue a Certificate of Geologic Hazard Clearance before the issuance of grading and building permits within defined geologic hazard zones.

San José Standard Conditions of Approval

The City's Standard Conditions of Approval (SCAs) relevant to the proposed project's geology, soils, and paleontological resources impacts are presented below. If the proposed project is approved by the City, all applicable SCAs would be adopted as conditions of approval; the project applicant would be required, as applicable, to implement the SCAs during project construction and operation to address impacts related to geology, soils, and paleontological resources. The SCAs are incorporated and required as part of the project, so they are not listed as mitigation measures.

> **SCA GE-1: Paleontological Resources.** If vertebrate fossils are discovered during construction, all work on the site shall stop immediately, the Director of Planning, Building and Code Enforcement (PBCE) or the Director's designee shall be notified, and a qualified professional paleontologist shall assess the nature and importance of the find and recommend appropriate treatment. Treatment may include, but is not limited to, preparation and recovery of fossil materials so that they can be housed in an appropriate museum or university collection and may also include preparation of a report for publication describing the finds. The project applicant shall be responsible for implementing the recommendations of the qualified paleontologist. A report of all findings shall be submitted to the Director of PBCE or the Director's designee.

3.5.3 Impacts and Mitigation Measures

Significance Criteria

Geology, Soils, and Paleontological Resources

For the purposes of this EIR, a geology and soils impact would be significant if implementation of the proposed project would:

(1) Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:

   a. Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42;

   b. Strong seismic ground shaking;

   c. Seismic-related ground failure, including liquefaction; or

   d. Landslides.

(2) Result in substantial soil erosion or the loss of topsoil;

(3) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse;

(4) Be located on expansive soil, as defined in California Building Code (2019) Section 1803.5.3, creating substantial direct or indirect risks to life or property;

(5) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater; or

(6) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature.

Approach to Analysis

The analysis in this section is based on the conditions described in several different geotechnical investigations performed in various areas of the project site, and on a review of literature research (geologic, seismic, and soils reports and maps), information from geologic and seismic databases, and the General Plan.

The proposed project would be regulated by the various laws, regulations, and policies summarized in Section 3.5.2, *Regulatory Framework*. This analysis assumes compliance by the project with applicable federal, state, and local laws and regulations; state and local agencies would be expected to continue to enforce applicable requirements to the extent that they do so now. Note that compliance with many of the laws and regulations is a condition of permit approval.

For example, the geotechnical reports used for this analysis provide the preliminary geotechnical investigation results and recommendations to address the geotechnical conditions at the project

site. These results inform the ongoing project design and this EIR section. Upon completion of the CEQA documentation, any new development within the project site would be required by the CBC, and the City of San José Building Division (which adopted the 2019 CBC) and Grading Ordinance, to conduct a final geotechnical investigation that would inform the final project design and provide recommendations to address all identified geotechnical issues.

Criteria Requiring No Further Evaluation

Criteria listed above that are not applicable to actions associated with the proposed project are identified below, along with a supporting rationale as to why further consideration is unnecessary and a no-impact determination is appropriate.

1. ***Criterion 1(a): Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault.*** No Earthquake Fault Zones have been delineated on the project site by Alquist-Priolo Earthquake Fault Zoning Maps. Although active and potentially active faults are present in the project vicinity, none of these faults cross the project site. The proposed project would not directly or indirectly cause substantial adverse effects related to fault rupture. **No impact** would occur.
2. ***Criterion 1(d): Landslides.*** The Landslide Inventory Map for the San José West Quadrangle indicates that there are no active or historic landslides within the project site. Because of the project site's relatively flat topography, impacts related to landslides are not expected to affect any project components, nor would the proposed project directly or indirectly cause substantial adverse effects related to landslides, whether seismically induced or gravity-induced. Therefore, relative to landslides, **no impact** would occur.
3. ***Criterion 5: Have soils incapable of supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater.*** As described in Chapter 2, *Project Description*, Section 2.8.2, *Wastewater*, the proposed project would include the option of an on-site water reuse facility (wastewater treatment plant). A private sewage collection network would collect the wastewater and transport it to the facility. If the option is not exercised, then the proposed project would be connected to the existing city sanitary sewer system. The proposed project would not use septic tanks.

   The on-site wastewater treatment facility (if constructed) would rely on a treatment method that does not depend on adequate soils to function properly and, therefore, would not create an impact relative to the geology or soils at the project site. For this reason, the proposed project would not introduce an environmental or public health hazard by building septic tanks or other wastewater disposal systems in soils that are incapable of adequately supporting such systems. There would be **no impact** related to adequate soils for septic tanks or wastewater treatment.

Impact Analysis

Geology and Soils

Impact GE-1: The proposed project could directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving strong seismic ground shaking; or seismic-related ground failure, including liquefaction. ***(Less than Significant with Mitigation)***

Strong Seismic Ground Shaking

Strong seismic ground shaking could occur at the project site because there are active fault zones near the project. As discussed in the CBC subsection identified in Section 3.5.2, *Regulatory Framework*, each development that falls under the purview of the CBC would be required to prepare a final, design-level geotechnical investigation and accompanying report. The design-level geotechnical investigation would provide seismic design requirements consistent with the most updated version of the CBC. These seismic design requirements would be implemented during construction and would significantly reduce the damage to structures caused by strong seismic ground shaking.

Seismic-Related Ground Failure, including Liquefaction

According to the Liquefaction Susceptibility map published by USGS, the soils underlying the project site have moderate susceptibility to liquefaction. This finding is corroborated by the geotechnical investigations performed on the project site, which also indicate liquefaction susceptibility ranging from moderate to high.

As mentioned above, new development on the project site would be subject to the CBC and therefore would be required to prepare a final design-level geotechnical report. The final report will evaluate all identified geotechnical hazards, including liquefaction, and provide design recommendations to address the liquefaction risks. However, even with compliance with CBC requirements, the impact of the proposed project related to liquefaction would be **potentially significant**.

Implementing **Mitigation Measure GE-1, Seismic Damage and Seismic-Related Ground Failure, including Liquefaction**, would reduce impacts from seismic ground shaking and seismic-related ground failure. Mitigation Measure GE-1 would implement standard engineering and seismic safety design techniques and require the completion of building design and construction in accordance with the recommendations of an approved geotechnical investigation. The buildings would also need to meet the requirements of applicable Building and Fire Code sections as adopted or updated by the City. Therefore, the impact of the proposed project related to strong seismic ground shaking would be **less than significant with mitigation incorporated**.

Mitigation Measure

Mitigation Measure GE-1: Seismic Damage and Seismic-Related Ground Failure, including Liquefaction

Prior to the issuance of any grading or building permit for new building construction, the project applicant shall implement the following measures:

- To avoid or minimize potential damage from seismic shaking, use standard engineering and seismic safety design techniques for project construction. Complete building design and construction at the site in conformance with the recommendations of an approved geotechnical investigation. The geotechnical investigation report shall be reviewed and approved by the Director of the City of San José Department of Public Works as part of the building permit review and entitlement process. The buildings shall meet the requirements of applicable Building and Fire Codes as adopted or updated by the City. The project shall be designed to withstand soil hazards identified on the site, and designed to reduce the risk to life or property on-site and off-site to the extent feasible and in compliance with the Building Code.
- Construct the project in accordance with standard engineering practices in the California Building Code, as adopted by the City of San José. Obtain a grading permit from the Department of Public Works prior to the issuance of a Public Works Clearance. These standard practices will ensure that future buildings on the site are designed to properly account for soils-related hazards.

Significance after Mitigation: Less than Significant.

Impact GE-2: The proposed project would not result in substantial soil erosion or the loss of topsoil. ***(Less than Significant)***

The entire project site is fully developed and has been for many years. Consequently, there is no topsoil in the sense of valuable agricultural topsoil.

The proposed project would include ground-disturbing construction activities that could increase the risk of erosion or sediment transport. Total ground disturbance would be more than 1.0 acre. Construction would have the potential to result in soil erosion during excavation, grading, trenching, and soil stockpiling. Because construction activities would exceed 1.0 acre, the proposed project would be required to comply with the Construction General Permit, described in Section 3.5.2, *Regulatory Framework*, and discussed further in Section 3.8, *Hydrology and Water Quality*. This state requirement was developed to ensure that stormwater is managed and erosion is controlled on construction sites.

The Construction General Permit requires preparation and implementation of a SWPPP, which requires applying BMPs to control run-on and runoff from construction work sites. The BMPs would include but not be limited to physical barriers to prevent erosion and sedimentation; construction of sedimentation basins; limitations on work periods during storm events; use of infiltration swales; protection of stockpiled materials; and a variety of other measures that would substantially reduce or prevent erosion from occurring during construction.

Through compliance with these independently enforceable existing requirements, the potential impacts of the proposed project associated with soil erosion and loss of topsoil during construction would be **less than significant**.

Mitigation: None required.

Impact GE-3: The proposed project would not be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse. ***(Less than Significant with Mitigation)***

As discussed in above for Criterion 1(d), the project site is not in an area susceptible to landslides. Subsidence and collapse are typically caused by the withdrawal of groundwater or crude oil. The project would include a negligible amount of groundwater withdrawal and would not include oil extraction.

Dewatering would likely be required during construction for the subsurface parking, as the groundwater level is known to be above 25 feet below ground surface. However, as discussed in Section 3.7, *Hazards and Hazardous Materials*, a dewatering control and disposal plan will be required as part of the Soil and Groundwater Management Plan. The dewatering control and disposal plan would include procedures to control the rate and effect of the dewatering to avoid any possible subsidence.

Liquefaction and lateral spreading are more commonly triggered by a seismic event but can occur without a seismic event. In either case, as discussed above in Impact GE-1, activities associated with the project are not expected to exacerbate this condition. Any new development on the project site would be required to adhere to the most current version of the CBC, which would require that a design-level geotechnical report be prepared and incorporated into the project design. Should the project not account for unstable soils, this would be a potentially significant impact. Implementation of **Mitigation Measure GE-3, Geotechnical Report**, would reduce this impact. The geotechnical report would specifically include recommendations and design requirements to address any unstable soils identified on the project site. The impacts of the proposed project related to unstable soils and their associated hazards would be **less than significant with mitigation incorporated**.

Mitigation Measure

Mitigation Measure GE-3: Geotechnical Report

Prior to or coincident with the submittal of grading and drainage plans for each proposed building or other improvements, the project applicant for the improvements in question shall submit to the City of San José Director of Public Works or his/her designee for review and approval, in accordance with the California Building Code, a geotechnical report for the site under consideration. The applicant for the improvements in question shall comply with the recommendations of the geotechnical report, as approved by the Director of Public Works or his/her designee.

Significance after Mitigation: Less than significant.

Impact GE-4: The proposed project would not be located on expansive soil, as defined in Section 1803.5.3 of the California Building Code (2019), that would create substantial direct or indirect risks to life or property. ***(Less than Significant)***

According to the geotechnical investigations performed for several parcels on the project site, the soils underlying the site are considered highly expansive. If the expansive soils are not addressed, the impacts to life or property associated with expansive soils could be adverse.

As discussed in Section 3.5.2, *Regulatory Framework*, and in Impact GE-1, each new development on the project site would be required to adhere to the most current version of the CBC, which would require that a final, design-level geotechnical report be performed. The CBC requires that the evaluation of expansive soils be incorporated into geotechnical reports for sites with soils known to have expansive properties. For sites with known expansive soils, geotechnical reports provide specific requirements for replacing expansive soils with engineered fill to change the properties of the soils and reduce the risk of expansion.

With adherence to the recommendation provided in the design-level geotechnical investigation, the impact of the proposed project related to expansive soils would be **less than significant**.

Mitigation: None required.

Paleontological Resources

Impact GE-5: The proposed project could directly or indirectly destroy a unique paleontological resource or site or unique geologic feature. ***(Less than Significant with Mitigation)***

Several Holocene-age alluvial deposits are mapped at the surface within the project site. Generally, Holocene-age deposits have low to high paleontological sensitivity, increasing with depth (and therefore also increasing in age). As described in Section 3.5.1, *Environmental Setting*, it is expected that the highly sensitive, early Holocene-age deposits are close to the surface and could be impacted by proposed project construction activities. Also described above, highly sensitive, Pleistocene-age deposits are mapped in the area. These sensitive units are also expected to be close to the surface and could be impacted by proposed project activities.

The loss of a unique paleontological resource or site that could yield information important to prehistory, or that embodies the distinctive characteristics of a type of organism, environment, period of time, or geographic region, would be a significant environmental impact. Direct impacts on paleontological resources primarily concern the potential destruction of nonrenewable paleontological resources and the loss of information associated with these resources. This includes the unauthorized collection of fossil remains. If potentially fossiliferous bedrock or surficial sediments are disturbed, the disturbance could result in the destruction of paleontological resources and subsequent loss of information.

For project sites that are underlain by paleontologically sensitive geologic units, the greater the amount of ground disturbance, the higher the potential for significant impacts on paleontological

resources. Project-related ground disturbance within this formation would result in a significant impact on the paleontological resources in the area if it were to destroy unique paleontological resources. Given the high potential for the presence of such resources, it is assumed that excavation and grading that exceed 2 feet in depth in areas of previously undisturbed sediments would have a high likelihood of destroying paleontological resources.

Fossils have been discovered as shallow as 5 to 10 feet in Holocene-age alluvium, and throughout Pleistocene-age alluvium. Should paleontological resources be encountered during ground-disturbing activities, this would be a **potentially significant** impact. To reduce impacts on paleontological resources, implementation of **SCA GE-1, Paleontological Resources**, and **Mitigation Measures GE-5a, Project Paleontologist**, through **GE-5d, Significant Fossil Treatment**, would be required.

Implementation of SCA GE-1 and Mitigation Measures GE-5a through GE-5d would reduce the potential for significant impacts on paleontological resources by providing paleontological resources sensitivity training for construction workers; implementing a monitoring and mitigation plan to ensure preservation of any paleontological resources encountered during construction; and salvaging and preparing significant fossil finds for curation. Because development of the proposed project with implementation of SCA GE-1 and Mitigation Measures GE-5a through GE-5d would not adversely affect paleontological resources, this impact would be **less than significant with mitigation incorporated**.

Mitigation Measures

Mitigation Measure GE-5a: Project Paleontologist

The project applicant for specific construction work proposed shall retain a qualified professional paleontologist (qualified paleontologist) meeting the Society of Vertebrate Paleontology standards as set forth in the "Definitions" section of Standard Procedures for the Assessment and Mitigation of Adverse Impacts to Paleontological Resources (2010) prior to the approval of demolition or grading permits. The qualified paleontologist shall attend the project kickoff meeting and project progress meetings on a regular basis, shall report to the site in the event potential paleontological resources are encountered, and shall implement the duties outlined in Mitigation Measures GE-5b through GE-5d. Documentation of a paleontologist attending the project kickoff meeting and project progress meetings shall be submitted to the Director of the City of San José Department of Planning, Building, and Code Enforcement, or the Director's designee.

Mitigation Measure GE-5b: Worker Training

Prior to the start of any ground-disturbing activity (including vegetation removal, grading, etc.), the qualified paleontologist shall prepare paleontological resources sensitivity training materials for use during the project-wide Worker Environmental Awareness Training (or equivalent). The paleontological resources sensitivity training shall be conducted by a qualified environmental trainer (often the Lead Environmental Inspector or equivalent position, like the qualified paleontologist). In the event construction crews are phased, additional trainings shall be conducted for new construction personnel. The training session shall focus on the recognition of the types of paleontological resources that could be encountered within the project site and the procedures to be followed if they are found, as

outlined in the approved Paleontological Resources Monitoring and Mitigation Plan in Mitigation Measure GE-5c. The project applicant for specific construction work proposed and/or its contractor shall retain documentation demonstrating that all construction personnel attended the training prior to the start of work on the site, and shall provide the documentation to the Director of the City of San José Department of Planning, Building, and Code Enforcement, or the Director's designee.

Mitigation Measure GE-5c: Paleontological Monitoring

The qualified paleontologist shall prepare, and the project applicant for specific construction work proposed and/or its contractors shall implement, a Paleontological Resources Monitoring and Mitigation Plan (PRMMP). The project applicant shall submit the plan to the Director of the City of San José Department of Planning, Building and Code Enforcement, or the Director's designee, for review and approval at least 30 days prior to the start of construction. This plan shall address the specifics of monitoring and mitigation and comply with the recommendations of the Society of Vertebrate Paleontology (SVP) (2010), as follows.

1. The qualified paleontologist shall identify, and the project applicant or its contractor(s) shall retain, qualified paleontological resource monitors (qualified monitors) meeting the SVP standards (2010).
2. The qualified paleontologist and/or the qualified monitors under the direction of the qualified paleontologist shall conduct full-time paleontological resources monitoring for all ground-disturbing activities in previously undisturbed sediments in the project site that have high paleontological sensitivity. This includes any excavation that exceeds 2 feet in depth in previously undisturbed areas. The PRMMP shall clearly map these portions of the proposed project based on final design provided by the project applicant and/or its contractor(s).
3. If many pieces of heavy equipment are in use simultaneously but at diverse locations, each location shall be individually monitored.
4. Monitors shall have the authority to temporarily halt or divert work away from exposed fossils in order to evaluate and recover the fossil specimens, establishing a 50-foot buffer.
5. If construction or other project personnel discover any potential fossils during construction, regardless of the depth of work or location and regardless of whether the site is being monitored, work at the discovery location shall cease in a 50-foot radius of the discovery until the qualified paleontologist has assessed the discovery and made recommendations as to the appropriate treatment.
6. The qualified paleontologist shall determine the significance of any fossils discovered, and shall determine the appropriate treatment for significant fossils in accordance with the SVP standards. The qualified paleontologist shall inform the project applicant of these determinations as soon as practicable. See Mitigation Measure GE-5d regarding significant fossil treatment.
7. Monitors shall prepare daily logs detailing the types of activities and soils observed, and any discoveries. The qualified paleontologist shall prepare a final monitoring and mitigation report to document the results of the monitoring effort and any curation of fossils. The project applicant shall provide the daily logs to the Director of the City of San José Department of Planning, Building, and Code Enforcement, or the Director's designee, upon request, and shall provide the final

report to the Director of the City of San José Department of Planning, Building, and Code Enforcement, or the Director's designee, upon completion.

Mitigation Measure GE-5d: Significant Fossil Treatment

If any find is deemed significant, as defined in the Society of Vertebrate Paleontology (SVP) (2010) standards and following the process outlined in Mitigation Measure GE-5c, the qualified paleontologist shall salvage and prepare the fossil for permanent curation with a certified repository with retrievable storage following the SVP standards, and plans for permanent curation shall be submitted to the Director of the City of San José Department of Planning, Building, and Code Enforcement, or the Director's designee.

Significance after Mitigation: Less than significant.

Cumulative Impacts

This section presents an analysis of the cumulative effects of the proposed project in combination with other past, present, and reasonably foreseeable future projects. The geographic scope of analysis for cumulative geologic impacts encompasses and is limited to the project site and its immediately adjacent area. This is because impacts relative to geologic hazards are generally site-specific. For example, the effect of erosion would tend to be limited to the localized area of a project and could only be cumulative if erosion were to occur as the result of two or more adjacent projects that spatially overlapped. Cumulative projects considered in this analysis (past, approved, pending, under construction) are identified in Chapter 3, Figure 3-1.

The time frame during which the proposed project could contribute to cumulative geologic hazards includes the construction and operations phases. For the proposed project, the operational phase is permanent. However, similar to the geographic limitations discussed above, it should be noted that impacts related to geologic hazards are generally time-specific. Geologic hazards could only be cumulative if two or more geologic hazards were to occur at the same time, and overlap at the same location.

Therefore, as discussed above in *Approach to Analysis* in Section 3.5.3, *Impacts and Mitigation Measures*, the proposed project would have no cumulative impact with respect to fault rupture, landslides, loss of topsoil, or the use of septic tanks or alternative waste disposal systems, and they are not discussed further below.

As discussed in Chapter 3, *Environmental Setting, Impacts, and Mitigation*, under Cumulative Impacts, the Santa Clara Valley Transportation Authority (VTA) BART Silicon Valley Phase II Project is a six-mile extension to the BART train service from Berryessa/North San José through Downtown San José to the City of Santa Clara and will be located adjacent to the south side of West Santa Clara Street, between Autumn Street and the San José Diridon Caltrain Station. This station would consist of a below-ground concourse and boarding platform. Construction is anticipated for 2022 through 2028. This project could potentially contribute cumulatively should the timing of projects coincide.

Impact C-GE-1: The proposed project, in combination with past, present, and reasonably foreseeable future projects, could result in significant cumulative impacts related to geology, soils, or paleontology. *(Less than Significant with Mitigation)*

Geology and Soils

As discussed in Section 3.5.2, *Regulatory Framework*, the NPDES Construction General Permit would require each project involving disturbance of one acre or more of land to prepare and implement a SWPPP. The SWPPP would describe BMPs to control runoff and prevent erosion for each such project. Compliance with this requirement would reduce the potential for erosion impacts.

The Construction General Permit has been developed to address cumulative conditions arising from construction throughout the state, and is intended to maintain cumulative effects of projects subject to this requirement below levels that would be considered significant. For example, two adjacent construction sites would be required to implement BMPs to reduce and control the release of sediment and/or other pollutants in any runoff leaving their respective sites. The runoff water from both sites would be required to achieve the same action levels, measured as a maximum amount of sediment or pollutant allowed per unit volume of runoff water. Thus, even if the runoff waters were to combine after leaving the sites, the sediments and/or pollutants in the combined runoff would still be at concentrations (amount of sediment or pollutants per volume of runoff water) below action levels and would not combine to be cumulatively significant. Therefore, the proposed project would have a **less-than-significant** cumulative impact with respect to soil erosion.

Seismically induced ground shaking, liquefaction and lateral spreading, and expansive or corrosive soils could cause structural damage or pipeline leaks or ruptures during the construction and operational phases. However, state and local building regulations and standards have been established to address and reduce the potential for such impacts. The proposed project and cumulative projects would be required to comply with applicable provisions of these laws and regulations.

Compliance with these requirements would reduce the potential for impacts. The purpose of the CBC (and local ordinances) is to regulate and control the design, construction, quality of materials, use/occupancy, location, and maintenance of all buildings and structures within its jurisdiction. By design, it is intended to reduce the cumulative risks from buildings and structures. Based on compliance with these requirements, the incremental impacts of the project combined with impacts of other projects in the area **would not combine to cause a significant cumulative impact** related to seismically induced ground shaking, liquefaction and lateral spreading, or expansive soils.

Paleontological Resources

As described under Impact GE-5, the potential exists for deeper excavations to affect unique paleontological resources or sites. The surficial sediments of the project area are unlikely to have preserved fossils; however, there is a potential for increased sensitivity with depth.

The VTA BART Silicon Valley Phase II Project, mentioned above, includes ground disturbance and could result in similar impacts on paleontological resources. The incremental impact of the

proposed project, combined with those of the cumulative projects, could result in a cumulative impact on paleontological resources. However, implementation of SCA GE-1 and Mitigation Measures GE-5a through GE-5d (described above) would ensure that the proposed project's contribution toward cumulative effects on paleontological resources would not be cumulatively considerable, and the impact would be **less than significant with mitigation incorporated**.

Mitigation Measures

Mitigation Measure GE-5a, Project Paleontologist (refer to Impact GE-5)

Mitigation Measure GE-5b, Worker Training (refer to Impact GE-5)

Mitigation Measure GE-5c, Paleontological Monitoring (refer to Impact GE-5)

Mitigation Measure GE-5d, Significant Fossil Treatment (refer to Impact GE-5)

Significance after Mitigation: Less than significant.

3.6 Greenhouse Gas Emissions

This section presents an analysis of potential impacts associated with greenhouse gas (GHG) emissions. For more information about the analysis assumptions, refer to Appendix C1, *Air Quality and Greenhouse Gas Emissions Calculations*.

3.6.1 Environmental Setting

Climate Science

"Global warming" and "climate change" are common terms used to describe the increase in the average temperature of the earth's near-surface air and oceans since the mid-20th century. Natural processes and human actions have been identified as affecting the climate. The Intergovernmental Panel on Climate Change (IPCC) has concluded that variations in natural phenomena such as solar radiation and volcanoes produced most of the warming from pre-industrial times to 1950 and had a small cooling effect afterward.

However, increasing GHG concentrations resulting from human activity since the 19th century, such as fossil fuel combustion, deforestation, and other activities, are believed to be a major factor in climate change. GHGs in the atmosphere naturally trap heat by impeding the exit of solar radiation that has hit the earth and is reflected back into space—a phenomenon sometimes referred to as the "greenhouse effect." Some GHGs occur naturally and are necessary for keeping the Earth's surface inhabitable. However, increases in the concentrations of these gases in the atmosphere during the last 100 years have trapped solar radiation and decreased the amount that is reflected back into space, intensifying the natural greenhouse effect and resulting in the increase of global average temperature.

Carbon dioxide (CO_2), methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride are the principal GHGs. When concentrations of these gases exceed historical concentrations in the atmosphere, the greenhouse effect is intensified. CO_2, methane, and nitrous oxide occur naturally and are also generated through human activity. Emissions of CO_2 are largely by-products of fossil fuel combustion, whereas methane results from off-gassing, natural gas leaks from pipelines and industrial processes, and incomplete combustion associated with agricultural practices, landfills, energy providers, and other industrial facilities. Nitrous oxide emissions are also largely attributable to agricultural practices and soil management. CO_2 sinks include vegetation and the ocean, which absorb CO_2 through sequestration and dissolution, and are two of the largest reservoirs of CO_2 sequestration. Other human-generated GHGs include fluorinated gases such as hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride, which have much higher heat-absorption potential than CO_2, and are byproducts of certain industrial processes.

CO_2 is the reference gas for climate change, as it is the GHG emitted in the highest volume. The effect that each of the GHGs have on global warming is the product of the mass of their emissions and their global warming potential (GWP). GWP indicates how much a gas is predicted to contribute to global warming relative to how much warming would be predicted to be caused by the

same mass of CO_2. For example, methane and nitrous oxide are substantially more potent GHGs than CO_2, with GWPs of 25 and 298 times that of CO_2 respectively, which has a GWP of 1.[1]

In emissions inventories, GHG emissions are typically reported as metric tons (MT) of CO_2 equivalent (CO_2e). CO_2e is calculated as the product of the mass emitted of a given GHG and its specific GWP. While methane and nitrous oxide have much higher GWPs than CO_2, CO_2 is emitted in higher quantities and it accounts for the majority of GHG emissions in CO_2e, both from commercial developments and human activity in general.

Effects of Global Climate Change

The scientific community's understanding of the fundamental processes responsible for global climate change has improved over the past decade, and its predictive capabilities are advancing. However, there remain scientific uncertainties in, for example, predictions of local effects of climate change, occurrence, frequency, and magnitude of extreme weather events, effects of aerosols, changes in clouds, shifts in the intensity and distribution of precipitation, and changes in oceanic circulation. Due to the complexity of and inability to accurately model Earth's climate system, the uncertainty surrounding climate change may never be completely eliminated. Nonetheless, the IPCC's AR5 states that is extremely likely that the dominant cause of the observed warming since the mid-20th century is the anthropogenic increase in GHG concentrations.[2] The National Academies of Science from 80 countries have issued statements endorsing the consensus position that humans are the dominant cause for global warming since the mid-20th century.[3]

The Fourth California Climate Change Assessment (Fourth Assessment), published in 2018, found that the potential impacts in California due to global climate change include: loss in snow pack; sea-level rise; more extreme heat days per year; more high ozone days; more extreme forest fires; more severe droughts punctuated by extreme precipitation events; increased erosion of California's coastlines and sea water intrusion into the Sacramento and San Joaquin Deltas and associated levee systems; and increased pest infestation.[4] The Fourth Assessment's findings are consistent with climate change studies published by the California Natural Resources Agency (CNRA) since 2009, starting with the *California Climate Adaptation Strategy*[5] as a response to the Governor's Executive Order S-13-2008. In 2014, the CNRA rebranded the first update of the 2009 adaptation strategy as

1 U.S. Environmental Protection Agency, *Emission Factors for Greenhouse Gas Inventories*, March 9, 2018. Available at https://www.epa.gov/sites/production/files/2018-03/documents/emission-factors_mar_2018_0.pdf. Accessed April 25, 2019.

2 Intergovernmental Panel on Climate Change, *Climate Change 2014: Synthesis Report, Contribution of Working Groups I, II and III to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change*, Core Writing Team, R.K. Pachauri and L.A. Meyer (eds.), Geneva, Switzerland: IPCC, 151 pp, 2014. Available at www.ipcc.ch/report/ar5/syrhttps:/. Accessed March 10, 2019.

3 J. Cook et al., Consensus on consensus: a synthesis of consensus estimates on human-caused global warming, Environmental Research Letters Vol. 11 No. 4, DOI:10.1088/1748-9326/11/4/048002, April 13, 2016.

4 California Governor's Office of Planning and Research, Scripps Institution of Oceanography, CEC, California Public Utilities Commission, *California's Fourth Climate Change Assessment: Statewide Summary Report*, Publication no. SUMCCCA4-2018-013, August 2018. Available at https://www.energy.ca.gov/sites/default/files/2019-11/Statewide_Reports-SUM-CCCA4-2018-013_Statewide_Summary_Report_ADA.pdf. Accessed August 6, 2020.

5 California Natural Resources Agency, *2009 California Climate Adaptation Strategy*, 2009. Available at https://resources.ca.gov/CNRALegacyFiles/docs/climate/Statewide_Adaptation_Strategy.pdf. Accessed March 10, 2019.

the *Safeguarding California Plan*.[6] The 2018 update to *Safeguarding California Plan* identifies hundreds of ongoing actions and next steps state agencies are taking to safeguard Californians from climate impacts within a framework of 81 policy principles and recommendations.[7]

In 2016, the CNRA released *Safeguarding California: Implementation Action Plans* in accordance with Executive Order B-30-15, identifying a lead agency to lead adaptation efforts in each sector.[8] In accordance with the 2009 *California Climate Adaptation Strategy*, the California Energy Commission (CEC) was directed to develop a website on climate change scenarios and impacts that would be beneficial for local decision makers. The website, known as Cal-Adapt, became operational in 2011.[9] The information provided on the Cal-Adapt website represents a projection of potential future climate scenarios comprised of local average values for temperature, sea-level rise, snowpack and other data representative of a variety of models and scenarios, including potential social and economic factors. Below is a summary of some of the potential effects that could be experienced in California as a result of global warming and climate change.

Temperature Increase

The primary effect of adding GHGs to the atmosphere has been a rise in the average global temperature. The impact of human activities on global temperature is readily apparent in the observational record. Since 1895, the contiguous US has observed an average temperature increase of 1.5°F per century.[10] The last 5-year period (2014–2018) is the warmest on record for the contiguous US,[11] while the 20 warmest years have occurred over the past 22-year period.[12] The Fourth Assessment indicates that average temperatures in California cold rise 5.6°F to 8.8°F by the end of the century, depending on the global trajectory of GHG emissions.[13] According to the Cal-Adapt website, the portion of the state in which the Project Site is located could result in an average increase in temperature of approximately 4.2° to 6.9°F by 2070–2090, compared to the baseline period of 1961–1990.

6 California Natural Resources Agency, Safeguarding California: Reducing Climate Risk, an Update to the 2009 California Climate Adaptation Strategy, 2014. Available at https://files.resources.ca.gov/climate/safeguarding/. Accessed March 10, 2019.

7 California Natural Resources Agency, *Safeguarding California Plan: 2018 Update*, January 2018. Available at http://resources.ca.gov/climate/safeguarding/. Accessed March 10, 2019.

8 California Natural Resources Agency, *Safeguarding California: Implementation Action Plans*, 2016. Available at https://www.adaptationclearinghouse.org/resources/safeguarding-california-implementation-action-plans.html#:~:text=The%20new%20report%2C%20%E2%80%9CSafeguarding%20California,impacts%20of%20a%20changing%20climate. Accessed August 6, 2020.

9 Cal-Adapt. Available at http://cal-adapt.org. Accessed August 6, 2020.

10 National Oceanic and Atmospheric Association, Assessing the US Climate in 2018, published February 6, 2019. Available at https://www.ncei.noaa.gov/news/national-climate-201812. Accessed April 25, 2019.

11 National Oceanic and Atmospheric Association, Assessing the US Climate in 2018, published February 6, 2019. Available at https://www.ncei.noaa.gov/news/national-climate-201812. Accessed April 25, 2019.

12 Climate Central, February 6, 2019. Available at https://www.climatecentral.org/gallery/maps/2018-global-temp-review-landocean. Accessed April 25, 2019.

13 California Governor's Office of Planning and Research, Scripps Institution of Oceanography, CEC, California Public Utilities Commission, *California's Fourth Climate Change Assessment: Statewide Summary Report*, Publication no. SUMCCCA4-2018-013, August 2018. Available at https://www.energy.ca.gov/sites/default/files/2019-11/Statewide_Reports-SUM-CCCA4-2018-013_Statewide_Summary_Report_ADA.pdf. Accessed August 6, 2020.

With climate change, extreme heat conditions and heat waves are predicted to impact larger areas, last longer, and have higher temperatures. Heat waves, defined as three or more days with temperatures above 90°F, are projected to occur more frequently by the end of the century. Extreme heat days and heat waves can negatively impact human health. Heat-related illness includes a spectrum of illnesses ranging from heat cramps to severe heat exhaustion and life threatening heat stroke.[14]

Wildfires

The hotter and dryer conditions expected with climate change will make forests more susceptible to extreme wildfires. California's Fourth Climate Change Assessment found that if GHG emissions continue to rise, the frequency of extreme wildfires burning over approximately 25,000 acres would increase by nearly 50 percent, and the average area burned statewide each year would increase by 77 percent, by the year 2100. In the areas that have the highest fire risk, wildfire insurance is estimated to see costs rise by 18 percent by 2055 and the fraction of property insured would decrease.[15]

Air Quality

Higher temperatures, conducive to air pollution formation, could worsen air quality in California and make it more difficult for the state to achieve air quality standards. Climate change may increase the concentration of ground-level ozone in particular, which can cause breathing problems, aggravate lung diseases such as asthma, emphysema, chronic bronchitis, and cause chronic obstructive pulmonary disease (COPD) but the magnitude of the effect, and therefore, its indirect effects, are uncertain. Emissions from wildfires can lead to excessive levels of particulate matter, ozone, and volatile organic compounds.[16] Additionally, severe heat accompanied by drier conditions and poor air quality could increase the number of heat-related deaths, illnesses, and asthma attacks throughout the state.[17]

Precipitation and Water Supply

There is a high degree of uncertainty with respect to the overall impact of global climate change on future water supplies in California. Studies indicate considerable variability in predicting precise impacts of climate change on California hydrology and water resources. Increasing uncertainty in the timing and intensity of precipitation will challenge the operational flexibility of California's water management systems. Warmer, wetter winters would increase the amount of runoff available for groundwater recharge; however, this additional runoff would occur at a time when some basins are either being recharged at their maximum capacity or are already full.

---

14 Red Cross Red Crescent Climate Centre (RCCC), *Heatwave Guide for Cities*, July 2019. Available at https://toolkit.climate.gov/reports/preparing-california-extreme-heat-guidance-andrecommendations. Accessed August 6, 2020.

15 Anthony LeRoy Westerling, *Wildfire Simulations for the Fourth California Climate Assessment: Projecting Changes in Extreme Wildfire Events with a Warming Climate*, California's Fourth Climate Change Assessment, California Energy Commission, Publication no. CCCA4-CEC-2018-014, 2018.

16 NOAA, Fact Sheets: Wildfires/ FIREX Mission, 2020. Available at https://www.esrl.noaa.gov/csl/factsheets/csdWildfiresFIREX.pdf. Accessed August 6, 2020.

17 Red Cross Red Crescent Climate Centre (RCCC), *Heatwave Guide for Cities*, July 2019. Available at https://toolkit.climate.gov/reports/preparing-california-extreme-heat-guidance-andrecommendations. Accessed August 6, 2020.

Conversely, reductions in spring runoff and higher evapotranspiration because of higher temperatures could reduce the amount of water available for recharge.[18]

Hydrology and Sea-Level Rise

As discussed above, climate changes could potentially affect: the amount of snowfall, rainfall and snow pack; the intensity and frequency of storms; flood hydrographs (flash floods, rain or snow events, coincidental high tide and high runoff events); sea-level rise and coastal flooding; coastal erosion; and the potential for salt water intrusion. Sea-level rise can be a product of global warming through two main processes: expansion of seawater as the oceans warm, and melting of ice over land. A rise in sea levels could result in coastal flooding and erosion and could jeopardize California's water supply. Sea level could rise as much as 8.2 feet (2.5 meters) above 2000 levels by 2100. Rising seas could impact transportation infrastructure, utilities, and regional industries.[19]

Agriculture

California has a massive agricultural industry that represents over 13 percent of total US agricultural revenue.[20] Higher CO_2 levels can stimulate plant production and increase plant water-use efficiency. However, a changing climate presents significant risks to agriculture due to changes in maximum and minimum temperatures, reduction of winter chill hours, extreme heat leading to additional costs for livestock cooling and losses in production, and declines in water quality, groundwater security, soil health, and pollinator species, and increased pest pressures. [21]

Ecosystems and Wildlife

Increases in global temperatures and the potential resulting changes in weather patterns could have ecological effects on a global and local scale. Increased concentrations of GHGs are likely to accelerate the rate of climate change. As stated in the *Safeguarding California Plan*, "species and ecosystems in California are valued both for their intrinsic worth and for the services they provide to society. Air purification, water filtration, flood attenuation, food provision, recreational opportunities such as fishing, hunting, wildlife viewing, and more are all services provided by ecosystems. These services can only be maintained as long as ecosystems are healthy and robust, and continue to function properly under the impacts of climate change. A recent study examined the vulnerability of all vegetation communities statewide in California and found that 16 of 29 were highly or nearly highly vulnerable to climate change, including Western North American freshwater marsh, Rocky Mountain subalpine and high montane conifer forest, North American Pacific coastal salt marsh, and more."[22] Soil moisture is likely to decline in many regions, and intense rainstorms are likely to become more frequent. With climate change, ecosystems and wildlife will be challenged by the spread of invasive species, barriers to species migration or movement in response

[18] California Natural Resources Agency, *Safeguarding California Plan: 2018 Update*, January 2018. Available at http://resources.ca.gov/climate/safeguarding/. Accessed March 10, 2019.
[19] NOAA, Climate Change: Global Sea Level, November 19, 2019. Available at https://www.climate.gov/news-features/understanding-climate/climate-change-global-sea-level. Accessed August 6, 2020.
[20] California Department of Food and Agriculture (CDFA), California Agricultural Production Statistics. Available at https://www.cdfa.ca.gov/statistics/. Accessed August 6, 2020.
[21] California Natural Resources Agency, *Safeguarding California Plan: 2018 Update*, January 2018. Available at http://resources.ca.gov/climate/safeguarding/. Accessed March 10, 2019.
[22] California Natural Resources Agency, *Safeguarding California Plan: 2018 Update*, January 2018. Available at http://resources.ca.gov/climate/safeguarding/. Accessed March 10, 2019.

to changing climatic conditions, direct impacts to species health, and mismatches in timing between seasonal life-cycle events such as species migration and food availability.[23]

U.S. Emissions

In 2017, the United States emitted about 6,457 million metric tons (MMT) of CO_2e ($MMTCO_2e$), with 76.1 percent of those emissions coming from fossil fuel combustion. Of the major sectors nationwide, transportation accounts for the highest amount of GHG emissions (approximately 29 percent), followed by electricity (28 percent), industry (22 percent), agriculture (9 percent), commercial buildings (6 percent), and residential buildings (5 percent). Between 1990 and 2017, total U.S. GHG emissions rose by 1.3 percent, but emissions have generally decreased since peaking in 2005. Since 1990, U.S. emissions have increased at an average annual rate of 0.4 percent.[24]

California Greenhouse Gas Emissions Inventory

The California Air Resources Board (CARB) compiles GHG inventories for the state. Based on the 2016 GHG inventory data (i.e., the latest year for which data are available from CARB) prepared by CARB in 2018, California emitted 429.4 $MMTCO_2e$ including emissions resulting from imported electrical power.[25] Between 1990 and 2020, the population of California grew by approximately 10 million (from 29.8 to 39.8 million).[26] This represents an increase of approximately 34 percent from 1990 population levels. In addition, the California economy, measured as gross state product, grew from $773 billion in 1990 to $3.14 trillion in 2019, representing an increase of approximately 306 percent (more than three times the 1990 gross state product) in today's dollars.[27]

Despite the population and economic growth, CARB's 2016 statewide inventory indicated that California's net GHG emissions in 2016 were just below 1990 levels, which is the 2020 GHG reduction target codified in California Health and Safety Code Division 25.5, also known as the Global Warming Solutions Act of 2006 (Assembly Bill [AB] 32). **Table 3.6-1** identifies and quantifies statewide anthropogenic GHG emissions and sinks (e.g., carbon sequestration due to forest growth) in 1990 and 2016. As shown in the table, the transportation sector is the largest contributor to statewide GHG emissions at approximately 39 percent in 2016.

[23] California Natural Resources Agency, *Safeguarding California Plan: 2018 Update*, January 2018. Available at http://resources.ca.gov/climate/safeguarding/. Accessed March 10, 2019.

[24] U.S. Environmental Protection Agency, *Inventory of U.S. Greenhouse Gas Emissions and Sinks: 1990–2017*, April 11, 2019. Available at https://www.epa.gov/ghgemissions/inventory-us-greenhouse-gas-emissions-and-sinks-1990-2017. Accessed April 25, 2019.

[25] California Air Resources Board, California Greenhouse Gas 2000–2016 Inventory by Scoping Plan Category—Summary, June 22, 2018. Available at https://www.arb.ca.gov/cc/inventory/data/tables/ghg_inventory_scopingplan_sum_2000-16.pdf. Accessed March 10, 2019.

[26] California Department of Finance, E-4 Historical Population Estimates for Cities, Counties, and the State and E-5 Population and Housing Estimates for Cities, Counties, and the State, 2020. Available at http://www.dof.ca.gov/Forecasting/Demographics/Estimates/. Accessed July 12, 2020.

[27] California Department of Finance, Gross State Product, 2020. Available at http://www.dof.ca.gov/Forecasting/Economics/Indicators/Gross_State_Product/. Accessed July 2020. Amounts are based on current dollars as of the date of the report (April 2020).

TABLE 3.6-1
STATE OF CALIFORNIA GREENHOUSE GAS EMISSIONS

Category	Total 1990 Emissions Using IPCC SAR ($MMTCO_2e$)	Percent of Total 1990 Emissions	Total 2016 Emissions Using IPCC AR4 ($MMTCO_2e$)	Percent of Total 2016 Emissions
Transportation	150.7	35%	169.4	39%
Electric Power	110.6	26%	68.6	16%
Commercial Fuel Use	14.4	3%	15.2	4%
Residential	29.7	7%	24.2	6%
Industrial	103.0	24%	89.6	21%
Recycling and Waste[a]	—	—	8.8	2%
High GWP/Non-Specified[b]	1.3	<1%	19.8	5%
Agriculture/Forestry	23.6	6%	33.8	8%
Forestry Sinks	-6.7	-2%	—[c]	—
Net Total (IPCC SAR)	**426.6**	**100%**[e]	**—**	**—**
Net Total (IPCC AR4)[d]	**431**	**100%**[e]	**429.4**	**100%**[e]

NOTES:
AR4 = Fourth Assessment Report; GWP = global warming potential; IPCC = Intergovernmental Panel on Climate Change; $MMTCO_2e$ = million metric tons of carbon dioxide equivalents; SAR = Second Assessment Report

[a] Included in other categories for the 1990 emissions inventory.
[b] High GWP gases are not specifically called out in the 1990 emissions inventory.
[c] Revised methods under development (not reported for 2016).
[d] CARB revised the state's 1990-level greenhouse gas (GHG) emissions using GWPs from the IPCC AR4.
[e] Total of individual percentages may not add up to 100% due to rounding

SOURCES:
California Air Resources Board, 1990 to 2004 Inventory Data and Documentation. Available at https://www.arb.ca.gov/cc/inventory/1990level/1990data.htm. Accessed March 11, 2019.
California Air Resources Board, California Greenhouse Gas 2000–2016 Inventory by Scoping Plan Category—Summary, June 22, 2018. Available at https://www.arb.ca.gov/cc/inventory/data/tables/ghg_inventory_scopingplan_sum_2000-16.pdf. Accessed March 10, 2019.

City of San José Emissions Inventory

In April 2019, the City of San José published its community-wide inventory of 2017 GHG emissions. As compared to the 2014 inventory, the 2017 inventory reports a decrease in GHG emissions of just over 17 percent.[28] The City attributes this decrease primarily to Pacific Gas and Electric Company's (PG&E's) cleaner electricity grid and a reduction in energy consumption. The transportation sector remained the greatest contributor of GHG emissions, as is typical statewide.[29] For a sector-by-sector summary of community-wide GHG emissions, see **Table 3.6-2**. The City intends to complete annual GHG inventories to track reduction progress while focusing on implementation of the key policies and actions identified in its 2018 climate action plan. Target areas for GHG emission reduction identified by the City include energy

[28] City of San José, *2017 Inventory of Community Greenhouse Gas Emissions*, April 2019. Available at https://www.sanjoseca.gov/your-government/environment/climate-smart-san-jos. Accessed January 13, 2020.
[29] California Air Resources Board, *GHG Current California Emission Inventory Data*, 2019. Available at https://ww2.arb.ca.gov/ghg-inventory-data. Accessed January 13, 2020.

efficiency, renewable energy and electrification, vehicle fuel efficiency, alternative transportation, vehicle trip reduction, and land use and transit planning.[30]

TABLE 3.6-2
CITY OF SAN JOSÉ 2017 COMMUNITY-WIDE GREENHOUSE GAS EMISSIONS BY SECTOR

Sector	$MTCO_2e$
Residential Energy	763,961
Commercial Energy	627,496
Industrial Energy	399,690
Transportation	3,589,159
Solid Waste	271,862
Water & Wastewater	29,235
Process & Fugitive	30,262
Total	**5,711,665**

NOTE:
$MTCO_2e$ = metric tons of carbon dioxide equivalent

SOURCE: City of San José, *2017 Inventory of Community Greenhouse Gas Emissions*, 2019. Available at https://www.sanjoseca.gov/your-government/environment/climate-smart-san-jos. Accessed January 13, 2020.

Downtown San José Emissions Inventory

The City of San José certified its Downtown Strategy 2000 Final EIR in July 2005. The Downtown Strategy 2000 provided a planning framework for future housing, office, commercial, and hotel development within the city's Downtown area. The City has developed an update to the Downtown Strategy 2000, the Downtown Strategy 2040, which includes changes to the amount of new commercial office space and residential development capacity, as well as proposed changes to the *Envision San José 2040 General Plan* (General Plan). The Downtown Strategy 2040 Final EIR, which was certified in December 2018, evaluated the environmental impacts associated with the Downtown Strategy 2040, which included an estimate of the existing Downtown area's GHG emissions. Overall, the Downtown Strategy 2040 Final EIR reported that the Downtown area generates approximately 130,264 metric tons of carbon dioxide equivalent ($MTCO_2e$) per year.[31] A summary of estimated GHG emissions for the Downtown area by source is included in **Table 3.6-3**.

[30] City of San José, *2017 Inventory of Community Greenhouse Gas Emissions*, 2019. Available at https://www.sanjoseca.gov/your-government/environment/climate-smart-san-jos. Accessed January 13, 2020.

[31] City of San José, *Integrated Final EIR: Downtown Strategy 2040*, 2018. Available at https://www.sanjoseca.gov/Home/ShowDocument?id=44054. Accessed January 2020.

TABLE 3.6-3
DOWNTOWN SAN JOSÉ EXISTING (2015) GREENHOUSE GAS EMISSIONS ESTIMATES

Source	$MTCO_2e$
Area	291
Energy Consumption	15,083
Mobile	111,543[a]
Solid Waste Generation	2,084
Water Use	1,263
Total	**130,264**
Efficiency Metric	**2.82**[b]

NOTES:
$MTCO_2e$ = metric tons of carbon dioxide equivalent
[a] Includes Downtown area–specific vehicle miles traveled.
[b] Based on a service population of 46,156 (12,548 residents and 33,608 jobs).

SOURCE: City of San José, *Integrated Final EIR: Downtown Strategy 2040*, State Clearinghouse Number 2003042127, December 2018. Available at https://www.sanjoseca.gov/Home/ShowDocument?id=44054. Accessed January 2020.

Existing Project Site

The project site currently contains a mix of residential, retail, office, and industrial spaces. Approximately 40 percent of the project site is devoted to parking lots. A complete description of the project site's existing land uses is described in Section 2.2, *Project Site and Location*. Existing emissions were calculated based on California Emissions Estimator Model software (CalEEMod) defaults for energy, area sources, water, wastewater, and solid waste. As shown in **Table 3.6-4**, existing GHG emissions, excluding mobile-source emissions, total approximately 2,510 $MTCO_2e$/year. This is consistent with the project transportation analysis, which did not deduct trips from existing uses on the project site. It is noted that the transportation modeling on which project mobile-source emissions are based effectively nets out existing mobile-source emissions because inputs to the City of San José traffic model replace existing uses with proposed uses.

TABLE 3.6-4
PROJECT SITE EXISTING GREENHOUSE GAS EMISSIONS

Source	$MTCO_2e$
Area	1
Energy Consumption	1,713
Solid Waste Generation	491
Water Use	305
Total	**2,510**[a]

NOTES:
Emissions exclude mobile sources.
$MTCO_2e$ = metric tons of carbon dioxide equivalent
[a] The existing emissions are not exactly the same as the emissions presented in the 900 Application as use of the CalEEMod model defaults without off-model adjustments. From a CEQA perspective, the existing emissions presented in this EIR are more conservative because the total is less than the existing emissions in AB 900, particularly given that existing mobile-source emissions were not included.

SOURCE: Appendix C1, *Air Quality and Greenhouse Gas Emissions Calculations*.

3.6.2 Regulatory Framework

Federal

Clean Air Act and U.S. Environmental Protection Agency "Endangerment" and "Cause or Contribute" Findings

In 2007, the U.S. Supreme Court held that the U.S. Environmental Protection Agency (EPA), the federal agency responsible for implementing the Clean Air Act (CAA), must consider regulation of motor vehicle GHG emissions. In *Massachusetts v. Environmental Protection Agency et al.*, twelve states and cities, including California, together with several environmental organizations sued to require EPA to regulate GHGs as pollutants under the CAA (127 S. Ct. 1438 [2007]). The Supreme Court ruled that GHGs fit within the CAA's definition of a pollutant and EPA had the authority to regulate GHGs.

On December 7, 2009, the EPA Administrator signed two distinct findings regarding GHGs under CAA Section 202(a):

- **Endangerment Finding:** The current and projected concentrations of the six key GHGs—CO_2, methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride—in the atmosphere threaten the public health and welfare of current and future generations.
- **Cause or Contribute Finding:** The combined emissions of these GHGs from new motor vehicles and new motor vehicle engines contribute to the GHG pollution that threatens public health and welfare.

Vehicle Emissions Standards

In 1975, Congress enacted the Energy Policy and Conservation Act, which established the first fuel economy standards for on-road motor vehicles in the United States. Pursuant to the act, EPA and the National Highway Traffic Safety Administration (NHTSA) are responsible for establishing additional vehicle standards. In August 2012, standards were adopted for model years 2017 through 2025 for passenger cars and light-duty trucks. According to EPA, a model year 2025 vehicle would emit half the GHG emissions of a model year 2010 vehicle.[32] Notably, the State of California harmonized its vehicle efficiency standards through 2025 with the federal standards at this time (see *Advanced Clean Cars Program* below).

In August 2018, EPA and the NHTSA proposed maintaining the 2020 corporate average fuel economy (CAFE) and CO_2 standards for model years 2021 through 2026. The estimated CAFE and CO_2 standards for model year 2020 are 43.7 miles per gallon (mpg) and 204 grams of CO_2 per mile for passenger cars and 31.3 mpg and 284 grams of CO_2 per mile for light trucks, projecting an overall industry average of 37 mpg, as compared to 46.7 mpg under the standards issued in 2012. In September 2019, EPA finalized the Safer Affordable Fuel-Efficient Vehicles

[32] U.S. Environmental Protection Agency and National Highway Traffic Safety Administration, *Light-Duty Vehicle Greenhouse Gas Emission Standards and Corporate Average Fuel Economy Standards; Final Rule*, May 5, 2010. Available at https://www.govinfo.gov/content/pkg/FR-2010-05-07/pdf/2010-8159.pdf. Accessed January 10, 2020.

Rule Part One: One National Program and announced its decision to withdraw the Clean Air Act preemption waiver granted to the State of California in 2013.[33]

State

California Environmental Quality Act and Senate Bill 97

Senate Bill (SB) 97, signed in August 2007, acknowledges that climate change is a prominent environmental issue requiring analysis under CEQA. This bill directed the Governor's Office of Planning and Research (OPR) to prepare, develop, and transmit to the California Natural Resources Agency (CNRA) guidelines for the feasible mitigation of GHG emissions or the effects of GHG emissions, as required by CEQA, no later than July 1, 2009. On December 30, 2009, the CNRA adopted amendments to the CEQA Guidelines, as required by SB 97. The CEQA Guidelines amendments, effective March 18, 2010, provide guidance to public agencies regarding the analysis and mitigation of the effects of GHG emissions in draft CEQA documents.

CEQA Guidelines

The CEQA Guidelines are embodied in the California Code of Regulations (CCR), Title 14, beginning with Section 15000. The current CEQA Guidelines Section 15064.4 states that "a lead agency shall make a good-faith effort, based to the extent possible on scientific and factual data, to describe, calculate, or estimate the amount of GHG emissions resulting from a project." Section 15064.4 further states:

> *A lead agency should consider the following factors, when determining the significance of impacts from greenhouse gas emissions on the environment:*
>
> *(1) The extent to which the project may increase or reduce greenhouse gas emissions as compared to the existing environmental setting;*
>
> *(2) Whether the project emissions exceed a threshold of significance that the lead agency determines applies to the project.*
>
> *(3) The extent to which the project complies with regulations or requirements adopted to implement a statewide, regional, or local plan for the reduction or mitigation of greenhouse gas emissions (see e.g., section 15183.5(b)).*

The CEQA Guidelines also state that a project's incremental contribution to a cumulative effect is not cumulatively considerable if the project will comply with the requirements in a previously approved plan or mitigation program (including plans or regulations for the reduction of GHG emissions) that provides specific requirements that will avoid or substantially lessen the cumulative problem within the geographic area in which the project is located (CEQA Guidelines Section 15064(h)(3)).

The CEQA Guidelines do not require or recommend a specific analytical method or provide quantitative criteria for determining the significance of GHG emissions, nor do they set a numerical threshold of significance for GHG emissions. Section 15064.7(c) clarifies that "when adopting or using thresholds of significance, a lead agency may consider thresholds of significance previously

[33] U.S. Environmental Protection Agency and National Highway Traffic Safety Administration, *One National Program Rule on Federal Preemption of State Fuel Economy Standards*, 2019. Available at https://nepis.epa.gov/Exe/ZyPDF.cgi?Dockey=P100XI4W.pdf. Accessed January 16, 2020.

adopted or recommended by other public agencies or recommended by experts, provided the decision of the lead agency to adopt such thresholds is supported by substantial evidence."

When GHG emissions are found to be significant, CEQA Guidelines Section 15126.4(c) includes the following direction on measures to mitigate GHG emissions:

> *Consistent with Section 15126.4(a), lead agencies shall consider feasible means, supported by substantial evidence and subject to monitoring or reporting, of mitigating the significant effects of greenhouse gas emissions. Measures to mitigate the significant effects of greenhouse gas emissions may include, among others:*
>
> *(1) Measures in an existing plan or mitigation program for the reduction of emissions that are required as part of the lead agency's decision.*
>
> *(2) Reductions in emissions resulting from a project through implementation of project features, project design, or other measures.*
>
> *(3) Off-site measures, including offsets that are not otherwise required, to mitigate a project's emissions.*
>
> *(4) Measures that sequester greenhouse gases.*
>
> *(5) In the case of the adoption of a plan, such as a general plan, long range development plan, or plans for the reduction of greenhouse gas emissions, mitigation may include the identification of specific measures that may be implemented on a project-by project basis. Mitigation may also include the incorporation of specific measures or policies found in an adopted ordinance or regulation that reduces the cumulative effect of emissions.*

State of California Executive Orders

Executive Order S-3-05

In 2005, in recognition of California's vulnerability to the effects of climate change, then-Governor Arnold Schwarzenegger issued Executive Order S-3-05, which set forth a series of target dates by which statewide emissions of GHGs would be progressively reduced, as follows:

- By 2010, reduce GHG emissions to 2000 levels.
- By 2020, reduce GHG emissions to 1990 levels.
- By 2050, reduce GHG emissions to 80 percent below 1990 levels.

Executive Order S-1-07

Executive Order S-1-07, signed by Governor Schwarzenegger in 2007, proclaims that the transportation sector is the main source of GHG emissions in California, generating more than 40 percent of statewide emissions. It established a low carbon fuel standard (LCFS) with a goal to reduce the carbon intensity of transportation fuels sold in California by at least 10 percent by 2020.

In September 2018, CARB extended the LCFS program to 2030, making significant changes to the design and implementation of the program, including a doubling of the carbon intensity reduction to 20 percent by 2030.

Executive Orders S-14-08 and S-21-09

In November 2008, Governor Schwarzenegger signed Executive Order S-14-08, which expands the state's Renewable Portfolio Standard (RPS) to 33 percent renewable power by 2020. In September 2009, Governor Schwarzenegger continued California's commitment to the RPS by signing Executive Order S-21-09, which directs CARB under its AB 32 authority to enact regulations to help the state meet its RPS goal of 33 percent renewable energy by 2020.

Executive Order S-13-08

Governor Schwarzenegger signed Executive Order S-13-08 on November 14, 2008. The order resulted in the *2009 California Climate Adaptation Strategy* report, developed to summarize the best known science on climate change impacts in the state to assess vulnerability and outline possible solutions that can be implemented within and across state agencies to promote resiliency. The state has also developed an Adaptation Planning Guide to provide a decision-making framework intended for use by local and regional stakeholders to aid in the interpretation of climate science and to develop a systematic rationale for reducing risks caused or exacerbated by climate change.[34]

Executive Order B-16-12

In March 2012, then-Governor Jerry Brown issued an executive order establishing a goal of 1.5 million zero-emission vehicles (ZEVs) on California roads by 2025. In addition to the ZEV goal, Executive Order B-16-12 stipulated that by 2015 all major cities in California will have adequate infrastructure and be "zero-emission vehicle ready"; that by 2020 the state will have established adequate infrastructure to support 1 million ZEVs; that by 2050, virtually all personal transportation in the state will be based on ZEVs; and that GHG emissions from the transportation sector will be reduced by 80 percent below 1990 levels.

Executive Order B-30-15

Governor Brown signed Executive Order B-30-15 on April 29, 2015, which:

- Established a new interim statewide reduction target to reduce GHG emissions to 40 percent below 1990 levels by 2030;
- Ordered all state agencies with jurisdiction over sources of GHG emissions to implement measures to achieve reductions of GHG emissions to meet the 2030 and 2050 reduction targets; and
- Directed CARB to update the Climate Change Scoping Plan (Scoping Plan) to express the 2030 target in terms of million metric tons of CO_2 equivalent.

Executive Order B-48-18

On January 26, 2018, Governor Brown issued an executive order establishing a goal of 5 million ZEVs on California roads by 2030.

[34] California Natural Resources Agency, *California Adaptation Planning Guide: Planning for Adaptive Communities*, 2012. Available at http://resources.ca.gov/docs/climate/01APG_Planning_for_Adaptive_Communities.pdf. Accessed January 13, 2020.

Executive Order B-55-18

On September 10, 2018, Governor Brown signed Executive Order B-55-18, committing California to total, economy-wide carbon neutrality by 2045. Executive Order B-55-18 directs CARB to work with relevant state agencies to develop a framework to implement and accounting to track progress toward this goal.

State of California Policy and Legislation

Assembly Bill 1493

In 2002, then-Governor Gray Davis signed AB 1493. AB 1493 required that CARB develop and adopt, by January 1, 2005, regulations to achieve "the maximum feasible reduction of GHGs emitted by passenger vehicles and light-duty trucks and other vehicles determined by CARB to be vehicles whose primary use is noncommercial personal transportation in the State."

To meet the requirements of AB 1493, in 2004 CARB approved amendments to the CCR adding GHG emissions standards to California's existing standards for motor vehicle emissions. All mobile sources were required to comply with these regulations as they were phased in from 2009 through 2016.

Senate Bills 1078 and 107

SB 1078 (Chapter 516, Statutes of 2002) required retail sellers of electricity, including investor-owned utilities and community choice aggregators, to provide at least 20 percent of their supply from renewable sources by 2017. SB 107 (Chapter 464, Statutes of 2006) changed the target date to 2010.

Assembly Bill 32 and Senate Bill 32

In September 2006, Governor Schwarzenegger signed the California Global Warming Solutions Act of 2006 (AB 32). AB 32 established regulatory, reporting, and market mechanisms to achieve quantifiable reductions in GHG emissions and established a cap on statewide GHG emissions. AB 32 required that statewide GHG emissions be reduced to 1990 levels by 2020. This reduction was to be accomplished by enforcing a statewide cap on GHG emissions that would be phased in starting in 2012. To effectively implement the cap, AB 32 directed CARB to develop and implement regulations to reduce statewide GHG emissions from stationary sources. AB 32 specified that regulations adopted in response to AB 1493 should be used to address GHG emissions from vehicles. However, AB 32 also included language stating that if the AB 1493 regulations could not be implemented, then CARB should develop new regulations to control vehicle GHG emissions under the authorization of AB 32.

In 2016, SB 32 and its companion bill AB 197 amended Health and Safety Code Division 25.5, establishing a new climate pollution reduction target of 40 percent below 1990 levels by 2030, and included provisions to ensure that the benefits of state climate policies reach disadvantaged communities.

Climate Change Scoping Plan

A specific requirement of AB 32 was to prepare a Climate Change Scoping Plan for achieving the maximum technologically feasible and cost-effective GHG emission reduction by 2020. CARB

developed and approved the initial scoping plan in 2008, outlining the regulations, market-based approaches, voluntary measures, policies, and other emission reduction programs that would be needed to meet the 2020 statewide GHG emission limit and initiate the transformations needed to achieve the state's long-range climate objectives.[35]

CARB approved the 2017 Climate Change Scoping Plan Update (2017 Scoping Plan Update) in December 2017. The 2017 Scoping Plan Update outlines the proposed framework of action for achieving the 2030 GHG target of 40 percent reduction in GHG emissions relative to 1990 levels.[36] Through a combination of data synthesis and modeling, CARB determined that the target statewide 2030 emissions limit is 260 $MMTCO_2e$, and that further commitments will need to be made to achieve an additional reduction of 50 $MMTCO_2e$ beyond current policies and programs. The cornerstone of the 2017 Scoping Plan Update is an expansion of the cap-and-trade program to meet the aggressive 2030 GHG emissions goal and ensure achievement of the 2030 limit set forth by Executive Order B-30-15.

In the 2017 Scoping Plan Update, CARB recommends statewide targets of no more than 6 $MTCO_2e$ per capita by 2030 and no more than 2 $MTCO_2e$ per capita by 2050. CARB acknowledges that because the statewide per-capita targets are based on the statewide GHG emissions inventory that includes all emissions sectors in the state, it is appropriate for local jurisdictions to derive evidence-based local per-capita goals based on local emissions sectors and growth projections.

To demonstrate how a local jurisdiction can achieve its long-term GHG goals at the community plan level, CARB recommends developing a geographically specific GHG reduction plan (i.e., climate action plan) consistent with the requirements of CEQA Section 15183.5(b). A so-called "CEQA-qualified" GHG reduction plan, once adopted, can provide local governments with a streamlining tool for project-level environmental review of GHG emissions, provided there are adequate performance metrics for determining project consistency with the plan. Absent conformity with such a plan, CARB recommends "that projects incorporate design features and GHG reduction measures, to the degree feasible, to minimize GHG emissions. Achieving no net additional increase in GHG emissions, resulting in no contribution to GHG impacts, is an appropriate overall objective for new development." While acknowledging that recent land use development projects in California have demonstrated the feasibility to achieve zero net additional GHG emissions (e.g., Newhall Ranch Resource Management and Development Plan), the 2017 Scoping Plan Update states that:

> *Achieving net zero increases in GHG emissions, resulting in no contribution to GHG impacts, may not be feasible or appropriate for every project, however, and the inability of a project to mitigate its GHG emissions to net zero does not imply the project results in a substantial contribution to the cumulatively significant environmental impact of climate change under CEQA. Lead agencies have the discretion to develop evidence-based numeric thresholds (mass*

[35] California Air Resources Board, *Climate Change Scoping Plan: A Framework for Change*, 2008. Available at https://ww3.arb.ca.gov/cc/scopingplan/document/adopted_scoping_plan.pdf. Accessed January 13, 2020.

[36] California Air Resources Board, *California's 2017 Climate Change Scoping Plan: The Strategy for Achieving California's 2030 Greenhouse Gas Target*, 2017. Available at https://ww3.arb.ca.gov/cc/scopingplan/scoping_plan_2017.pdf. Accessed January 13, 2020.

> *emissions, per capita, or per service population) consistent with this Scoping Plan, the State's long-term GHG goals, and climate change science…To the degree a project relies on GHG mitigation measures, CARB recommends that lead agencies prioritize on-site design features that reduce emissions, especially from VMT [vehicle miles traveled], and direct investments in GHG reductions within the project's region that contribute potential air quality, health, and economic co-benefits locally.*[37]

Cap-and-Trade Program

Initially authorized by the California Global Warming Solutions Act of 2006 (AB 32), and extended through the year 2030 with the passage of AB 398 (2017), the California Cap-and-Trade Program is a core strategy that the state is using to meet its GHG reduction targets for 2020 and 2030, and ultimately achieve an 80 percent reduction from 1990 levels by 2050. CARB designed and adopted the California Cap-and-Trade Program to reduce GHG emissions from "covered entities"[38] (e.g., electricity generation, petroleum refining, cement production, and large industrial facilities that emit more than 25,000 $MTCO_2e$ per year), setting a firm cap on statewide GHG emissions and employing market mechanisms to achieve reductions.[39] Under the Cap-and-Trade Program, an overall limit is established for GHG emissions from capped sectors. The statewide cap for GHG emissions from the capped sectors commenced in 2013. The cap declines over time. Facilities subject to the cap can trade permits to emit GHGs.[40]

Senate Bill 375

Signed into law on October 1, 2008, SB 375 supplements GHG reductions from new vehicle technology and fuel standards with reductions from more efficient land use patterns and improved transportation. Under the law, CARB approved GHG reduction targets in February 2011 for California's 18 federally designated regional planning bodies, known as Metropolitan Planning Organizations. The target reductions for the Bay Area are a regional reduction of per-capita GHG emissions from cars and light-duty trucks by 7 percent by 2020 and by 15 percent by 2035, compared to a 2005 baseline.

The Metropolitan Transportation Commission (MTC) and Association of Bay Area Governments (ABAG) address these goals in *Plan Bay Area 2040*, which identifies Priority Development Areas (PDAs) near transit options to reduce the use of on-road vehicles. By focusing and incentivizing future growth in PDAs, *Plan Bay Area 2040* demonstrates how the nine-county Bay Area can reduce

---

37 California Air Resources Board, *California's 2017 Climate Change Scoping Plan: The Strategy for Achieving California's 2030 Greenhouse Gas Target*, 2017, pp. 100–101. Available at https://ww3.arb.ca.gov/cc/scopingplan/scoping_plan_2017.pdf. Accessed January 13, 2020.

38 "Covered entity" means an entity in California that has one or more of the processes or operations and has a compliance obligation as specified in Subarticle 7 of the Cap-and-Trade Regulation; and that has emitted, produced, imported, manufactured, or delivered in 2008 or any subsequent year more than the applicable threshold level specified in section 95812(a) of the Regulation.

39 17 CCR 95800–96023.

40 See generally 17 CCR 95811 and 95812.

per-capita CO_2 emissions by 16 percent by 2035.[41] In a March 2018 hearing, CARB approved revised targets: to reduce per-capita emissions 10 percent by 2020 and 19 percent by 2035.[42]

Senate Bill X 1-2

SB X 1-2, signed by Governor Brown in April 2011, enacted the California Renewable Energy Resources Act. The law obligated all California electricity providers, including investor-owned and publicly owned utilities, to obtain at least 33 percent of their energy from renewable resources by the year 2020.

Advanced Clean Cars Program

In January 2012, pursuant to Recommended Measures T-1 and T-4 of the Scoping Plan, CARB approved the Advanced Clean Cars Program, a new emissions-control program for model years 2017 through 2025. The program combines the control of smog, soot, and GHGs with requirements for greater numbers of ZEVs. By 2025, when the rules will be fully implemented, the new automobiles will emit 34 percent fewer global warming gases and 75 percent fewer smog-forming emissions.

Mobile Source Strategy

In May 2016, CARB released the updated Mobile Source Strategy that demonstrates how the state can simultaneously meet air quality standards, achieve GHG emission reduction targets, decrease health risk from transportation emissions, and reduce petroleum consumption over the next 15 years. The strategy promotes a transition to zero-emission and low-emission vehicles, cleaner transit systems and reduction of vehicle miles traveled (VMT). The Mobile Source Strategy calls for 1.5 million ZEVs (including plug-in hybrid electric, battery-electric, and hydrogen fuel cell vehicles) by 2025 and 4.2 million ZEVs by 2030. The strategy also calls for more-stringent GHG requirements for light-duty vehicles beyond 2025 as well as GHG reductions from medium-duty and heavy-duty vehicles and increased deployment of zero emission trucks primarily for class 3–7 "last mile" delivery trucks in California. Statewide, the Mobile Source Strategy would result in a 45 percent reduction in GHG emissions from mobile sources and a 50 percent reduction in the consumption of petroleum-based fuels.[43]

Senate Bill 743

In 2013, Governor Brown signed SB 743, which added Public Resources Code Section 21099 to CEQA. SB 743 changed the way that transportation impacts are analyzed in Transit Priority Areas (TPAs) under CEQA, better aligning local environmental review with statewide objectives to reduce GHG emissions, encourage infill mixed-use development in designated priority development areas, reduce regional sprawl development, and reduce VMT in California.

---

41 Metropolitan Transportation Commission and Association of Bay Area Governments, *Plan Bay Area 2040*, adopted July 26, 2017. Available at https://www.planbayarea.org/plan-bay-area-2040. Accessed May 2020.

42 California Air Resources Board, *Resolution 18-12: Proposed Update to Senate Bill 375 Greenhouse Gas Emissions Reduction Targets*, March 22, 2018. Available at https://ww3.arb.ca.gov/board/res/2018/res18-12.pdf. Accessed May 2020.

43 California Air Resources Board, 2016 Mobile Source Strategy, May 2016. Available at https://www.arb.ca.gov/planning/sip/2016sip/2016mobsrc.htm. Accessed March 10, 2019.

As required under SB 743, OPR developed potential metrics to measure transportation impacts that may include, but are not limited to, VMT, VMT per capita, automobile trip generation rates, or automobile trips generated. The new VMT metric is intended to replace the use of automobile delay and level of service as the metric to analyze transportation impacts under CEQA.

In its 2018 *Technical Advisory on Evaluating Transportation Impacts in CEQA*, OPR recommends different thresholds of significance for projects depending on land use types.[44] For example, residential and office space projects must demonstrate a VMT level that is 15 percent less than that of existing development to determine whether the mobile-source GHG emissions associated with the project are consistent with statewide GHG reduction targets. With respect to retail land uses, any net increase of VMT may be sufficient to indicate a significant transportation impact.

Senate Bill 350

SB 350, the Clean Energy and Pollution Reduction Act of 2015 (Chapter 547, Statutes of 2015), was approved by Governor Brown on October 7, 2015. SB 350 increased the standards of the California RPS program by requiring that the amount of electricity generated and sold to retail customers per year from eligible renewable energy resources be increased from 33 percent to 50 percent by December 31, 2030. The act requires the State Energy Resources Conservation and Development Commission to establish annual targets for statewide energy efficiency savings and demand reduction that will achieve a cumulative doubling of statewide energy efficiency savings in existing electricity and natural gas final end uses of retail customers by January 1, 2030.

Senate Bill 100

On September 10, 2018, Governor Brown signed SB 100, establishing that 100 percent of all electricity in California must be obtained from renewable and zero-carbon energy resources by December 31, 2045. SB 100 also creates new standards for the RPS goals that were established by SB 350 in 2015. Specifically, the law increases the percentage of energy that both investor-owned utilities and publicly owned utilities must obtain from renewable sources from 50 percent to 60 percent by 2030. Incrementally, these energy providers must also have a renewable energy supply of 33 percent by 2020, 44 percent by 2024, and 52 percent by 2027. The updated RPS goals are considered achievable, because many California energy providers are already meeting or exceeding the RPS goals established by SB 350.

Senate Bill 1383 (Short-Lived Climate Pollutants)

SB 1383, enacted in 2016, requires statewide reductions in short-lived climate pollutants across various industry sectors. The climate pollutants covered under SB 1383 include methane, fluorinated gases, and black carbon—all GHGs with a much higher warming impact than CO_2 and with the potential to have detrimental effects on human health. SB 1383 requires CARB to adopt a strategy to reduce methane by 40 percent, hydrofluorocarbon gases by 40 percent, and anthropogenic black carbon by 50 percent below 2013 levels by 2030. The methane emissions reduction goals include a 75 percent reduction in the level of statewide disposal of organic waste from 2014 levels by 2025.

[44] Governor's Office of Planning and Research, *Technical Advisory on Evaluating Transportation Impacts in CEQA*, 2018. Available at http://opr.ca.gov/docs/20190122-743_Technical_Advisory.pdf. Accessed January 13, 2020.

Assembly Bill 341

AB 341, which became law in 2011, established a new statewide goal of 75 percent recycling through source reduction, recycling, and composting by 2020, and changed the way that the state measures progress toward the 75 percent recycling goal, focusing on source reduction, recycling, and composting. AB 341 also requires all businesses and public entities that generate 4 cubic yards or more of waste per week to have a recycling program in place. The purpose of the law is to reduce GHG emissions by diverting commercial solid waste to recycling efforts and expand the opportunity for additional recycling services and recycling manufacturing facilities in California.[45]

Assembly Bill 1826

AB 1826, known as the Commercial Organic Waste Recycling Law, became effective on January 1, 2016, and requires businesses and multi-family complexes (with five units or more) that generate specified amounts of organic waste (compost) to arrange for organics collection services. The law phases in the requirements on businesses with full implementation realized in 2019:

- **First Tier:** Commencing in April 2016, the first tier of affected businesses included those that generate 8 or more cubic yards of organic materials per week.
- **Second Tier:** In January 2017, the affected businesses expanded to include those that generate 4 or more cubic yards of organic materials per week.
- **Third Tier:** In January 2019, the affected businesses expanded further to include those that generate 4 or more cubic yards of commercial solid waste per week.

Assembly Bill 900, Jobs and Economic Improvement Through Environmental Leadership Act of 2011

AB 900, signed by Governor Brown in September 2011, established specified judicial review procedures for judicial review of EIRs and approvals granted for a leadership projects related to the development of residential, retail, commercial, sports, cultural, entertainment, or recreational use projects, or clean renewable energy or clean energy manufacturing projects. The law authorizes the governor to certify a leadership project for streamlining if certain conditions are met. Among the required conditions are:

- Exceed $100 million in investment in California.
- Satisfy the prevailing and living wage requirements of Public Resources Code Section 21183(b).
- Achieve Leadership in Energy and Environmental Design (LEED) Gold certification.
- Result in "no net additional" GHG emissions.
- Achieve at least 15 percent greater transportation efficiency than comparable projects.

The proposed project sought AB 900 certification and obtained the certification as of December 30, 2019. This certification is voluntary and provides streamlined CEQA judicial review for projects that qualify.[46] As stated in Chapter 1, *Introduction*, SB 995, a bill to extend the provisions of

[45] California Department of Resources Recycling and Recovery, *California's 75 Percent Initiative Defining the Future*, 2019. Available at https://www.calrecycle.ca.gov/75percent. Accessed January 13, 2020.

[46] Governor's Office of Planning and Research, *Downtown West Mixed-Use Plan*, 2019. Available at http://opr.ca.gov/ceqa/california-jobs.html. Accessed February 4, 2020.

AB 900, passed the state legislature in 2020 but the differing versions of the bill were not reconciled by the two chambers prior to the end of the legislative session in August. Accordingly, AB 900 currently provides that if a lead agency fails to approve a project certified by the Governor before January 1, 2021, then the certification expires and is no longer valid. Nevertheless, the project applicant has committed, even if no extension of AB 900 is forthcoming, that the project would provide the environmental benefits required under AB 900, including no net increase in GHG emissions. Therefore, this EIR assumes that the substantive requirements of AB 900 would continue to apply to the project, regardless of whether legislation is approved to extend the time period for approval of a Governor-certified project. Moreover, the City is working with the author of SB 995, legislative advocates, and other cities to encourage consideration of SB 995 in a Special Legislative Session that could be held this fall or as an urgency bill considered when the Legislature convenes in January 2021 and applied retroactively. Thus, it is reasonably foreseeable that either the provisions AB 900 will be extended or that the project would continue to meet the substantive requirements of AB 900.

Through the AB 900 certification process, CARB confirmed that the various project commitments to reduce GHG emissions, including the acquisition of carbon credits, will result in no net additional GHG emissions for the life of the project. In making this determination, CARB has required the project applicant to purchase GHG offset credits to fully offset the projected net increase in GHG emissions attributable to the proposed project, as calculated during the AB 900 certification process, on a prorated basis at the time each phase is permitted by the lead agency (the City of San José). The City has committed to monitor and enforce the applicant's commitment that the project result in no net additional GHG emissions for the life of the obligation, including the extent to which the applicant relies on GHG offsets, as a condition of project approval.

State of California Building Codes

California Building and Energy Efficiency Standards (Title 24)

The California Energy Commission (CEC) first adopted Energy Efficiency Standards for Residential and Nonresidential Buildings (CCR Title 24, Part 6) in 1978 in response to a legislative mandate to reduce energy consumption in the state. Although the standards were not originally intended to reduce GHG emissions, increased energy efficiency and reduced consumption of electricity, natural gas, and other fuels would result in fewer GHG emissions from residential and non-residential buildings subject to the standard. The standards are updated periodically (typically every three years) to allow for the consideration and inclusion of new energy efficiency technologies and methods. The current Title 24, Part 6 standards (2019 standards) were made effective on January 1, 2020.[47]

California Green Buildings Standards Code

Part 11 of the Title 24 Building Energy Efficiency Standards is referred to as the California Green Building Standards Code (CALGreen Code). The CALGreen Code is intended to encourage more sustainable and environmentally friendly building practices, require low-pollution-emitting

[47] California Energy Commission, *2019 Building Energy Efficiency Standards*, 2019. Available at https://www.energy.ca.gov/programs-and-topics/programs/building-energy-efficiency-standards/2019-building-energy-efficiency. Accessed January 13, 2020.

substances that cause less harm to the environment, conserve natural resources, and promote the use of energy-efficient materials and equipment.

Since 2011, the CALGreen Code has been mandatory for all new residential and non-residential buildings constructed in the state. Such mandatory measures include energy efficiency, water conservation, material conservation, planning and design, and overall environmental quality. The CALGreen Code is reviewed and updated on a three-year cycle.

The CALGreen Code was most recently updated in 2019 to include new mandatory measures for residential and non-residential uses; the new measures took effect on January 1, 2020.[48]

Regional

Bay Area Air Quality Management District

The Bay Area Air Quality Management District (BAAQMD) is the regional government agency that regulates stationary sources of air pollution in the nine San Francisco Bay Area counties. BAAQMD regulates GHG emissions through the following plans, programs, and guidelines.

Clean Air Plan

BAAQMD and other air districts prepare clean air plans in accordance with the federal and state Clean Air Acts. On April 19, 2017, the BAAQMD Board of Directors adopted the 2017 *Clean Air Plan: Spare the Air, Cool the Climate*, an update to the 2010 Clean Air Plan.[49] The Clean Air Plan is a comprehensive plan that focuses on the closely related goals of protecting public health and protecting the climate. Consistent with the state's GHG reduction targets, the plan lays the groundwork for a long-term effort to reduce Bay Area GHG emissions 40 percent below 1990 levels by 2030 and 80 percent below 1990 levels by 2050.

BAAQMD Climate Protection Program

BAAQMD established a climate protection program to reduce pollutants that contribute to global climate change and affect air quality in the San Francisco Bay Area Air Basin. The climate protection program includes measures that promote energy efficiency, reduce VMT, and develop alternative sources of energy, all of which assist in reducing GHG emissions and reducing air pollutants that affect the health of residents. BAAQMD also seeks to support current climate protection programs in the region and to stimulate additional efforts through public education and outreach, technical assistance to local governments and other interested parties, and promotion of collaborative efforts among stakeholders.

BAAQMD CEQA Air Quality Guidelines

The BAAQMD CEQA Air Quality Guidelines were prepared to assist in the evaluation of air quality impacts of projects and plans proposed in the Bay Area. The guidelines also include recommended assessment methodologies for air toxics, odors, and GHG emissions. In June 2010,

[48] California Building Standards Commission, *CALGreen*, 2019. Available at https://www.dgs.ca.gov/BSC/Resources/Page-Content/Building-Standards-Commission-Resources-List-Folder/CALGreen#@ViewBag.JumpTo. Accessed January 13, 2020.

[49] Bay Area Air Quality Management District, *2017 Final Clean Air Plan*, 2017. Available at https://www.baaqmd.gov/~/media/files/planning-and-research/plans/2017-clean-air-plan/attachment-a_-proposed-final-cap-vol-1-pdf.pdf?la=en. Accessed February 10, 2020.

BAAQMD's Board of Directors adopted CEQA thresholds of significance and an update of the BAAQMD CEQA Guidelines, which included significance thresholds for GHG emissions based on the emission reduction goals for 2020 articulated by the California Legislature in AB 32. The first threshold, 1,100 $MTCO_2e$ per year, is a numeric emissions level below which a project's contribution to global climate change would be less than cumulatively considerable. For larger and mixed-use projects, the guidelines state that emissions would be less than cumulatively significant if the project as a whole would result in an efficiency of 4.6 $MTCO_2e$ per service population or better.

Under the current BAAQMD Air Quality Guidelines, a local government may prepare a qualified GHG reduction strategy that is consistent with AB 32 goals. If a project is consistent with an adopted qualified GHG reduction strategy and general plan that addresses the project's GHG emissions, it can be presumed that the project will not have significant GHG emissions under CEQA.[50]

Metropolitan Transportation Commission/Association of Bay Area Governments

Sustainable Communities Strategy—Plan Bay Area

MTC is the federally recognized Metropolitan Planning Organization for the nine-county Bay Area, which includes Santa Clara County and the city of San José. On July 18, 2013, Plan Bay Area was jointly approved by ABAG's Executive Board and by MTC.

The plan includes the region's Sustainable Communities Strategy, as required under SB 375, and the 2040 Regional Transportation Plan. The Sustainable Communities Strategy lays out how the region will meet GHG reduction targets set by CARB. CARB's current targets call for the region to reduce per-capita vehicular GHG emissions 10 percent by 2020 and 19 percent by 2035 from a 2005 baseline.[51]

A central GHG reduction strategy of Plan Bay Area is the concentration of future growth in Priority Development Areas and Transit Priority Areas. To be eligible for PDA designation, an area must be within an existing community, near existing or planned fixed transit or served by comparable bus service, and planned for more housing. A TPA is an area within 0.5 miles of an existing or planned major transit stop such as a rail transit station, a ferry terminal served by transit, or the intersection of two or more major bus routes.[52] The project site is located within both a PDA and a TPA.

On July 26, 2017, MTC adopted *Plan Bay Area 2040*, a focused update that builds upon the growth pattern and strategies developed in the original Plan Bay Area but with updated planning

[50] Bay Area Air Quality Management District, *California Environmental Quality Act Air Quality Guidelines*, 2017. Available at https://www.baaqmd.gov/~/media/files/planning-and-research/ceqa/ceqa_guidelines_may2017-pdf.pdf?la=en. Accessed January 13, 2020.

[51] California Air Resources Board, *SB 375 Regional Greenhouse Gas Emissions Reduction Targets*, 2018. Available at https://www.arb.ca.gov/cc/sb375/finaltargets2018.pdf. Accessed March 11, 2019.

[52] Metropolitan Transportation Commission, *Plan Bay Area: Strategy for a Sustainable Region*, 2013. Available at http://files.mtc.ca.gov/pdf/Plan_Bay_Area_FINAL/Plan_Bay_Area.pdf. Accessed January 13, 2020.

assumptions that incorporate key economic, demographic, and financial trends since the original plan was adopted.[53]

Local

Envision San José 2040 General Plan

The City of San José adopted the *Envision San José 2040 General Plan* in 2011.[54] Many of the goals and policies identified in the General Plan reflect the City's commitment to sustainability, and the General Plan goals listed below are directly related to reduction of GHG emissions. See Table 3.6-11, below, in the impacts evaluation below for a comprehensive list of GHG emissions reduction policies relevant to the proposed project.

Goal MS-1: Green Building Policy Leadership. Demonstrate San José's commitment to local and global Environmental Leadership through progressive use of green building policies, practices, and technologies to achieve 100 million square feet of new or retrofitted green buildings by 2040.

Goal MS-2: Energy Conservation and Renewable Energy Use. Maximize the use of green building practices in new and existing development to maximize energy efficiency and conservation and to maximize the use of renewable energy sources.

Goal MS-5: Waste Diversion. Divert 100% of waste from landfills by 2022 and maintain 100% diversion through 2040.

Goal MS-6: Waste Reduction. Reduce generation of solid and hazardous waste.

Goal MS-7: Environmental Leadership and Innovation. Establish San José as a nationally recognized leader in reducing the amount of materials entering the solid waste stream.

Goal MS-14: Reduce Consumption and Increase Efficiency. Reduce per capita energy consumption by at least 50% compared to 2008 levels by 2022 and maintain or reduce net aggregate energy consumption levels equivalent to the 2022 (Green Vision) level through 2040.

Goal MS-15: Renewable Energy. Receive 100% of electrical power from clean renewable sources (e.g., solar, wind, hydrogen) by 2022 and to the greatest degree feasible increase generation of clean, renewable energy within the City to meet its own energy consumption needs.

Goal MS-16: Energy Security. Provide access to clean, renewable, and reliable energy for all San José residents and businesses.

Goal MS-18: Water Conservation. Continuously improve water conservation efforts in order to achieve best in class performance. Double the City's annual water conservation savings by 2040 and achieve half of the Water District's goal for Santa Clara County on an annual basis.

[53] Metropolitan Transportation Commission, *Plan Bay Area 2040*, 2017. Available at http://files.mtc.ca.gov/library/pub/30060.pdf. Accessed January 13, 2020.

[54] City of San José, *Envision San José 2040 General Plan*, adopted November 1, 2011 (amended March 16, 2020). Available at https://www.sanjoseca.gov/home/showdocument?id=22359. Accessed January 16, 2020.

Goal MS-21: Community Forest. Preserve and protect existing trees and increase planting of new trees within San José to create and maintain a thriving Community Forest that contributes to the City's quality of life, its sense of community, and its economic and environmental wellbeing.

Goal IN-5: Solid Waste-Materials Recovery/Landfill. Develop and maintain materials recovery and landfill facilities to meet community needs, advance the City's Zero Waste goals and to comply with applicable regulatory requirements.

Goal CD-3: Connections. Maintain a network of publicly accessible streets and pathways that are safe and convenient for walking and bicycling and minimize automobile use; that encourage social interaction; and that increase pedestrian activity, multi-modal transit use, environmental sustainability, economic growth, and public health.

Goal H-4: Housing—Environmental Sustainability. Provide housing that minimizes the consumption of natural resources and advances our City's fiscal, climate change, and environmental goals.

Goal LU-2: Growth Areas. Focus new growth into identified Growth Areas to preserve and protect the quality of existing neighborhoods, including mobile home parks, while establishing new mixed-use neighborhoods with a compact and dense form that is attractive to the City's projected demographics i.e., a young and senior population, and that supports walking, provides opportunities to incorporate retail and other services in a mixed-use format, and facilitates transit use.

Goal LU-10: Efficient Use of Residential and Mixed-Use Lands. Meet the housing needs of existing and future residents by fully and efficiently utilizing lands planned for residential and mixed-use and by maximizing housing opportunities in locations within a half mile of transit, with good access to employment areas, neighborhood services, and public facilities.

Goal TR-1: Balanced Transportation System. Complete and maintain a multimodal transportation system that gives priority to the mobility needs of bicyclists, pedestrians, and public transit users while also providing for the safe and efficient movement of automobiles, buses, and trucks.

Goal TR-2: Walking and Bicycling. Improve walking and bicycling facilities to be more convenient, comfortable, and safe, so that they become primary transportation modes in San José.

Goal TR-3: Maximize Use of Public Transit. Maximize use of existing and future public transportation services to increase ridership and decrease the use of private automobiles.

Goal TR-4: Passenger Rail Service. Provide maximum opportunities for upgrading passenger rail service for faster and more frequent trains, while making this improved service a positive asset to San José that is attractive, accessible, and safe.

Goal TR-7: Transportation Demand Management. Implement effective Transportation Demand Management (TDM) strategies that minimize vehicle trips and vehicle miles traveled.

Goal TR-8: Parking Strategies. Develop and implement parking strategies that reduce automobile travel through parking supply and pricing management.

Goal TR-9: Tier I Reduction of Vehicle Miles Traveled. Reduce Vehicle Miles Traveled (VMT) by 10% per service population, from 2009 levels, as an interim goal.

Goal TR-10: Tier II Reduction of Vehicle Miles Traveled. Reduce vehicle miles traveled by an additional 10% per service population above Goal TR-9 (a 20% reduction as measured from 2009), at a later date to be determined by the City Council, based on staff analysis of the City's achieved and anticipated success in reducing VMT.

Goal TR-11: Regional and State VMT Reduction Efforts. Reduce VMT by an additional 20% per service population above Goals TR-9 and TR-10 (a total reduction of 40% as measure from 2009) by participating and taking a leadership role in on-going regional and statewide efforts to reduce VMT.

Goal TN-2: Trails as Transportation. Develop a safe and accessible Trail Network to serve as a primary means of active transportation and recreation within an integrated multi-modal transportation system.

City of San José Greenhouse Gas Reduction Strategy

The City prepared its initial *Greenhouse Gas Reduction Strategy* in 2011 in conjunction with the General Plan; the strategy was subsequently updated in 2015.[55] The original strategy was prepared in accordance with AB 32 and CEQA Guidelines Section 15183.5. One of the strategy's five purposes is to "achieve General Plan–level environmental clearance for future development activities (through the year 2020)." In response to SB 32's 2030 goal, the City in August 2020 published the *2030 Greenhouse Gas Reduction Strategy*.[56] This new document, which has not yet been adopted, is a comprehensive update to the 2011 *GHG Reduction Strategy* and reflects the plans, policies, and codes as approved by the City Council. It builds on the policies set forth in the General Plan and in *Climate Smart San José* (2018). If adopted in fall 2020, the updated *2030 Greenhouse Gas Reduction Strategy* would use a development checklist that identifies clear strategies for GHG reductions that new projects in the city must implement to demonstrate consistency with the 2030 Greenhouse Gas Reduction Strategy and to achieve the City's 2030 GHG reduction target.

Climate Smart San José

The City adopted its *Climate Smart San José* plan in 2018.[57] The plan builds upon the foundational goals and policies identified in the General Plan, and provides additional analysis, recommendations, and corresponding metrics. The plan creates a measurable pathway to meeting the City's GHG emissions reduction targets. See Table 3.6-12, below, for the three pillars and nine strategies identified in the plan. As discussed above, the City published the *2030 Greenhouse Gas Reduction Strategy* in August 2020. The *2030 Greenhouse Gas Reduction Strategy* is scheduled for hearing before the Planning Commission in October 2020 and is anticipated to go

[55] City of San José, *Greenhouse Gas Reduction Strategy*, 2015. Available at https://www.sanjoseca.gov/home/showdocument?id=28213. Accessed January 13, 2020.
[56] City of San José, *2030 Greenhouse Gas Reduction Strategy*, August 2020. Available at https://www.sanjoseca.gov/your-government/department-directory/planning-building-code-enforcement/planning-division/environmental-planning/greenhouse-gas-reduction-strategy. Accessed September 23, 2020.
[57] City of San José, *Climate Smart San José*, 2018. Available at https://www.sanjoseca.gov/home/showdocument?id=32171. Accessed January 13, 2020.

to the City Council for adoption in November 2020. Assuming it is adopted, the new strategy will then serve as a framework for the purposes of tiering under CEQA.

City of San José Municipal Code

The City's Municipal Code includes regulations to reduce GHG emissions from both construction and operation of development projects. The regulations with potential applicability to the proposed project include:

- Chapter 17.84.220—Green Building Regulations for Private Development;
- Chapter 15.11—Water Efficient Landscape Standards for New and Rehabilitated Landscaping;
- Chapter 11.105—Transportation Demand Management;
- Chapter 9.10, Part 15—Construction and Demolition Diversion Deposit Program; and
- Chapter 9.11—Wood Burning Appliances.

City of San José Private Sector Green Building Policy

The City's Private Sector Green Building Policy (Council Policy 6-32) was adopted on October 7, 2008, and sets minimum standards for green building performance levels.[58] The requirements of this policy are summarized in **Table 3.6-5**. The proposed project would be subject to the green building standards required by this policy.

TABLE 3.6-5
CITY OF SAN JOSÉ PRIVATE-SECTOR GREEN BUILDING REQUIREMENTS

Applicable Project	Requirement
Commercial/Industrial—Tier 1 (<25,000 sf)	LEED Applicable NC Checklist
Commercial/Industrial—Tier 2 (≥25,000 sf)	LEED Silver
Residential—Tier 1 (<10 units)	GreenPoint or LEED Checklist
Residential—Tier 2 (≥20 units)	GreenPoint Rated 50 Points or LEED Certified
High-Rise Residential (75 feet or higher)	LEED Certified

NOTES:
LEED = Leadership in Energy and Environmental Design; NC = New Construction; sf = square feet

SOURCE: City of San José, Policy 6-32, City of San José Private Sector Green Building Policy, 2008. Available at https://openei.org/wiki/City_of_San_Jose_-_Private_Sector_Green_Building_Policy_(California). Accessed May 2020.

City of San José Reach Code

The City has adopted a reach code, which is a building code that is more advanced than those required by the State of California. Reach codes that support energy efficiency, electrification, and renewable energy can save energy and reduce GHG emissions. In September 2019, the San José City Council approved a building reach code ordinance that encourages building electrification and

[58] City of San José, *Policy 6-32, City of San José Private Sector Green Building Policy*, 2008. Available at https://openei.org/wiki/City_of_San_Jose_-_Private_Sector_Green_Building_Policy_(California). Accessed January 2020.

energy efficiency, requires solar readiness on nonresidential buildings, and requires electric vehicle (EV) readiness and installation of EV equipment.[59]

The City of San José adopted Chapter 17.845 of the San José Municipal Code, also known as Ordinance No. 30330, in November 2019. Chapter 17.845 prohibits natural gas infrastructure in newly constructed single-family dwellings, low-rise residential buildings (three stories or less), and detached accessory dwelling units. This requirement became effective on January 1, 2020.[60]

3.6.3 Impacts and Mitigation Measures

Significance Criteria

For the purposes of this EIR, a GHG emissions impact would be significant if implementing the proposed project would:

- Generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment; or
- Conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs.

CEQA Guidelines Section 15064.4 gives lead agencies the discretion to determine whether to assess GHG emissions quantitatively and/or qualitatively. The guidelines do not establish a bright-line quantitative threshold of significance; rather, lead agencies are granted discretion to establish significance thresholds for their respective jurisdictions, including looking to thresholds developed by other public agencies, or suggested by other experts, such as the California Air Pollution Control Officers Association, so long as any threshold chosen is supported by substantial evidence (refer to CEQA Guidelines Section 15064.7(c)). In August 2020, the City published its updated *City of San José 2030 Greenhouse Gas Reduction Strategy*, which, once adopted, will serve as a Qualified Climate Action Plan for the purposes of tiering under CEQA.

CNRA has also clarified that the CEQA Guidelines amendments focus on the effects of GHG emissions as cumulative impacts, and that they should be analyzed in the context of CEQA's requirements for cumulative impact analysis (refer to Section 15064(h)(3)).

According to CEQA Guidelines Section 15064.4(b):

> *[I]n determining the significance of a project's greenhouse gas emissions, the lead agency should focus its analysis on the reasonably foreseeable incremental contribution of the project's emissions to the effects of climate change. A project's incremental contribution may be cumulatively considerable even if it appears relatively small compared to statewide, national or global emissions.*

[59] City of San José, *San Jose Reach Code*, 2019. Available at https://www.sanjoseca.gov/your-government/departments-offices/environmental-services/climate-smart-san-jos/2019-reach-code-initiative. Accessed February 2020.

[60] City of San José, Ordinance No. 30330, 2019. Available at https://records.sanjoseca.gov/Ordinances/ORD30330.pdf.

The significance of impacts shall consider the project's impact as compared to the existing environmental setting, whether the project exceeds a threshold of significance, and compliance with relevant GHG-related plans.[61] According to CEQA Guidelines Section 15064.4(b)(3):

> *[T]he extent to which the project complies with regulations or requirements adopted to implement a statewide, regional, or local plan for the reduction or mitigation of greenhouse gas emissions (refer to, for example, Section 15183.5(b)). Such requirements must be adopted by the relevant public agency through a public review process and must reduce or mitigate the project's incremental contribution of greenhouse gas emissions.*

Greenhouse Gas Efficiency Metric

To achieve the AB 32 GHG emissions targets for 2020, BAAQMD recommends evaluating proposed projects using a project-level GHG emission efficiency metric of 4.6 $MTCO_2e$ per year per service population ($MTCO_2e$/year/SP).[62] The City's 2011 *Greenhouse Gas Reduction Strategy* established an efficiency metric for the year 2020 (6.6 $MTCO_2e$/year/SP). BAAQMD's current recommended GHG thresholds in the BAAQMD CEQA Air Quality Guidelines are based on the state's 2020 GHG targets, which are superseded by the 2030 GHG targets established in SB 32. SB 32 requires that statewide GHG emissions be reduced to 40 percent below the 1990 level by 2030.

The City of San José has identified efficiency metrics in its Downtown Strategy 2040 EIR for the years 2030 and 2040 based on emission reductions necessary to achieve the goals of Executive Orders B-30-15 and SB 32. Specifically, the Downtown Strategy 2040 EIR compared emissions to a "Substantial Progress" threshold of 2.6 $MTCO_2e$/year/SP in 2030 and an efficiency metric of 1.7 $MTCO_2e$/year/SP for 2040.[63] The efficiency threshold of 2.6 $MTCO_2e$/year/SP per year needed to meet the 2030 target is based on the GHG reduction goals of SB 32/Executive Order B-30-15, and the projected 2030 statewide population and employment levels. The efficiency metric of 1.7 $MTCO_2e$/year/SP for 2040 was also calculated using the same method.

As discussed above, the project applicant has voluntarily sought and obtained certification of the project under AB 900. As such, AB 900 requires the applicant to reduce or offset GHG emissions that would be generated during construction and a 30-year operational lifetime of the project to pre-project levels. Because the proposed project falls within the area covered by the Downtown Strategy, this EIR uses the efficiency metrics defined in the Downtown Strategy 2040 as its CEQA thresholds of significance.[64] In addition, the analysis considers consistency with AB 900, which requires that the proposed project achieve "no net additional" emissions. By achieving no net additional emissions, the project is effectively meeting a net-zero threshold for GHG emissions. In other words, the project would result in net-zero GHG emissions compared to existing conditions through compliance with AB 900. Both consistency with adopted plans,

---

61 14 CCR 15064.4(b).

62 *$MTCO_2e$/year/SP* is defined as a metric ton of CO_2 equivalent per year per service population (future residents and full-time workers).

63 The City's 2030 Greenhouse Gas Reduction Strategy, published in published in August 2020 but not yet adopted, proposes a slightly less stringent efficiency metric for the year 2030 of 2.94 $MTCO_2e$/year/SP.

64 The Downtown Strategy 2040 efficiency metrics for GHG emissions are applicable to the project. Even though the project would reallocate growth, the growth reallocation would increase growth to Priority Development Areas and reduce growth elsewhere.

including AB 900, as discussed below, and consistency with the City's adopted efficiency metric thresholds are used to evaluate significance.

If the proposed project would achieve the Downtown Strategy 2040 EIR's efficiency metric thresholds for 2030 and 2040, the project's GHG emissions impact would be less than significant. The Downtown Strategy 2040 EIR's efficiency metric for 2030 was derived using the 2017 Scoping Plan's recommendation that local land use development contribute its "fair share" of emission reductions to the statewide GHG target for 2030. This efficiency metric is also consistent with the Association of Environmental Professionals (AEP) 2016 white paper, which recommends using "Substantial Progress" thresholds for land use development to show consistency with statewide targets.[65] (Note that the AEP white paper is advisory only; it is not binding guidance or an adopted set of CEQA thresholds.)

As discussed above, the 2030 efficiency threshold of 2.6 $MTCO_2e$/year/SP per year is based on the GHG reduction goals of SB 32, and the 2040 efficiency threshold of 1.7 $MTCO_2e$/year/SP per year is based on the GHG reduction goals of Executive Order B-30-15, consistent with Scoping Plan and AEP guidance.

Project Consistency with Plans

A significant impact would occur if the proposed project would conflict with applicable regulations, plans, and policies that were adopted to reduce GHG emissions that contribute to global climate change. For the proposed project, as a land use development project, this analysis considers the proposed project's consistency with applicable plans, policies, and regulations to reduce GHG emissions.

The "no net additional" emissions requirement of AB 900 means that if the proposed project would not emit any additional GHG emissions beyond existing conditions over its estimated 30-year life as determined by CARB, the impact would be less than significant.[66] This serves as a *project-specific* requirement and does not set precedent for future City projects.

Achieving no net additional GHG emissions through AB 900 would exceed the proposed project's "fair share" of mitigation of CO_2 equivalent, as described in the *Golden Door Properties v. County of San Diego* court case, because no net new GHGs would be emitted. OPR's Final Statement of Reasons for SB 97 revisions to the CEQA Guidelines states that "AB32, and regulations implementing that statute, will require reductions in emissions from certain sectors in the economy, but do not preclude new emissions. Moreover, as explained in the Initial Statement

[65] Association of Environmental Professionals, *Final White Paper—Beyond 2020 and Newhall: A Field Guide to New CEQA Greenhouse Gas Thresholds and Climate Action Plan Targets for California*, October 18, 2016. Available at https://califaep.org/docs/AEP-2016_Final_White_Paper.pdf. Accessed January 2020.

[66] The project's GHG reduction requirement under the "no net additional" standard is quantified in the AB 900 certification.

of Reasons, the proposed amendments do not establish a zero-emissions threshold of significance because there is no 'one molecule rule' in CEQA."[67]

Under CEQA, individual projects are only required to mitigate a fair share of the impact; a net-zero threshold likely exceeds this fair share requirement. In addition, according to AEP, "It is a fundamental principle under CEQA that new projects cannot be required to mitigate impacts that they did not create. The statewide targets for 2020 and 2030 (and even 2050) are not zero GHG emissions; this is evidence that a zero threshold cannot be legally applied as a significance threshold under CEQA… a zero net additional threshold is not a "Less than Significant" threshold, but rather a "No Impact" Threshold."[68] By achieving no net additional emissions, the project is effectively meeting a net-zero threshold for GHG emissions. Following this line of reasoning, achieving "no net additional" emissions pursuant to AB 900 the project would ensure that the project would have a less-than-significant impact under CEQA.

Further, the AB 900 requirement is not derived from any statewide or countywide targets, whether adopted or not; thus, it does not rely on the interpretation of applicable guidelines, as was done in the case of *Cleveland National Forest v. San Diego Association of Governments*. In addition, this method does not hinge on demonstration of compliance with standards, and thus, relevancy to the standards does not need to be demonstrated, as was argued in the *Center for Biological Diversity v. California Department of Fish and Wildlife* case.

Approach to Analysis

GHG emissions and global climate change represent cumulative impacts from human activities and development projects locally, regionally, statewide, nationally, and worldwide. GHG emissions from all of these sources cumulatively contribute to the significant adverse environmental impacts of global climate change. No single project could generate enough GHG emissions to noticeably change the global average temperature; instead, the combination of GHG emissions from past, present, and future projects around the world have contributed and will continue to contribute to global climate change and its associated environmental impacts.

The following analysis of the proposed project's impact on climate change focuses on the proposed project's contribution to cumulatively significant GHG emissions. Because the analysis of GHG emissions is only relevant in a cumulative context, this section does not include an individual, project-specific impact assessment.

Net Additional Emissions

The *net additional GHG emissions* associated with the proposed project are defined as the difference in emissions between existing conditions and the emissions from construction and

[67] The "one molecule rule" means that a project's emissions would create a cumulatively significant impact by emitting any emissions whatsoever, including a single molecule. CEQA does not require compliance to the 'one molecule rule. (CBE, *supra*, 103 Cal.App.4th at 120.). California Natural Resources Agency, *Final Statement of Reasons for Regulatory Action*, December 2009, pp. 20–26. Available at http://resources.ca.gov/ceqa/docs/Final_Statement_of_Reasons.pdf. Accessed in March 2019.

[68] Association of Environmental Professionals, *Comments on CARB's January 20, 2017, Draft 2017 Climate Change Scoping Plan Update, The Proposed Strategy for Achieving California's 2030 Greenhouse Gas Target*, April 2017. Available at https://califaep.org/docs/AEP_Comments_on_ARB_Scoping_Plan_4.7.17.pdf. Accessed in May 2019.

operation of the proposed project. The proposed project's operational emissions would start in 2025 with partial buildout of Phase 1, reaching full buildout and occupancy as early as 2032. For analytical purposes under AB 900, the project's lifetime emissions are assumed to include construction and the 30-year operational life of the proposed project to 2061.

Operational emissions for each project phase were assumed to last for 30 years, starting at the date when the phase is operational: specifically, 2028–2057 for Phase 1, 2030–2059 for Phase 2, and 2032–2061 for Phase 3. The proposed project's annual operational emissions include total construction emissions amortized over the 30-year life of the proposed project, which is the approach accepted by CARB in the AB 900 application and the CARB Determination (dated December 19, 2019) for the proposed Downtown West Mixed-Use Plan.[69]

Existing Conditions

As described in Chapter 2, *Project Description*, the approximately 81-acre project site currently contains approximately 100 individual parcels. The built environment of the project site and vicinity is characterized by a pattern of one- and two-story buildings that cover only portions of their lots, with the remaining unbuilt lot space used as surface parking.

GHG emissions originate from several sources during operation of these existing on-site businesses:[70]

- On-site combustion of natural gas for heating and cooking;
- Off-site emissions for the generation of electricity for existing uses;
- Off-site emissions associated with solid waste generated by existing uses, and with water supplied to and wastewater generated by existing uses; and
- On-site area-source emissions from landscaping equipment.

However, data were not readily available regarding the exact activity level (i.e., utility consumption) at each business, so existing emissions were based on default values. GHG emissions for these existing activities were estimated using CalEEMod (Version 2016.3.2), a California-based computer model of land use emissions. Emission calculation methods are described by sector in greater detail below.

Existing uses may continue to operate throughout part of construction. In this EIR analysis, non-mobile-source GHG emissions from existing conditions were subtracted from the total new emissions associated with the proposed project starting in 2025 to determine the net additional impact of the proposed project. Emissions from existing conditions are presented in Impact GR-1 below.

[69] Richard W. Corey, Executive Officer, California Air Resources Board, Letter to Kate Gordon regarding CARB AB 900 Determination, Director, Governor's Office of Planning and Research, December 19, 2019.

[70] As explained in the Setting, existing mobile-source emissions are not included, consistent with the project transportation analysis, which did not deduct trips from existing uses on the project site. The project transportation analysis effectively nets out existing mobile-source emissions through its use of the City of San José traffic model.

Construction Emissions Methods

As described in Chapter 2, *Project Description*, the project would be developed in three phases. While market demand and other factors would ultimately determine how long it takes to develop each phase, this analysis conservatively assumes that construction would be complete by 2032 as follows:

- Phase 1 would start in 2021 and end in December 2027.
- Phase 2 would start in January 2025 and end in June 2031.
- Phase 3 would start in September 2027 and end in March 2032.[71]

This development schedule is conservative: By assuming that all construction would take place as early as possible, it does not consider future potential technological advances, improving fuel standards, the expanded use of alternative fuels in construction equipment, and other regulatory changes that are expected to reduce emissions of GHG and other air pollutants over time.

The evaluation of potential GHG emissions impacts that may result from the construction and long-term operation of the proposed project is consistent with CEQA Guidelines Section 15064.4(a) and recent related guidance from OPR.[72] This analysis considered GHG emissions resulting from project-related incremental (net) increases in the use of electricity, and natural gas compared to existing conditions, as well as project mobile-source emissions. This included GHG emissions from heavy-duty off-road construction equipment activity during demolition, excavation, building construction, paving, replacement bridge construction over Los Gatos Creek, landscaping, and on-road haul, vendor, and worker mobile trips to and from the project site.

Construction equipment would vary by activity and may include but is not limited to dump trucks, excavators, bulldozers, compactors, forklifts, and cranes. All construction equipment would be certified to Tier 4 Final emissions standards, or equivalent, as specified in the construction equipment lists.

This analysis also considered indirect GHG emissions from water conveyance, wastewater generation, and solid waste handling. Because potential impacts resulting from GHG emissions would be long-term rather than acute, GHG emissions were calculated on an annual basis. A complete list of construction equipment, construction phasing, and detailed emission calculations is included in Appendix C1, *Air Quality and Greenhouse Gas Emissions Calculations*. GHG emissions are presented in metric tons per year.

GHG emissions were estimated using CalEEMod Version 2016.3.2, a California-based land use emissions computer model designed to provide a uniform platform for government agencies,

[71] The phasing plan analyzed in this EIR for the project has evolved since the AB 900 application was submitted and approved. Per AB 900, Phase 1 construction would end in 2024, Phase 2 would construction would end in 2027, and Phase 3 construction would end in 2030. As such, full buildout emissions were anticipated to begin in 2030, instead of 2032 as assumed in the EIR, based on the latest construction buildout schedule provided by the project applicant.

[72] The GHG operational analysis is consistent with the OPR's *CEQA and Climate Change Advisory Discussion Draft*. As stated therein, "when possible, lead agencies should quantify the project's construction and operational GHG emissions, using available data and tools, to determine the amount, types, and sources of GHG emissions resulting from the project." Governor's Office of Planning and Research, *CEQA and Climate Change Advisory Discussion Draft*, December 2018, p. 8. Accessed March 2019.

land use planners, and environmental professionals to quantify potential emissions of criteria air pollutants and GHGs from land use projects of various types and in various air basins. CalEEMod was developed in collaboration with the air districts of California and is recommended by BAAQMD for evaluating GHG emissions for projects under CEQA.[73] Regional data (e.g., emissions factors, trip lengths, meteorology, source inventory) were provided by the various California air districts to account for local requirements and conditions. According to the California Air Pollution Control Officers Association, the model is an established, accurate, and comprehensive tool for quantifying air quality and GHG impacts from land use projects throughout California.[74]

Separate CalEEMod runs were conducted for each phase of demolition and each phase of excavation across the project site. Individual block CalEEMod runs were conducted to capture the spatial and temporal differences by block as determined in the program development schedule. Construction equipment usage was modeled over an 8-hour period on Monday through Friday, with possible work on Saturdays.[75]

On-road mobile emissions for hauling, vendor, and worker trips were calculated using CARB's EMission FACtor (EMFAC) model. The most recent EPA-approved model is EMFAC2017.[76] Version 2016.3.2 of the CalEEMod model does not incorporate the on-road criteria pollutant emission factors generated from CARB's EMFAC2017 model, as it still uses EMFAC2014. Therefore, on-road mobile emissions were calculated separately using the EMFAC2017 web database. For hauling trips, it was assumed that some Class 1 hazardous soil would be exported from the site to an appropriate receiver site (i.e., Kettleman Hills Hazardous Waste Facility, 170 miles away), and some Class 2 non-hazardous soil would be exported to nearby receiver sites (such as Republic's Newby Island Landfill or Waste Management's Kirby Canyon Landfill, approximately 15 miles away). The number of haul trips was determined based on estimated maximum soil off-haul volumes by phase provided by the project applicant.[77] For worker and vendor trips, CalEEMod default trip distances and number of trips were used.

It is assumed that water trucks would water twice a day for off-road dust control during construction. For construction on-road and operational mobile-source emissions, a location-specific composite silt loading factor was used to determine the amount of road dust. Detailed calculations are included in Appendix C1, *Air Quality and Greenhouse Gas Emissions Calculations*.

Operational Emissions Methods

Operation of the project would result in GHG emissions from a variety of sources, including on-road mobile sources, stationary sources, and new buildings and uses. Emissions reductions or savings would also be realized via a number of project features. A brief description of the

[73] Bay Area Air Quality Management District, Tools and Methodologies. Available at https://www.baaqmd.gov/plans-and-climate/california-environmental-quality-act-ceqa/ceqa-tools. Accessed February 4, 2020.
[74] California Air Pollution Control Officers Association, California Emissions Estimator Model, 2017. Available at http://www.aqmd.gov/caleemod/. Accessed April 25, 2019.
[75] The analysis of GHG emissions is based on total annual emissions calculated based on total building square footage, so extended workdays, if permitted, would not change the results of these analyses.
[76] U.S. Environmental Protection Agency, *Federal Register* Title 84, pages 41717–41720, August 15, 2019.
[77] Google LLC, "Updated excavation quantities by phase." Email to Heidi Rous, Hillary Gitelman, Karl Heisler, Pete Choi, and Victoria Hsu of Environmental Science Associates, December 16, 2019.

project's GHG emissions sources and the methods used to estimate their respective emissions or emission reductions is included below. Detailed calculations are provided in Appendix C1, *Air Quality and Greenhouse Gas Emissions Calculations*.

Mobile Sources

Emissions from mobile sources were calculated using projected VMT and total trips based on the City of San José VMT Evaluation Tool and Travel Demand Model.[78] EMFAC2017 emission factors, average EMFAC2017 fleet mixes, VMT percentages, and trip generation percentages were used to calculate mobile-source emissions for each interim (2026, coinciding with the first full calendar year of partial project operations) and project buildout (2032) years, using the emissions factors for each year.[79]

For the interim and buildout years, mobile-source emissions were calculated for an "unmitigated scenario," which represents the proposed project without any of the vehicle trip reduction strategies included in the project applicant's AB 900 application. This unmitigated scenario captures the benefits of the site's proximity to transit and other compatible land uses, but does not include a project-specific transportation demand management (TDM) program. Emissions reductions from vehicle trip reductions, as required by AB 900, and implementation of **Mitigation Measure AQ-2h, Enhanced Transportation Demand Management Program**, are included in the mitigated scenario.

Energy Sources

CalEEMod was used to estimate the existing on-site emissions from natural gas appliances and equipment. Default electricity and natural gas usage rates were used based on building land use and square footage.[80] For the project, natural gas combustion emissions for cooking in 20,000 square feet of commercial kitchens were estimated using energy use rates from the U.S. Energy Information Administration's Commercial Buildings Energy Consumption Survey and emission factors from the Climate Registry. Electricity-related GHG emissions for the project are discussed below.

Stationary Sources

Central Utility Plant

Up to two central utility plants, occupying up to a total of approximately 130,000 square feet, would provide thermal heating and cooling energy through an on-site district systems approach.[81] The central utility plants would produce GHG emissions from electricity use. The utility plants would draw electricity from the grid or from on-site renewable energy sources and would be considered an indirect source of GHG emissions.

78 Fehr & Peers Transportation Consultants, "Total VMT" Spreadsheet, June 30, 2020.

79 For the interim year, although modeled conditions represent completion of Phase 1 in 2028, emission factors for 2026 were used because partial operations would commence as early as 2025.

80 California Air Pollution Control Officers Association, *California Emissions Estimator Model User's Guide*, Version 2016.3.2, November 2017. Available at http://www.aqmd.gov/docs/default-source/caleemod/01_user-39-s-guide2016-3-2_15november2017.pdf?sfvrsn=4. Accessed in May 2020.

81 The project's phasing strategy may require a satellite or temporary thermal-only central utility plant, to be included within the site northeast of Los Gatos Creek and east of Santa Clara Street. However, this would not change the total amount of energy used for project heating and cooling and therefore would not alter GHG emissions.

Emergency Generators

The analysis assumes that there would be a total of 47 emergency diesel generators on the project site, or approximately one per block. Emergency generators power building electricity in the event of an area-wide power outage and must be tested regularly. Phase 1 would include 26 generators, Phase 2 would have 14, and Phase 3 would have 7 generators. The analysis assumes that a maximum of 2 generators would operate simultaneously for 2 hours per day. Each generator is assumed to operate annually for 50 hours per year for testing and maintenance.

Development Program

The development program is divided into multiple blocks (e.g., A1, B1, C1) of various land uses such as offices, residential units, district systems and logistics, limited-term corporate accommodations, retail, hotel, and event space. These blocks would result in operational GHG emissions in the form of both direct and indirect emissions from electricity use, water use, and solid waste generation. As required by AB 900, the project would achieve, at a minimum, Leadership in Energy and Environmental Design for Neighborhood Development (LEED ND) Gold Certification (which requires that at least one building in each phase be certified LEED Gold). The project also would pursue LEED Gold Certification for office buildings, and all new buildings would comply with the City's New Construction Green Building Requirements. While the exact emissions reduction strategies that would be used to secure LEED certifications have not been identified at this time, the project would integrate low-impact development, transportation demand management, energy efficiency, water conservation, and other green building practices.

The project would consume energy for multiple purposes, such as building heating and cooling, cooking, hot water, lighting, and electronics. For all land uses, building electricity use was based on CalEEMod defaults for building types. Demand for grid-supplied electricity would be minimized with the inclusion of a 7.8-megawatt (MW) on-site solar photovoltaic (PV) system, in accordance with the U.S. Department of Energy National Renewable Energy Laboratory's PVWatts Calculator. Solar PV emissions savings were subtracted from the project's operational GHG emissions to reflect the specific project component relative to defaults for building types.

Operational GHG emissions were calculated in CalEEMod Version 2016.3.2 for each block of development. The project's electricity would be supplied by PG&E, San Jose Clean Energy, or on-site renewables. The electricity CO_2 intensity factor was calculated for each year using the average 2015-2017 PG&E CO_2 emissions rate as the base rate with the statewide renewable portfolio standard targets incorporated in future years. Pursuant to SB 350 and SB 100, 60 percent of all electricity in California must be obtained from renewable and zero-carbon energy resources by 2030 and 100 percent by 2045. Therefore, a constant CO_2 intensity factor from PG&E in 2017 would be conservative.

Electric vehicle charging stations would generate emissions related to electricity generation. A minimum of 10 percent of the total number of parking spaces on the project site (assumed to be up to 656) would be equipped with EV charging stations (although a higher percentage is included as mitigation). Electricity estimates from the charging stations were calculated by multiplying the number of spaces, days of operation, charge hours per day, and charging station

capacity resulting in the total annual electricity. GHG emissions are calculated using the annual electricity and PG&E energy intensity factor.

Sequestration

Carbon sequestration was evaluated qualitatively (i.e., it was not quantified as part of the project's GHG emissions inventory). There would be a net increase of trees after accounting for the removal of existing on-site trees and planting of new trees for the project. A variety of trees would be added as part of the 15 acres of parks and open space, including parks, plazas, green spaces, mid-block passages, and riparian setbacks. The exact tree species and number of trees are to be determined.

Water and Wastewater

GHG emissions from water and wastewater are a result of the required energy for supply, distribution, and treatment. Wastewater generation also results in emissions of GHGs from wastewater treatment systems, as well as from solids that are digested either through an anaerobic digester or with co-generation from combustion of digester gas. GHG emissions for on-site operations associated with water and wastewater usage were estimated using water demand values from the *Water Supply Assessment, Downtown West Mixed-Use Project (Google Project)*, prepared by San Jose Water Company (January 2020); see Section 3.14, *Utilities and Service Systems*, for more information. Emissions were estimated using GHG emission factors for each emissions source.

The potential district water reuse facility(s), assumed as the preferred option in this analysis, would process up to 964 million gallons per year (2.64 million gallons per day).[82] The water reuse facility(s) would be both a direct and indirect source of GHG emissions. Direct emissions would be generated by the wastewater treatment process. Indirect emissions would result from the energy used for moving water for supply, distribution, and treatment.

Solid Waste

Day-to-day activities during existing operations generate solid waste generally consisting of product packaging, grass clippings, bottles, food scraps, newspapers, plastic, and other items routinely disposed of in trash bins. A portion of the waste is diverted to waste recycling and reclamation facilities. Waste that is not diverted is typically sent to local landfills for disposal, where it results in GHG emissions of CO_2 and methane from the decomposition of the waste that occurs over the span of many years.

Emissions of GHGs associated with solid waste disposal from existing on-site operations were calculated using the CalEEMod model, using waste generation values by land use and the CalEEMod GHG emission factors for solid waste decomposition. For project operations, it is assumed that an 84 percent waste diversion rate would be achieved.[83]

[82] San Jose Water Company, *Downtown West Mixed-Use Project (Google Project) Water Supply Assessment*, January 2020.

[83] The 84 percent diversion rate is from Google-specific data via Arup Logistics. Source: Environmental Leadership, *Development Project Application for the Downtown West Mixed-Use Plan*. Appendix C, *Analysis of GHG Impacts for the Downtown West Mixed-Use Plan*. Table 22, *Solid Waste Landfill Annual Generation*. August 23, 2019.

The CalEEMod model allows the input of several variables to quantify solid waste emissions. The GHG emission factors, particularly for methane, depend on the characteristics of the landfill, such as the presence of a landfill gas capture system and subsequent flaring or energy recovery. In CalEEMod, the default values for landfill gas capture (e.g., no capture, no flaring, no energy recovery) are statewide averages and were used in this assessment to provide a conservative analysis.

Area Sources

Area-source emissions associated with project operations include landscaping equipment. The emissions for landscaping equipment were estimated using CalEEMod, based on the size of the existing land uses, the GHG emissions factors for fuel combustion, and the GWP values for the GHGs emitted. GHG emissions for existing on-site operations associated with landscaping equipment were estimated using default activity values by land use for existing uses and default CalEEMod GHG emission factors. CalEEMod uses GHG emission factors for landscaping equipment from CARB's OFFROAD model and *Technical Memo: Change in Population and Activity Factors for Lawn and Garden Equipment (6/13/2003)*.[84]

Project Design Features

Project design features include the following:

- Achieve LEED ND Gold Certification, which requires that at least one building in each phase be certified LEED Gold, consistent with AB 900 certification. The project would also comply with the City's New Construction Green Building Requirements, and the project applicant has further committed to constructing all office buildings to LEED Gold standards.
- *Transportation:* Transportation Demand Management (TDM) Program necessary to achieve the 15 percent transportation efficiency requirement of AB 900. (Mitigation Measure AQ-2h, Enhanced Transportation Demand Management Program, would provide for monitoring and enforcement of the TDM Program and would require greater vehicle trip reductions of up to 27 percent.)[85]
- *Energy:*
  - Installation of a minimum of 10 percent of parking spaces with Electric Vehicle Supply Equipment (EVSE). (Mitigation Measure AQ-2g would require installation of EVSE on 15 percent of parking spaces.)
  - All-electric heating systems.
  - Meeting or exceeding American Society of Heating, Refrigerating and Air-Conditioning Engineers (ASHRAE) 2019 energy efficiency standards.
  - On-site solar PV system achieving at least 7.8 MW.

[84] California Air Resources Board, *OFFROAD Modeling Change Technical Memo: Change in Population and Activity Factors for Lawn and Garden Equipment*, June 13, 2003. Available at https://ww3.arb.ca.gov/msei/2001_residential_lawn_and_garden_changes_in_eqpt_pop_and_act.pdf. Accessed April 5, 2019.

[85] To provide for a conservative analysis, mobile-source emissions were calculated for an "unmitigated scenario" that captures the benefits of the site's location close to transit and other compatible land uses, but does not include the project-specific TDM program. The mitigated scenario includes emissions reductions from vehicle trip reductions as required by Mitigation Measure AQ-2h, Enhanced Transportation Demand Management Program.

- *Water:*
  - Use of recycled water for all non-potable demands identified in the proposed project including toilet flushing, irrigation, and cooling.
  - Potential on-site water reuse facility that would treat wastewater to CCR Title 22 disinfected tertiary (unrestricted reuse) recycled water standards.[86]
- *Construction:* Tier 4 Final and electric construction equipment (or equivalent) (Mitigation Measure AQ-2a, Construction Emissions Minimization Plan, would provide for monitoring and enforcement).
- Implementation of all applicable regulatory requirements (such as 2019 Title 24 Building Standards, including the CALGreen Code and San José Reach Code).

The proposed project's GHG emissions were quantified for the life of the project (2021–2060) in the Downtown West San José AB 900 application, with the purpose of achieving no net additional GHG emissions. The following GHG analyses include further project-specific detail and calculate construction emissions (2021–2032) and full-buildout operational emissions (2032) compared to the 2030 and 2040 efficiency metric thresholds. At peak buildout, the operational GHG emissions presented in this EIR are within the range of the upper and lower bound emissions estimates presented in the analyses conducted for the AB 900 application.[87] The construction emissions, amortized over 30 years, analyzed in this EIR are slightly less than the construction emissions identified in the AB 900 analyses. Refer to Impact GR-2 below for additional discussion of the AB 900 GHG emissions estimates as they compare to the GHG emissions estimates in this EIR.

The GHG analyses in this EIR and the AB 900 application differ because of updates in project design, the level of detail analyzed, and the use of different transportation models and emissions calculation methods. Despite differences between the EIR and the AB 900 analyses, all GHG emissions from the proposed project would be offset in accordance with the requirements shown in the analyses conducted for the AB 900 application. Consistency with AB 900 is discussed under Impact GR-2.

Impact Analysis

Impact GR-1: The proposed project could generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment. *(Less than Significant)*

Construction Emissions

The project would result in emissions of approximately 128,329 $MTCO_2e$ from construction activities, of which 76,313 $MTCO_2e$ would be associated with off-road heavy-duty construction equipment and 51,912 $MTCO_2e$ would be associated with on-road mobile sources (**Table 3.6-6**).

[86] The potential on-site water reuse facility was included in the modeling for GHG emissions because it is the applicant's preferred option. If an on-site water reuse facility is not constructed and the project instead uses the regional wastewater treatment facility, GHG emissions would increase by 559 $MTCO_2e$/year.

[87] As discussed in the AB 900 Supplemental Documentation, the "upper" and "lower" bound calculations for the GHG emissions and transportation efficiency represent a range of potential outcomes for the project. The lower bound emission estimate uses a lower retail trip generation and improved transportation efficiency, on-site solar PV generation, and site specific water demand factors.

With implementation of Mitigation Measures AQ-2a and AQ-2c (refer to Section 3.1, *Air Quality*), mitigated construction emissions would be reduced to approximately 101,084 $MTCO_2e$, of which 63,190 $MTCO_2e$ would be associated with off-road heavy-duty construction equipment and 37,825 $MTCO_2e$ would be associated with on-road mobile sources. Construction emissions are also broken down by year (refer to Table 3.6-8, later in this discussion). These emissions represent the entire construction period of the project from 2021 to 2032.

TABLE 3.6-6
TOTAL CONSTRUCTION GREENHOUSE GAS EMISSIONS

Construction Emissions	Project Total $MTCO_2e$	Mitigated [a] Total $MTCO_2e$
Demolition Off-Road Equipment	3,054	2,616
Excavation Off-Road Equipment	17,490	16,118
Block Construction Off-Road Equipment	55,067	44,209
Bridge Construction Off-Road Equipment	701	248
On-Road (Haul, Vendor, Worker)	51,912	37,825
Construction Office	69	69
Construction Total	**128,329**	**101,084**

NOTE:
$MTCO_2e$ = metric tons of carbon dioxide equivalent
[a] Emissions include implementation of Mitigation Measure AQ-2a, Construction Emissions Minimization Plan; and Mitigation Measure AQ-2c, Heavy-Duty Truck Model Year Requirement.

SOURCES: Appendix C1, *Air Quality and Greenhouse Gas Emission Calculations*; data compiled by Environmental Science Associates in 2019.

Operational Emissions

Under unmitigated conditions, the project's operational emissions would be approximately 84,308 $MTCO_2e$/year in 2032, the modeled year of full buildout. The majority of operational emissions are associated with mobile sources because the development would increase the number of cars and trucks traveling to and from the site (**Table 3.6-7**). Because mobile-source emissions and building emissions would become cleaner (higher efficiency and/or lower emitting) over time with stricter regulations, project buildout in 2032 would represent the year of the highest emissions for project operations, and therefore, is the most conservative.

The project incorporates design features intended to reduce GHG emissions during operation, as summarized above, with the exception of the TDM program, which was not analyzed as part of the "unmitigated" condition to provide for a conservative analysis of the project's emissions. These design features (with the exception of the TDM program) are included as part of the unmitigated scenario.

Under the mitigated scenario (including implementation of Mitigation Measures AQ-2d, AQ-2e, AQ-2f, AQ-2g, and AQ-2h listed in Section 3.1, *Air Quality*), mitigated operational emissions would be reduced to approximately 64,068 $MTCO_2e$/year in 2032 (Table 3.6-7).

TABLE 3.6-7
TOTAL ANNUAL OPERATIONAL GREENHOUSE GAS EMISSIONS AT FULL BUILDOUT (2032)

Sector	Project $MTCO_2e$/year	Mitigated[a] $MTCO_2e$/year
Mobile Sources	66,163	45,688
Stationary Sources[b]	1,359	1,594
Block (Electricity, Water, Waste)	17,991	17,991
Water Reuse Facility[c]	-6	-6
Solar Photovoltaic	-1,199	-1,199
Operational Total[c]	**84,308**	**64,068**

NOTES:

This is the operational GHG emissions total for full buildout. Table 3.6-9 shows the construction and operations emissions combined with the existing emissions netted out by year.

$MTCO_2e$ = metric tons of carbon dioxide equivalent

[a] Emissions include implementation of Mitigation Measure AQ-2e, Best Available Emissions Controls for Stationary Emergency Generators; Mitigation Measure AQ-2f, Operational Diesel Truck Emissions Reduction; Mitigation Measure AQ-2g, Electric Vehicle Charging; and Mitigation Measure AQ 2h, Enhanced Transportation Demand Management Program. These emissions do not account for Mitigation Measure GR-2, Compliance with AB 900. Note that these mitigation measures are not required to achieve either the 2030 or the 2040 efficiency metric thresholds, and are thus not required for a less-than-significant impact related to GHG emissions.

[b] The increase in stationary-source emissions under the mitigated scenario is due to greater electricity consumption for an increased number of electric vehicle charging stations.

[c] If an on-site water reuse facility is not constructed and the project instead uses the regional wastewater treatment facility, GHG emissions would increase by 559 $MTCO_2e$ per year. Even if this increase were added to unmitigated emissions shown in Table 3.6-11, the project's unmitigated GHG emissions would remain below the "Substantial Progress" Efficiency Metric Threshold of Significance.

SOURCES: Appendix C1, *Air Quality and Greenhouse Gas Emission Calculations*; data compiled by Environmental Science Associates in 2019.

Net Additional Greenhouse Gas Emissions

The net additional GHG emissions by year for the project are the sum of the annual construction and operational emissions with the existing-condition non-mobile-source emissions subtracted from the total. The peak net emissions (i.e., construction plus operational emissions) would be 90,921 $MTCO_2e$ in 2029 (**Table 3.6-8**). The 2029 emissions represent simultaneous operation of Phase 1 and partial construction of Phases 2 and 3. The peak net additional mitigated emissions would be reduced to 72,449 $MTCO_2e$ in 2029 (**Table 3.6-9**).

To determine the significance of the proposed project's emissions, net additional emissions per service population were calculated and compared to the Downtown Strategy 2040 EIR 2030 and 2040 GHG efficiency metric thresholds. To compute the proposed project's efficiency metrics, the emissions were divided by the service population (future residents and full-time workers) to calculate GHG emissions in metric tons per person. For the purpose of comparison with these thresholds, proposed project emissions are defined as construction emissions amortized over 30 years plus annual operational emissions at full buildout. The derivation of the service population is shown in **Table 3.6-10**. Results are presented in **Table 3.6-11**. The proposed project's efficiency metric at full buildout (2032) and 2040 is compared to the "Substantial Progress" threshold of 2.6 $MTCO_2e$ per service population for 2030 and 1.7 $MTCO_2e$ per service population for 2040.

TABLE 3.6-8
PROJECT NET ADDITIONAL GREENHOUSE GAS EMISSIONS ($MTCO_2E$/YEAR)

Year	Construction	Operations[a]	Existing Conditions[b]	Net GHG Emissions[c]
2021	4,987	0	0	4,987
2022	8,451	0	0	8,451
2023	10,512	0	0	10,512
2024	16,699	0	0	16,699
2025	20,423	15,073	0	35,495
2026	16,166	45,218	0	61,384
2027	11,314	67,826	0	79,140
2028	5,427	75,363	0	80,790
2029	14,765	78,666	(2,510)	90,921
2030	12,249	78,593	(2,510)	88,331
2031	7,229	80,412	(2,510)	85,131
2032	106	84,308	(2,510)	81,904
2035	0	78,119	(2,510)	75,609
2040	0	69,646	(2,510)	67,135
2045	0	63,787	(2,510)	61,276
2050	0	63,174	(2,510)	60,664
2055	0	63,174	(2,510)	60,664
2060	0	17,530	(2,510)	15,019
		Peak Annual Net Additional Emissions ($MTCO_2e$)		90,921

NOTES:
GHG = greenhouse gas; $MTCO_2e$ = metric tons of carbon dioxide equivalent
[a] Operational GHG emissions are extrapolated backward to 2025 to show a linear progression of some buildings becoming operational before the end of construction in Phase 1.
[b] Existing uses are conservatively assumed to continue operating on-site until the end of the first year of full Phase 1 operations in 2028. Therefore, existing-condition emissions are not subtracted until 2029. The parenthesis mean that these emissions are subtracted from the project's emissions to determine the net new emissions for the project.
[c] Starting in 2029, net emissions are the difference between existing conditions and the project's combined construction and operational emissions.

SOURCES: Appendix C1, *Air Quality and Greenhouse Gas Emission Calculations*; data compiled by Environmental Science Associates in 2019.

As shown in Table 3.6-11, the proposed project would result in a **less-than-significant** impact using the 2030 efficiency metric threshold and a **less-than-significant** impact compared to the 2040 efficiency metric threshold. GHG emissions would decline incrementally over time because of increases in energy efficiency and reduced tailpipe emissions. As a result, the project emissions per service population would decrease with time.

Mitigation: None required.

TABLE 3.6-9
MITIGATED NET ADDITIONAL GREENHOUSE GAS EMISSIONS ($MTCO_2E$/YEAR)

Year	Construction[a]	Operations[b]	Existing Conditions[c]	Net GHG Emissions[d]
2021	4,195	0	0	4,195
2022	7,183	0	0	7,183
2023	8,957	0	0	8,957
2024	14,092	0	0	14,092
2025	15,452	11,838	0	27,290
2026	12,124	35,513	0	47,636
2027	8,558	53,269	0	61,827
2028	3,563	59,188	0	62,751
2029	12,468	62,491	(2,510)	72,449
2030	9,104	62,449	(2,510)	69,043
2031	5,298	64,268	(2,510)	67,055
2032	89	64,068	(2,510)	61,646
2035	0	58,700	(2,510)	56,190
2040	0	50,994	(2,510)	48,483
2045	0	45,445	(2,510)	42,934
2050	0	44,953	(2,510)	42,443
2055	0	44,953	(2,510)	42,443
2060	0	11,633	(2,510)	9,123
		Peak Annual Net Additional Emissions ($MTCO_2e$)		72,449

NOTES:
GHG = greenhouse gas; $MTCO_2e$ = metric tons of carbon dioxide equivalent
[a] Emissions include implementation of Mitigation Measure AQ-2a, Construction Emissions Minimization Plan, and Mitigation Measure AQ-2c, Heavy-Duty Truck Model Year Requirement.
[b] Operational GHG emissions are extrapolated backward to 2025 to show a linear progression of some buildings becoming operational before the end of construction in Phase 1. Emissions include implementation of Mitigation Measure AQ-2a, Construction Emissions Minimization Plan; Mitigation Measure AQ-2c, Heavy-Duty Truck Model Year Requirement; Mitigation Measure AQ-2e, Best Available Emissions Controls for Stationary Emergency Generators; Mitigation Measure AQ-2f, Operational Diesel Truck Emissions Reduction; Mitigation Measure AQ-2g, Electric Vehicle Charging; and Mitigation Measure AQ-2h, Enhanced Transportation Demand Management Program.
[c] Existing uses are conservatively assumed to continue operating on-site until the end of the first year of full Phase 1 operations in 2028. Therefore, existing-condition emissions are not subtracted until 2029. The parenthesis mean that these emissions are subtracted from the project's emissions to determine the net new emissions for the project.
[d] Starting in 2029, net emissions are the difference between existing conditions and the project's combined construction and operational emissions.

SOURCES: Appendix C1, *Air Quality and Greenhouse Gas Emission Calculations*; data compiled by Environmental Science Associates in 2019.

TABLE 3.6-10
SERVICE POPULATION DERIVATION

Year of Analysis	Number of Residents[a]	Number of Jobs[b]	Service Population
Buildout Year (2032)	12,980	30,552	44,179
2040	12,980	30,552	44,179

NOTES:
[a] There would be up to 5,900 dwelling units at full buildout with an average of 2.2 people per unit.
[b] There would be up to 7.3 million gsf of office space at full buildout with an assumed density of 250 gsf per employee (29,200 office employees) plus an estimated 1,998 non-office employees, for a total of 31,198 jobs. Subtracting 647 existing on-site employees yields 30,551 net new jobs.

SOURCES: Table 3.11-8 in Section 3.11, *Population and Housing*, of the EIR

TABLE 3.6-11
GREENHOUSE GAS EFFICIENCY METRICS FOR THE PROJECT

	Unmitigated		Mitigated[a]	
Category	**2032**	**2040**	**2032**	**2040**
Operational Emissions at Full Buildout	84,308	69,646	64,068	50,994
Amortized Construction Emissions	4,278	4,278	3,369	3,369
Total Project Emissions	88,585	73,924	67,438	54,363
Project's Service Population (people)	44,179	44,179	44,179	44,179
Project's Efficiency Metric ($MTCO_2e$/year/SP)	2.01	1.67	1.53	1.23
"Substantial Progress" Efficiency Metric Threshold ($MTCO_2e$/year/SP)	2.6	1.7	2.6	1.7
Achieves Efficiency Metric?	**Yes**	**Yes**	**Yes**	**Yes**

NOTES:
$MTCO_2e$ = metric tons of carbon dioxide equivalent; $MTCO_2e$/year/SP = metric tons of carbon dioxide equivalent per year per service population

[a] This does not include implementation of carbon offset credits as required by AB 900 and Mitigation Measure GR-2, Compliance with AB 900. If this were included, project emissions would be zero. Emissions include implementation of Mitigation Measure AQ-2a, Construction Emissions Minimization Plan; Mitigation Measure AQ-2c, Heavy-Duty Truck Model Year Requirement; Mitigation Measure AQ-2e, Best Available Emissions Controls for Stationary Emergency Generators; Mitigation Measure AQ-2f, Operational Diesel Truck Emissions Reduction; Mitigation Measure AQ-2g, Electric Vehicle Charging; and Mitigation Measure AQ-2h, Enhanced Transportation Demand Management Program. Note that these mitigation measures are not required to achieve either the 2030 or the 2040 efficiency metric thresholds, and are thus not required for a less-than-significant impact related to GHG emissions.

SOURCES: Appendix C1, *Air Quality and Greenhouse Gas Emissions Calculations*; data compiled by Environmental Science Associates in 2020.

Impact GR-2: The proposed project would not conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases. *(Less than Significant with Mitigation)*

The analysis of whether the project would conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs is closely related to the impact analysis in Section 3.4, *Energy*, because increasing renewable energy usage and improving building energy and fuel efficiencies are primary strategies for reducing GHG emissions.

A significant impact would occur if the project would conflict with state goals and applicable regulatory plans and policies to reduce GHG emissions, and thereby generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment. Because mitigation is needed to ensure monitoring and enforcement of project commitments under AB 900 and to reduce emissions, the project's consistency with AB 900, the 2017 Scoping Plan Update, and the state's ZEV mandate is considered **potentially significant**, as explained further below.

As a land use development project, this analysis considers the proposed project's consistency with the following applicable plans, policies, and regulations to reduce GHG emissions:

- The *Envision San José 2040 General Plan*;
- The City's Climate Action Plan, *Climate Smart San José*;
- AB 900;

- SB 743 and the City of San José Transportation Analysis Policy;
- The 2017 Climate Change Scoping Plan Update, CARB's plan for achieving a 40 percent reduction of GHG emissions from 1990 levels by 2030, statewide, as mandated by SB 32;
- The MTC and ABAG Regional Transportation Plan/Sustainable Communities Strategy, the regional plan for achieving sustainable land use patterns that reduce passenger vehicle GHG emissions, as mandated by SB 375;
- Executive Order S-3-05, which established a goal of reducing the state's GHG emissions to 80 percent below the 1990 level by the year 2050; and
- CARB's Mobile Source Strategy and Executive Order B-48-18, which are designed to achieve GHG reductions from the state's largest contributing sector (transportation), consistent with the goals of SB 32 and the 2017 Scoping Plan Update.

Consistency with the Envision San José 2040 General Plan

Table 3.6-12 presents the proposed project's consistency with the City's General Plan. General Plan policies that are not applicable to the project are not included in the table below. The project is consistent with the remaining policies in Table 3.6-12 that are relevant to the project. As shown in the table, the proposed project would be consistent with the General Plan, resulting in a **less-than-significant** impact.

TABLE 3.6-12
PROJECT CONSISTENCY WITH APPLICABLE ENVISION SAN JOSÉ 2040 GENERAL PLAN POLICIES

Policy	Consistency Analysis
Goal MS-1: Green Building Policy Leadership	
MS-1.1—Demonstrate leadership in the development and implementation of green building policies and practices. Ensure that all projects are consistent with or exceed the City's Green Building Ordinance and City Council Policies as well as State and/or regional policies which require that projects incorporate various green building principles into their design and construction.	The project would achieve LEED ND Gold Certification and LEED Gold for all office buildings. The project's LEED Gold commitments would promote energy conservation, water conservation, waste diversion, and environmental leadership through design aspects such as solar PV, public transit accessibility, and co-location of land uses that create a walkable network.
MS-1.2—Continually increase the number and proportion of buildings within San José that make use of green building practices by incorporating those practices into both new construction and retrofit of existing structures.	The project would demolish most existing buildings on-site and would achieve LEED ND Gold Certification. Office buildings would achieve LEED Gold.
MS-1.5—Support the development and implementation of new and innovative technologies to achieve the construction of all types of environmentally high-performing buildings.	The project would achieve LEED ND Gold Certification and office buildings would achieve LEED Gold.
MS-1.6—Recognize the interconnected nature of green building systems, and, in the implementation of Green Building Policies, give priority to green building options that provide environmental benefit by reducing water and/or energy use and solid waste.	The project would achieve LEED ND Gold Certification and office buildings would achieve LEED Gold.
Goal MS-2: Energy Conservation and Renewable Energy Use	
MS-2.2—Encourage maximized use of on-site generation of renewable energy for all new and existing buildings.	The project would incorporate a 7.8 MW solar PV system.
MS-2.3—Utilize solar orientation (i.e., building placement), landscaping, design, and construction techniques for new construction to minimize energy consumption.	The project would incorporate a 7.8 MW solar PV system and achieve LEED ND Gold Certification. Solar orientation of buildings and solar PV systems are potential LEED credits that would reduce energy consumption in buildings.

TABLE 3.6-12
PROJECT CONSISTENCY WITH APPLICABLE ENVISION SAN JOSÉ 2040 GENERAL PLAN POLICIES

Policy	Consistency Analysis
MS-2.4—Promote energy-efficient construction industry practices.	The project would achieve LEED ND Gold Certification, including optimization of building energy performance.
MS-2.5—Encourage responsible forest management in wood material selections and encourage the use of rapidly renewable materials.	The project would achieve LEED ND Gold Certification. LEED includes a Certified Wood Credit that would help improve forest conservation and improved management and protection of forests.
MS-2.6—Promote roofing design and surface treatments that reduce the heat island effect of new and existing development and support reduced energy use, reduced air pollution, and a healthy urban forest.	The project would create approximately 15 acres of parks and open space, including parks, plazas, green spaces, mid-block passages, and riparian setbacks. The project would achieve LEED ND Gold Certification, which may include the heat island reduction credit through use of reflective roofing materials, shade, vegetation, and/or reduced hardscape.
MS-2.7—Encourage the installation of solar panels or other clean energy power.	The project would incorporate a 7.8 MW solar PV system.
Goal MS-5: Waste Diversion	
MS-5.5—Maximize recycling and composting from all residents, businesses, and institutions in the City.	The project would be subject to and comply with the City of San José's local recycling and composting ordinances. Per Resolution 74077, the City established a goal of reducing the amount to be landfilled by 75 percent by 2013 and zero waste by 2022. "Zero waste" is defined as landfilling no more than 10 percent of waste or recycling 90 percent.
MS-5.6—Enhance the construction and demolition debris recycling program to increase diversion from the building sector.	The project would have an 84 percent waste diversion rate. At a minimum, the project's construction would be consistent with the Construction and Demolition Diversion Program in Part 15, Chapter 9 of the San José Municipal Code.
Goal MS-6: Waste Reduction	
MS-6.3—Encourage the use of locally extracted, manufactured, or recycled and reused materials including construction materials and compost.	The project would consider local, recycled, and reused materials as part of the LEED ND Gold certification process.
MS-6.4—Improve downstream reuse and recycling of end-of-life products and materials to ensure their highest and best use.	The project would be subject to and comply with the City of San José's local recycling and composting ordinances.
MS-6.5—Reduce the amount of waste disposed in landfills through waste prevention, reuse, and recycling of materials at venues, facilities, and special events.	The project would be subject to and comply with the City of San José's local recycling and composting ordinances.
MS-6.8—Maximize reuse, recycling, and composting citywide.	The project would be subject to and comply with the City of San José's local recycling and composting ordinances.
Goal MS-7: Environmental Leadership and Innovation	
MS-7.2—Collaborate with providers of solid waste collection, recycling, and disposal services to ensure a level of service that promotes a clean environment.	The project would be subject to and comply with the City of San José's local recycling and composting ordinances.
MS-7.3—Support the development of green jobs through investment in zero waste programs and infrastructure.	The project would directly generate tens of thousands of permanent jobs, a portion of which would be "green." Green jobs would support the goal of achieving LEED ND Gold certification.

TABLE 3.6-12
PROJECT CONSISTENCY WITH APPLICABLE ENVISION SAN JOSÉ 2040 GENERAL PLAN POLICIES

Policy	Consistency Analysis
Goal MS-14: Reduce Consumption and Increase Efficiency	
MS-14.1—Promote job and housing growth in areas served by public transit and that have community amenities within a 20-minute walking distance.	The project site is located in a Priority Development Area and Transit Priority Area. The project site is adjacent to Diridon Station, a central passenger rail hub that is served by Caltrain, ACE, VTA light rail, Amtrak Capitol Corridor, and Amtrak Coast Starlight. Additionally, Diridon Station is currently served by bus lines including local and express VTA bus lines, Monterey-Salinas Transit, Santa Cruz Metro, Amtrak Thruway Bus, Greyhound Lines, Megabus, and employer shuttles. The program development would place a mix of land uses including residential, office, and retail uses in close proximity to Diridon Station, thereby reducing the number of VMT and vehicle trips.
MS-14.2—Enhance existing neighborhoods by adding a mix of uses that facilitate biking, walking, or transit ridership through improved access to shopping, employment community services, and gathering places.	The program development would place a mix of land uses including residential, office, and retail uses in close proximity, thereby reducing the number of VMT and vehicle trips.
MS-14.3—Consistent with the California Public Utilities Commission's Long Term Energy Efficiency Strategic Plan, as revised, and when technological advances make it feasible, require all new residential and commercial construction to be designed for zero net energy use.	The project would achieve LEED ND Gold Certification. The project would use energy efficiency strategies and on-site renewable energy to reduce energy consumption.
MS-14.4—Implement the City's Green Building Policies so that new construction and rehabilitation of existing buildings fully implements industry best practices, including the use of optimized energy systems, selection of materials and resources, water efficiency, sustainable site selection, passive solar building design, and planting of trees and other landscape materials to reduce energy consumption.	The project would achieve LEED ND Gold Certification and all office buildings would achieve LEED Gold. The project's LEED Gold commitments would promote energy conservation, water conservation, waste diversion, and environmental leadership through design aspects such as solar PV, public transit accessibility, and co-location of land uses that create a walkable network. The project would also include 15 acres of parks and open space.
Goal MS-15: Renewable Energy	
MS-15.3—Facilitate the installation of at least 100,000 solar roofs in San José by 2022 and at least 200,000 solar roofs by 2040.	The project would incorporate a 7.8 MW solar PV system.
MS-15.5—Showcase and apply innovative technologies within San José, including developments that achieve maximum energy efficiency or net zero energy, and renewable energy systems that generate energy equal to or greater than that consumed on site.	The project would achieve LEED ND Gold Certification and all office buildings would achieve LEED Gold. The project would use energy efficiency strategies, including district-wide utility systems, and on-site renewable energy to reduce energy consumption.
Goal MS-16: Energy Security	
MS-16.2—Promote neighborhood-based distributed clean/renewable energy generation to improve local energy security and to reduce the amount of energy wasted in transmitting electricity over long distances.	The project site is located adjacent to a PG&E substation. The project would also include on-site district-wide utility systems and a new utility corridor. Consolidation of utility services within the central utility plants would result in greater spatial efficiency by eliminating areas within individual buildings dedicated to facilities and services
MS-16.3—Consider benefits and risks of alternative energy sources.	The project would consider the benefits and risks of alternative energy sources in pursuit of LEED ND Gold Certification.

TABLE 3.6-12
PROJECT CONSISTENCY WITH APPLICABLE ENVISION SAN JOSÉ 2040 GENERAL PLAN POLICIES

Policy	Consistency Analysis
Goal MS-18: Water Conservation	
MS-18.1—Demonstrate environmental leadership by adopting citywide policies that encourage or require new and existing development to incorporate measures to reduce potable water demand and/or increase water efficiency in order to reduce the City's need for imported water.	The project would potentially include district water reuse facility(s) that would treat wastewater, for beneficial reuse, producing recycled water for non-potable uses and thereby reducing the need for imported water; alternatively, recycled water could be supplied by the San José–Santa Clara Regional Wastewater Facility.
MS-18.3—Demonstrate environmental leadership by encouraging the creation and use of new technologies that reduce potable water demand and/or increase the efficiency of water use.	The project would potentially use recycled water for on-site use, thereby reducing the need for imported water.
MS-18.5—Reduce citywide per capita water consumption by 25% by 2040 from a baseline established using the 2010 Urban Water Management Plans of water retailers in San José.	The project would incorporate water conservation strategies as part of its LEED ND Gold Certification.
Goal MS-21: Community Forest	
MS-21.1—Manage the Community Forest to achieve San José's environmental goals for water and energy conservation, wildlife habitat preservation, stormwater retention, heat reduction in urban areas, energy conservation, and the removal of carbon dioxide from the atmosphere.	The project would create approximately 15 acres of parks and open space, including parks, plazas, green spaces, mid-block passages, and a minimum 50-foot setback from riparian corridors. The project would provide various improvements to public areas such as sidewalk widening, plazas, and nearly 2,300 new trees.
MS-21.2—Provide appropriate resources to preserve, protect, and expand the City's Community Forest.	The project would create approximately 15 acres of parks and open space, including parks, plazas, green spaces, mid-block passages, and riparian setbacks.
MS-21.3—Ensure that San José's Community Forest is comprised of species that have low water requirements and are well adapted to its Mediterranean climate. Select and plant diverse species to prevent monocultures that are vulnerable to pest invasions. Furthermore, consider the appropriate placement of tree species and their lifespan to ensure the perpetuation of the Community Forest.	The project would create approximately 15 acres of parks and open space, including parks, plazas, green spaces, mid-block passages, and riparian setbacks.
MS-21.4—Encourage the maintenance of mature trees, especially natives, on public and private property as an integral part of the community forest. Prior to allowing the removal of any mature tree, pursue all reasonable measures to preserve it.	The project would create approximately 15 acres of parks and open space, including parks, plazas, green spaces, mid-block passages, and riparian setbacks.
MS-21.6—As a condition of new development, require the planting and maintenance of both street trees and trees on private property to achieve a level of tree coverage in compliance with and that implements City laws, policies or guidelines.	The project would create approximately 15 acres of parks and open space, including parks, plazas, green spaces, mid-block passages, and riparian setbacks.
MS-21.8—For Capital Improvement Plan or other public development projects, or through the entitlement process for private development projects, require landscaping including the selection and planting of new trees to achieve the following goals: avoid conflicts with nearby power lines; avoid potential conflicts between tree roots and developed areas; avoid use of invasive, non-native trees; remove existing invasive, non-native trees; incorporate native trees into urban plantings in order to provide food and cover for native wildlife species; plant native oak trees and native sycamores on sites which have adequately sized landscape areas and which historically supported these species.	The project would create approximately 15 acres of parks and open space, including parks, plazas, green spaces, mid-block passages, and riparian setbacks.

TABLE 3.6-12
PROJECT CONSISTENCY WITH APPLICABLE ENVISION SAN JOSÉ 2040 GENERAL PLAN POLICIES

Policy	Consistency Analysis
MS-21.9—Where urban development occurs adjacent to natural plant communities (e.g., oak woodland, riparian forest), landscape plantings shall incorporate tree species native to the area and propagated from local sources (generally from within 5-10 miles and preferably from within the same watershed).	The City parks closest to the project site include Cahill Park, on West San Fernando Street just west of Diridon Station (about 500 feet west of the project site); Arena Green (a portion of Guadalupe River Park), immediately across West Santa Clara Street from the project site's easternmost extent (about 100 feet from the site); John P. McEnery Park, south of West San Fernando Street and immediately east of SR 87 from the site's easternmost extent (about 275 feet east of the project site); and portions of the linear Guadalupe River Park, which are as close as 600 feet east of the site. Connectivity and continuity to these existing parks were considered in the dedication of approximately 15 acres of parks and open space on the project site.
MS-21.10—Prohibit London plane trees from being planted in the Coyote Planning Area, which is located near the most significant stands of sycamore alluvial woodland in the City. Planting of this species is discouraged elsewhere, particularly near riparian areas. Prohibit holly-leaved oaks from being planted in areas containing stands of native oaks or in proximity to native oak woodland habitat.	Specific species of trees will be considered in the final design of the project, but are expected to be consistent with City policies for biological resources.
Goal IN-5: Solid Waste-Materials Recovery/Landfill	
IN-5.3—Use solid waste reduction techniques, including source reduction, reuse, recycling, source separation, composting, energy recovery, and transformation of solid wastes to extend the life span of existing landfills and to reduce the need for future landfill facilities and to achieve the City's Zero Waste goals.	The project would be subject to and comply with the City of San José's local recycling and composting ordinances. Per Resolution 74077, the City of San José established a goal of reducing the amount to be landfilled by 75 percent by 2013 and zero waste by 2022. "Zero waste" is defined as landfilling no more than 10 percent of waste or recycling 90 percent.
IN-5.7—Promote the implementation of new technologies and practices to provide operational efficiencies, to reduce potential environmental impacts, and to minimize potential land use incompatibility.	The project would use a district systems approach to deliver resource efficiency across water, energy, and waste flows.
Goal CD-3: Connections	
CD-3.1—Promote development patterns that cause areas to function and provide connectivity as a whole rather than as individual developments.	The project would include various improvements to the public realm to improve transit access and pedestrian and bicycle circulation and facilitate connectivity, both within the site and to and from surrounding neighborhoods.
CD-3.2—Prioritize pedestrian and bicycle connections to transit, community facilities (including schools), commercial areas, and other areas serving daily needs. Ensure that the design of new facilities can accommodate significant anticipated future increases in bicycle and pedestrian activity.	The project would include various improvements to the public realm to improve transit access and pedestrian and bicycle circulation and facilitate connectivity, both within the site and to and from surrounding neighborhoods.
CD-3.3—Within new development, create and maintain a pedestrian-friendly environment by connecting the internal components with safe, convenient, accessible, and pleasant pedestrian facilities and by requiring pedestrian connections between building entrances, other site features, and adjacent public streets.	The project would include various improvements to the public realm to improve transit access and pedestrian and bicycle circulation and facilitate connectivity, both within the site and to and from surrounding neighborhoods.

TABLE 3.6-12
PROJECT CONSISTENCY WITH APPLICABLE ENVISION SAN JOSÉ 2040 GENERAL PLAN POLICIES

Policy	Consistency Analysis
CD-3.4—Encourage pedestrian cross-access connections between adjacent properties and require pedestrian and bicycle connections to streets and other public spaces, with particular attention and priority given to providing convenient access transit facilities. Provide pedestrian and vehicular connections with cross-access easements within and between new and existing developments to encourage walking and minimize interruptions by parking areas and curb cuts.	The project would include various improvements to the public realm to improve transit access and pedestrian and bicycle circulation and facilitate connectivity, both within the site and to and from surrounding neighborhoods. The local street network would be changed to improve circulation for all modes of transportation within the project site.
CD-3.6—Encourage a street grid with lengths of 600 feet or less to facilitate walking and biking. Use design techniques such as multiple building entrances and pedestrian paseos to improve pedestrian and bicycle connections.	The project would include various improvements to the public realm to improve transit access and pedestrian and bicycle circulation and facilitate connectivity, both within the site and to and from surrounding neighborhoods. The local street network would be changed to improve circulation for all modes of transportation within the project site.
CD-3.7—Encourage development to maximize pedestrian, bicycle, and vehicular connections to adjacent existing and planned neighborhoods and community facilities. Use cul-de-sacs only when no current or future options exist to connect one area to another, or if such design would help preclude development from extending to areas where it is not planned.	The project would include various improvements to the public realm to improve transit access and pedestrian and bicycle circulation and facilitate connectivity, both within the site and to and from surrounding neighborhoods. The local street network would be changed to improve circulation for all modes of transportation within the project site.
Goal H-4: Housing—Environmental Sustainability	
H-4.1—Implement green building principles in the design and construction of housing and related infrastructure, in conformance with the Green Building Goals and Policies in the *Envision General Plan* and in conformance with the City's Green Building Ordinance.	The project would achieve LEED ND Gold Certification and comply with the City of San José's New Construction Green Building Requirements.
H-4.2—Minimize housing's contribution to greenhouse gas emissions, and locate housing, consistent with our City's land use and transportation goals and policies, to reduce vehicle miles traveled and auto dependency.	The project would achieve LEED ND Gold Certification and comply with the City of San José's New Construction Green Building Requirements. The project would include a TDM plan, which would reduce single-occupancy vehicle use to and from the project site, promote car-sharing, and promote use of nearby transit, bicycle, and pedestrian facilities that would provide access to the project site. Compliance with the project's TDM plan would be included as a condition of approval for the project.
H-4.3—Encourage the development of higher residential densities in complete, mixed-use, walkable and bikeable communities to reduce energy use and greenhouse gas emissions.	The project would include up to 7.3 million gsf of office combined with up to 5,900 dwelling units and other retails, arts, and cultural spaces. This mixed-use development would reduce energy use and GHG emissions through LEED ND Gold Certification.
Goal LU-2: Growth Areas	
LU-2.1—Provide significant job and housing growth capacity within strategically identified "Growth Areas" in order to maximize use of existing or planned infrastructure (including fixed transit facilities), minimize the environmental impacts of new development, provide for more efficient delivery of City services, and foster the development of more vibrant, walkable urban settings.	The project would include up to 7.3 million gsf of office combined with up to 5,900 dwelling units and other retails, arts, and cultural spaces. The project site is also located in a Priority Development Area and Transit Priority Area. The project site is adjacent to Diridon Station, a central passenger rail hub that is served by Caltrain, ACE, VTA light rail, Amtrak Capitol Corridor, and Amtrak Coast Starlight. Additionally, Diridon Station is currently served by bus lines including local and express VTA bus lines, Monterey-Salinas Transit, Santa Cruz Metro, Amtrak Thruway Bus, Greyhound Lines, Megabus, and employer shuttles.

TABLE 3.6-12
PROJECT CONSISTENCY WITH APPLICABLE ENVISION SAN JOSÉ 2040 GENERAL PLAN POLICIES

Policy	Consistency Analysis
LU-2.3—To support the intensification of identified Growth Areas, and to achieve the various goals related to their development throughout the City, restrict new development on properties in non-Growth Areas.	The project site is located in a Priority Development Area and Transit Priority Area.
Goal LU-10: Efficient Use of Residential and Mixed-Use Lands	
LU-10.1—Develop land use plans and implementation tools that result in the construction of mixed-use development in appropriate places throughout the City as a means to establish walkable, complete communities.	The project site is located in a Priority Development Area and Transit Priority Area.
LU-10.2—Distribute higher residential densities throughout our city in identified growth areas and facilitate the development of residences in mixed-use development within these growth areas.	The project would include up to 5,900 dwelling units in a Priority Development Area.
LU-10.3—Develop residentially and mixed-use-designated lands adjacent to major transit facilities at high densities to reduce motor vehicle travel by encouraging the use of public transit.	The project site is located in a Priority Development Area and Transit Priority Area. The project site is adjacent to Diridon Station, a central passenger rail hub that is served by Caltrain, ACE, VTA light rail, Amtrak Capitol Corridor, and Amtrak Coast Starlight. Additionally, Diridon Station is currently served by bus lines including local and express VTA bus lines, Monterey-Salinas Transit, Santa Cruz Metro, Amtrak Thruway Bus, Greyhound Lines, Megabus, and employer shuttles. The program development would place a mix of land uses including residential, office, and retail uses in close proximity, thereby reducing the number of VMT and trips.
LU-10.4—Within identified growth areas, develop residential projects at densities sufficient to support neighborhood retail in walkable, main street type development.	The project would include up to 5,900 dwelling units in a Priority Development Area. The local street network would be changed to improve circulation for all modes of transportation within the project site.
LU-10.5—Facilitate the development of housing close to jobs to provide residents with the opportunity to live and work in the same community.	The project would include up to 7.3 million gsf of office combined with up to 5,900 dwelling units and other retails, arts, and cultural spaces in a mixed-use development.
LU-10.6—In identified growth areas, do not approve decreases in residential density through zoning change or development entitlement applications or through General Plan amendments.	The project would not decrease, and rather would increase, residential density.
LU-10.7—Encourage consolidation of parcels to promote mixed-use and high density development at locations identified in the Land use / Transportation Diagram.	The project would include up to 7.3 million gsf of office combined with up to 5,900 dwelling units and other retails, arts, and cultural spaces in a mixed-use development.
LU-10.8—Encourage the location of schools, private community gathering facilities, and other public/quasi-public uses within or adjacent to Urban Villages and other growth areas and encourage these uses to be developed in an urban form and in a mixed-use configuration.	The project would concentrate growth by including up to 7.3 million gsf of office combined with up to 5,900 dwelling units and other retails, arts, and cultural spaces in a mixed-use development. The active use spaces may include daycare facilities, educational facilities, restaurants, and open spaces for community gatherings.
Goal TR-1: Balanced Transportation System	
TR-1.1—Accommodate and encourage use of non-automobile transportation modes to achieve San José's mobility goals and reduce vehicle trip generation and vehicle miles traveled.	The project would include a TDM plan, which would reduce single-occupancy vehicle use to and from the project site, promote car-sharing, and promote use of nearby transit, bicycle, and pedestrian facilities that would provide access to the project site. Compliance with the project's TDM plan is proposed as mitigation and would be included as a condition of approval for the project.

TABLE 3.6-12
PROJECT CONSISTENCY WITH APPLICABLE ENVISION SAN JOSÉ 2040 GENERAL PLAN POLICIES

Policy	Consistency Analysis
TR-1.2—Consider impacts on overall mobility and all travel modes when evaluating transportation impacts of new developments or infrastructure projects.	The project would include a TDM plan, which would reduce single-occupancy vehicle use to and from the project site, promote car-sharing, and promote use of nearby transit, bicycle, and pedestrian facilities that would provide access to the project site. Compliance with the project's TDM plan is proposed as mitigation and would be included as a condition of approval for the project.
TR-1.3—Increase substantially the proportion of commute travel using modes other than the single-occupant vehicle. The 2040 commute mode split targets for San José residents and workers are presented in the following table. [See Table TR-1: Commute Mode Split Targets for 2040 in the General Plan.]	The project would include a TDM plan, which would reduce single-occupancy vehicle use to and from the project site, promote car-sharing, and promote use of nearby transit, bicycle, and pedestrian facilities that would provide access to the project site. Compliance with the project's TDM plan is proposed as mitigation and would be included as a condition of approval for the project.
TR-1.7—Require that private streets be designed, constructed and maintained to provide safe, comfortable, and attractive access and travel for motorists and for pedestrians, bicyclists, and transit users of all ages, abilities, and preferences.	The project would include various improvements to the public realm to improve transit access and pedestrian and bicycle circulation and facilitate connectivity, both within the site and to and from surrounding neighborhoods. The local street network would be changed to improve circulation for all modes of transportation within the project site.
TR-1.8—Actively coordinate with regional transportation, land use planning, and transit agencies to develop a transportation network with complementary land uses that encourage travel by bicycling, walking and transit, and ensure that regional greenhouse gas emission standards are met.	The project would include various improvements to the public realm to improve transit access and pedestrian and bicycle circulation and facilitate connectivity, both within the site and to and from surrounding neighborhoods. The local street network would be changed to improve circulation for all modes of transportation within the project site. The applicant has been coordinating with the lead agency and other public agencies as necessary throughout the development of the project.
TR-1.10—Require needed public street right-of-way dedication and improvements as development occurs. The ultimate right-of-way shall be no less than the dimensions as shown on the Functional Classification Diagram except when a lesser right-of-way will avoid significant social, neighborhood or environmental impacts and perform the same traffic movement function. Additional public street right-of-way, beyond that designated on the Functional Classification Diagram, may be required in specific locations to facilitate left-turn lanes, bus pullouts, and right-turn lanes in order to provide additional capacity at some intersections.	The project would include various improvements to the public realm to improve transit access and pedestrian and bicycle circulation and facilitate connectivity both within the site and to and from surrounding neighborhoods. The local street network would be changed to improve circulation for all modes of transportation within the project site.
Goal TR-2: Walking and Bicycling	
TR-2.1—Coordinate the planning and implementation of citywide bicycle and pedestrian facilities and supporting infrastructure. Give priority to bicycle and pedestrian safety and access improvements at street crossings (including proposed grade-separated crossings of freeways and other high vehicle volume roadways) and near areas with higher pedestrian concentrations (school, transit, shopping, hospital, and mixed-use areas).	The project would include various improvements to the public realm to improve transit access and pedestrian and bicycle circulation and facilitate connectivity, both within the site and to and from surrounding neighborhoods. The local street network would be changed to improve circulation for all modes of transportation within the project site.
TR-2.3—Construct crosswalks and sidewalks that are universally accessible and designed for use by people of all abilities.	The project would include various improvements to the public realm to improve transit access and pedestrian and bicycle circulation and facilitate connectivity, both within the site and to and from surrounding neighborhoods. The local street network would be changed to improve circulation for all modes of transportation within the project site.

TABLE 3.6-12
PROJECT CONSISTENCY WITH APPLICABLE ENVISION SAN JOSÉ 2040 GENERAL PLAN POLICIES

Policy	Consistency Analysis
TR-2.4—Encourage walking and bicycling and increase pedestrian and bicycle safety through education programs.	TDM strategies would include marketing (i.e., encouragement), and may include an on-site transportation coordinator and other technology-based services to encourage transit, walking, and biking.
TR-2.6—Require that all new traffic signal installations, existing traffic signal modifications, and projects included in San José's Capital Improvement Plan include installation of bicycle detection devices where appropriate and feasible.	The project would include various improvements to the public realm to improve transit access and pedestrian and bicycle circulation and facilitate connectivity, both within the site and to and from surrounding neighborhoods. The local street network would be changed to improve circulation for all modes of transportation within the project site.
TR-2.8—Require new development where feasible to provide on-site facilities such as bicycle storage and showers, provide connections to existing and planned facilities, dedicate land to expand existing facilities or provide new facilities such as sidewalks and/or bicycle lanes/paths, or share in the cost of improvements.	The project would include various improvements to the public realm to improve transit access and pedestrian and bicycle circulation and facilitate connectivity, both within the site and to and from surrounding neighborhoods. The local street network would be changed to improve circulation for all modes of transportation within the project site.
TR-2.11—Prohibit the development of new cul-de-sacs, unless it is the only feasible means of providing access to a property or properties, or gated communities that do not provide through and publicly accessible bicycle and pedestrian connections. Pursue the development of new through bicycle connections in existing cul-de-sac areas where feasible.	The project would include various improvements to the public realm to improve transit access and pedestrian and bicycle circulation and facilitate connectivity, both within the site and to and from surrounding neighborhoods. The local street network would be changed to improve circulation for all modes of transportation within the project site.
Goal TR-3: Maximize Use of Public Transit	
TR-3.2—Ensure that roadways designated as Grand Boulevards adequately accommodate transit vehicle circulation and transit stops. Prioritize bus mobility along Stevens Creek Boulevard, The Alameda, and other heavily traveled transit corridors.	The project site is located in a Priority Development Area and Transit Priority Area. The project site is adjacent to Diridon Station, a central passenger rail hub that is served by Caltrain, ACE, VTA light rail, Amtrak Capitol Corridor, and Amtrak Coast Starlight. Additionally, Diridon Station is currently served by bus lines including local and express VTA bus lines, Monterey-Salinas Transit, Santa Cruz Metro, Amtrak Thruway Bus, Greyhound Lines, Megabus, and employer shuttles.
TR-3.3—As part of the development review process, require that new development along existing and planned transit facilities consist of land use and development types and intensities that contribute toward transit ridership. In addition, require that new development is designed to accommodate and to provide direct access to transit facilities.	The project site is located in a Priority Development Area and Transit Priority Area. The project site is adjacent to Diridon Station, a central passenger rail hub that is served by Caltrain, ACE, VTA light rail, Amtrak Capitol Corridor, and Amtrak Coast Starlight. Additionally, Diridon Station is currently served by bus lines including local and express VTA bus lines, Monterey-Salinas Transit, Santa Cruz Metro, Amtrak Thruway Bus, Greyhound Lines, Megabus, and employer shuttles.
TR-3.4—Maintain and improve access to transit stops and stations for mobility-challenged population groups such as youth, the disabled, and seniors.	The project site is located in a Priority Development Area and Transit Priority Area. Design of the streetscape would be ADA compliant.
TR-3.5—Work with the Valley Transportation Authority (VTA) and other public transit providers to increase transit frequency and service along major corridors and to major destinations like Downtown and North San José.	The applicant has been coordinating with the lead agency and other public agencies as necessary throughout the development of the project.
TR-3.6—Collaborate with Caltrans and Santa Clara Valley Transportation Authority to prioritize transit mobility along the Grand Boulevards identified on the Growth Areas Diagram. Improvements could include installing transit signal priority, queue jump lanes at congested intersections, and/or exclusive bus lanes.	The applicant has been coordinating with the lead agency and other public agencies as necessary throughout the development of the project.

TABLE 3.6-12
PROJECT CONSISTENCY WITH APPLICABLE ENVISION SAN JOSÉ 2040 GENERAL PLAN POLICIES

Policy	Consistency Analysis
TR-3.7—Regularly collaborate with BART to coordinate planning efforts for the proposed BART extension to San José/Santa Clara with appropriate land use designations and transportation connections.	The applicant has been coordinating with the lead agency and other public agencies as necessary throughout the development of the project.
Goal TR-4: Passenger Rail Service	
TR-4.1—Support the development of amenities and land use and development types and intensities that increase daily ridership on the VTA, BART, Caltrain, ACE, and Amtrak California systems and provide positive fiscal, economic, and environmental benefits to the community.	The project would include various improvements to the public realm to improve transit access and pedestrian and bicycle circulation and facilitate connectivity, both within the site and to and from surrounding neighborhoods. The local street network would be changed to improve circulation for all modes of transportation within the project site.
Goal TR-7: Transportation Demand Management	
TR-7.1—Require large employers to develop and maintain TDM programs to reduce the vehicle trips and vehicle miles generated by their employees through the use of shuttles, provision for car-sharing, bicycle sharing, carpool, parking strategies and other measures.	The project would include a TDM plan, which would reduce single-occupancy vehicle use to and from the project site, promote car-sharing, and promote use of nearby transit, bicycle, and pedestrian facilities that would provide access to the project site. Compliance with the project's TDM plan would be included as a condition of approval for the project.
Goal TR-8: Parking Strategies	
TR-8.1—Promote transit-oriented development with reduced parking requirements and promote amenities around appropriate transit hubs and stations to facilitate the use of available transit services.	The project site is located in a Priority Development Area and Transit Priority Area.
TR-8.2—Balance business viability and land resources by maintaining an adequate supply of parking to serve demand while avoiding excessive parking supply that encourages automobile use.	The applicant would prepare area-wide implementation plans for shared parking. The anticipated residential parking ratio of 0.4 spaces/unit and the proposed non-residential parking supply are below standard City and ITE requirements, but may be approved by the City subject to certain conditions (see Chapter 2, *Project Description*).
TR-8.3—Support using parking supply limitations and pricing as strategies to encourage use of non-automobile modes.	The applicant would prepare area-wide implementation plans for shared parking. The anticipated residential parking ratio of 0.4 spaces/unit and the non-residential parking supply are below standard City and ITE requirements, but may be approved by the City subject to certain conditions (see Chapter 2, *Project Description*).
TR-8.5—Promote participation in car share programs to minimize the need for parking spaces in new and existing development.	The project would include a TDM plan, which would reduce single-occupancy vehicle use to and from the project site, promote car-sharing, and promote use of nearby transit, bicycle, and pedestrian facilities that would provide access to the project site. Compliance with the project's TDM plan is proposed as mitigation and would be included as a condition of approval for the project.
TR-8.6—Allow reduced parking requirements for mixed-use developments and for developments providing shared parking or a comprehensive TDM program, or developments located near major transit hubs or within Urban Villages and other Growth Areas.	The applicant would prepare area-wide implementation plans for shared parking. The anticipated residential parking ratio of 0.4 spaces/unit and the non-residential parking supply are below City and ITE requirements, but may be approved by the City subject to certain conditions (see Chapter 2, *Project Description*).

TABLE 3.6-12
PROJECT CONSISTENCY WITH APPLICABLE ENVISION SAN JOSÉ 2040 GENERAL PLAN POLICIES

Policy	Consistency Analysis
Goal TR-9: Tier I Reduction of Vehicle Miles Traveled	
TR-9.1—Enhance, expand and maintain facilities for walking and bicycling, particularly to connect with and ensure access to transit and to provide a safe and complete alternative transportation network that facilitates non-automobile trips.	The project would include various improvements to the public realm to improve transit access and pedestrian and bicycle circulation and facilitate connectivity, both within the site and to and from surrounding neighborhoods. The local street network would be changed to improve circulation for all modes of transportation within the project site.
Goal TR-10: Tier II Reduction of Vehicle Miles Traveled	
TR-10.1—Explore development of a program for implementation as part of Tier II, to require that parking spaces within new development in areas adjacent to transit and in all mixed-use projects be unbundled from rent or sale of the dwelling unit or building square footage.	The project site is located in a Priority Development Area and Transit Priority Area. Unbundled parking would be provided for all market-rate dwelling units.
TR-10.3—Encourage participation in car share programs for new development in identified growth areas.	The project would include a TDM plan, which would reduce single-occupancy vehicle use to and from the project site, promote car-sharing, and promote use of nearby transit, bicycle, and pedestrian facilities that would provide access to the project site. Compliance with the project's TDM plan is proposed as mitigation and would be included as a condition of approval for the project.
TR-10.5—Work with employers in Tier II to monitor employer achievement of TDM program measures and explore incentives for successes and/or consider penalties for non-compliance.	The project would include a TDM plan, which would reduce single-occupancy vehicle use to and from the project site, promote car-sharing, and promote use of nearby transit, bicycle, and pedestrian facilities that would provide access to the project site. Compliance with the project's TDM plan is proposed as mitigation and would be included as a condition of approval for the project. The mitigation measure (included as Mitigation Measure AQ-2h) includes penalties for non-compliance.
Goal TN-2: Trails as Transportation	
TN-2.1—Support off-street travel by interconnecting individual trail systems to each other and to regional trail systems.	The project would enhance local pedestrian circulation and improve bicycling linkages to Downtown, adjacent neighborhoods, and regional trails for residents and visitors.
TN-2.2—Provide direct, safe and convenient bicycle and pedestrian connections between the trail system and adjacent neighborhoods, schools, employment areas and shopping areas.	The project would enhance local pedestrian circulation and improve bicycling linkages to Downtown, adjacent neighborhoods, and regional trails for residents and visitors.
TR-2.7—Encourage all developers to install and maintain trails when new development occurs adjacent to a designated trail location, in accordance with Policy PR-8.5. [PR-8.5—Encourage all developers to install and maintain trails when new development occurs adjacent to a designated trail location. Use the City's Parkland Dedication Ordinance and Park Impact Ordinance to have residential developers build trails when new residential development occurs adjacent to a designated trail location, consistent with other parkland priorities. Encourage developers or property owners to enter into formal agreements with the City to maintain trails adjacent to their properties.]	The project would enhance local pedestrian circulation and improve bicycling linkages to Downtown, adjacent neighborhoods, and regional trails for residents and visitors. The project would create approximately 15 acres of parks and open space, including parks, plazas, green spaces, mid-block passages, and riparian setbacks.

TABLE 3.6-12
PROJECT CONSISTENCY WITH APPLICABLE ENVISION SAN JOSÉ 2040 GENERAL PLAN POLICIES

Policy	Consistency Analysis
TR-2.8—Coordinate and connect the trail system with the on-street bikeway system, and consider policies from the Circulation and the Parks, Trails, Open Space, and Recreation Amenities/Programs sections of this Plan to create a complete BikeWeb to serve the needs of San José's diverse community.	The project would enhance local pedestrian circulation and improve bicycling linkages to Downtown, adjacent neighborhoods, and regional trails for residents and visitors.

NOTES:
ACE = Altamont Corridor Express; BART = Bay Area Rapid Transit; City = City of San José; gsf = gross square feet; ITE = Institute of Transportation Engineers; LEED ND = Leadership in Energy and Environmental Design for Neighborhood Development; MW = megawatts; PG&E = Pacific Gas and Electric Company; PV = photovoltaic; SR = State Route; TDM = transportation demand management; VMT = vehicle miles traveled; VTA = Santa Clara Valley Transportation Authority

SOURCE: City of San José, *Envision San José 2040 General Plan*, adopted November 1, 2011 (amended March 16, 2020). Available at https://www.sanjoseca.gov/home/showdocument?id=22359. Accessed January 16, 2020.

Consistency with Climate Smart San José

Table 3.6-13 presents the proposed project's consistency with *Climate Smart San José*. Strategies that are not applicable to the project are not included in the table below. The project is consistent with the remaining strategies in Table 3.6-13 that are relevant to the project. In addition, the project is required to meet the "no new additional" GHG emissions standard though AB 900 as described above and also below. The "no new additional" GHG emissions requirement will result in greater reductions in GHG emissions than would be required under *Climate Smart San José* and related reduction goal. Thus it can be concluded that the project is consistent with *Climate Smart San José*, and by extension with the City's 2020 GHG emissions target. As shown in the table, the proposed project would be consistent with *Climate Smart San José*, resulting in a **less-than-significant** impact.

TABLE 3.6-13
PROJECT CONSISTENCY WITH APPLICABLE CLIMATE SMART SAN JOSÉ STRATEGIES

Strategy	Consistency Analysis
Pillar 1: A Sustainable & Climate Smart City	
Transition to a renewable energy future	The project would incorporate a 7.8 MW solar PV system.
Embrace the Californian climate by adopting sustainable patterns of water use	The potential district water reuse system would include a sanitary sewer collection network, water reuse facility(s), and non-potable recycled water distribution system. The water reuse system would serve non-potable uses, such as toilet flushing, irrigation, and cooling.
Pillar 2: A Vibrant City of Connected & Focused Growth	
Densify our city to proactively manage growth, increase active transportation, and reduce vehicle miles traveled	The project would include up to 7.3 million gsf of office combined with up to 5,900 dwelling units and other retails, arts, and cultural spaces in a mixed-use development. The project would include a TDM plan, which would reduce single-occupancy vehicle use to and from the project site, promote car-sharing, and promote the use of nearby transit, bicycle, and pedestrian facilities that would provide access to the project site. Compliance with the project's TDM plan is proposed as mitigation and would be included as a condition of approval for the project.
Make homes efficient and affordable by increasing the number of zero net energy and all-electric homes	The project would achieve LEED ND Gold Certification. The project would promote energy conservation, would include solar PV, and would not use natural gas in residential buildings.

TABLE 3.6-13
PROJECT CONSISTENCY WITH APPLICABLE CLIMATE SMART SAN JOSÉ STRATEGIES

Strategy	Consistency Analysis
Create clean, personalized mobility choices with vehicle electrification, ridesharing, and autonomous vehicles	The project would include a TDM plan, which would reduce single-occupancy vehicle use to and from the project site, promote car-sharing, and promote the use of nearby transit, bicycle, and pedestrian facilities that would provide access to the project site. Compliance with the project's TDM plan is proposed as mitigation and would be included as a condition of approval for the project. Consistent with the CALGreen Code, a minimum of 10 percent of total parking spaces would be designated as EV charging spaces, and with implementation of mitigation would provide charging infrastructure for a minimum of 15 percent of the total.
Develop integrated, accessible public transport infrastructure	While the project would not develop public transit directly, the project would include a TDM plan, which would reduce single-occupancy vehicle use to and from the project site, promote car-sharing, and promote the use of nearby transit, bicycle, and pedestrian facilities that would provide access to the project site. The project site is also located in a Priority Development Area and Transit Priority Area. The project site is adjacent to Diridon Station, a central passenger rail hub that is served by Caltrain, ACE, VTA light rail, Amtrak Capitol Corridor, and Amtrak Coast Starlight. Additionally, Diridon Station is currently served by bus lines including local and express VTA bus lines, Monterey-Salinas Transit, Santa Cruz Metro, Amtrak Thruway Bus, Greyhound Lines, Megabus, and employer shuttles.
Pillar 3: An Economically Inclusive City of Opportunity	
Create local jobs in our city to reduce vehicle miles traveled	The project would directly generate tens of thousands of permanent jobs.
Improve our commercial building stock by making them high-performance	The project would build up to 7.3 million gsf of office space and achieve LEED ND Gold Certification. All office buildings would also achieve LEED Gold. The project's LEED Gold commitments would promote energy conservation, water conservation, waste diversion, and environmental leadership through design aspects such as solar PV, public transit accessibility, and co-location of land uses that create a walkable network. The project allowance for natural gas usage in only 20,000 square feet of restaurant kitchen space is consistent with the strategy's push for building electrification and standardization of ZNE-ready commercial buildings. (This area is only 0.14% of the total land use program of 13.9 million gsf of space.)
Make commercial goods movement clean and efficient	The project would include an on-site logistics center, thereby reducing trips and VMT to other distribution centers. The logistics center may use electric vehicles to transport goods.

NOTES:
ACE = Altamont Corridor Express; CALGreen Code = California Green Building Standards Code; EV = electric vehicle; gsf = gross square feet; LEED ND = Leadership in Energy and Environmental Design for Neighborhood Development; MW = megawatts; PV = photovoltaic; TDM = transportation demand management; VMT = vehicle miles traveled; VTA = Santa Clara Valley Transportation Authority

SOURCE: City of San José, *Climate Smart San José*, 2018. Available at https://www.sanjoseca.gov/home/showdocument?id=32171.

Consistency with Assembly Bill 900

As discussed above in Section 3.6.2, *Regulatory Framework*, the project has been certified as an Environmental Leadership project in conformance with AB 900. The certification stipulates that the project applicant must fully offset the projected net increase in GHG emissions attributable to the proposed project through the acquisition of GHG offset credits. The GHG offset credits must be purchased on a prorated basis at the time each phase of the development is permitted by the City of San José. The City has committed to monitor and enforce the applicant's commitment that the project result in no net additional GHG emissions for the life of the obligation, including the extent to which the applicant relies on GHG offsets, as a condition of project approval. This commitment has been included as a mitigation measure, without which the impact would be **potentially significant**.

The ability of the proposed project to achieve no net additional emissions through conformance with AB 900 is consistent with guidance in the 2017 Scoping Plan Update. In the 2017 Scoping Plan Update, CARB recommends "that projects incorporate design features and GHG reduction measures, to the degree feasible, to minimize GHG emissions. Achieving no net additional increase in GHG emissions is an appropriate overall objective for new development."[88] By achieving no net additional emissions, the proposed project would be much more efficient on average than existing development in San José, and far more efficient than what the Scoping Plan assumes for new development throughout the state. Thus, achieving no net additional GHG emissions through AB 900 would exceed the proposed project's "fair share" of mitigation of GHG emissions as stipulated by the California Supreme Court in *Center for Biological Diversity v. California Department of Fish and Wildlife* (2015) 62 Cal.4th 204 (commonly referred to as "*Newhall Ranch*") and in CARB's 2017 *Scoping Plan-Identified VMT Reductions And Relationship To State Climate Goals* document.[89,90]

Consistency with the 2017 Scoping Plan Update is an appropriate metric for determining the significance of a project's GHG emissions. CEQA Guidelines Section 15064.4(b)(3) states that a lead agency "may consider a project's consistency with the State's long-term climate goals or strategies" when determining the significance of a project's impacts. In *Newhall Ranch*, the California Supreme Court sanctioned the use of such a threshold. In *Newhall Ranch*, the Court held that assessing a project's GHG impacts based on a significance threshold of "consistency with a GHG emission reduction plan" is legally permissible under CEQA. The court stated:

> *Under these circumstances, evaluating the significance of a residential or mixed use project's greenhouse gas emissions by their effect on the state's efforts to meet its long-term goals makes at least as much sense as measuring them against an absolute numerical threshold. Using consistency with AB 32's statewide goal for greenhouse gas reduction, rather than a numerical threshold, as a significance criterion is also consistent with the broad guidance provided by section 15064.4 of the CEQA Guidelines.*[91]

The court further concluded, "[t]o the extent a project incorporates efficiency and conservation measures sufficient to contribute its portion of the overall GHG reductions necessary, one can reasonably argue that the project's impact is not cumulatively considerable, because it is helping

---

88 California Air Resources Board, *California's 2017 Climate Change Scoping Plan*, 2018. p. 101. Available at https://www.arb.ca.gov/cc/scopingplan/scopingplan.htm. Accessed May 2020.

89 In *Newhall Ranch*, the court said, "Indeed, to proceed in this manner is consistent with CEQA's "inherent recognition … that if a plan is in place to address a cumulative problem, a new project's incremental addition to the problem will not be `cumulatively considerable' if it is consistent with the plan and is doing its fair share to achieve the plan's goals." (Addressing the Significance of Greenhouse Gas Emissions, supra, 4 Golden Gate U. Envtl. L.J. at pp. 210–211.)"

90 "It is reasonable for new development to achieve a fair share of per capita VMT and GHG emissions reductions necessary to achieve statewide climate goals and to continue to work towards additional VMT and GHG emissions reductions through other measures." California Air Resources Board, *California Air Resources Board 2017 Scoping Plan-Identified VMT Reductions and Relationship to State Climate Goals*, January 2019. Available at https://ww2.arb.ca.gov/resources/documents/carb-2017-scoping-plan-identified-vmt-reductions-and-relationship-state-climate. Accessed August 2020.

91 *Center for Biological Diversity v. California Department of Fish and Wildlife* (2015) 62 Cal.4th 204, 221. Available at https://www.leagle.com/decision/incaco20151130023. Accessed July 2020.

to solve the cumulative problem of GHG emissions as envisioned by California law."[92] In *City of Long Beach v. City of Los Angeles* (2018) 19 Cal.App.5th 465, the California Supreme Court of Appeal held that a qualitative analysis of consistency with state GHG reductions plans is adequate under CEQA, and that projects generating a large amount of GHG emissions may still be consistent with state and local GHG reduction plans.

The AB 900 requirement is consistent with the project applicant's commitment to reduce project-generated emissions as much as possible. "No net additional" emissions would effectively result in zero GHG emissions for the proposed project. Accordingly, for the purposes of this EIR, consistency with AB 900 represents a threshold for the proposed project of no net additional GHG emissions. The City has identified this as appropriate given the unique nature of the proposed project and the available guidance. Because consistency with state targets as stipulated in the 2017 Scoping Plan Update is an appropriate metric for determining the significance of a project's GHG emissions under CEQA, consistency of the proposed project with AB 900 would ensure that the project's GHG emissions would be less than significant.

AB 900 requires the project applicant to reduce or offset the GHG emissions generated during construction and the project's 30-year operational lifetime to no net additional emissions. This is documented in the project's AB 900 application[93] and the CARB Determination dated December 19, 2019.[94] To ensure compliance with AB 900, and to ensure that the project meets the "no net additional" emissions requirement over time, **Mitigation Measure GR-2, Compliance with AB 900**, is required (see below). This mitigation measure is included to ensure that the project would achieve the "no net additional" standard established in the AB 900 certification. The measure would require the City to monitor and enforce the applicant's commitment to secure GHG offsets through annual reporting. In addition, Mitigation Measure GR-2 would require the purchase of carbon offsets that are enforceable and verifiable and meet the following standards: real, additional, quantifiable, permanent, verified, and enforceable per Health and Safety Code Sections 38562(d)(1) and 38562(d)(2), 17 CCR 95973, and the CARB-approved registry offset protocols.

The project phasing and emission calculations have changed since December 2019, when the proposed project received AB 900 certification. New and more accurate information has become available regarding project construction and operations, including construction phasing and equipment activity data, allocations of land use totals by operational phase, project design features, transportation modeling, and air quality mitigation measures. Consequently, while the EIR's estimate of project-related GHG emissions are similar to the GHG emissions identified in the AB 900 certification, they do not exactly match.

To the extent that the estimate of GHG emissions in this EIR (or as recalculated based on additional new information in the future) would render the agreed-upon schedule of GHG offset credits inadequate to achieve the "no net additional" emissions standard required by AB 900,

92 *Center for Biological Diversity v. California Department of Fish and Wildlife* (2015) 62 Cal.4th 220. Available at https://www.leagle.com/decision/incaco20151130023. Accessed July 2020.

93 Environmental Science Associates, *Environmental Leadership Development Project Application Downtown West Mixed Use Plan in San José, California*, August 2019.

94 Richard W. Corey, Executive Officer, California Air Resources Board, Letter to Kate Gordon regarding CARB AB 900 Determination, Director, Governor's Office of Planning and Research, December 19, 2019.

Mitigation Measure GR-2 would require the final GHG offset payment to be larger than agreed to by CARB at the time of the AB 900 certification. In no instance would the offset payments be less than agreed to by CARB at the time of the AB 900 certification.

Consistency with SB 743 and the City of San José Transportation Analysis Policy

The proposed project would not exceed the thresholds of significance for VMT as recommended by OPR in its 2018 guidance and by the City of José's Transportation Analysis Policy. As described in the VMT analysis in Section 3.13, *Transportation*, the proposed project would have a less-than-significant impact on VMT because the proposed project would meet the following thresholds of significance, which are consistent with OPR's 2018 *Technical Advisory on Evaluating Transportation Impacts in CEQA*[95] and the City of San Jose's CEQA Thresholds of Significance as adopted in the Transportation Analysis Policy. Specifically:

- VMT generated by the residential component of the proposed project would be less than 10.12 VMT per capita, and would thus be less than significant for the residential component of the proposed project.
- VMT generated by the office component of the proposed project would be less than 12.21 VMT per capita, and would thus be less than significant for the office component of the proposed project.
- VMT generated by the retail and hotel components of the proposed project would result in no net increase from regional total VMT, and would thus be less than significant for the retail and hotel components of the proposed project.

As described in Section 3.13, *Transportation*, all proposed project uses would meet the VMT reduction requirements under the City-adopted significance thresholds, which are consistent with SB 743 and would result in a **less-than-significant** impact.

Consistency with the California Air Resources Board's 2017 Scoping Plan Update

As directed by Executive Order B-30-15, CARB's 2017 Scoping Plan Update describes how the State plans to achieve the 2030 GHG emission reduction goal for California of 40 percent below 1990 levels by 2030, as mandated by SB 32. The strategy identified by the 2017 Scoping Plan Update for meeting the 2030 GHG target incorporates the full range of legislative actions and state-developed plans relevant to the year 2030: the LCFS, SB 350, the 2016 Mobile Source Strategy, the Sustainable Freight Action Plan, SB 1383, and the Cap-and-Trade Program (AB 398).

Without mitigation, the proposed project would potentially be inconsistent with the 2017 Scoping Plan Update, and therefore would have a **potentially significant** impact. Mitigation measures are therefore required to reduce this impact to a less-than-significant level.

The proposed project would be consistent with key state plans and regulatory requirements referenced in the 2017 Scoping Plan Update that are designed to reduce statewide emissions.

[95] Governor's Office of Planning and Research, *Technical Advisory on Evaluating Transportation Impacts in CEQA*, 2018. Available at http://opr.ca.gov/ceqa/updates/sb-743/. Accessed May 2020.

According to the 2017 Scoping Plan Update, reductions needed to achieve the 2030 target are expected to be achieved by:

- Increasing the RPS to 50 percent of the state's electricity by 2030;
- Greatly increasing the fuel economy of vehicles and the number of zero-emissions or hybrid vehicles;
- Reducing the rate of growth in VMT;
- Supporting high-speed rail and other alternative transportation options; and
- Increasing the use of high-efficiency appliances, water heaters, and HVAC systems.

The proposed project would not impede implementation of these potential reduction strategies identified by CARB. The project would benefit from efforts by the state and utility providers to increase the portion of electricity provided by renewable resources,[96] and from state efforts to increase vehicle fuel economy standards and reduce the carbon content of fuels. The proposed project would use energy-efficient appliances and equipment, as required by Title 24. In addition, EV charging stations would be provided to support the future use of electric and hybrid-electric vehicles by employees and visitors.

To demonstrate how a local jurisdiction can achieve its long-term GHG goals at the community plan level, the 2017 Scoping Plan Update recommends developing a geographically specific GHG reduction plan (i.e., climate action plan) consistent with CEQA Section 15183.5(b), that demonstrates how future projects will be consistent with the state's 2030 GHG reduction target mandated by SB 32. As explained in Section 3.6.2, *Regulatory Setting*, the City of San José adopted the *Climate Smart San José* plan in 2018. This plan creates a measurable pathway to meeting the City's GHG emissions reduction targets of 3.4 $MMTCO_2e$ by 2030 and 1.1 $MMTCO_2e$ by 2050 to be consistent with the state's GHG reduction target established by SB 32 and Executive Order S-3-05, and the Paris Climate Agreement goals. The target is based on the City's emissions profile across the land use and transportation sectors.

In addition, as described in Impact GR-1, the proposed project would meet the Downtown Strategy 2040 EIR's efficiency metric thresholds for 2030 and 2040. These efficiency thresholds were derived using the recommendation in the 2017 Scoping Plan Update that local land use development contribute its "fair share" of emission reductions to the statewide GHG target for 2030 as sanctioned by the California Supreme Court in *Newhall Ranch* and by CARB.[97] The thresholds are also consistent with the Association of Environmental Professionals'

[96] As discussed previously, with the passage of SB 100, California's RPS has been increased over what is prescribed by the 2017 Scoping Plan Update. Retail sellers and local publicly owned electric utilities must procure eligible renewable electricity for 44 percent of retail sales by the end of 2024, 52 percent by the end of 2027, and 60 percent by the end of 2030. In addition, CARB should plan for 100 percent eligible renewable energy resources and zero-carbon resources by the end of 2045.

[97] California Air Resources Board, *California Air Resources Board 2017 Scoping Plan-Identified VMT Reductions and Relationship to State Climate Goals*, January 2019. Available at https://ww2.arb.ca.gov/resources/documents/carb-2017-scoping-plan-identified-vmt-reductions-and-relationship-state-climate. Accessed August 2020.

recommendation to use "Substantial Progress" thresholds for land use development to show consistency with statewide targets.

Further, as discussed above, the project would comply with AB 900, which requires that the applicant reduce or offset GHG emissions generated during construction and the project's 30-year operational lifetime to pre-project levels, and achieve a "no net additional" emissions standard. By achieving no net additional emissions, the proposed project would be much more efficient on average than existing development in San José, and far more efficient than what the Scoping Plan assumes for new development throughout the state. Achieving no net additional GHG emissions through AB 900 would exceed the proposed project's "fair share" of mitigation of GHG emissions. To ensure compliance with AB 900, Mitigation Measure GR-2 is required (see below).

Without a community-wide GHG Reduction Plan in place that meets the current requirements of CEQA Section 15183.5(b),[98] the City is following CARB's advice "that projects incorporate design features and GHG reduction measures, to the degree feasible, to minimize GHG emissions. Achieving no net additional increase in GHG emissions is an appropriate overall objective for new development."[99]

The proposed project's ability to achieve no net additional emissions, as described under Impact GR-2 through compliance with AB 900 and Mitigation Measure GR-2, is consistent with this guidance. The proposed project would be much more efficient on average than existing development in San José, and far more efficient than what the Scoping Plan assumes for new development throughout the state.

In addition, the proposed project is consistent with the 2017 Scoping Plan Update's guidance on mitigation measures:

> *To the degree a project relies on GHG mitigation measures, CARB recommends that lead agencies prioritize on-site design features that reduce emissions, especially from VMT, and direct investments in GHG reductions within the project's region that contribute potential air quality, health, and economic co-benefits locally. For example, on-site design features to be considered at the planning stage include land use and community design options that reduce VMT, promote transit oriented development, promote street design policies that prioritize transit, biking, and walking, and increase low carbon mobility choices, including improved access to viable and affordable public transportation, and active transportation opportunities.*[100]

98 The current *Climate Smart San José* plan does not meet the requirements of CEQA Section 15183.5(b). However, the City's *2030 Greenhouse Gas Reduction Strategy*, if adopted, would serve as a Qualified Climate Action Plan for the purposes of tiering under CEQA.

99 California Air Resources Board, *California's 2017 Climate Change Scoping Plan: The Strategy for Achieving California's 2030 Greenhouse Gas Target*, 2017. Available at https://ww3.arb.ca.gov/cc/scopingplan/scoping_plan_2017.pdf. Accessed May 2020.

100 California Air Resources Board, *California's 2017 Climate Change Scoping Plan: The Strategy for Achieving California's 2030 Greenhouse Gas Target*, 2017. Available at https://ww3.arb.ca.gov/cc/scopingplan/scoping_plan_2017.pdf. Accessed May 2020.

The following mitigation measures for the proposed project emphasize on-site measures that would reduce emissions:

- Mitigation Measure GR-2, Compliance with AB 900;
- Mitigation Measure AQ-2a, Construction Emissions Minimization Plan;
- Mitigation Measure AQ-2b, Construction Equipment Maintenance and Tuning;
- Mitigation Measure AQ-2c, Heavy-Duty Truck Model Year Requirement;
- Mitigation Measure AQ-2e, Best Available Emissions Controls for Stationary Emergency Generators;
- Mitigation Measure AQ-2f, Operational Diesel Truck Emissions Reduction;
- Mitigation Measure AQ-2g, Electric Vehicle Charging; and
- Mitigation Measure AQ-2h, Enhanced Transportation Demand Management Program.

In addition, as described under *Project Design Features*, the proposed project's site plan would be designed to achieve at least a LEED ND Gold rating, which by nature would be accomplished through on-site measures that would reduce GHG emissions through more efficient use of energy, materials, and resources. All buildings would be fully electric with the exception of 20,000 square feet of commercial kitchen space, which would use natural gas. The proposed project would also incorporate on-site solar PV, EV charging, recycled water, and other sustainable features.

For these reasons described above, the proposed project post-2020 emissions trajectory would decline over time, consistent with the 2017 Scoping Plan Update, and the impact would be **less than significant**.

Consistency with Plan Bay Area 2040

Pursuant to SB 375, ABAG and the MTC adopted *Plan Bay Area 2040* to establish targets and strategies for meeting the region's needs for housing at all income levels, while reducing GHG emissions by private passenger cars and light-duty truck traffic. The core strategy of *Plan Bay Area 2040* is to encourage growth in existing communities along the existing transportation network, focusing new development in PDAs and TPAs in urbanized centers where more public transit and other mobility options are available to reduce the use of cars and light trucks. In addition to encouraging focused growth through significant transit and roadway performance investments, *Plan Bay Area 2040* directs funding to neighborhood active-transportation and complete-streets projects, climate initiatives, lifeline transportation and access initiatives, pedestrian and bicycle safety programs, and PDA planning.

The proposed project is consistent with *Plan Bay Area 2040* because it is located within a PDA and a TPA. In addition, as required by the TDM program and Mitigation Measure AQ-2h, the proposed project would implement programs to directly encourage more employees to shift from driving alone to other modes of travel. These programs would incentivize travel by non-automobile modes, such as by offering discounted transit tickets and preferential carpool parking, and through strategies offering disincentives for travel by automobile, such as market-rate parking pricing.

The proposed project's proposed strategy to specifically limit the parking supply would minimize automobile trips, resulting in a greater share of transit users. Many local and regional transit service options are available. Diridon Station provides access to Caltrain, Altamont Corridor Express (ACE), and Amtrak (Capitol Corridor and Coast Starlight) trains, and bus and light rail transit service operated by the Santa Clara Valley Transportation Authority provides many bus stops and routes within a 5- to 10-minute walk. In addition, several major transit plans would increase transit service in the area in the future including Caltrain Electrification, the Caltrain Business Plan, the Bay Area Rapid Transit (BART) Phase II extension to Diridon Station and Santa Clara, California High-Speed Rail, and possible proposed mixed-flow Bus Rapid Transit service along Santa Clara Street. For more details regarding the proposed project's VMT reduction analysis, see the impact analysis in Section 3.13, *Transportation*.

Consequently, the project is consistent with *Plan Bay Area 2040*, and the impact would be **less than significant**.

Though not required to reduce the impact to less-than-significant levels, the project would exceed the GHG reduction targets of *Plan Bay Area 2040* by:

- Reducing VMT by meeting the City of San José's CEQA thresholds of significance as adopted in the Transportation Analysis Policy;
- Reducing GHG emissions well below the efficiency metric targets of the Downtown Strategy 2040 EIR of 2.6 $MTCO_2e$/year/SP by 2030 and 1.7 $MTCO_2e$/year/SP for 2040; and
- Achieving "no net additional" GHG emissions pursuant to AB 900 and through implementation of Mitigation Measure GR-2.

Consistency with Executive Order S-3-05

Executive Order No. S-3-05 established a long-term goal of reducing California's GHG emissions to 80 percent below the 1990 level by the year 2050. The proposed project's GHG emissions would decline from its first operational year in 2025 through at least 2050 as a result of continued regulatory and technological advancements. The extent to which mobile-source GHG emissions indirectly attributed to the proposed project would change in the future depends on the quantity (e.g., number of vehicles, average daily mileage) and quality (i.e., carbon content) of fuel that would be available and required to meet both regulatory standards and the needs of residents and workers.

Renewable power requirements, the LCFS, and vehicle emissions standards discussed above will all decrease GHG emissions per unit of energy delivered or per VMT. The technological advancements that could be anticipated over the next 30 years are uncertain and the parameters of the regulatory framework in 2050 are unknown; therefore, further quantitative analysis of the proposed project's impacts relative to the 2050 target would be speculative. CEQA Guidelines Section 15145 directs that "[i]f, after thorough investigation, a Lead Agency finds that a particular impact is too speculative for evaluation, the agency should note its conclusion and terminate discussion of the impact."

Even though the state has not provided a clear regulatory and technological roadmap for achieving the 2050 goal, it has demonstrated the potential pace at which emission reductions can be achieved through new regulations, technology deployments, and market developments. In developing the 2017 Scoping Plan Update, CARB, the CEC, the CPUC, and the California Independent System Operator commissioned a study to evaluate the feasibility and cost of meeting the 2030 target along the way to reaching the state goal of reducing GHG emissions to 80 percent below 1990 levels by 2050. With input from the agencies, the California State Agencies' PATHWAYS Project explores scenarios for meeting the state's long-term GHG emissions targets, encompassing the entire California economy with detailed representations of the buildings, industry, transportation, and electricity sectors.[101]

While acknowledging the inherent uncertainty associated with its modeling assumptions, the PATHWAYS study emphasizes the need for significant action and continued policy development by the state to support low-carbon technologies and markets for energy efficiency, building electrification, renewable electricity, ZEVs, and renewable liquid fuels. The study underscores the need for a periodic review of state policies and programs for reducing GHG emissions, as was anticipated by AB 32 in its directive to update the Scoping Plan at least every 5 years.

A 2018 update to the PATHWAYS study advanced the understanding of what technology must be deployed and what other GHG mitigation strategies must be implemented if California is to meet its long-term climate goals. The 2018 study concludes that to achieve high levels of consumer adoption of zero-carbon technologies, particularly of electric vehicles and energy efficiency and electric heat in buildings, a market transformation is needed to reduce the capital cost and to increase the range of options available. This market transformation can be facilitated by:

- Higher carbon prices (which can be created by the Cap-and-Trade and LCFS programs);
- Codes and standards, regulations, and direct incentives to reduce the up-front cost to the customer; and
- Business and policy innovations to make zero-carbon technology options the cheaper, preferred solutions compared to fossil-fueled alternatives.[102]

The California Supreme Court in *Cleveland National Forest Foundation, et al v. San Diego Association of Governments* ([2017] 3 Cal.5th 497, Supreme Court Case No. 5223603), upheld the approach in the San Diego Association of Governments' EIR of not determining project impacts for 2050 based on the Executive Order S-3-05 goal for 2050. The court noted that "the [Executive Order S-3-05] lacks the force of a legal mandate binding on SANDAG [San Diego Association of Governments] in the preparation of its EIR" and that the EIR was not required to "explicitly engage in an analysis of the consistency of projected 2050 emissions" with Executive Order S-3-05. Therefore, determining impacts based on the proposed project's consistency with

[101] Energy + Environmental Economics (E3), *Summary of the California State Agencies' PATHWAYS Project: Long-term Greenhouse Gas Reduction Scenarios*, 2015. Available at https://www.ethree.com/public_proceedings/summary-california-state-agencies-pathways-project-long-term-greenhouse-gas-reduction-scenarios/. Accessed in May 2020.

[102] Energy + Environmental Economics (E3), *Deep Decarbonization in a High Renewables Future. Updated Results from the California PATHWAYS Model*, 2018. Available at https://www.ethree.com/wp-content/uploads/2018/06/Deep_Decarbonization_in_a_High_Renewables_Future_CEC-500-2018-012-1.pdf. Accessed in May 2020.

Executive Order S-3-05 is not required under CEQA. Such a determination is presented here to inform decision makers and the public.

Statewide efforts are underway to facilitate achievement of the Executive Order S-3-05 goals. It is reasonable to expect the proposed project's GHG emissions to decline over time, as the regulatory initiatives identified by CARB in the 2017 Scoping Plan Update are implemented, and as other technological innovations occur. Given the reasonably anticipated decline in proposed project emissions, the proposed project would not conflict with or frustrate the ability of the state to achieve the 2050 horizon-year goal of Executive Order S-3-05, and the impact would be **less than significant**.

Consistency with the Advanced Clean Cars Initiative and the State's Zero-Emission Vehicles Mandate

State goals for ZEVs are expressed in the Advanced Clean Cars Initiative and the ZEV mandate established by Executive Order B-16-1, which sets a target of reaching 1.5 million ZEVs (meaning battery electric vehicles and fuel cell electric vehicles) and plug-in hybrid electric vehicles on California's roadways by 2025. Without mitigation, the proposed project would potentially be inconsistent with the State's ZEV mandate, and therefore would have a **potentially significant** impact.

According to EMFAC2017, which incorporates the state's ZEV mandate, there will be approximately 31,700,000 passenger cars and light trucks on the road in California by 2030, at which time 1.5 million ZEVs will constitute approximately 4.7 percent of all vehicles.[103] The more aggressive Mobile Source Strategy, included in the 2017 Scoping Plan Update as a component of the overall strategy for achieving the 2030 GHG target, calls for 4.2 million ZEVs on the road by 2030, equivalent to about 13.2 percent of passenger vehicles + light-duty trucks.

The proposed project would be consistent with the state's ZEV mandate by providing a minimum of 15 percent of on-site parking spaces with EV charging capability as required by Mitigation Measure AQ-2g, Electric Vehicle Charging (refer to Section 3.1, *Air Quality*)., Therefore, with implementation of Mitigation Measure AQ-2g, the impact would be reduced to **less-than-significant**.

Mitigation Measures

The project applicant would implement the following mitigation measures to reduce the potentially significant impact related to project consistency with AB 900, the CARB's 2017 Scoping Plan Update, and the State's Zero-Emission Vehicles Mandate, to a less-than-significant level.

> **Mitigation Measure AQ-2a: Construction Emissions Minimization Plan** (refer to Impact AQ-2)

[103] EMFAC2017 estimates the future percentage of the state's ZEVs based on compliance with the State of California's ZEV mandate. EMFAC2017's forecasted ZEV population for 2030 is approximately 3.6 percent of all passenger and light-duty vehicles, but the 3.6 percent figure represents the equivalent percentage of all vehicles operating as a pure ZEV (e.g., 100 percent battery electric), whereas the actual population would include plug-in hybrid electric vehicles that operate partially on fossil fuels.

Mitigation Measure AQ-2b: Construction Equipment Maintenance and Tuning (refer to Impact AQ-2)

Mitigation Measure AQ-2c: Heavy-Duty Truck Model Year Requirement (refer to Impact AQ-2)

Mitigation Measure AQ-2e: Best Available Emissions Controls for Stationary Emergency Generators (refer to Impact AQ-2)

Mitigation Measure AQ-2f: Diesel Truck Emissions Reduction (refer to Impact AQ-2)

Mitigation Measure AQ-2g: Electric Vehicle Charging (refer to Impact AQ-2)

Mitigation Measure AQ-2h: Enhanced Transportation Demand Management Program (refer to Impact AQ-2)

Mitigation Measure GR-2: Compliance with AB 900

Prior to the City's first design Conformance Review for the first new construction building or buildings, the project applicant shall submit a plan documenting the project's proposed GHG emissions reductions and schedule for compliance with AB 900 to the Director of Planning, Building and Code Enforcement or the Director's designee. The plan shall:

- Quantify project construction for all phases and operational GHG emissions for the life of the project (defined as 30 years of operation);
- Specify the project features and project-specific emission reduction strategies that shall be implemented during construction and operation of the project; and
- Contain the schedule of GHG offset purchases required as part of the AB 900 certification process to comply with the "no net additional" requirement of Public Resources Code Section 21183(c).

With funding from the project applicant, the City shall retain the services of a third-party expert who meets or exceeds the following level of experience and qualifications to assist with the City's annual review of the GHG plan: an expert GHG emissions verifier accredited by the ANSI National Accreditation Board (ANAB) Accreditation Program for Greenhouse Gas Validation/Verification Bodies or a Greenhouse Gas Emissions Lead Verifier accredited by CARB.

Emission Reductions: At a minimum, project features and project-specific emission reduction strategies shall include the following measures. These measures reflect commitments by the applicant and specific mitigation measures incorporated to reduce air pollutant emissions as described in Section 3.1, *Air Quality*:

1. Achieve LEED ND Gold Certification and LEED Gold for all office buildings.
2. Implement a transportation demand management program to achieve a minimum non–single occupancy vehicle rate of 50 percent for office uses, assuming current transit service levels. The non–single occupancy vehicle rate shall increase to 60 percent for office uses following implementation of the Caltrain Business Plan and to 65 percent for office uses following the start of BART service.
3. Install EV charging equipment on 15 percent or more of all parking spaces at the project site.

4. Design and operate buildings with all-electric utilities (no on-site fossil fuels consumed to provide cooling, heating, cooking, water heating, etc.), with the exception of a total of 20,000 square feet of restaurant kitchens that may be equipped with natural gas for food preparation purposes.
5. Install and operate on-site a solar photovoltaic system generating at least 7.8 MW.
6. Use recycled water for all non-potable water demand.
7. Use electric off-road equipment for construction, including for all concrete/ industrial saws, sweepers/scrubbers, aerial lifts, welders, air compressors, fixed cranes, forklifts, pumps, pressure washers, and 50 percent of all cement and mortar mixers. Power portable equipment by grid electricity instead of diesel generators.
8. Meet or exceed all applicable building code requirements and standards, including the CALGreen and San José Reach Codes, and meet or exceed ASHRAE 2019 energy efficiency standards.

GHG Offset Credits: The project applicant's plan shall describe the schedule for the purchase of GHG offset credits sufficient to offset the balance of the project's GHG emissions for the life of the project consistent with the CARB Determination dated December 19, 2019. As detailed in the CARB Determination, the project applicant's purchases of GHG offsets shall coincide with the phases defined in the AB 900 analysis:

	Total GHG Emissions ($MTCO_2e$)		
AB 900 Phasing	**Construction**	**Net Operational**	**Net Combined**
Phase 1	54,663	494,359	549,022
Phase 2	55,431	523,451	578,882
Phase 3	47,153	438,704	485,857
Total	**157,247**	**1,456,514**	**1,613,761**

SOURCE: CARB Executive Order G-19-154, *Downtown Mixed Use Plan AB 900 Application and Supporting Documentation*, Attachment 2, p. 10, Table 2 (construction), and Attachment 1, pp. 11–12, Table 4.

As documented in the CARB Determination, the project applicant shall purchase GHG offset credits necessary to offset construction-generated emissions on a prorated basis before obtaining the first building permit in each phase of construction, for a total of three offset payments over three construction phases. The project applicant shall purchase GHG offset credits necessary to offset the cumulative net increase in operational emissions over the life of the project on a pro-rated basis before the City issues the final Certificate of Occupancy for the first building in each phase of construction, for a total of three offset payments over three construction phases.

To enable the City to monitor and enforce this requirement, the project applicant's plan shall identify the amount of construction and square footage of development associated with the GHG emissions anticipated for each phase. Any building that would cause emissions to exceed the projected 30-year net additional construction or operational emissions associated with a particular phase shall be considered to be in the next phase. At this point, the project applicant would have to purchase the next installment of AB 900 credits for the associated phase before the final Certificate of Occupancy is issued for this building (see below for more detail).

To account for potential future changes in phasing and project buildout, the project applicant shall purchase carbon credits for each of the three construction phases and three operational phases as follows.

- **Construction—Phase 1:** Before obtaining the first building permit for construction, the project applicant shall purchase the first installment of GHG offset credits for construction as presented in the table above and in the CARB Determination.
- **Construction—Phase 2:** Before obtaining the first building permit in Phase 2 of construction (i.e., the building permit for the first building that would cause construction emissions to exceed 54,663 $MTCO_2e$), the project applicant shall purchase GHG offset credits for construction as presented in the table above and in the CARB Determination.
- **Construction—Phase 3:** Before obtaining the first building permit in Phase 3 of construction (i.e., the building permit for the first building that would cause total construction emissions to exceed 110,094 $MTCO_2e$, which is the total of Phase 1 and Phase 2, as defined by the CARB Determination), the project applicant shall purchase the third installment of GHG offset credits for construction as presented in the table above.
- **Operations—Phase 1:** Before the City issues the final Certificate of Occupancy for the first building in Phase 1, the project applicant shall purchase the first installment of GHG offset credits for operations as presented in the table above and in the CARB Determination.
- **Operations—Phase 2:** Before the City issues the final Certificate of Occupancy for the first building in Phase 2 (i.e., the building permit for the first building that would cause projected 30-year net additional operational emissions to exceed 494,359 $MTCO_2e$), the project applicant shall purchase the second installment of GHG offset credits for operations as presented in the table above and in the CARB Determination.
- **Operations—Phase 3:** Before the City issues the final Certificate of Occupancy for the first building in Phase 3 (i.e., the building permit for the first building that would cause total projected 30-year net additional operational emissions to exceed 1,017,810 $MTCO_2e$, the total of Phase 1 and Phase 2 as defined by the CARB Determination), the project applicant shall purchase the third installment of GHG offset credits for operations as presented in the table above. The applicant shall increase the GHG offset purchase if needed to offset additional GHG emissions from project-lifetime construction and operations beyond the total GHG offsets required at the time of CARB's Determination, as calculated in the plan.

As described in the CARB Determination, all GHG offset credits shall be purchased from the following CARB-accredited carbon registries: the American Climate Registry, Climate Action Reserve, and Verra (formerly Verified Carbon Standard). The GHG offset credits shall be verifiable by the City and enforceable in accordance with the registry's applicable standards, practices, or protocols. The GHG offsets must substantively satisfy all six of the statutory "environmental integrity" requirements applicable to the CARB Cap-and-Trade Program, generally as set forth in both subdivisions (d)(1) and (d)(2) of California Health and Safety Code §38562: real,

additional, quantifiable, permanent, verifiable, and enforceable. To be eligible to be used to meet this Mitigation Measure, offset credits must be generated and verified in accordance with published protocols and other applicable standards which can demonstrate to the satisfaction of the City's verifier that all six of these environmental integrity requirements are substantively satisfied. All offset credits shall be verified by an independent verifier who meets stringent levels of professional qualification (i.e., ANAB Accreditation Program for Greenhouse Gas Validation/Verification Bodies or a Greenhouse Gas Emissions Lead Verifier accredited by CARB), or an expert with equivalent qualifications to the extent necessary to assist with the verification). Without limiting the generality of the foregoing, in the event that an approved registry becomes no longer accredited by CARB and the offset credits cannot be transferred to another accredited registry, the project applicant shall comply with the rules and procedures for retiring and/or replacing offset credits in the manner specified by the applicable protocol or other applicable standards including (to the extent required) by purchasing an equivalent number of credits to recoup the loss.

The project applicant shall utilize the purchase and retirement of GHG offset credits generated from projects within the United States of America. In the unlikely event that an approved registry becomes no longer approved by CARB and the offset credits cannot be transferred to another CARB-approved registry, the project applicant shall comply with the rules and procedures for retiring and/or replacing offset credits in the manner specified by the applicable Protocol, Standard or Methodology, including (to the extent required) by purchasing an equivalent number of credits to recoup the loss.

Reporting and Enforcement: On an annual basis, by March 1 of each year, the project applicant shall submit a letter to the Director of Planning, Building and Code Enforcement or the Director's designee confirming implementation of the emission reduction strategies listed in the AB 900 compliance plan. The letter shall also identify any changes or additions to the plan, including any recalculation of project emissions based on new information, incorporation of additional strategies, or changes in technology. If changes or additions to the plan are proposed, these shall be subject to review and approval by the Director of Planning, Building and Code Enforcement or the Director's designee, and the City's third-party expert as noted above, within 30 days.

In addition, before the City issues the final Certificate of Occupancy for the first building constructed in each phase, as the phases were defined at the time of CARB's certification and as laid out in the project applicant's plan, the applicant shall provide copies of GHG offset contracts demonstrating required purchases to the Director of the City of San José Department of Planning, Building and Code Enforcement, or the Director's designee, and to CARB and the Governor's Office of Planning and Research. This will serve as documentation to fully enforce the provision that the project result in no net additional GHG emissions for the life of the obligation.

Mitigation Measure Effectiveness

While emission calculations and the methods for these calculations differ between AB 900 and the EIR, Mitigation Measure GR-2 would ensure that the project would achieve the "no net additional" emissions standard established in AB 900, effectively resulting in zero net additional emissions. This is defined as the project's 30-year lifetime construction plus operational net new GHG emissions, compared to emissions associated with existing land uses that would be removed with the project over the lifetime of the project. This is a clear, quantitative performance standard.

Mitigation Measure GR-2 requires the project applicant to meet this standard through project features and project-specific emission reduction strategies, along with GHG offset credits purchased through a CARB-accredited carbon registry.

The project applicant must demonstrate achievement of this performance standard by submitting an annual report to the City and by submitting copies of GHG offset credit contracts. Also, if total lifetime project emissions from operations and construction were to exceed the total estimated at the time of CARB's determination, the applicant would offset the additional emissions when the City issues the final Certificate of Occupancy for the first building in Phase 3, as the phases were defined at the time of CARB's certification, to achieve the "no net additional" requirement of AB 900. The modeling conducted for both AB 900 and this EIR are highly conservative and likely overestimate emissions, due predominantly to conservative assumptions about the project's construction and operational activities that generate emissions, and also because the models used in the analysis do not incorporate a number of regulations, legislation, and technology improvements that are either already adopted or approved, are proposed to be adopted, or are likely to occur in the future.[104]

Consequently, after implementation of Mitigation Measure GR-2, the project's net additional emissions would be zero, meeting the requirement of AB 900, and the impact would be **less than significant with mitigation incorporated**.

> **Significance after Mitigation:** Less than significant. After the purchase of GHG offset credits as indicated in Mitigation Measure GR-2, the project would result in no net additional emissions. Further, the project would not conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing GHG emissions, and the impact would be **less than significant with mitigation**.

Cumulative Impacts

Because GHG emissions do not recognize political boundaries, there is no pre-determined geographic area for cumulative impacts related to GHG emissions. Past, present, and future development projects contribute to global GHG emissions. In addition, as explained above, GHG emissions effects are inherently cumulative. As explained by BAAQMD:

> *Similar to regulated air pollutants, GHG emissions and global climate change also represent cumulative impacts. GHG emissions contribute, on a cumulative basis, to the significant adverse environmental impacts of global climate change. Climate change impacts may include an increase in extreme heat days, higher concentrations of air pollutants, sea level rise, impacts to water supply and water quality, public health impacts, impacts to ecosystems, impacts to agriculture, and*

[104] Specific approved regulatory requirements not accounted for in the modeling include, but are not limited to, CARB's Zero-Emission Vehicle Program (Executive Order B-16-2012), CARB's Advanced Clean Trucks (ACT) regulation, Caltrans / CARB California Sustainable Freight Action Plan, California's carbon neutral goal by 2045 (Executive Order B-55-18), and AB 630 / CARB's Clean Cars 4 All program. Regulations and legislation proposed but not accounted for in the modeling include, but are not limited to, CARB's 2020 Mobile Source Strategy, CARB's Zero Emission TRU rule, CARB's Alternative Diesel Fuels (ADF) regulation, future updates to Title 24 energy efficiency standards, and CARB's Heavy-Duty Omnibus Regulation.

> *other environmental impacts. No single project could generate enough GHG emissions to noticeably change the global average temperature. The combination of GHG emissions from past, present, and future projects contribute substantially to the phenomenon of global climate change and its associated environmental impacts.*[105]

Accordingly, if a project is determined to have a significant GHG impact, the impact is cumulatively considerable. As discussed under Impact GR-1, the proposed project would not result in significant GHG impacts. The project, therefore, would not make a cumulatively considerable contribution to a significant cumulative GHG impact.

As discussed under Impact GR-2, the proposed project would not conflict or obstruct a state or local plan, policy, or regulation for GHGs with implementation of Mitigation Measure GR-2 to ensure consistency with the requirements of AB 900. The project is consistent with the General Plan, the *Climate Smart San José* plan, SB 743 and the City of San José Transportation Analysis Policy, CARB's 2017 Climate Change Scoping Plan Update, *Plan Bay Area 2040*, Executive Order S-3-05, and the Advanced Clean Cars Initiative and the State's Zero-Emission Vehicles Mandate. Multiple project design features have been incorporated to minimize GHG emissions during construction and operation. The project benefits from close proximity to transit and Diridon Station, and would implement LEED ND Gold, LEED Gold office buildings, a TDM program, and other design features and mitigation measures to reduce GHG emissions.

Based on the foregoing, the project's cumulative impacts would be **less than significant with mitigation incorporated**.

Mitigation Measures

> **Mitigation Measure GR-2, Compliance with AB 900 and Mitigation Measures AQ2a-AQ2c and AQ-2e-AQ 2h** (refer to Impact GR-2)**.**
>
> **Significance after Mitigation:** Less than significant. After implementation of Mitigation Measure GR-2, the project would not conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing GHG emissions, and the project's incremental contribution to an increase in GHG emissions and impact on global climate change would be **less than significant with mitigation**.

---

[105] Bay Area Air Quality Management District, *California Environmental Quality Act Air Quality Guidelines*, 2017. Available at https://www.baaqmd.gov/~/media/files/planning-and-research/ceqa/ceqa_guidelines_may2017-pdf.pdf?la=en. Accessed January 13, 2020.

This page intentionally left blank

3.7 Hazards and Hazardous Materials

3.7.1 Environmental Setting

This section analyzes the potential effects of the proposed project with respect to hazards and hazardous materials. This section addresses the following potential hazards: releases of hazardous materials from equipment and materials during construction, demolition, and operation; exposure to hazardous materials in buildings and other structures, soil, and groundwater; proximity to schools; proximity to airports; and emergency access and response plans. Possible hazards involving toxic air contaminants are discussed in Section 3.1, *Air Quality*, of this EIR. Possible hazards relative to water quality are also discussed in Section 3.8, *Hydrology and Water Quality*. The analyses are based on information in site investigation reports, a search of regulatory agency databases of hazardous materials sites, and other published reports, all as cited in this section.

On-Site Parcel Information and Evaluation Methodology

The following section discusses the available information for parcels within the project footprint relative to hazardous materials, the parcel evaluation methodology, the screening levels used to evaluate parcels, and land use limitations.

Available Information

To evaluate the status of the parcels within the project footprint relative to hazardous materials, the project applicant collected existing available information for, and conducted investigations of, the parcels within the project footprint. For each parcel, the information was evaluated to assess current conditions and identify whether hazardous materials or contamination is or may be present that could affect the proposed land use. The available information used to evaluate the on-site parcels is provided electronically as Appendix G of this Draft EIR. The appendix includes a reference list organized by parcel that identifies the documents reviewed for each parcel. The types of available information are summarized below.

- **Phase I environmental site assessments** include site inspections, historical land use research, and records searches to identify whether hazardous materials conditions are or may be present that would affect the proposed land use. Phase I assessments do not include the sampling and chemical testing of building materials, soil, and/or groundwater. However, some of the Phase I assessment reports include the results of previous Phase II investigations that were conducted before the Phase I assessment.
- **Phase II site investigations** include chemical testing of soil, soil gas, groundwater, and/or building materials to identify whether hazardous materials are present above environmental screening levels, described in the *Screening Levels* section further below. Soil, soil gas, and/or groundwater with chemical concentrations above screening levels may be the result of spills and leaks to soil and/or groundwater. Hazardous materials in building materials are materials such as asbestos-containing materials (ACM), lead-based paint (LBP), or other hazardous materials that are part of structures.
- **Remedial actions or site cleanups** are actions that remove, mitigate, and/or treat materials with chemical concentrations above screening levels. Some site cleanups remove the hazardous materials, such as the removal of ACM from structures or the

removal of contaminated soil. Some site cleanups may treat hazardous materials to reduce the levels of contamination, such as injecting treatment chemicals into contaminated groundwater to break down the hazardous materials into non-toxic compounds.

- **Other collected information** includes reviews of regulatory agency databases, permits, historical aerial photographs, fire insurance maps, and property records.

Evaluation Methodology

The Phase I assessments were reviewed to identify historical and current land uses, and assess whether the existing conditions have the potential to affect the types of land use (i.e., residential or commercial/industrial). The Phase I assessments were all conducted within the past few years. Although unlikely, changes to the environmental condition of the parcels since the dates of the Phase I assessments are possible. Additional information and considerations related to heating oil tanks, LBP flaking, and Phase II investigations have been included in the description of parcel conditions.

Home and building heating in San José currently uses either natural gas or electricity. In the past, homes and businesses were commonly heated through the use of heating oil tanks.[1] The use of heating oil tanks was, and to some extent still is, common in northern portions of the U.S. and in rural areas, particularly in areas that receive snow or extended sub-freezing temperatures. Heating oil was delivered by a small tanker truck that would drive up to the front of the house or business into the driveway and refill the tank. Tanks were located in the basement, under the sidewalk, or along the side of the house. The tanker truck would fill the tank through a fill port. After natural gas was routed throughout San José, heating oil tanks were no longer used. However, the heating oil tanks were not always removed, and abandoned tanks have been encountered in various locations across the city (e.g., a heating oil tank was removed from Assessor's Parcel Number [APN] 259-27-011, as discussed below). As discussed in the Phase I assessments in the *On-Site Parcel Conditions* section below, this part of the city dates to the 1800s. As noted by some of the Phase I consultants, although not observed on the parcels, the potential exists for abandoned and undocumented heating oil tanks to be encountered during development of the project site.

LBP that has flaked off from structures built before 1978—when lead was banned in paint—is also a concern. Some Phase I consultants have listed the potential for flaking lead paint to have been deposited into the shallow soil around the perimeter of structures. LBP may be a present in soil around pre-1978 structures even if not specifically addressed in a Phase I assessment.

Phase II investigation results, either as stand-alone reports or results reported in Phase I assessments, were available for 78 of the parcels; these are discussed as appropriate in the *On-Site Parcel Conditions* subsection further below. The Phase II investigation results were compared to environmental screening levels (ESLs), discussed below, to identify whether additional testing or cleanup was needed based on whether the parcel's current land use is residential or commercial/industrial.

[1] City of San José, Environmental Services Department, *Heating Oil UST Info Request*, March 5, 2020.

Note that the Phase II investigations were conducted before the San Francisco Bay Regional Water Quality Control Board issued the current (2020) version of the ESLs. To address this, this analysis compared the reported soil, soil gas, and groundwater result to the 2020 ESLs. Parcels with analytical testing results that are below residential screening levels are considered unlikely to have limitations on current or proposed land use. This is because commercial/industrial and construction worker screening levels are always higher than residential screening levels because residential users are assumed to be on a site year-round whereas commercial, industrial, and construction workers are on a site for less time and thus have a lower level of exposure.

Note that regulatory agencies may close a given site case as a low-threat closure site. This means that residual contamination may be present, but at levels low enough to not pose a threat to surrounding properties. However, the residual on-site concentrations may still exceed screening levels. For example, sites contaminated with petroleum hydrocarbons (fuels and/or motor oil) may have on-site concentrations that exceed screening levels that are expected to naturally attenuate over time.

Parcels with analytical testing results above screening levels may require further evaluation. Depending on the testing results and the type of current or proposed land use (residential or commercial/industrial), remedial action under the jurisdiction of the appropriate regulatory authority may be required to ensure that the parcel is safe for the public and the environment.

Screening Levels

For the San Francisco Bay Area, the regulatory standards typically used to assess whether a given chemical concentration warrants further investigation or remediation are the Regional Water Quality Control Board ESLs. ESLs are risk-based guidelines used to evaluate the potential health and environmental risks associated with chemicals found in soil, groundwater, soil gas (i.e., soil gas samples collected from outdoor soil borings or from sub-slab borings inside buildings), or indoor air samples where a release of hazardous materials has occurred. For certain constituents (e.g., arsenic), the screening level may be below local naturally occurring background levels. In these cases, the background level is used instead of the Regional Water Quality Control Board ESL.

ESLs for soil have been established for both residential and commercial/industrial land uses, protection of construction workers, and prevention of leaching to groundwater. Residential ESLs are usually the most restrictive because they consider the exposure duration to be for a person living on the property year-round. Chemical concentrations below residential screening levels generally would not require remediation and the location would be considered suitable for unrestricted uses. Commercial/industrial ESLs are generally higher than residential ESLs because they are based on a shorter potential duration of worker exposure (e.g., 8 hours per day for 250 days per year) to hazardous materials than residential exposures. ESLs are also typically higher for construction workers than for residential ESLs, with a few exceptions, because construction workers are only exposed to the chemical of concern during the duration of construction and they wear protective clothing. ESLs for leaching to groundwater are the concentrations in soil above which the leaching of that chemical from soil to groundwater is considered to pose an unacceptable risk to groundwater that is currently used, or may be used in

the future, as a source of drinking water. These ESLs may be higher or lower than other ESLs, depending on the specific chemical.

ESLs for groundwater have been established for residential and commercial/industrial soil gas and indoor air intrusion, odor/nuisance, and also use drinking water standards—also called Maximum Contaminant Levels (MCLs).

ESLs have been established for sub-slab/soil gas and for indoor air. Sub-slab/soil gas ESLs are used for gas samples collected from beneath foundation slabs or from outdoor soil borings. Indoor air ESLs are used for gas samples collected from indoor areas where people would be breathing. Both sub-slab/soil gas and indoor air ESLs have residential, commercial/industrial, and odor nuisance levels.

In a few of the Phase II investigations summarized below, chemical concentrations were also compared to California Department of Toxic Substances Control (DTSC) modified Screening Levels for residential and commercial land use and/or U.S. Environmental Protection Agency (EPA) Regional Screening Levels, both of which are similar risk-based screening levels used to assess whether further investigation or cleanup is needed.

For the purposes of this Draft EIR, we have compared the chemical concentrations reported in the Phase II investigations summarized further below to the current (i.e., 2020) Regional Water Quality Control Board ESLs. Although there are the other screening levels, as summarized above (i.e., DTSC and EPA), the Regional Water Quality Control Board ESLs cover more chemicals and are more widely used for the purposes of screening sites, especially in the San Francisco Bay Area.

In addition, some structures that may contain ACM and/or LBP were also noted in the Phase I assessments, based on the age of the structures and, in some cases, materials testing. Although not screening levels in the sense of the ESLs, discussed above, ACM and LBP do have regulatory action levels and are thus included in this section on screening levels.

Limitations on Land Use

For some parcels that have contamination in soil, soil gas, and/or groundwater at concentrations above screening levels, the contamination may be left in place under specific conditions approved and enforced by the overseeing regulatory agency (i.e., DTSC, the Regional Water Quality Control Board, or the Santa Clara County Department of Environmental Health [SCCDEH]). Some of these agreements are called land use covenants (LUCs), but they may have other names (e.g., Environmental Restrictions). The LUC conditions are typically dependent on a particular land use that is not expected to change in the future, and on screening levels that are appropriate to that particular land use. The LUCs typically require that the contaminated materials be made inaccessible to the public and the environment through measures such as capping with pavement, concrete, or several feet of clean soil. For example, Lots A, B, and C have a pavement cap that prevents access and exposure. The LUC requires that the cap and the underlying soil not be disturbed without the written approval of the regulatory agency. In addition, the LUC enforces restrictions on land use and requires annual inspections to ensure the remedy is still in place and effective. For example, the LUC for Lots A, B, and C limits site uses to commercial, industrial,

parks, and/or open space use. Prohibited uses include residences, hospitals, schools for persons under the age of 21, and daycare centers. Raising of food such as cattle and food crops is also prohibited. The regulatory agency requires notification and approval before any disturbances of the cap. The discussion of Lots A, B, and C below provides additional details for its specific LUC.

As noted above, a parcel with a LUC has limitations and restrictions on its land use. The limitations and restrictions can be reduced or removed entirely if the underlying contamination is removed or treated to below the screening levels or regulatory approved cleanup levels for the proposed land use (e.g., residential, commercial, industrial, open space). For some sites, site-specific cleanup levels may be developed that may be different than the screening levels, as approved by the regulatory agency. The parcel owner and/or the party liable for the contamination (the "responsible party") would be required to apply for regulatory oversight, and then prepare a remedial action plan describing the proposed cleanup actions, the target cleanup levels, and the proposed land use after cleanup. The remedial action plan would be submitted to the regulatory agency enforcing the LUC for its review and approval. Upon regulatory agency approval, the parcel owner would implement the remedial action to clean up the site, followed by confirmation sampling and testing of soil and/or groundwater to verify that the cleanup achieved the target cleanup levels. The parcel owner would prepare a report documenting the cleanup activities, comparing the sample results to the target cleanup levels, and requesting that the LUC be modified or removed. The regulatory agency would review the report and, if satisfied that the cleanup is sufficient, modify or remove the LUC.

On-Site Parcel Conditions

Using the available information summarized above, the existing conditions for each parcel within the project footprint are described below, relative to the presence of hazardous materials that may affect the land use. Note that some parcels are grouped together (e.g., Lots A, B, and C consist of APNs 259-28-031, 259-28-041, 259-28-043, and 259-28-044). At the end of each parcel or group of parcels described below, the effect of hazardous materials, if any, relative to land use is stated.

Table 3.7-1 provides a summary that lists each parcel in numerical order (with some variations because of grouped parcels), generally from north to south, and by increasing parcel number. Each listing identifies whether one or more chemicals in soil, soil gas, and/or groundwater exceed or may exceed construction worker, commercial/industrial, or residential screening levels. This indicates which land uses would be acceptable for commercial/industrial or residential land use given the parcel's existing condition, and whether protective measures for construction workers would be required during construction. In addition, each listing identifies whether ACM and/or LBP is or may be present in structures on the parcel. Finally, each listing identifies the type of information source in the comments column. For each screening level (residential, commercial/industrial, and construction worker), Table 3.7-1 identifies whether the screening level is known to be exceeded (red color-coding with the word "yes"), may be exceeded (yellow with the word "potential"), or is not expected to be exceeded (green with the word "no" or "unlikely").

TABLE 3.7-1
SUMMARY OF PER-PARCEL HAZARDOUS MATERIALS ASSESSMENT STATUS

Parcel(s)	Address	Current Land Use	Exceed Screening Levels?[a]				ACM and/or LBP?	Comments
			Construction Worker	Commercial/ Industrial	Residential	Leaching to Groundwater		
259-26-017	587 Cinnabar Street	Industrial	Potential	Potential	Potential	Potential	Potential	Has Phase I assessment
259-27-003	357 North Montgomery Street	Industrial	No	No	Yes	No	Potential	Has Phase I & II assessments
259-27-007	311 and 313 North Montgomery Street	Residential	Unlikely	Unlikely	Unlikely	Unlikely	Potential	Has Phase I assessment
259-27-008	551 West Julian Street[b]	Parking Lot	Unlikely	Unlikely	Unlikely	Unlikely	No	Has Phase I assessment
259-27-009	559, 563, 567, & 573 West Julian Street[b]	Residential	Potential	Potential	Potential	Potential	Potential	Has Phase I assessment
259-27-010	573 West Julian Street	Industrial/ Commercial	Potential	Potential	Potential	Potential	Potential	Has Phase I assessment
259-27-011, 259-27-014, 259-27-015	341-347 North Montgomery Street	Industrial	Yes	Yes	Yes	Yes	Potential	Has Phase I & II assessments
259-27-016	333 North Montgomery Street	Industrial	Potential	Potential	Potential	Potential	Potential	Has Phase I assessment
259-27-017	501 & 566-570 Cinnabar Street	Industrial/ Commercial	Yes	Yes	Yes	Yes	Potential	Has Phase I & II assessments

TABLE 3.7-1
SUMMARY OF PER-PARCEL HAZARDOUS MATERIALS ASSESSMENT STATUS

Parcel(s)	Address	Current Land Use	Exceed Screening Levels?[a]				ACM and/or LBP?	Comments
			Construction Worker	Commercial/ Industrial	Residential	Leaching to Groundwater		
SAP Center Parking Lots A, B, C: 259-28-031, 259-28-041, 259-28-043, 259-28-044	525 West Santa Clara Street	Commercial	Yes	Yes	Yes	Yes	No	Has Phase I & II assessments; has land use covenant and cap on part of site
259-38-009	35 South Autumn Street	Residential	Unlikely	Unlikely	Unlikely	Unlikely	Potential	Has Phase I assessment
259-38-010, 259-38-011, 259-38-028, 259-38-029	40 South Montgomery Street & 55 South Autumn Street	Industrial	Yes	No	No	No	Potential	Has Phase I & II assessments
259-38-015	75 South Autumn Street	Residential	Unlikely	Unlikely	Unlikely	Unlikely	Potential	Has Phase I assessment
259-38-018	93 South Autumn Street	Parking Lot	Unlikely	Unlikely	Unlikely	Unlikely	Potential	Has Phase I assessment
259-38-019	92 South Montgomery Street	Undeveloped	Unlikely	Unlikely	Unlikely	Unlikely	Potential	Has Phase I assessment
259-38-027	50 South Montgomery Street	Commercial	Potential	Potential	Potential	Potential	Potential	Has Phase I assessment

TABLE 3.7-1
SUMMARY OF PER-PARCEL HAZARDOUS MATERIALS ASSESSMENT STATUS

Parcel(s)	Address	Current Land Use	Exceed Screening Levels?[a]				ACM and/or LBP?	Comments
			Construction Worker	Commercial/ Industrial	Residential	Leaching to Groundwater		
259-38-036, 259-38-039, 259-38-040, 259-38-041, 259-38-042, 259-38-109, 259-38-110, 259-38-128, 259-38-129, 259-38-142, 259-38-145, 259-38-146, 259-38-147, 259-38-148	374 West Santa Clara Street at Delmas Avenue	Industrial	Yes	Yes	Yes	Yes	Yes	Has Phase I assessment that documents previous Phase II testing
259-38-085	56 South Montgomery Street	Church	Unlikely	Unlikely	Unlikely	Unlikely	Potential	Has Phase I assessment
259-38-087	87 South Autumn Street	Commercial	Unlikely	Unlikely	Unlikely	Unlikely	Potential	Has Phase I assessment
259-38-088	91 South Autumn Street	Commercial	Unlikely	Unlikely	Unlikely	Unlikely	Potential	Has Phase I assessment
259-38-089, 259-38-090	82 South Montgomery Street	Commercial	Unlikely	Unlikely	Unlikely	Unlikely	Potential	Has Phase I assessment
259-38-113	74 South Autumn Street	Industrial	Yes	Yes	Yes	Yes	Potential	Has Phase I & II assessments
259-38-116, 259-38-117	58 & 56 South Autumn Street	Commercial	Potential	Potential	Potential	Potential	Potential	Has Phase I assessment
259-38-119	50 & 52 South Autumn Street	Commercial	Potential	Potential	Potential	Potential	Potential	Has Phase I assessment

TABLE 3.7-1
SUMMARY OF PER-PARCEL HAZARDOUS MATERIALS ASSESSMENT STATUS

Parcel(s)	Address	Current Land Use	Exceed Screening Levels?[a]				ACM and/or LBP?	Comments
			Construction Worker	Commercial/ Industrial	Residential	Leaching to Groundwater		
259-38-121	20 South Autumn Street	Industrial	Potential	Potential	Potential	Potential	Potential	Has Phase I assessment
259-38-122, 259-38-123 259-38-124	34 & 24 South Autumn Street	Industrial	Potential	Potential	Potential	Potential	No	Has Phase I assessment
259-38-130; also known as Lot D or Block 5A	8 South Montgomery Street; 532 West Santa Clara Street	Parking Lot	Yes	Yes	Yes	Yes	No	Has Phase I & II assessments Has land use covenant
259-38-132	450 West Santa Clara Street	Commercial	Potential	Potential	Potential	Potential	No	Has Phase I assessment
259-38-141	59 South Autumn Street	Industrial	Yes	Yes	Yes	Yes	Potential	Has Phase I & II assessments
259-47-038, 259-47-040, 259-47-077, 259-47-079	597 West Carlos Street, 580 Lorraine Avenue	Industrial	Yes	Yes	Yes	Yes	Potential	Has Phase I & II assessments
259-47-080	282 South Montgomery Street	Industrial	Yes	Yes	Yes	Yes	Potential	Has Phase I & II assessments
259-48-011, 259-48-013	510 West San Fernando Street	Parking Lot	Yes	Yes	Yes	Yes	Potential	Has Phase I & II assessments
259-48-012	102 South Montgomery Street	Commercial	Unlikely	Unlikely	Unlikely	Unlikely	Potential	Has Phase I Assessment

TABLE 3.7-1
SUMMARY OF PER-PARCEL HAZARDOUS MATERIALS ASSESSMENT STATUS

Parcel(s)	Address	Current Land Use	Exceed Screening Levels?[a]				ACM and/or LBP?	Comments
			Construction Worker	Commercial/ Industrial	Residential	Leaching to Groundwater		
259-48-052	140 South Montgomery Street	Industrial	Potential	Potential	Potential	Potential	Potential	Has Phase I assessment
259-48-053	150 South Montgomery Street	Commercial	Yes	Yes	Yes	Yes	Potential	Has Phase I and II assessments
261-34-002 to -006; 261-34-011; 261-34-023 (Diridon Rail Station Parking Lots)	552 to 578 West Santa Clara Street; 33 to 91 South Montgomery Street	Parking Lots	Yes	Yes	Yes	Yes	No	Has Phase I Assessment that documents previous Phase II testing
261-35-002	630 West San Fernando Street	Utility	Yes	Yes	Yes	Yes	Unknown	Has Phase I assessment that documents previous Phase II testing
261-35-003, 261-35-006, 261-35-010	105 South Montgomery Street	Parking Lot	No	No	No	No	Unlikely	Have Phase I Assessment that documents previous Phase II testing
261-35-007	327 Otterson Street	Parking Lot & Industrial	Potential	Potential	Potential	Potential	Potential	Has Phase I assessment
261-35-014	645 Park Avenue	Industrial	Yes	Yes	Yes	Potential	Potential	Has Phase I assessment with form of LUC based on Phase II results
261-35-027	145 South Montgomery Street	Industrial	Yes	Yes	Yes	Yes	Yes	Has Phase I & II assessments
261-37-016, 261-37-029	655 West San Carlos Street	Commercial	Yes	Yes	Yes	No	Potential	Has Phase I & II assessments
261-37-020, 261-37-021	691 West San Carlos Street	Residential	Unlikely	Unlikely	Unlikely	Unlikely	Unlikely	Has Phase I assessment

TABLE 3.7-1
SUMMARY OF PER-PARCEL HAZARDOUS MATERIALS ASSESSMENT STATUS

Parcel(s)	Address	Current Land Use	Exceed Screening Levels?[a]				ACM and/or LBP?	Comments
			Construction Worker	Commercial/ Industrial	Residential	Leaching to Groundwater		
261-37-023	695 West San Carlos Street	Residential	Unlikely	Unlikely	Unlikely	Unlikely	Potential	Has Phase I assessment
261-37-030	Southwest & adjacent to 695 West San Carlos Street	Vacant	Unlikely	Unlikely	Unlikely	Unlikely	Potential	Has Phase I assessment
261-37-031	255 South Montgomery Street	Fire Dept. Training Center	Yes	Yes	Yes	Yes	Yes	Has Phase I & II assessments
264-15-015 to -019; 264-15-063 to -065	365 & 379 Royal Avenue; 655-667 Auzerais Avenue; 720 West San Carlos Street	Commercial	Potential	Potential	Potential	Potential	Potential	Has Phase I assessment that includes previous Phase II results

NOTES:

ACM = asbestos-containing material; LBP = lead-based paint; LUC = land use covenant

[a] These rankings are predominantly driven by soil results, where available. The Phase I assessments do not state whether any screening levels have been exceeded. Most Phase II investigations did not collect soil gas or groundwater samples. The few soil gas and/or groundwater samples that exceeded screening levels are largely a subset of soil screening level exceedances, and do not change the overall soil-based rankings. To maintain readability, individual soil gas, indoor air, and groundwater have not been listed. Details of environmental screening levels are available at: https://www.waterboards.ca.gov/sanfranciscobay/water_issues/programs/esl.html

[b] The 573 West Julian Street address is on the two listed parcels.

SOURCES: The sources of the information in this table are referenced in the parcel discussions below.

It is important to note that the project site has a long history of industrial use that extends back to the 1800s. Documentation of historical site use and spills has been investigated for most but not all parcels. Information may be incomplete to non-existent, particularly for parcels and land use activities that pre-date the advent of more stringent environmental regulations in the 1970s. Consequently, although the information available for some parcels may indicate no known hazardous materials issues, undiscovered hazardous materials may be present.

Figures 3.7-1 through 3.7-5 show the location of each parcel within the project footprint. Each parcel is color-coded to identify the most conservative screening level exceedance. Parcels colored red have at least one medium (soil, soil gas, groundwater, or ACM/LBP in a structure) that exceeds a screening level. In addition, the parcels coded in red are listed on the State Hazardous Waste and Substances List ("Cortese List"), discussed in Impact HA-3 in Section 3.7.3, *Impacts and Mitigation Measures*, because the site appears on one or more regulatory records lists. Parcels that are color-coded yellow have information that suggests that at least one medium may have contamination that exceeds a screening level. Parcels that are color-coded green have information that indicates that screening levels are not anticipated to be exceeded. The existing conditions for parcels within the project site are described below.

APN 259-26-017 (587 Cinnabar Street)

The Phase I assessment observed that this parcel is currently developed and operated as a warehouse and shipping center for food and market goods to commercial customers with two buildings, a shipping/receiving area, and a paved parking lot.[2] The Phase I assessment stated the following:

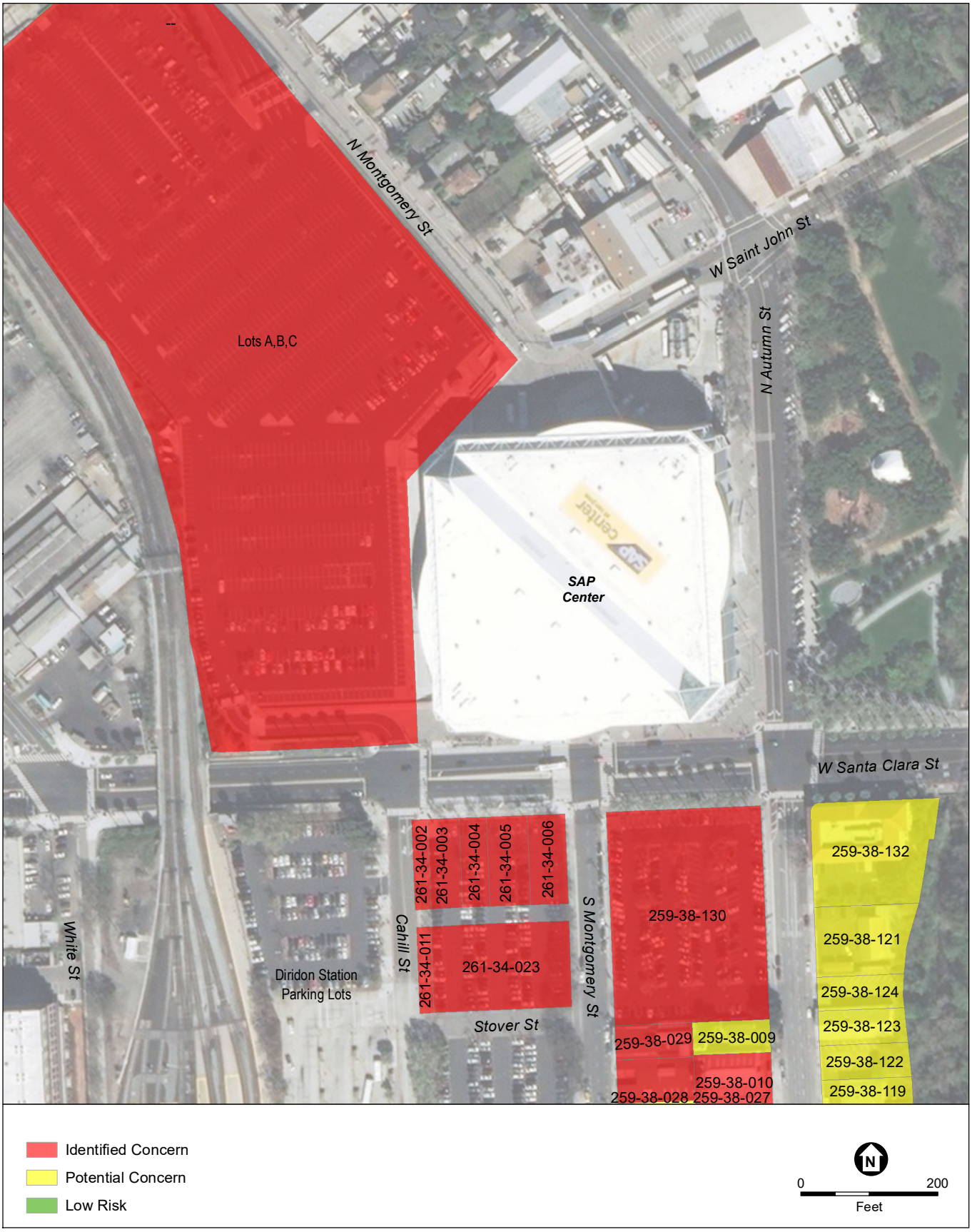
- Industrial operations have been conducted at the subject site since at least 1884. Up to three oil underground storage tanks (USTs), two boilers, and one oil house were present in the eastern half of the parcel from as early as 1915 through at least 1966. No further information regarding the USTs was located, and it is unknown whether the USTs were removed or left in place. The oil house was located where the current southern building is located and therefore was likely removed. The boilers were aboveground structures and are not present at their former locations in the parking lot. A Phase II investigation was reportedly conducted on the site in 2003, but that report was not provided to the Phase I assessment consultant and its availability is unknown.
- A storm drain on the northwest corner of the site is located in the loading area for large delivery trucks. During the Phase I assessment site walk, oil staining from the trucks was observed on the concrete pad that flows to the storm drain, and a small amount of a petroleum substance was observed in the drain. Subsurface soil surrounding this storm drain may have been impacted by petroleum products.
- Because of the age of the structures on the subject site, ACM and LBP have the potential to be present in both buildings, along with lead in soil from flaking LBP; a survey should be performed before demolition of these structures to determine whether pre-demolition abatement is required.

[2] Haley & Aldrich Inc., *Phase I Environmental Site Assessment, 587 Cinnabar Street, San José, California,* April 6, 2017.

SOURCES: Esri, 2019, Santa Clara County, 2019; ESA, 2020

Downtown West Mixed-Use Plan

Figure 3.7-1
Hazardous Materials Areas of Concern - Far North



SOURCES: Esri, 2019, Santa Clara County, 2019; ESA, 2020

Downtown West Mixed-Use Plan

Figure 3.7-2
Hazardous Materials Areas of Concern - North

SOURCES: Esri, 2019, Santa Clara County, 2019; ESA, 2020

Downtown West Mixed-Use Plan

Figure 3.7-3
Hazardous Materials Areas of Concern - South

SOURCES: Esri, 2019, Santa Clara County, 2019; ESA, 2020

Downtown West Mixed-Use Plan

Figure 3.7-4
Hazardous Materials Areas of Concern - Far South

SOURCES: Esri, 2019, Santa Clara County, 2019; ESA, 2020

Downtown West Mixed-Use Plan

Figure 3.7-5
Hazardous Materials Areas of Concern - East

The current land use at this parcel is industrial. The previous industrial uses have the potential to have resulted in contamination of soil and/or groundwater. Therefore, residential, commercial/industrial, construction worker, and/or leaching to groundwater screening levels may be exceeded for the parcel in its current condition. In addition, this parcel is bounded on the east and southwest by railroad tracks likely used for the delivery of materials. It is not uncommon to find arsenic, lead, and other contaminants at elevated levels present in the soil along a right-of-way associated with railroad lines/spurs. Typical sources of contamination along railroad rights-of-way include old railroad ties dipped in an arsenic solution, arsenic weed-control sprays, organochlorine pesticides, and arsenic-laced slag used as railroad bed fill. Lubrication oil and diesel that dripped from trains are also common sources of petroleum products found along such lines. Other sources of contaminants may include coal ash from engines, creosote from ties, and polynuclear aromatic hydrocarbons (PAHs) from the diesel exhaust. This potential condition would apply to any parcel next to older railroad lines, especially if those rail lines had several decades of use. Finally, ACM and/or LBP may be present in site buildings, along with lead in soil from flaking LBP.

APN 259-27-003 (357 North Montgomery Street)

The Phase I assessment observed that this parcel is developed with one building and operated as a machining and welding business.[3,4] The Phase I assessment stated the following:

- Given the use of this parcel as a machine and welding shop since the 1940s, volatile organic compounds (VOCs), including the cleaning solvents trichloroethene (TCE) and/or perchloroethene (PCE; also called tetrachloroethene), could have been used as cleaners/ degreasers. The Phase I consultant recommended soil gas testing to assess for VOCs.
- The 1950 and 1956 fire insurance maps depicted a second oil UST within the footprint of the present-day 570 Cinnabar Street building. The UST was not shown on the 1966 fire insurance map. No documentation pertaining to the removal of the oil UST was identified in the agency records review.
- Because of the age of the structures on the site, ACM and LBP may be present in both buildings, along with lead in soil from flaking LBP; a survey should be performed before demolition of these structures to determine whether pre-demolition abatement is required.

A limited Phase II investigation was conducted to test for potential contaminants associated with the previously discussed land use.[5] The limited Phase II investigation drilled four borings, three of which were inside the buildings. The soil gas samples were analyzed for VOCs. Several VOCs were detected in the soil gas samples recovered from the parcel: trichlorofluoromethane, carbon disulfide, toluene, PCE, chloroform, benzene, acetone, 2-butanone (also known as methyl ethyl ketone or MEK), benzene, ethyl benzene, 1,2,4-trimethylbenzene, 2-propanol, and xylene(s). The reported soil gas concentrations of chloroform in the three sub-slab soil gas samples exceed the residential screening levels, but not the commercial/industrial screening levels. Note that chloroform is sometimes detected as a byproduct of the treatment of drinking water, which is usually treated with

[3] ENGEO, *Phase I Environmental Site Assessment, 357 N. Montgomery Street, San José, California*, October 1, 2018.
[4] ENGEO, *Phase I Environmental Site Assessment Update, 357 N. Montgomery St, San José, California*, March 18, 2019.
[5] ENGEO, *Limited Phase II Environmental Site Assessment, 357 N. Montgomery Street, San José, California*, October 30, 2018.

chlorine compounds. All other soil gas concentrations were below residential and commercial/industrial soil gas screening levels.

The current land use at this parcel is industrial. The Phase II investigation indicated that, with the exception of chloroform, residual levels of VOCs were present at the time of the investigation, but at concentrations below all screening levels. Chloroform was present at concentrations above residential but not commercial/industrial screening levels. In addition, and as noted previously, parcels next to older railroad lines with several decades of use may have metals, pesticides, or PAH contamination. ACM and/or LBP may be present in the site building, along with lead in soil from flaking LBP; a survey should be performed before demolition to determine whether pre-demolition abatement is required.

APN 259-27-007 (311 and 313 North Montgomery Street)

According to the Phase I assessment, this parcel is developed with a two-story residential duplex, constructed circa 1895.[6] The Phase I assessment stated the following:

- This parcel has no history of industrial or commercial use.
- Given the age of the residence, a residential heating oil UST may have been present. No records pertaining to the presence or removal of a UST from the site were located.
- Given the age of the residence, ACM and LBP may be present on the structure; lead may also be present in shallow soil from flaking LBP. A survey should be performed before demolition to determine whether pre-demolition abatement is required.

The current and previous land uses at this parcel are residential. There are no records or observations of soil or groundwater contamination from this parcel. The exceedance of residential and commercial/industrial screening levels is considered unlikely. Given the age of the residence, ACM and LBP have the potential to be present on the structure, along with lead in soil from flaking LBP; a survey should be performed before demolition to determine whether pre-demolition abatement is required.

APN 259-27-008 (551 West Julian Street)

The Phase I assessment observed that this parcel is currently undeveloped and is used as a gravel parking lot.[7] The Phase I assessment stated the following:

- At various times from 1891 through at least 1998, the parcel previously had a residence, a brick building, a shed, and two stores, one of which was a tavern. As of 2000, all structures had been removed. No specific industrial use was identified.
- Given the age of the site's previously existing structures, residential heating oil USTs may have been historically operated. No records were located pertaining to the presence or removal of UST(s) from the site.

The current land use at this parcel is a parking lot. There are no records or observations of soil or groundwater contamination from this parcel. The exceedance of residential and

[6] Elevate Environmental Consultants, *Phase I Environmental Site Assessment, 311 North Montgomery Street, San José, California*, February 10, 2020.
[7] Haley & Aldrich Inc., *Phase I Environmental Site Assessment, 551 West Julian Street, San José, California,* July 14, 2017.

commercial/industrial screening levels is considered unlikely. There would be no ACM or LBP on structures because all structures have been removed.

APN 259-27-009 (559, 563, and 567 West Julian Street)

The Phase I assessment observed that this parcel is currently developed with three multi-unit residences.[8] The Phase I assessment stated:

- The northern portion of the parcel—situated behind both the 573 West Julian Street property (discussed below) and the 559 West Julian Street property—appears to have been used to store construction equipment and associated supplies in the past, which may have leaked oils or other chemicals. Therefore, the shallow soil present in this northern area should be sampled and assessed for potential impacts associated with these stored features.
- Given the age of the site's structures, residential heating oil USTs may have been historically operated. No records were located pertaining to the presence or removal of USTs from the site.
- Given the age of the site's structures that date back to as early as 1915, ACM and LBP may be present in buildings, along with lead in soil from flaking LBP. A survey should be performed before demolition of these structures to determine whether pre-demolition abatement is required.

The current land use at this parcel is residential, but the parcel has had prior industrial use. The current and previous uses have the potential to have resulted in contamination of soil and/or groundwater. Therefore, residential, commercial/industrial, construction worker, or leaching to groundwater screening levels may be exceeded for the parcel in its current condition. Given the age of the building, ACM and LBP may be present in the building, along with lead in soil from flaking LBP. A survey should be performed before demolition of these structures to determine whether pre-demolition abatement is required.

APN 259-27-010 (573 West Julian Street)

The Phase I assessment observed that this parcel currently includes a warehouse split into two units.[9] The northern unit is used for storage of general contractor and construction-related equipment and materials, including small containers of oil and other chemical products. The southern unit is empty and unoccupied. The Phase I assessment stated the following:

- The northern portion of the parcel—situated behind both the 573 and 559 West Julian Street properties—appears to have been used to store construction equipment and associated supplies, which may have leaked oils or other chemicals. Therefore, the shallow soil present in this northern area should be sampled and assessed for potential impacts associated with these stored features.
- Historically, the 573 West Julian Street property was occupied by an auto repair and body shop from at least 1985 to 2000, as well as other various industrial operations. Because of the nature of these operations, hazardous materials were stored on-site, including oils and solvents. Given the site's previous operations, hazardous materials and/or wastes may

[8] Haley & Aldrich Inc., *Phase I Environmental Site Assessment, 559 and 573 West Julian Street, San José, California*, May 10, 2017.
[9] Haley & Aldrich Inc., *Phase I Environmental Site Assessment, 559 and 573 West Julian Street, San José, California*, May 10, 2017.

have been released through cracks in the building's foundation and/or previously existing floor drains/sumps. Because no soil or groundwater samples have been collected from beneath the site's existing building, this sampling should be performed to assess the subsurface environment for these potential releases.

- Given the age of the site's structures, residential heating oil USTs may have been historically operated. No records were located pertaining to the presence or removal of USTs from the site.
- Given the age of the site's structures (circa 1915), ACM and LBP may be present in buildings, along with lead in soil from flaking LBP. A survey should be performed before demolition of these structures to determine whether pre-demolition abatement is required.

The current land use at this parcel is commercial/industrial. The current and previous uses have the potential to have resulted in contamination of soil and/or groundwater. Therefore, residential, commercial/industrial, construction worker, or leaching to groundwater screening levels may be exceeded on the parcel. Given the age of the building, ACM and LBP may be present. A survey should be performed before demolition to determine whether pre-demolition abatement is required.

APN 259-27-011 (No Street Address)
APN 259-27-014 (341, 343, and 345 North Montgomery Street)
APN 259-27-015 (347 North Montgomery Street)

A Phase I investigation observed that these parcels are currently occupied by a wholesale supply shop for ice cream hand carts (345 North Montgomery Street), a metalworking service (343 North Montgomery Street; note that this is no longer a valid address), and commercial and fleet truck body repair shop (341 and 347 North Montgomery Street).[10] The Phase I investigation report stated:

- Land uses include residential (from at least 1884 until after 1915) and industrial (from 1945 to the present). Industrial uses have included machine shops, a boiler shop, railroad hand car storage, fire brick storage, truck body repair shop, and metal reinforcing rod manufacturing.
- America Drums is listed at 345 North Montgomery Street as an open but inactive spill site case that reported a "heavy metal" spill in 1985 containing metals, benzidines, polychlorinated biphenyls (PCBs), and phenols. The quantity and location of the spill were not reported. Soil samples indicated levels of lead and arsenic at concentrations above screening levels. No data were available for the organic compounds listed in the initial spill report.
- One 6,000-gallon gasoline UST (347 North Montgomery Street) and one 15,000-gallon heating oil UST (southern portion of APN 259-27-011) were removed in 1993. Total petroleum hydrocarbons (TPH) as gasoline and diesel were detected under the USTs. Both USTs were over-excavated. Residual levels of TPH as gasoline and diesel were left beneath the USTs and in soil and groundwater.[11,12] The case was closed by the Santa Clara Valley Water District (Valley Water) in 2001, noting that localized residual

[10] Haley & Aldrich, *Draft Phase I Environmental Site Assessment, 345–347 North Montgomery Street, San José, California*, August 15, 2017.
[11] Life Springs Environmental, *A Report Documenting the Advancement of Eleven Exploratory Boring Probes*, August 2000.
[12] Environmental Technical Services, Addendum to the Report dated April 2000, *Documenting the Advancement of Eleven Exploratory Boring Probes at 341 N. Montgomery Street, San Jose, California*, November 20, 2000.

contamination existed at the site below levels of regulatory concern at that time (i.e., 2001 screening levels). As discussed further below, subsequent soil, soil gas, and groundwater sampling has been conducted to investigate current conditions.

- One underground sediment clarifier was located in the former machine shop at 345 North Montgomery Street. The clarifier accepted steam cleaning condensate and sludge. One boring was advanced adjacent to the former clarifier during a 1995 investigation, but no information was available regarding the condition of soil directly beneath the clarifier when it was removed. As discussed further below, subsequent soil, soil gas, and groundwater sampling has been conducted to investigate current conditions.
- A limited ACM survey was conducted in 1995 for the 341/347 North Montgomery property, with no ACM detected. However, the 2017 Phase I assessment consultant considered the 1995 survey to be limited and recommended conducting a more inclusive ACM survey before demolition of the structure. Given the age of the site's structures, ACM and LBP may be present, along with lead in soil from flaking LBP. A survey should be performed before demolition of the structure to determine whether pre-demolition abatement is required.

Two Phase II investigations were conducted in 2017 to evaluate soil, soil gas, and groundwater conditions at these three parcels.[13,14] The Phase II investigations focused on the former USTs, drum storage area, former waste storage area, and former clarifier and sump. The September 2017 Phase II investigation drilled nine borings that included soil and groundwater sampling and analysis. All soil samples were analyzed for TPH as gasoline, diesel, and motor oil, and for metals. In addition, 14 near-surface soil samples were analyzed for semivolatile organic compounds and PCBs. Three groundwater samples were analyzed for TPH as gasoline, diesel, and motor oil; metals; and semivolatile organic compounds. The reported results are summarized as follows:

- Copper, chromium, and lead concentrations in soil exceed hazardous waste levels, which would exceed all screening levels.[15]
- The following chemicals were detected in soil, with maximum concentrations that exceed the screening levels listed in parentheses: cobalt, benzo(a)pyrene, and dibenz(a,h)anthracene (residential); lead and thallium (residential, commercial/industrial, and construction worker); and naphthalene (leaching to groundwater).
- The maximum concentration of 1,1-dichloroethane in groundwater exceeds the drinking water screening level, which is the primary drinking water standard or MCL. The detected concentrations in groundwater also exceed the residential and commercial/industrial vapor intrusion screening levels.
- Selenium was detected in groundwater at concentrations above the MCL, but not the next lowest screening level of gross contamination.

The December 2017 Phase II investigation drilled 12 borings that included soil, soil gas, and groundwater sampling and analysis. Selected soil samples were analyzed for TPH as gasoline,

13 Haley & Aldrich, *Draft Report on Limited Phase II Investigation, 345–347 North Montgomery Street, San José, California*, September 14, 2017.

14 RPS Iris Environmental, *Sampling and Analysis Report for Limited Phase II Subsurface Site Investigation, 345 North Montgomery Street, San José, California*, December 14, 2017.

15 Hazardous waste acceptance levels are the concentrations that define a hazardous waste that must be disposed of at a Class I hazardous waste landfill or treated at a treatment facility permitted to treat the hazardous waste.

diesel, and motor oil; metals; VOCs; semivolatile organic compounds; and PCBs. All soil gas samples were analyzed for VOCs and all groundwater samples were analyzed for TPH as gasoline, diesel, and motor oil; VOCs; and metals. The reported results that exceed one or more screening levels are summarized as follows:

- **Soil:** Arsenic was detected at concentrations that exceed residential, commercial/industrial, and construction worker screening levels. Lead was detected in soil at concentrations that exceed hazardous waste disposal levels, which would be above all screening levels. Cobalt was detected at concentrations that exceed the residential screening level. Nickel was detected at concentrations that exceed the residential and construction worker screening levels.
- **Soil gas:** PCE was detected in soil gas at concentrations that exceed the residential but not commercial/industrial screening levels. Benzene was detected at concentrations that exceed the residential and commercial/industrial screening levels.
- **Groundwater:** Near the former 15,000-gallon heating oil UST, TPH as gasoline and diesel were detected at concentrations that exceed the MCL and the odor/nuisance screening level. Arsenic, lead, and selenium were detected in groundwater at concentrations that exceed MCLs.

In summary, the reported soil, soil gas, and groundwater results exceeded residential screening levels, and in the case of lead in soil, above hazardous waste disposal levels.

The current land use at this parcel is industrial. Current and previous uses have resulted in contamination of soil, soil gas, and groundwater with concentrations that exceeded screening levels. Because of the site's history and the Phase II investigation results, remediation of these parcels may be required to enable future uses. In addition, and as noted previously, parcels next to old railroad lines may have metals, pesticides, or PAH contamination. In addition, ACM and/or LBP may be present because of the age of the structures and the incomplete nature of the limited ACM survey; lead may also be present in soil from flaking LBP. A survey should be performed before demolition of the structure to determine whether pre-demolition abatement is required.

APN 259-27-016 (333 North Montgomery Street)

The Phase I assessment observed that this parcel is currently a concrete business.[16,17] The Phase I assessment stated the following:

- The concrete business building includes offices, workshops, and equipment and materials storage. The southeastern portion of the parcel is a paved parking lot with lumber and equipment storage. A fuel aboveground storage tank (AST) is on the southwest portion of the parking lot. The business was observed to have good housekeeping with minor oil staining in places.
- Previous land uses include residential from at least 1884 until 1960, when the current building was constructed. The parcel was used as an automotive shop until the 1990s and a

[16] ENGEO, *Phase I Environmental Site Assessment, 333 North Montgomery Street, San José, California*, February 25, 2019.
[17] ENGEO, *Phase I Environmental Site Assessment Update, 333 North Montgomery Street, San José, California*, October 30, 2019.

concrete business since then. The automotive shop business had a documented history of approximately 30 years of use with consistent violations for hazardous waste housekeeping, storage, and in one instance dumping down the storm drain. The Phase I referenced a previous Phase II investigation conducted in 1995 that analyzed soil and groundwater for, but did not detect petroleum hydrocarbons.[18] The Phase II investigation did not analyze for metals or solvents. The Phase I consultant recommended further testing because of the documented use of solvents and improper storage/dumping of waste oil.

- Given the age of the site's structure, ACM and LBP may be present and lead may also be present in shallow soil from flaking LBP. A survey should be performed before demolition of the structure to determine whether pre-demolition abatement is required.

The current land use at this parcel is industrial. The current and previous uses have the potential to have resulted in contamination of soil and/or groundwater. Therefore, residential, commercial/industrial, construction worker, or leaching to groundwater screening levels may be exceeded for the parcel in its current condition. Because of the site history, further Phase II sampling was recommended to evaluate whether remediation of this parcel is needed to enable future uses. Given the age of the building, ACM and LBP may be present on the structure, along with lead in soil from flaking LBP. A survey should be performed before demolition to determine whether pre-demolition abatement is required.

APN 259-27-017 (501 and 566-570 Cinnabar Street)

The Phase I assessment observed that this parcel is currently developed and operated as a commercial/light industrial warehouse that includes a vacant warehouse and a self-storage facility.[19] The Phase I assessment stated:

- This parcel was occupied by residences as early as 1884 through at least 1939. As early as 1915, the parcel had a small food packing facility. From 1939 to 1956, additional food packing structures were added and residential use ended during this time period. The current structure was constructed in 1966 after removal of all other structures. The current building was divided into two separate tenant spaces in 1984.
- The 1915 fire insurance map identified one oil UST within the footprint of the structure currently identified at 570 Cinnabar Street. This UST was no longer depicted on the 1950 fire insurance map; no documentation pertaining to the removal of the oil UST was identified in the agency records review.
- The 1950 and 1956 fire insurance maps depicted a second oil UST within the footprint of the present-day 570 Cinnabar Street building. The UST was not shown on the 1966 fire insurance map. No documentation pertaining to the removal of the oil UST was identified in the agency records review.
- The Phase I assessment concluded that because of the age of the structures on the site, ACM and LBP may be present in both buildings, along with lead in soil from flaking LBP. A survey should be performed before demolition of these structures to determine whether pre-demolition abatement is required.

[18] Phases Environmental, *Phase II Environmental Site Assessment, 333 Montgomery Street, San José, California,* March 27, 1995.
[19] ENGEO, *Phase I Environmental Site Assessment, 501 Cinnabar Street, San José, California,* March 25, 2019.

A Phase II investigation was conducted before the Phase I assessment discussed above to test for potential contaminants associated with the previously discussed USTs.[20] The Phase II investigation drilled six borings, and analyzed soil and groundwater for TPH as gasoline, diesel, and motor oil; metals; and VOCs. The reported results are summarized as follows:

- **Soil:** For soil samples, TPH as diesel was detected at concentrations that exceed residential, commercial/industrial, construction worker, and leaching to groundwater screening levels. TPH as motor oil was detected in one boring at concentrations that exceed residential but not the commercial/industrial, construction worker, and leaching to groundwater screening levels. TPH as gasoline and VOCs were not detected in any of the borings. Metals were detected in most of the borings with cobalt and lead concentrations that exceed residential but not commercial/industrial, construction worker, and leaching to groundwater screening levels.
- **Groundwater:** Groundwater samples detected concentrations of TPH as gasoline that exceed the odor/nuisance screening level but not the MCL (residential or commercial/industrial screening levels have not been established for gasoline); naphthalene was detected at concentrations that exceed the MCL and residential vapor intrusion screening level; and the metals antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, copper, lead, nickel, and vanadium were reported at concentrations above MCLs but below the other groundwater screening levels.

The current land use at this parcel is industrial. The Phase II investigation indicates that residential, commercial/industrial, construction worker, and groundwater screening levels have been exceeded in soil and groundwater for this parcel in its current condition. Because of the site's history and the Phase II investigation results, remediation of this parcel may be required to enable future uses. Given the age of the structure, ACM and/or LBP may be present on the structure, along with lead in soil from flaking LBP. A survey should be performed before demolition of the structure to determine whether pre-demolition abatement is required.

SAP Center Parking Lots A, B, and C (APNs 259-28-031, 259-28-041, 259-28-043, and 259-28-044) (525 West Santa Clara Street)

SAP Center Parking Lots A, B, and C have been evaluated under a Phase I assessment and a Phase II investigation.[21,22] The Phase II investigation was conducted before, and to inform, the Phase I assessment. Lots A, B, and C are currently used as parking lots for the SAP Center (refer to Figure 3.7-1). Industrial uses date back to 1877, when the site was the location of a coal gasification plant. Initially, the plant was a water-gas plant that used coal and crude petroleum to produce natural gas. In 1917, the plant was converted to an oil-gas process. The process resulted in storage of lampblack and tar-like residues. The lampblack storage was reduced in 1922 by burning residue in boilers to produce steam for plant operations. The coal gasification plant ceased operations in 1929, although the site continued to be used to store natural gas until 1951. Among the historic site uses were the coal gasification plant, followed by various automotive

[20] ENGEO, *Phase II Environmental Site Assessment, 501 Cinnabar Street, San José, California*, January 26, 2018.
[21] ENGEO, *Phase I Environmental Site Assessment, Google Diridon Station–Lots A, B, and C, San José, California*, September 21, 2018.
[22] ENGEO, *Phase II Environmental Site Assessment, Diridon Station–Project Spartan, Lots A, B, and C, San José, California*, May 15, 2018.

repair and service businesses, gas stations, and miscellaneous light industries. Several USTs and oil/water clarifiers were formerly located on the property.

The City of San José Redevelopment Agency began constructing the multipurpose arena now known as SAP Center in July 1990, beginning with site clearing, building demolition, and site preparation. This work included the construction of a slurry wall to a depth of 35 feet below the ground surface around the proposed arena building site to prevent groundwater contamination from migrating into or out of the arena. The arena floor was excavated to a depth of 17 feet below the ground surface.

During development of the arena, the existence of PAHs was discovered, reflecting the former coal gasification plant operations. PAHs were detected in the soil at concentrations that exceeded the construction worker, commercial/industrial, and residential screening levels. In addition, during investigation of the industrial properties, petroleum contamination from gasoline, diesel, oil and grease, was discovered in the soil and groundwater, with compounds identified including benzene, toluene, ethylbenzene, and xylenes.

All PAH-affected soil was screened for on-site reuse. Approximately 20,000 cubic yards of soil containing greater than 100 parts per million PAH was encapsulated beneath the southeast portion of Lots A, B, and C. Soil below 100 parts per million was used as fill for either the bottom liner for the encapsulated area or as 2 feet of fill over the encapsulated area. These areas were then paved as part of the parking lot for the arena.

The SAP Center is situated over a shallow perched groundwater zone referred to as the A-zone. Consequently, a dewatering system was designed into the construction of the arena to capture any accumulation of groundwater under and around the arena into a centralized sump. Accumulated groundwater is treated and discharged into the municipal storm drain system. Upon completion of the arena in February 1995, the City resumed groundwater monitoring to track the contaminants remaining beneath the property. Semiannual groundwater monitoring events were performed through 2004; since 2005, groundwater sampling has been performed on an annual basis.

Samples collected from an influent sample port and an effluent sample port have detected no contaminants. The dewatering system remains active and operating, when groundwater is present.

A Covenant to Restrict Use of Property, Environmental Restriction, between the City of San José and DTSC was finalized for the site on May 23, 2003. (Note: This is a LUC, as described previously in the *Limitations on Land Use* section.) The covenant limits site uses to commercial, industrial, parks, and/or open space use. Restricted (prohibited) uses include residences, hospitals, schools for persons under the age of 21, and daycare centers. Raising of food, such as cattle and food crops, is also prohibited. DTSC requires notification before any disturbances of the cap. The following soil management restrictions are in place:

- No activities that will disturb the soil (e.g., excavation, grading, removal, trenching, filling, earth movement, mining) shall be allowed on the site without a Soil Management Plan and a Health and Safety Plan approved by DTSC before the beginning of the activities. Any contaminated soils brought to the surface by grading, excavation,

trenching, or backfilling shall be managed in accordance with all applicable provisions of federal and state law.

- The owner shall provide DTSC written notice at least 14 days before any building, filling, grading, mining, or excavation on the site.
- Activities that may disturb the cap, including but not limited to excavation, grading, removal, trenching, filling, earth movement, or mining, shall not be permitted on the site without prior review and written approval by DTSC. All uses and development of the site shall preserve the integrity of the cap. The cap shall not be altered without prior written approval by DTSC.

In summary, the current land use at these parcels is commercial (parking lot). As discussed above, contaminated soil has been encapsulated and any change to the land use that disturbs the contaminated soil would require agency approval.

APN 259-38-009 (35 South Autumn Street)

The Phase I assessment observed that this parcel is currently developed with a one-story single-family residence with a basement constructed before 1922.[23] The Phase I assessment stated the following:

- This parcel has no history of industrial or commercial use.
- Given the age of the residence, a residential heating oil UST may have been historically operated. No records were located pertaining to the presence or removal of a UST from the site.
- Given the age of the residence, ACM and LBP may be present, along with lead in soil from flaking LBP. A survey should be performed before demolition to determine whether pre-demolition abatement is required.

The current land use at this parcel is and was historically residential. There are no records or observations of soil or groundwater contamination from this parcel. Residential land use would have a negligible potential for contamination of soil and groundwater. The exceedance of screening levels is considered unlikely. Given the age of the residence, ACM and LBP may be present, along with lead in soil from flaking LBP. A survey should be performed before demolition to determine whether pre-demolition abatement is required.

APN 259-38-010 (40 South Montgomery Street)
APN 259-38-011 (55 South Autumn Street)
APN 259-38-028 (40 South Montgomery Street)
APN 259-38-029 (40 South Montgomery Street)

The Phase I assessment observed that this parcel was developed and operated as a foundry and pattern shop, with four connected structures housing manufacturing activities.[24] The buildings are designated, from west to east as Pattern Shop, Grinding, Foundry, and Shipping. There is one building located at 40 South Montgomery Street, which held the pattern shop, grinding area,

[23] Haley & Aldrich Inc., *Confidential Information: Phase I Environmental Site Assessment, 35 South Autumn Street, San José, California*, January 30, 2017.

[24] Haley & Aldrich Inc., *Phase I Environmental Site Assessment, 40 South Montgomery Street and 55 South Autumn Street, San José, California*, February 17, 2017.

spray booth, and offices. This building occupies the majority of APNs 259-38-029 and 259-38-028, except for a 500-square-foot paved driveway area facing South Montgomery Street. There are three buildings located at 55 South Autumn Street, which occupy APNs 259-38-010 and 259-38-011. The north and middle buildings contained the main foundry, and the south building was the product finishing and shipping area. The kilns in the main factory were operated with natural gas or electricity, not oil. Along the east side of the buildings, there is an approximately 20-foot-wide outdoor paved parking/loading area spanning the length of the property along South Autumn Street. The Phase I assessment stated the following:

- Industrial operations have been conducted at the site since 1919. These historical operations included the use of organic hazardous materials such as lubricants, solvents, fuels, and oils, and they are currently used today. Given the site's previous operations, hazardous materials and/or wastes may have been released through cracks in the building's foundation or the basement/crawl space.

A limited Phase II investigation included one boring on APN 259-38-028 and two borings on APN 259-38-010.[25] The reported results are summarized below.

- Soil was tested for metals, PCBs, organochlorine pesticides, PAHs, VOCs, and TPH as gasoline, diesel, and motor oil. Lead and benzo(a)pyrene were detected at concentrations that exceed residential screening levels but are below commercial/industrial, construction worker, and leaching to groundwater screening levels.
- Groundwater was tested for metals, PAHs, VOCs, and TPH as gasoline, diesel, and motor oil in one groundwater sample. The reported concentrations of 1,2-dichloroethane, lead, and selenium exceed residential and commercial/industrial groundwater screening levels.

In summary, the land use at this parcel has included industrial and commercial uses. Soil and groundwater exceeded several screening levels. Because of the site's history and limited Phase II investigation results, remediation of this parcel may be required, depending on the redevelopment plans and anticipated future uses. Given the age of the building, ACM and LBP may be present along with lead in soil from flaking LBP. A survey should be performed before demolition to determine whether pre-demolition abatement is required.

APN 259-38-015 (75 South Autumn Street)

The Phase I assessment observed that this parcel is currently developed with two structures: a one-story single-family residence and a two-story in-law apartment. The single-family residence was constructed circa 1915 and the in-law apartment was constructed before 1950.[26] The land use at this parcel has only been residential, with no known commercial or industrial use.

Residential land use would have a negligible potential for contamination of soil and groundwater. The exceedance of residential, commercial/industrial, or construction worker screening levels is considered unlikely. Given the age of the residence, a residential heating oil UST may have been historically operated. No records were located pertaining to the presence or removal of a UST

[25] Haley & Aldrich Inc., *Limited Phase II Environmental Site Assessment, 40 South Montgomery and 55 South Autumn Street, San José, California*, February 21, 2017.
[26] Haley & Aldrich Inc., *Confidential Information: Phase I Environmental Site Assessment, 75 South Autumn Street, San José, California*, November 23, 2016.

from the site. Given the age of the residence, ACM and LBP may be present, along with lead in soil from flaking LBP. A survey should be performed before demolition to determine whether pre-demolition abatement is required. There are no records or observations of soil or groundwater contamination from this parcel.

APN 259-38-018 (93 South Autumn Street)

The Phase I assessment observed that this parcel is currently a paved parking lot.[27] The Phase I assessment stated the parcel was in residential use from at least 1884 to 1986. The parcel is listed as a paved parking lot from 1994 to the present. No industrial or commercial uses are listed for this parcel. The previous residential and current parking lot land use would have a negligible potential for contamination of soil and groundwater, and exceedance of residential, commercial/industrial, or construction worker screening levels is considered unlikely. Given the age of the previous residential use, a residential heating oil UST may have been historically operated. No records were located pertaining to the presence or removal of a UST from the site.

Although not listed as a reported spill incident site, the property at 496 West San Fernando Street (located about 90 feet to the southeast) was operated as a laundry and dry cleaning business from 1930 to at least 1966. Impacts on soil and groundwater are often identified at dry cleaning sites. Given the proximity of the property to the creek, the direction of groundwater flow may be variable with flow away from the creek in the rainy season and toward the creek in the dry season. Although it has been more than 50 years since this dry cleaner was present, it is possible that dry cleaning solvents were spilled and migrated in groundwater to beneath the 93 South Autumn Street parcel.

Given the age of the previous structures, the potential exists that LBP from the previous structures flaked off over the years and deposited into the shallow soil around the perimeter of the former structures. Soil sampling along the perimeter of the former structure should be performed before development to determine whether elevated levels of lead are present in the shallow soil that need to be mitigated.

APN 259-38-019 (92 South Montgomery Street)

The Phase I assessment observed that this parcel is currently an undeveloped grass lot.[28] The parcel had one residence from as early as 1915 to sometime between 1948 and 1956, when the residence was removed and replaced with a four-story apartment building. The apartment building was demolished in 2009. The parcel has been vacant since then. This parcel has had no known commercial or industrial use. Given the age of the previous structure, a heating oil UST may have been historically operated. No records were located pertaining to the presence or removal of a UST from the site.

Residential land use would have a negligible potential for contamination of soil and groundwater. The exceedance of residential, commercial/industrial, or construction worker screening levels is

[27] Cornerstone Earth Group, *Phase I Environmental Site Assessment, 93 South Autumn Street, San José, California*, December 31, 2019.
[28] Haley & Aldrich Inc., *Phase I Environmental Site Assessment, 92 South Montgomery Street, San José, California*, June 12, 2019.

considered unlikely. Given the age of the previous structures, lead may be present in soil from flaking LBP. A survey should be performed before demolition to determine whether lead is present in soil at concentrations above screening levels.

APN 259-38-027 (50 South Montgomery Street)

The Phase I assessment observed that this parcel is currently developed with a one-story lofted building that operates as a pet day care.[29] The building consists of an office area, numerous storage rooms, and an open space for pets. This parcel was in residential use from at least 1891 to before 1950. The parcel use was listed as West Coast Carburetor Service in 1950, Vending Machine Storage in 1956, Morgan Bill Amusement Company from 1960 to 2000, and Pawing Around in 2014. This indicates both industrial and commercial land uses.

The land use at this parcel has included industrial and commercial uses. It is unknown whether previous industrial uses resulted in contamination that exceeds residential, commercial/industrial, or construction worker screening levels. However, the listed carburetor service indicates the potential for contamination from materials, such as fuels, oils, and metals. Because of the site's history, Phase II investigation of this parcel may be required, depending on the redevelopment plans and anticipated future uses. Given the age of the building, ACM and LBP may be present in building materials, along with lead in soil from flaking LBP. A survey should be performed before demolition to determine whether pre-demolition abatement is required.

Former San José Water Company Site (also referred to as the Diridon Station JV Site) (APNs 259-38-036, 259-38-039, 259-38-040, 259-38-041, 259-38-042, 259-38-109, 259-38-110, 259-38-128, 259-38-129, 259-38-142, 259-38-145, 259-38-146, 259-38-147, and 259-38-148) (35 Delmas Avenue and 374 West Santa Clara Street at Delmas Avenue)

The Phase I assessment observed that these parcels are currently undeveloped and used as a gravel parking lot.[30] The Phase I assessment observed that this set of parcels has three interconnected currently vacant buildings previously used by the San Jose Water Company located on APN 259-38-128 in the far northeast corner of this group of parcels, with the remainder of the property consisting of paved areas. Previous historical uses of the parcels include auto repair facilities, boiler rooms for laundry facilities (this laundry used water; it was not a dry cleaner that used PCE), a gas station, a lumber yard, sheet metal works, and a pipe dipping facility. Various USTs were previously on the parcels but have since been removed.

The Phase I assessment report included the results of previous Phase II investigation results. Soil on these parcels has levels of gasoline and lead at concentrations above residential, commercial/industrial, and construction worker screening levels. ACM are present in the asphalt, base rock, and soil beneath the majority of the parcels to depths of up to 4 feet, derived from the demolition of previous structures and as a component of the asphalt paving. The ACM would need to be managed as a hazardous waste, which would be above all screening levels. A previous

[29] ENGEO, *Phase I Environmental Site Assessment, 50 South Montgomery Street, San José, California,* January 24, 2018.
[30] EKI Environment & Water, *Phase I Environmental Site Assessment, West Santa Clara Street and Delmas Avenue, San José, California*, January 23, 2018.

investigation detected gasoline, VOCs, nickel, and selenium in concentrations in groundwater above residential and commercial/industrial screening levels.

Because of the site's history and the Phase II investigation results, remediation of this parcel may be required enable future uses. The groundwater flow direction is assumed to be to the east, away from the rest of the project footprint, but could be variable as noted for other parcels. A survey of the buildings indicated that the structures have ACM and LBP. Should the buildings be removed, the ACM and LBP, along with lead in soil from flaking LBP, would require pre-demolition abatement.

Based on the concentrations of lead, the Diridon Station JV (the owners of the parcel) entered into the SCCDEH Voluntary Cleanup Program under Case No. 2016-33s.[31] A Site Management Plan, dated August 10, 2016, was prepared by Haley & Aldrich and subsequently approved by the SCCDEH on October 17, 2016.[32] (Note: A voluntary cleanup program agreement is similar to a LUC, as described previously in the Limitations on Land Use section, in that it may have requirements that in effect, restrict land uses.)

APN 259-38-085 (56 South Montgomery Street)

The Phase I assessment observed that this parcel is currently developed with a single-story vaulted-roof church with an attached two-story structure used as a community center, along with associated paved parking.[33] This parcel was in residential use from at least 1884 through to at least 1950. The church is listed from as early as 1955 to the present. No industrial or commercial land use is recorded.

The land use at this parcel has been residential or a church. The current and previous uses have negligible potential for contamination of soil and groundwater. The exceedance of residential, commercial/industrial, or construction worker screening levels is considered unlikely. Given the age of the building, ACM and LBP may be present, along with lead in soil from flaking LBP. A survey should be performed before demolition to determine whether pre-demolition abatement is required.

APN 259-38-087 (87 South Autumn Street)

The Phase I assessment observed that this parcel is currently developed with one building currently used as an event space (Poor House Studio) built between 1974 and 1982.[34,35] This parcel was in residential use from at least 1884 through to at least 1956. From 1985 to the present, the parcel is listed with various commercial uses. No industrial land use is recorded.

The land use has been residential and commercial but with no known industrial uses. The current and previous uses have negligible potential for contamination of soil and groundwater. The exceedance of residential, commercial/industrial, or construction worker screening levels is considered unlikely. Given the age of the building, ACM and LBP may be present, along with

31 Trammell Crow Company, *Submittal of Site History Information, 35 Delmas Avenue, San Jose, Santa Clara County, California*, April 17, 2017.
32 Haley & Aldrich, *Site Management Plan, Delmas Avenue Redevelopment Project, San Jose, California*, August 10, 2016.
33 ENGEO, *Phase I Environmental Site Assessment, 56 South Montgomery Street, San José, California*, April 19, 2018.
34 ENGEO, *Phase I Environmental Site Assessment, 87 S. Autumn Street, San José, California*, September 27, 2018.
35 ENGEO, *Phase I Environmental Site Assessment Update, 87 S. Autumn Street, San José, California*, March 28, 2019.

lead in soil from flaking LBP. A survey should be performed before demolition to determine whether pre-demolition abatement is required.

APN 259-38-088 (91 South Autumn Street)

The Phase I assessment stated this parcel was in residential use from 1884 to 2005, and then as a restaurant to the present.[36,37] The current structure was formerly a residence, built between 1950 and 1956, that was converted to the Poor House Bistro restaurant in 2005.

The land uses have been residential and a restaurant, but with no known industrial uses. The current and previous uses have negligible potential for contamination of soil and groundwater. The exceedance of residential, commercial/industrial, or construction worker screening levels is considered unlikely. Given the age of the building, ACM and LBP may be present, along with lead in soil from flaking LBP. A survey should be performed before demolition to determine whether pre-demolition abatement is required.

APNs 259-38-089 and 259-38-090 (82 South Montgomery Street)

The Phase I assessment observed that these parcels are currently developed with a custom framing sports memorabilia business in the southern portion of the property (APN 259-38-089), and a paved parking lot is present in the northern portion of the property (APN 259-38-090).[38,39] This parcel was in residential use from at least 1884 through to at least 1950. The parcel was listed as a music stage in 1956, a meat wholesaler in 1960, a florist warehouse from 1966 to 2014, a hat shop in 2010, and the sports memorabilia business from 2014 to the present. No industrial land use is recorded.

The land uses have been residential and commercial but with no known industrial uses. The current and previous uses have negligible potential for contamination of soil and groundwater. The exceedance of residential, commercial/industrial, or construction worker screening levels is considered unlikely. Given the age of the building, ACM and LBP may be present, along with lead in soil from flaking LBP. A survey should be performed before demolition to determine whether pre-demolition abatement is required.

APN 259-38-113 (74 South Autumn Street)

The Phase I assessment observed that this parcel is currently developed and operated as an auto detailing service including car washes, leather cleaning, upholstery, carpet cleaning, and conditioning.[40] The property consists of a front office area, rear warehouse/garage, and covered driveway and carport. Industrial and automotive operations have been historically conducted at the subject site since the late 1940s. These operations included a drywall and taping company, t-shirt printing, aircraft radome[41] repair, tire servicing, and automobile detailing. Potential

36 ENGEO, *Phase I Environmental Site Assessment, 91 S. Autumn Street, San José, California*, September 27, 2018.
37 ENGEO, *Phase I Environmental Site Assessment Update, 91 S. Autumn Street, San José, California*, March 26, 2019.
38 ENGEO, *Phase I Environmental Site Assessment, 82 S. Montgomery Street, San José, California*, September 28, 2018.
39 ENGEO, *Phase I Environmental Site Assessment, 82 S. Montgomery Street, San José, California*, September 28, 2018.
40 Haley & Aldrich Inc., *Phase I Environmental Site Assessment, 74 South Autumn Street, San José, California*, March 14, 2017.
41 A radome (which is a portmanteau of "radar" and "dome") is a structural, weatherproof enclosure that protects a radar antenna.

evidence of an UST, including a vent pipe and inlet feature, was observed in the rear of the property during the site reconnaissance. If there is or was a UST at the subject parcel, a release of hazardous materials and/or wastes may have occurred. The Phase I assessment recommended a Phase II investigation for the potential UST. In addition, given the age of the building, ACM and LBP may be present, along with lead in soil from flaking LBP. A survey should be performed before demolition to determine whether pre-demolition abatement is required.

The Phase II investigation included one boring.[42] The reported results are summarized below.

- Soil was tested for metals, PAHs, PCBs, VOCs, and TPH as gasoline, diesel, and motor oil. Benzo(a)pyrene was detected at concentrations that exceed residential, commercial/industrial, and construction worker screening levels. Indeno(1,2,3-cd)pyrene was detected at concentrations that exceed residential and commercial/industrial screening levels but not construction worker screening levels. Benzo(a)anthracene and dibenz(a,h)anthracene were detected at concentrations that exceed residential screening levels but not commercial/industrial, or construction worker screening levels.
- Groundwater was tested for metals, VOCs, and TPH as gasoline, diesel, and motor oil. The reported concentrations of lead and nickel exceed MCLs but not gross contamination groundwater screening levels.

In summary, the land use at this parcel has included industrial and commercial uses. Concentrations of chemicals in soil exceed residential screening levels for three PAHs, commercial/industrial screening levels for two PAHs, and construction worker screening levels for one PAH, as listed above. Concentrations of lead and nickel in groundwater exceed MCLs, but not gross contamination groundwater screening levels. Because of the site's history and the Phase II investigation results, remediation of this parcel may be required to enable future uses. Given the age of the building, ACM and LBP may be present, along with lead in soil from flaking LBP. A survey should be performed before demolition to determine whether pre-demolition abatement is required.

APN 259-38-116 (58 South Autumn Street)
APN 259-38-117 (56 South Autumn Street)

The Phase I assessment observed a glass and mirror shop on APN 259-38-117 and undeveloped area on APN 259-38-116.[43] A welding shop and industrial operations were at the property starting in the 1930s. From 1968 through 1998, a variety of businesses occupied the on-site building, including an auto shop, fire equipment warehouse, caulking compound warehouse, and silk screen printing. Because of the nature of these operations, hazardous materials were housed on-site, as noted in San José Fire Department (SJFD) inspection records from the 1980s. It is unknown whether releases of hazardous materials and/or wastes may have occurred through cracks in the building's foundation and/or previously existing floor drains/sumps, and/or to soil outside the building.

[42] Haley & Aldrich Inc., *Limited Phase II Environmental Site Assessment, 74 South Autumn Street, San José, California*, March 21, 2017.
[43] Haley & Aldrich Inc., *Phase I Environmental Site Assessment, 56 & 58 South Autumn Street, San José, California*, May 1, 2017.

The current land use is commercial but previously industrial. No soil or groundwater samples have been collected from beneath the existing and former buildings, and it is unknown whether soil has been affected by previous business operations or whether residential, commercial/industrial, construction worker, or groundwater screening levels have been exceeded. Because of the site's history, a Phase II investigation is recommended to investigate the past industrial uses. Given the age of the building, ACM and LBP may be present, along with lead in soil from flaking LBP. A survey should be performed before demolition to determine whether pre-demolition abatement is required.

APN 259-38-119 (50 and 52 South Autumn Street)

The Phase I assessment observed that the parcel is currently developed with one building, which is bisected into two addresses.[44] The northern half of the building is identified as 50 South Autumn Street and is used as a gym. The backyard area of this half of the property is unused, consisting of overgrown vegetation. The southern half of the building (52 South Autumn Street) is occupied by a furniture upholstery warehouse with a front office area. The backyard area of this half of the property consists of a storage trailer, upholstery materials, wooden pallets, and work benches. The Phase I assessment stated the following:

- One 1,000-gallon steel gasoline UST was removed from the southeast corner of the 52 South Autumn Street portion of the parcel on April 17, 1990. The UST was removed because it was no longer in use, and the tank inspection following excavation revealed that the UST was intact. Soil samples were collected from each end of the UST excavation and tested for TPH as gasoline, and the gasoline components benzene, toluene, ethylbenzene, and xylenes. No TPH as gasoline or ethylbenzene were detected and the reported concentrations of benzene, toluene, and xylenes are below residential, commercial/industrial, construction worker, and leaching to groundwater screening levels. This area is currently covered by asphalt. Based on results of laboratory analyses conducted on the soil samples, the Regional Water Quality Control Board issued a No Further Action letter and closed the case. Automotive repair operations were conducted at the parcel starting in the early 1960s. These historical operations typically included the use of chlorinated solvents as cleaning solutions and the previous automotive entities occupying the parcel were listed as generators of hazardous waste. It is unknown whether releases of hazardous materials and/or wastes may have occurred through cracks in the building's foundation, and/or previously existing floor drains/sumps, and/or to soil outside of the building. No soil or groundwater samples have been collected from beneath the parcel's existing building or in outside areas other than the former UST.

The current land use is commercial with previous auto repair use. Soil samples were below all screening levels. However, no soil or groundwater samples have been collected from beneath the existing buildings and some outside areas, and it is unknown whether soil has been affected by previous business operations. Because of the site's history, a Phase II investigation is recommended to investigate the past industrial uses. Given the age of the building, ACM and LBP in building materials, along with lead in shallow soil from flaking LBP, may be present. A survey should be performed before demolition to determine whether pre-demolition abatement is required.

[44] Haley & Aldrich Inc., *Phase I Environmental Site Assessment, 50 and 52 South Autumn Street, San José, California*, January 12, 2017.

APN 259-38-121 (20 South Autumn Street)

The Phase I assessment observed a single warehouse unit occupying the eastern half of the parcel; an office trailer, conex storage box, and bathroom on the southern border of the parcel; and a storage shed at the northeastern corner of the parcel. The area to the west of the warehouse is a paved, open parking area.[45] The current business is a welding shop.

Historically, the site was occupied by an auto repair and body shop dating back to at least the 1950s, which operated until the 1970s. Welding operations began at the site in 1975 and continue to the present. Because of the nature of these operations, hazardous materials were and are stored and used on-site, including various oils, paints, and cleaning solvents. Given the site's previous and current operations, releases of hazardous materials and/or wastes may have occurred through cracks in the building's foundation and/or previously existing floor drains/sumps, and/or to soil outside of the building. No soil or groundwater samples have been collected from beneath the parcel's existing building or in outside areas.

The current land use is industrial. No soil or groundwater samples have been collected from beneath the existing building and outside areas. It is unknown whether soil has been affected by previous or current business operations or whether soil is above residential, commercial/industrial, construction worker, or groundwater screening levels. Because of the site's history, a Phase II investigation may be required, depending on the redevelopment plans and anticipated future uses. Given the age of the building, ACM and LBP may be present in building materials, along with lead in soil from flaking LBP. A survey should be performed before demolition to determine whether pre-demolition abatement is required.

APN 259-38-122 (34 South Autumn Street)
APN 259-38-123 (24 South Autumn Street)
APN 259-38-124 (24 South Autumn Street)

The Phase I assessment observed a single empty warehouse unit spanning from west to east in the center of the property. The areas north and south of the warehouse are paved, open parking areas.[46]

Machine shop and industrial operations were previously conducted at the parcels starting in the 1930s. These historical operations customarily included the use of hazardous materials, such as cleaning solvents; the previous industrial entities occupying the site are listed as generators of hazardous waste—including ACM and organic wastes. Given the site's previous operations and associated waste generation, releases of hazardous materials and/or wastes may have occurred through cracks in the building's foundation, and/or previously existing floor drains/sumps, and/or to soil outside of the building. No soil or groundwater samples have been collected from beneath the parcel's existing building or in outside areas.

The current land use is industrial, although the building is vacant at this time. It is unknown whether soil has been affected by previous or current business operations or whether soil is above residential, commercial/industrial, construction worker, or groundwater screening levels. Because

[45] Haley & Aldrich Inc., *Phase I Environmental Site Assessment, 20 South Autumn Street, San José, California*, April 25, 2017.
[46] Haley & Aldrich Inc., *Phase I Environmental Site Assessment, 24 and 34 South Autumn Street, San José, California*, January 30, 2017.

of the site's history, a Phase II investigation may be required, depending on the redevelopment plans and anticipated future uses. A survey for ACM and LBP was conducted in 2017 and did not detect ACM or LBP.

APN 259-38-130 (8 South Montgomery Street, 532 West Santa Clara Street; also referred to as Lot D or Block 5A)

A Phase I assessment and a Phase II investigation have been completed for this parcel.[47,48] This parcel is currently an asphalt-paved parking lot. This site was previously occupied by manufacturing and auto repair operations, retail and office space, and warehouse storage. All buildings on the site were demolished, and three USTs were removed in 1993. Impacted soil was excavated and removed, and groundwater was subsequently monitored. Remediation consisted of soil excavation and soil vapor extraction/air sparging, an in situ remedial technology that reduces concentrations of volatile components in soil and groundwater. A long-term residual contamination risk management plan was implemented that includes monitoring and maintaining the integrity of the asphalt cap. Residual petroleum hydrocarbons and benzo(a)pyrene were detected in soil at concentrations above residential, commercial/industrial, and construction worker screening levels. Residual TPH as gasoline, ethylbenzene, xylenes, naphthalene, and 2-methylnaphthalene were detected in groundwater at concentrations above residential, commercial/industrial, and construction worker screening levels.

A Notice of Restriction of Use was recorded on August 1, 2001—similar to the LUC for Lots A, B, and C discussed above. Santa Clara County (County) and the appropriate building and planning departments require notification in case of change in land use, grading activities, excavation, and installation of new wells. The notification would be required to list all mitigation activities necessary to ensure compliance with this site management requirement. Post-closure requirements include the following:

- Asphalt cover not to be disturbed without approval and resealed after disturbance.
- No groundwater extraction at any depth without approval.
- The County to be notified before change in land use, development, and before subsurface work. The process for modifying or removing an LUC is summarized above, in the *Limitations on Land Use* discussion.

In summary, the current land use at these parcels is commercial (parking lot). As discussed above, contaminated soil has been encapsulated and any change to the land use that disturbs the contaminated soil would require treatment and/or removal of the contaminated soil.

APN 259-38-132 (450 West Santa Clara Street)

The Phase I assessment observed a two-story building on the north side of the parcel used for commercial offices.[49] The southern half of the parcel is a paved parking area. The eastern portion

[47] ENGEO, *Phase I Environmental Site Assessment, Google Diridon Station–Lot D, 8 South Montgomery, San José, California*, September 25, 2018.
[48] ENGEO, *Phase II Environmental Site Assessment, Diridon Station Lot D, 8 South Montgomery, San José, California*, May 14, 2018.
[49] Haley & Aldrich Inc., *Phase I Environmental Site Assessment, 450 West Santa Clara Street, San José, California*, January 30, 2017.

of the parcel consists of landscaping and trees that integrate with a 20-foot-wide riparian easement along Los Gatos Creek, defining the eastern boundary.

On October 13, 1998, a 1,000-gallon steel gasoline UST and a 200-gallon steel heating oil UST were removed from the center of the parcel. The USTs were removed because the buildings previously located on the site were planned to be demolished. The UST inspection after the excavation revealed several small holes and one large hole in the 200-gallon UST. The tank was noted to contain approximately 30 gallons of water, potentially from groundwater infiltration. The 1,000-gallon UST was in good condition, with no holes.

Soil samples collected from the native soil encountered directly beneath the 1,000-gallon tank were tested for TPH as gasoline, benzene, toluene, ethylbenzene, xylene, and methyl tertiary butyl ether (MTBE); none of these chemicals were detected.

During the 200-gallon UST removal, discolored soil was observed beneath the tank and all discolored soil was excavated and removed. Soil samples collected from the deeper native soil encountered beneath the 200-gallon tank were tested for TPH as gasoline, benzene, toluene, ethylbenzene, xylene, and MTBE; none of these chemicals were detected. Based on results of laboratory analyses conducted on the soil samples, Valley Water concluded in a letter dated April 9, 1999, that the site investigation and soil removal action were sufficient to close the UST site with no further action required.

The current land use is commercial. Automotive repair operations were previously conducted at the parcel starting in the 1930s. No fuel chemicals were detected from beneath the two removed USTs. However, it was customary that these historical operations included the use of chlorinated solvents as cleaning solutions. Given the site's previous automotive operations, hazardous materials and/or wastes may have been released through cracks in the building's foundation, and/or previously existing floor drains/sumps, and/or to soil outside of the building. No soil or groundwater samples have been collected from beneath the parcel's existing building or in outside areas other than from the former UST areas, and it is unknown whether soil and/or groundwater beneath the building has chemical concentrations that exceed screening levels. Because of the site's history, a Phase II investigation may be required, depending on the redevelopment plans and anticipated future uses. Given the relatively recent age of the building (2000), ACM and LBP are unlikely to be present.

APN 259-38-141 (59 South Autumn Street)

A Phase I assessment and a Phase II investigation have been completed for this parcel.[50,51] This parcel is currently developed with a single warehouse building consisting of a garage/repair area, an office area, and restrooms. The southern part of the property is an asphalt-paved parking lot.

[50] Haley & Aldrich Inc., *Phase I Environmental Site Assessment, 57 and 59 South Autumn Street, San José, California*, March 14, 2017.
[51] Haley & Aldrich Inc., *Limited Phase II Environmental Site Assessment, 59 South Autumn Street, San José, California*, March 21, 2017.

This parcel was historically operated as an electric company, petroleum repair company, a repackaging company, and a towing company. Truck repair operations are currently conducted at the parcel. These historical and current operations include the use of hazardous materials, such as fuels, cleaning solvents, and oils and lubricants. Given the site's current operations, hazardous materials and/or wastes may have been released through cracks in the building's foundation, and/or cracks in the asphalt-paved parking lot, and/or the unpaved breezeway along the north side of the property.

Three USTs were removed on March 27, 1995, under the supervision of SJFD. One of the three USTs had seven holes identified in it at the time of removal. Soil sampling beneath the USTs completed at the time of the removal detected TPH as diesel at concentrations above residential screening levels, but below commercial/industrial, construction worker and leaching to groundwater screening levels; all other chemicals were detected at concentrations below screening levels. A closure request letter was attached to the Phase II investigation report, addressed to SJFD. The letter was received by SJFD on April 17, 1995. No response from SJFD was found in their files.

Although the Phase I assessment for this parcel did not identify environmental issues, the assessment did note the prior presence of USTs and industrial use. The Phase II investigation sampled soil at five boring locations and groundwater at three locations to further investigate conditions at the parcel. Soil samples detected PAHs, and metals (cobalt, lead, and nickel) at concentrations above residential, commercial/industrial, and construction worker screening levels. TPH as diesel was detected in soil above residential screening levels, but below commercial/industrial, construction worker, and leaching to groundwater screening levels. Groundwater sampled detected 1.2-dichloroethene and lead at concentrations above groundwater screening levels.

The current land use is industrial. Soil and groundwater samples have concentrations of certain chemicals above all screening levels. Because of the site's history and Phase II investigation results, remediation of this parcel may be required to enable future uses. Given the age of the building, ACM and LBP may be present in building materials, along with lead in soil from flaking LBP. A survey should be performed before demolition to determine whether pre-demolition abatement is required.

APN 259-47-038 (597 West Carlos Street)
APN 259-47-040 (580 Lorraine Avenue)
APN 259-47-077 (597 West San Carlos Street)
APN 259-47-079 (580 Lorraine Avenue)

A Phase I assessment and a Phase II investigation have been completed for these parcels.[52,53] This site has one large irregularly shaped two-story building, several large storage containers, and paved parking. The building is used for storage of miscellaneous items, and as an office space with restrooms and a kitchen area. The building was constructed in the 1960s and was previously used as a church and a union hall. Given the age of the existing structure, ACM and LBP may be present

[52] ENGEO, *Phase I Environmental Site Assessment, 580 Lorraine Avenue, San José, California,* April 17, 2018.
[53] ENGEO, *Updated Phase II Environmental Site Assessment, 580 Lorraine Avenue, San José, California,* August 21, 2018.

within the structure, along with lead in soil from flaking LBP. The Phase II investigation reported the following environmental issues:

- Various chemicals were reported in the soil at concentrations below residential, commercial/industrial, construction worker, and leaching to groundwater screening levels, with the exception of PCE. One soil sample reported PCE at a concentration that exceeds residential and commercial/industrial screening levels, but below the construction worker screening level; one other soil sample reported a concentration that exceeds residential but not commercial/industrial and construction worker screening levels.
- The dry cleaning solvent PCE was reported at concentrations in groundwater that exceed residential and commercial/industrial screening levels.
- With the exception of PCE, various VOCs were detected in soil gas, but at concentrations below residential and commercial/industrial soil gas screening levels. PCE was reported at concentrations that exceed residential and commercial/industrial screening levels for soil gas.

The current land use is industrial. Certain soil gas, soil, and groundwater samples have concentrations of PCE above screening levels. The Phase II investigation concluded that the source of the PCE was most likely the former dry cleaning operations at the adjacent 282 South Montgomery Street parcel, discussed below. Further investigation and mitigation of PCE will need to be performed before redevelopment. Given the age of the building, ACM and LBP may be present, along with lead in soil from flaking LBP. A survey should be performed before demolition to determine whether pre-demolition abatement is required.

APN 259-47-080 (282 South Montgomery Street)

A Phase I assessment and a Phase II investigation have been completed for this parcel.[54,55] This parcel has one building occupied by a car rental facility and a packaging business. Past businesses included a gasoline service station and a dry cleaning facility. In addition, given the age of the existing structure, ACM and LBP may be present, along with lead in soil from flaking LBP. The Phase II investigation reported the following environmental issues:

- **Soil:** PCE was reported at concentrations that exceed the residential, commercial/industrial, construction worker, and leaching to groundwater screening levels. PCE is a common dry cleaning solvent. With the exception of lead detected in one location that exceeded residential and commercial/industrial screening levels but not leaching to groundwater, all metals and TPH results were detected at concentrations below their respective residential, commercial/industrial, construction worker, and leaching to soil screening levels.
- **Groundwater:** TPH as gasoline, the dry cleaning solvent PCE, and its degradation byproducts (trichloroethene, cis-1,2-dichloroethene, and 1,2-dichlorothane) were reported at concentrations that exceed MCLs. PCE was reported at concentrations that exceed residential, commercial/industrial, and odor/nuisance groundwater screening levels. TCE was reported at concentrations that exceed residential and commercial vapor intrusion but not odor/nuisance screening levels. Cis-1,2-dichloroethene and 1,1-dichloroethane were

[54] ENGEO, *Phase I Environmental Site Assessment, 282 South Montgomery Street, San José, California*, February 28, 2018.
[55] ENGEO, *Updated Phase II Environmental Site Assessment, 282 South Montgomery Street, San José, California*, April 12, 2018.

reported at concentrations that exceed residential but not commercial/industrial and odor/nuisance screening levels. TPH as gasoline was detected above its odor/nuisance screening level.

- **Soil gas:** TPH as gasoline, PCE, benzene, and other VOCs were reported at concentrations that exceed residential and commercial/industrial soil gas screening levels. Ethylbenzene was reported at concentrations that exceed residential but not commercial/industrial soil gas screening levels.
- **Indoor air:** PCE was reported at concentrations that exceed residential and commercial/industrial indoor air screening levels. TCE, cis-1,2-dichloroethene, and 1,2-dichloroethene were not reported at concentrations that exceed residential and commercial/industrial indoor air screening levels. Vinyl chloride was reported at concentrations that exceed residential but not commercial/industrial indoor air screening levels.

The current land use is commercial/industrial. Certain chemicals in soil, soil gas, and groundwater have been detected at concentrations above residential, commercial/industrial, construction worker, leaching to groundwater, soil gas, and indoor air screening levels, especially PCE and its degradation byproducts.

A Remedial Action Investigation Work Plan was submitted to and approved by the SCCDEH proposing to conduct further investigation of the nature and extent of contamination, and to develop a remediation system that would consist of soil vapor extraction and/or enhanced in situ bioremediation.[56] In addition, mitigation has been implemented for vapor intrusion for the current use, including sealing preferential pathways in the building slab; optimizing the heating, ventilation, and air conditioning (HVAC) system; and operating the HVAC system continuously.[57] Because of the site's history and the Phase II investigation results, continued remediation and/or mitigation of this parcel would be required to enable future uses. Given the age of the building, ACM and LBP may be present, along with lead in soil from flaking LBP. A survey should be performed before demolition to determine whether pre-demolition abatement is required.

APNs 259-48-011 and 259-48-013 (510 West San Fernando Street)

The Phase I assessment reported this site as a gravel parking lot.[58] These two parcels were in residential use from circa the late 1800s until the mid-1960s, when the residences were removed. Beginning as early as 1939 through 2009, the parcels were in commercial and industrial use, including by Pacific Telephone and Telegraph, artificial stone manufacturing, an electrical contractor, office space, supply storage, and electrical motor rewinding. All structures on the parcels were removed between July and September 2009. The parcels have remained vacant and undeveloped since then. The Phase I assessment stated the following:

- One 2,000-gallon gasoline UST was removed from the southwest corner of APN 259-48-011 in 1989. One 1,000-gallon gasoline tank was removed from beneath the sidewalk in South Autumn Street in 2009. Impacted soil was excavated and removed.

[56] RMD Environmental Solutions, *Remedial Investigation Work Plan, Former True Drive-In Cleaners, 282 South Montgomery Street, San José, California*, March 22, 2019.
[57] RMD Environmental Solutions, *Remedial Investigation Work Plan, Former True Drive-In Cleaners, 282 South Montgomery Street, San José, California*, March 22, 2019.
[58] Cornerstone Earth Group, *Phase I Environmental Site Assessment, 510 West Fernando Street and 102 South Montgomery Street, San José, California*, August 3, 2018.

Subsequently, groundwater was monitored and no impacts were identified and no screening levels were exceeded. The UST cases were closed by Valley Water on March 30, 1992.

- Chemical use and storage recorded during a 2002 site inspection included diesel fuel, oils, and grease. Wastes associated with site businesses recorded between 1993 and 2007 include waste oil, alkaline solutions with metals, organic solids, degreasing sludge, oxygenated solvents, detergent waste chemicals, contaminated soil, unspecified solvent mixtures, and latex. In 1952, the electrical business reportedly had two aboveground dip tanks with unknown contents.
- In 2006, soil, soil gas, and groundwater testing was conducted, as summarized below.
  - Soil samples reported PCE at concentrations that exceed the leaching to groundwater screening level, but not the residential, commercial/industrial, or construction worker screening levels. Lead was reported at concentrations that exceed the residential but not commercial/industrial screening levels.
  - Groundwater samples reported PCE at concentrations that exceed the MCL and residential vapor intrusion screening levels, but not the commercial/industrial vapor intrusion screening level. Naphthalene was reported at concentrations that exceed the MCL but not the residential and commercial/industrial vapor intrusion screening levels.
  - Soil gas samples reported PCE at concentrations that exceed residential and commercial/industrial soil gas screening levels.

The current land use is a parking lot. Because of the site's previous industrial operations and the detection of PCE, naphthalene, and lead that exceed certain screening levels, further investigation and remediation or mitigation of these parcels would likely be required to enable future uses. Given the age of the previous building, ACM and LBP may be present, along with lead in soil from flaking LBP. A survey should be performed before demolition to determine whether pre-demolition abatement is required. In addition, the Phase I assessment recommended testing soil around wood-based structures for potential pesticides that were historically used for termite control.

APN 259-48-012 (102 South Montgomery Street)

The Phase I assessment noted the parcel is currently occupied by Patty's Inn, with a sign that says the bar has been at that location since 1933, along with parking and outdoor seating.[59] Records indicate that the structure was constructed in the late 1800s and has been used as a store, and as a restaurant and tavern. The land use has been commercial since 1933. The commercial land use at this parcel is unlikely to have resulted in the use of hazardous materials; elevated concentrations in soil, groundwater, or soil gas above residential, commercial/industrial, construction worker, or leaching to groundwater screening levels are considered unlikely. Given the age of the structure, ACM and LBP may be present, along with lead in soil from flaking LBP. A survey should be performed before demolition to determine whether pre-demolition abatement is required. In addition, the Phase I assessment recommended testing soil around wood-based structures for potential pesticides that were historically used for termite control.

[59] Cornerstone Earth Group, *Phase I Environmental Site Assessment, 510 West Fernando Street and 102 South Montgomery Street, San José, California*, August 3, 2018.

APN 259-48-052 (140 South Montgomery Street)

The Phase I assessment observed a compressed gas distribution facility and welding supplier with a retail center in the front, a warehouse/workshop in the middle of the building, and a loading and storage area in the back.[60] The area east of the building is a loading and storage area that is also used for vehicle parking.

This type of facility and land use has occupied the site since 1976. Historical records have shown that the welding supplier had also distributed various hazardous materials such as liquid acids, chlorides, fluorides, fuels, oils and solvents. Before 1976, the site housed a pipe supplier and a lumber yard. Given the site's previous and current operations, hazardous materials and/or wastes may have been released through cracks in the building's foundation and/or floor drains/sumps, and/or to soil outside of the building. No soil or groundwater samples have been collected from beneath the parcel's existing building or in outside areas.

The current land use is industrial. It is unknown whether soil has been affected by previous or current business operations, or whether residential, commercial/industrial, construction worker, or groundwater screening levels have been exceeded. The Phase I assessment recommended a Phase II investigation to evaluate contamination that may have affected the parcel. Given the age of the building, ACM and LBP may be present, along with lead in soil from flaking LBP. A survey should be performed before demolition to determine whether pre-demolition abatement is required.

APN 259-48-053 (150 South Montgomery Street)

The Phase I assessment stated that the parcel is currently developed with one building and parking areas occupied by a commercial Japanese cultural drumming business.[61] The parcel was initially a residence in 1884, then a wood fuel storage yard as of 1915. The existing building was built in 1939 and used as a machine shop until the early 1960s, a plumbing materials warehouse in 1966, a flower shop from circa 1969 through the early 1990s, when office spaces were added. The structure has been in commercial and office space use since then.

The Phase I assessment included the results of previous Phase II investigations. Soil and groundwater were tested at the parcel in 2006 and 2009. Soil samples detected lead, arsenic, cadmium, cobalt, and copper at concentrations above residential, commercial/industrial, construction worker, and leaching to groundwater screening levels. TPH as diesel and motor oil were also detected, but at concentrations below all of the screening levels. Other metals were detected, but at concentrations below all screening levels; no VOCs or TPH were detected. No groundwater contamination was detected.

Historical records document industrial use from at least 1939 through 1966. These occupants would have used oils, lubricants, solvents, cleaning solutions, and metals. Because of the site's industrial use and the soil testing results, metals—primarily lead—are present in soil at concentrations above all screening levels. In addition, given the age of the building, ACM and LBP may be present, along

[60] Haley & Aldrich Inc., *Phase I Environmental Site Assessment, 140 South Montgomery Street, San José, California*, May 23, 2017.
[61] Cornerstone Earth Group, *Phase I Environmental Site Assessment, 150 South Montgomery Street, San José, California*, August 3, 2018.

with lead in soil from flaking LBP. A survey should be performed before demolition to determine whether pre-demolition abatement is required. In addition, the Phase I assessment recommended testing the shallow soil around wood-based structures for potential pesticides that were historically used for termite control.

Diridon Rail Station Parking Lots
APN 261-34-002 (no street address)
APN 261-34-003 (574 and 578 West Santa Clara Street)
APN 261-34-004 (576 West Santa Clara Street)
APN 261-34-005 (564 and 568 West Santa Clara Street)
APN 261-34-006 (552 and 556 West Santa Clara Street; 7 South Montgomery Street)
APN 261-34-011 (no street address)
APN 261-34-023 (no street address)

Some of the Diridon Station parking lots are owned by the Santa Clara Valley Transportation Authority (VTA) and some are owned by Caltrain. The Caltrain parcels are described in the *Off-Site Conditions* section, below. The VTA parcels are included within the proposed project. An assessment of environmental concerns that included reviewing regulatory records and environmental documents was conducted for these parcels.[62] The parcels are currently used as parking lots for the San José Diridon Rail Station. Historical aerial photographs show that the parcels have been used mostly for parking since at least 1948. A review of regulatory records and environmental documents indicated the following:[63]

- **APN 261-34-002:** This parcel was previously occupied by a saloon and lodging. No specific environmental concerns were identified.
- **APN 261-34-003:** This parcel was previously occupied by unmarked stores, a motorcycle repair shop, and an auto parts store. Automotive operations have historically involved the use and handling of hazardous materials including motor oils, paints, degreasers, brake fluids, coolants, and other solvents.
- **APN 261-34-004:** This parcel was previously occupied by a laundry facility, plating works shop, and machine shop. The laundry facility occupied this parcel in 1915; however, the start and end dates of this operation are unknown. PCE was used in laundry operations from the 1930s to the 1990s. If the laundry facility operated into the 1930s, it is possible that PCE was used at this operation. The plating shop and machine shop would have used metals (e.g., chromium, nickel, and zinc), plating baths (e.g., cyanide), acids (e.g., chromic acid), oils and greases, and solvents (e.g., TCE).
- **APN 261-34-005:** This parcel was previously occupied by the Albion Hotel, a saloon, unknown stores, a secondhand store, and a junkyard. The junkyard likely had fuels, oils and lubricants, metals, and possibly solvents.
- **APN 261-34-006:** This parcel was previously occupied by a residential dwelling, grocery store, saloon, brake service shop, and auto body shop. Automotive operations have historically involved the use and handling of hazardous materials including motor oils, paints, degreasers, brake fluids, coolants, and other solvents.

[62] Elevate Environmental, *Consulting, Assessment of Environmental Concerns of Select Parcels within the Diridon Project*, February 11, 2020.
[63] ENGEO, Information downloaded from ENGEO website, 2019.

- **APN 261-34-011:** This parcel was previously occupied by residential dwellings and unmarked buildings. No specific environmental concerns were identified.
- **APN 261-34-023:** This parcel was previously occupied by multiple residential dwellings, a machinery storage and plating facility, a pipe yard, and a parking lot. The machinery storage and plating facility operations would be expected to have used metals and acids common to plating operations, fuels, oils and lubricants, paints and thinners, and cleaning solvents.

The current land use for these parcels is commercial parking lots. Historical records indicate industrial use. USTs and contaminated soil were removed. However, the residual soil and groundwater have concentrations above various soil and groundwater screening levels. Further investigation and remediation may be required to enable future uses. Because all structures have been removed, there would be no ACM or LBP.

APN 261-35-002 (630 West San Fernando Street and 17 Otterson Street)

The Phase I assessment stated that this parcel is a Pacific Gas and Electric Company (PG&E) electrical substation located immediately east of and adjacent to the San José Diridon Rail Station.[64] Some of the railroad tracks for the Diridon Rail Station are on the west side of this parcel. Previous uses of this parcel include the San Jose Ice Works, grain building, paint shop, auto building, old iron manufacturer, Electric Improvement Co Facility (including ASTs, engine room, boiler room, and transformer room), and railroad tracks. One 5,000-gallon fuel oil UST was removed from this parcel in 1989. Groundwater was not sampled during that UST removal and it is unknown whether associated chemicals are present in on-site groundwater. The Regional Water Quality Control Board issued a case closure in 2001 stating that "residual contamination exists at the site; however, the concentration levels are below regulatory concern." The closure letter also stated that the residual contamination appears to be localized in the area adjacent to the former tank pit and is expected to naturally attenuate over time. However, the reported maximum concentration of TPH as diesel that was left in place is above the 2020 residential, commercial/industrial, construction worker, odor/nuisance, and leaching to groundwater screening levels.

Since at least 1884, multiple ASTs have been located on this parcel: a tank of unknown contents associated with the San Jose Ice Works in 1884; a 15,000-gallon tank in the southwestern portion of the property in 1891; a covered oil tank set in the ground in the northwestern portion of the property from around 1915 to 1956; and an additional larger, covered oil tank set in the ground partially on the property and partially on what is now 145 South Montgomery Street in 1915 (APN 261-35-027 discussed further below).

In 2016, soil, soil gas, and groundwater were sampled at the eastern portion of the larger covered oil tank. The Phase I assessment stated that TPH as gasoline, diesel, and motor oil; naphthalene; and metals were detected in groundwater at concentrations exceeding conservative environmental screening levels, which include the most conservative values of MCLs. (Note: Specific concentrations were not provided in the report.) Concentrations of chromium were detected

[64] Elevate Environmental, *Consulting, Assessment of Environmental Concerns of Select Parcels within the Diridon Project*, February 11, 2020.

exceeding hazardous waste land disposal acceptance levels, which would exceed all screening levels.[65]

In addition, free product was observed at the top of the saturated zone, indicating a potential nearby release. TPH as diesel and motor oil, as well as acetone, were detected in soil at levels exceeding the conservative screening levels. (Note: Specific concentrations were not provided in the report.) No soil gas results were detected above vapor intrusion screening levels developed by DTSC. However, detections of benzene and 1,3-butadiene exceeded the more conservative screening levels set by EPA. (Note: The report did not provide concentrations or the cited EPA levels.)

The current land use for this parcel is utilities (electrical substation). Historical records indicate industrial use, including a former UST and multiple ASTs. Soil, soil gas, and groundwater testing results indicated concentrations above various screening levels, and in some cases above all screening levels. It is unknown whether ACM and/or LBP is present.

APN 261-35-003, APN 261-35-006, and APN 261-35-010 (105 South Montgomery Street)

The Phase I assessment observed that these parcels are parking lots for the San José Diridon Rail Station.[66] The parcels were in residential use as of 1884, then supported a meat products facility by the early 1940s, with wholesale magazine distribution facility added on the parcel by 1950. The magazine facility was taken over by the meat products facility by the mid-1960s, and continued in that use until 2005. The building was then used for general office space until 2009, when the building was removed and the parcels converted to parking lots.

Historical chemical use and storage included minor truck maintenance and oil changing, fuel and oil storage, and soaps and other cleaning compounds. One three-stage, belowground, stormwater oil/water separator was located in the southern portion of the parking lot and removed in 2005, as discussed further below. The permit to convert the land use to a parking lot required that the separator be removed, but the records are unclear whether the removal occurred. One 500-gallon gasoline UST was located beneath the northwestern corner of the then-present building and was removed in 2007. One soil sample was recovered from the base of the UST excavation at the time of removal. Only toluene was detected and it was at a concentration below all screening levels.

In 2005–2006, the meat products facility was removed, and a soil and groundwater quality evaluation was performed to identify potential subsurface impacts associated with the former oil/water separator, the hazardous materials storage area, and the UST that was still present in 2006 and removed in 2007. Soil samples were analyzed for TPH as gasoline, benzene, toluene, ethylbenzene and xylene (BTEX), and methyl tert-butyl ether (MTBE). Soil samples from near the oil/water separator and former hazardous materials storage area were also analyzed for TPH as diesel and motor oil, and for metals; soil samples recovered in the former hazardous materials storage area were also analyzed for VOCs. With the exception of low-level concentrations of

[65] Hazardous waste acceptance levels are the concentrations that define a hazardous waste that must be disposed of at a Class I hazardous waste landfill or treated at a treatment facility permitted to treat the hazardous waste.

[66] Cornerstone Earth Group, *Phase I Environmental Site Assessment, 105 South Montgomery Street, San José, California*, August 3, 2018.

TPH as motor oil below residential screening levels, no chemicals were detected in the soil samples. One groundwater sample was recovered from within the vicinity of the UST. No detectable concentrations of TPH as gasoline, BTEX, MTBE, or VOCs were reported in the groundwater sample. Metals were reported within background levels.

The current land use for these parcels is parking lots. Historical records indicate industrial use from the 1940s through 2005. An UST, an oil/water separator, and a hazardous materials storage area were removed. Soil and groundwater testing results at these parcels indicated that soil and groundwater at these parcels are not known to have residual chemicals at concentrations above any screening levels. Because all structures have been removed from the parcels, ACM and LBP would not be present. The Phase I assessment recommended testing soil around wood-based structures for potential pesticides that were historically used for termite control, and for lead around all structures for potential deposits of LBP that may have flaked off the structures.

APN 261-35-007 (327 Otterson Street)

Phase I assessments conducted for this parcel identified a one-story building used by AT&T as a workshop and parking.[67,68] The parcel appears to have been used for industrial purposes since 1884. At various times, use listings included an oil depot, empty oil can storage, a laundry wash house, and residences.

The current land use for this parcel is industrial. No soil or groundwater samples have been collected from beneath the parcel's existing building or in the outside areas, and it is unknown whether soil or groundwater have chemicals at concentrations above residential, commercial/ industrial, construction worker, or leaching to groundwater screening levels. Given the age of the building, ACM and LBP may be present, along with lead in soil from flaking LBP. A survey should be performed before demolition to determine whether pre-demolition abatement is required.

APN 261-35-014 (645 Park Avenue)

The Phase I assessment identified construction staging and temporary office trailers at this parcel.[69] The parcel was in residential use from at least 1884 to the early 1950s. By 1955, the residences were replaced with a commercial building, which was used as a television studio until 2006. The building burned down in 2014 and was not rebuilt.

Elevated concentrations of lead and arsenic were detected in soil at the parcel; the affected soil was excavated and removed from two areas of the parcel. A site management plan was prepared to direct the future management of site soil, with attention to proper disposal of soil that contains levels of lead that, if removed from the site, would require special handling. (Note: A site management plan contains requirements that affect future land uses.)

---

67 RPS Iris Environmental, *Phase I Environmental Site Assessment, 145 South Montgomery Street and 327 Otterson Street, San José, California*, October 25, 2016.

68 Elevate Environmental Consulting, *Phase I Environmental Site Assessment 145 South Montgomery Street and 327 Otterson Street, San Jose, California*, March 30, 2020.

69 Cornerstone Earth Group, *Phase I Environmental Site Assessment, 645 Park Avenue, San José, California*, July 27, 2018.

The site management plan also established procedures for handling impacted material during demolition activities. A 2008 document cited in the Phase I assessment noted that the tanks and generator have been removed from the site, no signs of contamination or spills were observed adjacent to the location of the tanks or generator, and aboveground and belowground diesel piping is still located on-site and would need to be disposed of as hazardous materials or tested to indicate that the materials are non-hazardous. A No Further Action status was granted for the site by the Regional Water Quality Control Board on June 11, 2009, based on the following assumptions:

> *Water Board staff understand that the site will likely be converted into high-density housing, commercial, industrial, office or a mixed-use development. Based upon the available information, considering the property will not be used for single family or two family housing subdivision with separate backyards and with the provision that the information provided to this agency was accurate and representative of site conditions, no further action related to pollutant releases at the subject site is required, other than compliance with the June 18, 2008, SMP [Site Management Plan].*[70]

There is no information indicating whether the piping was removed. Groundwater was tested for TPH as diesel and motor oil, VOCs, PCBs, perchlorate, and metals. All concentrations were below all screening levels.

The current land use for this parcel is industrial. The parcel has a LUC because of the presence of lead in soil at concentrations above all screening levels. Given the potential presence of fuel piping, contaminated soil may be present around the piping. Groundwater does not have any chemicals at concentrations above any screening levels. The Phase I assessment noted that ACM and/or LBP may be present in soil from the former, burned-down building.

APN 261-35-027 (145 South Montgomery Street)

Phase I and II assessments have been conducted for this parcel.[71,72,73] The parcel is developed with two one-story buildings used by AT&T for offices and training spaces, hazardous materials storage, and vehicle maintenance. The parcel has been used for industrial purposes since 1884. At various times, use listings included an oil depot, laundry wash house, lumber yard, cigar factory, an electric company that stored fuel, powerhouse, boiler house, workshops, and transformer rooms, bakery, as well as residences. The Phase I assessment stated:

- Two USTs and associated piping were removed in 1992 and 2003. Although the Regional Water Quality Control Board issued a No Further Action letter in 2004, the Phase I assessment observed that the 2003 investigation was not adequate to evaluate releases from the USTs because the sample locations were not located downgradient of the USTs and dispensers. During the 2003 investigation, free product (fuel and/or oil floating on

70 Regional Water Quality Control Board, *No Further Action, 645 Park Avenue, San Jose, Santa Clara County*, June 20, 2008.
71 RPS Iris Environmental, *Phase I Environmental Site Assessment, 145 South Montgomery Street and 327 Otterson Street, San José, California*, October 25, 2016.
72 RPS Iris Environmental, *Summary Report of Limited Phase II Subsurface Site Investigation, 145 South Montgomery Street, San José, California*, November 18, 2016.
73 Elevate Environmental Consulting, *Phase I Environmental Site Assessment 145 South Montgomery Street and 327 Otterson Street, San Jose, California*, March 30, 2020.

top of groundwater as a separate phase) was noted on groundwater encountered at approximately 30 feet below ground surface in three on-site borings. The detection of free product is indicative of a release of petroleum hydrocarbons and would exceed hazardous waste levels and all screening levels. The source of the free product is unknown, but is likely either an on-site release or an off-site source that is impacting the parcel.

- A former "covered oil tank set in ground" was identified but was not investigated (as part of the Phase I assessment) and is located upgradient of the free product detections.
- A possible off-site source for the free product detections noted above is the adjacent property to the west (APN 261-35-002, discussed above), which has residual TPH as diesel in soil from a leaking UST removed from the property in 1989. Groundwater was not sampled in 1989, and it is unknown whether groundwater impacts from this upgradient property are the source of free product in on-site groundwater.
- An annual Asbestos Notice to Employees stated that the floor tiles/mastic throughout the building contain asbestos. Degrading portions of the wall and ceiling located in the southwestern corner of the radio shop area of the building were quarantined off by caution tape labeled "Danger Asbestos."

To further investigate the site conditions, a Phase II assessment was conducted in 2018 and reported the following:

- **Northwest corner next to PG&E Substation (APN 261-35-002):** All soil and soil gas results were below all screening levels. Groundwater results exceeded screening levels for TPH as diesel (MCL and odor/nuisance), naphthalene (MCL, residential and commercial/industrial vapor intrusion, and odor/nuisance), and all metals except silver and thallium (MCLs).
- **Former covered oil tank along western border:** Soil results exceeded screening levels for TPH as diesel (all screening levels including residential, commercial/industrial, and construction worker screening levels) and TPH as motor oil (gross contamination). Groundwater results exceeded screening levels for TPH as gasoline (MCL and odor/nuisance), TPH as diesel (MCL, odor/nuisance, and gross contamination), naphthalene (MCL, residential and commercial vapor intrusion, and odor/nuisance), and all metals except silver and thallium (MCLs).
- **Next to former 6,000-gallon gasoline UST:** All soil and groundwater results were below screening levels. Soil gas results for PCE exceeded residential but not commercial/industrial vapor intrusion screening levels.

The current land use for this parcel is industrial. The former USTs have been removed, but petroleum hydrocarbons were detected at concentrations above all screening levels. No soil or groundwater samples have been collected from beneath the parcel's existing building. Further investigations would be needed to characterize the nature and extent of contamination on this parcel and remediation could be required before the proposed redevelopment. Because of the site's history and the Phase II investigation results, remediation of these parcels would be required to enable future uses. ACM is known to be present in the buildings. Given the age of the building, LBP may be present, along with lead in soil from flaking LBP. A survey should be performed before demolition to determine whether pre-demolition abatement is required.

APNs 261-37-016 and 261-37-029 (655 West San Carlos Street)

A Phase I assessment and a Phase II investigation have been completed for this parcel.[74,75] This parcel is currently occupied by a car wash and detailing business, which includes the main car wash facility, an attached office building, and a storage building. The site also contains a detail facility with a storage area and a small storage shed along the western site boundary. The area south of the office building is a waiting area with patio furniture and a canopy overhang. The entrance to the car wash is along West San Carlos Street, and the southern portion of the site is paved and serves as a holding area for the cars when they are finished. The parcels were previously occupied by an auto repair shop and a used auto sales business starting in the 1950s. Before the 1950s, the area was either unoccupied or had a boarding house on the premises. The site was an active car wash that also dispensed gasoline until September 1991.

In 1991, three leaded gasoline USTs, associated piping, three dispenser islands, and contaminated soil were removed from the center of the parcels. Soil samples collected from the bottom of the excavation reported TPH as gasoline, benzene, ethylbenzene, and xylenes at concentrations below all screening levels at that time.

Four groundwater monitoring wells were installed between 1992 and 1995, and quarterly groundwater monitoring was conducted to assess the downgradient extent of hydrocarbons in groundwater. On July 11, 1995, after 13 groundwater monitoring events, Valley Water issued a closure for this case as the groundwater concentrations indicated stable and decreasing trends. The Regional Water Quality Control Board approved this closure on July 21, 1995. The four groundwater monitoring wells may still be present on the parcels; no well destruction records were located.

A Phase II investigation was conducted in 2018 to evaluate soil and groundwater conditions. Seven borings were drilled to collect soil and groundwater samples. The samples were tested for TPH as gasoline, diesel, and motor oil, and for metals and VOCs. Six soil gas samples and four indoor air samples were collected to evaluate for vapor intrusion and tested for TPH as gasoline and VOCs. The Phase II investigation reported the following:

- **Soil:** TPH as gasoline, diesel and motor oil, and metals were reported at concentrations below all screening levels or background levels. VOCs were not detected.
- **Groundwater:** TPH as gasoline, diesel, and motor oil, and metals were not detected in groundwater. Some metals were detected, but at concentrations below MCLs and odor/nuisance screening levels.
- **Soil gas:** PCE was reported at concentrations that exceed residential and commercial/industrial vapor intrusion screening levels. Benzene was reported in soil gas at concentrations that exceed the residential but not the commercial/industrial vapor intrusion screening level. The soil gas results were also compared to the outdoor ambient air sample results. The benzene in soil gas exceeded the outdoor ambient air sample results. Note that only one of the PCE detections exceeds outdoor ambient air concentrations.

[74] Haley & Aldrich Inc., *Phase I Environmental Site Assessment, 655 West San Carlos Street, San José, California,* June 2, 2017.
[75] ENGEO, *Phase II Environmental Site Assessment, 655 W. San Carlos Street, San José, California,* August 29, 2018.

- **Indoor air:** Several VOCs were reported in indoor samples, but at concentrations below outdoor ambient air concentrations and below indoor residential and commercial/industrial screening levels.

The current land use is commercial. Excavation of soil at this parcel should anticipate encountering soil gas with benzene at concentrations that may require a soil management plan. Because of the site's history and the Phase II investigation results, remediation of these parcels may be required to enable future uses. Given the age of the building (i.e., constructed in the 1970s), ACM and LBP may be present, along with lead in soil from flaking LBP. A survey should be performed before demolition to determine whether pre-demolition abatement is required.

APNs 261-37-020 and 261-37-021 (691 West San Carlos Street)

The Phase I assessment stated that the parcel is currently occupied by a single-family residence with a gravel and grass vehicle parking and storage area.[76] A previous residential structure burned down in 2010 and was reconstructed in approximately 2011 on the original foundation. The ground surface around the residence is unpaved. The parcel has been in residential use since 1884.

The current and historical land uses are residential, with no known commercial or industrial uses. The current and previous uses have negligible potential for contamination of soil and groundwater. The exceedance of screening levels is considered unlikely. Given the age of the building (i.e., post-dates the 1970s when the use of ACM and LBP was banned), ACM and LBP are unlikely to be present.

APN 261-37-023 (695 West San Carlos Street)

The Phase I assessment stated that the parcel is currently occupied by a single-family residence constructed circa 1965 with a gravel area and a small storage shed.[77] Given the age of this former site structure, a heating oil UST may have been historically operated. No records were located pertaining to the presence or removal of a UST from the parcel. The current and historical land uses are residential, with no known industrial uses. The current and previous uses have negligible potential for contamination of soil and groundwater. The exceedance of screening levels is considered unlikely. Given the age of the building constructed around 1965, ACM and LBP may be present, along with lead in soil from flaking LBP. A survey should be performed before demolition to determine whether pre-demolition abatement is required.

APN 261-37-030 (West San Carlos Street)

The Phase I assessment observed that this parcel is currently vacant and undeveloped.[78] The Phase I assessment stated the following:

- This parcel has no history of industrial or commercial use. The parcel was vacant in 1884, had one residence in 1915, and has been vacant since 1950. Vehicles were parked

[76] Haley & Aldrich Inc., *Phase I Environmental Site Assessment, 691 West Carlos Street, San José, California*, July 7, 2017.
[77] Haley & Aldrich Inc., *Phase I Environmental Site Assessment, 695 West San Carlos Street, San José, California*, July 6, 2017.
[78] Elevate Environmental Consultants, *Phase I Environmental Site Assessment, West San Carlos Street, San José, California*, February 11, 2020.

on the parcel in 1963, and a possible soil stockpile was present in 1974. Evidence of transient use and waste was observed between the parcel and Los Gatos Creek during the 2020 site inspection.

- Given the age of the 1915 residence, a residential heating oil UST may have been historically operated. No records were located pertaining to the presence or removal of a UST from the site.
- Given the age of the 1915 residence, ACM and LBP may be present in soil; details regarding the structure's removal are unknown. A survey should be performed before demolition to determine whether pre-demolition abatement is required.

The current land use at this parcel is residential and the parcel has been vacant since 1950. There are no records or observations of soil or groundwater contamination from this parcel. Residential land use would have a negligible potential for contamination of soil and groundwater. The exceedance of soil and groundwater screening levels is considered unlikely. Given the age of the former residence, ACM and LBP may be present, along with lead in soil from flaking LBP. A survey should be performed before demolition to determine whether pre-demolition abatement is required.

APN 261-37-031 (255 South Montgomery Street)

A Phase I assessment and Phase II investigation have been conducted for this parcel.[79,80] The Phase I assessment states that this parcel has been used by the SJFD Bureau of Operational Support as a training center since at least 1980. The City's Park Avenue pump station is also located on this parcel, which keeps the Park Avenue railroad underpass free of groundwater. This parcel was previously numbered 261-37-025 and the Phase I assessment uses that parcel number (261-37-025).

The parcel was in residential use from at least 1884 to at least 1939, and possibly to 1950. Documented commercial and industrial use has included a truck service company from as early as 1930 through at least 1966, a burner and oil company from at least 1945 through at least 1957, and a box distribution warehouse in 1955. The fire department has occupied the entire site as early as 1971.

Records indicate the use of fuels and oils, lubricants and grease, and solvents and cleaning solutions. Various USTs and ASTs were recorded on the parcel. The following UST removals are documented:

- One 5,000-gallon diesel UST and one 5,000-gallon gasoline UST were removed in 1995, along with associated piping. Impacted soil under the tanks was excavated and removed. The site was closed by Valley Water on June 6, 1997, indicating that residual chemical concentrations, if any, were below the screening levels at that time. The permit file indicated that a fuel UST was replaced in 1995. A review of parcel-related files kept with the fire department found the presence of both an UST/piping system and an AST/piping system.

[79] Cornerstone Earth Group, *Phase I Environmental Site Assessment, 255 South Montgomery Street, San José, California*, July 27, 2018.
[80] Cornerstone Earth Group, *Phase II Soil and Ground Water Quality Evaluation, 255 South Montgomery Street, San José, California*, December 11, 2018.

- One diesel UST along with associated piping was removed in 2009. Soil samples detected TPH as diesel, but at concentrations below the screening levels at that time. No case was opened with any regulatory agency.

The fire department has used firefighting foams during its training exercises. Firefighting foams commonly contain per- and polyfluoroalkyl substances (PFAs).[81] The uncontained suppressant foam was allowed to discharge to pavement surfaces and on-site stormwater drains. In recent years, EPA has identified PFAs as emerging contaminants of concern, because of their persistence in the environment, ready migration to and in water, and bioaccumulation in organisms.

In response to the results of the above-summarized Phase I assessment, a Phase II investigation was conducted in 2018 to test soil and groundwater for chemicals associated with the parcel's historic and current use. The Phase II investigation included drilling 24 borings that included soil and groundwater sampling and analysis. The areas sampled included near the fire training tower and low-lying asphalt pavement areas near storm drain inlets, site boundaries, the oil/water separator, the concrete vault structure referred to as a 400-gallon waste oil UST, the hydraulic lift, the former filling station and diesel ASTs, the reported location of the oil UST, the former steam cleaning/wash pad and nearby oil/water separator, and the outdoor storage/yard areas.

Soil samples were analyzed for VOCs, PFAs, metals, PAHs, PCBs, ACM, and TPH as gasoline, diesel, and motor oil, depending on the sample location. Groundwater samples were analyzed for VOCs, PFAs, and TPH as gasoline, diesel, and motor oil, depending on the sample location. The reported results are summarized as follows.

- Some of the shallow fill and soil samples were found to have detectable levels of the following chemicals above the screening levels in parentheses: lead, ACM, and TPH as diesel (residential, commercial/industrial, construction worker, and leaching to groundwater screening levels), benzo[a]pyrene (residential screening levels), and TPH as gasoline and nickel (residential and construction worker screening levels).
- Several PFAs were detected in groundwater samples at concentrations exceeding the interim final ESLs recently prepared by the RWQCB for PFAs (specifically, perfluorooctane sulfonate [PFOS] and perfluorooctanoate [PFOA]) and to be incorporated into the 2021 version of the ESLs.[82] Office of Environmental Health Hazard Assessment's Interim Notification Levels for drinking water. In addition, based on comparison of the data to screening criteria established by other state and international regulatory agencies, most of the detected PFAs exceed these other criteria. Note that screening levels for PFAs are still under development by regulatory agencies.
- Soil and groundwater samples were collected from near former and/or existing petroleum storage USTs and ASTs, hydraulic lift equipment, a steam cleaning wash pad connected to an oil/water separator, and near former off-site service stations. Based on visual observations during drilling, discolored soil and/or petroleum odors were noted in several borings. Soil samples reported TPH as diesel and lead at concentrations that exceed all screening levels, and TPH as gasoline at concentrations that exceed residential and

[81] The use of PFAs in fire suppressant foams began in the 1960s. Because of industry and regulatory concerns about environmental effects on public health, use was reduced beginning in the 2000s. Long-chain PFAs were eliminated from use in 2015.

[82] Regional Water Quality Control Board (RWQCB), *PFAs ESL Memorandum, Interim Final Environmental Screening Levels (ESLs) for Perfluorooctane Sulfonate (PFOS) and Perfluorooctanoate (PFOA)*, May 27, 2020.

construction worker screening levels. Groundwater samples reported TPH as gasoline and diesel at concentrations that exceed MCLs and residential vapor intrusion screening levels. VOCs generally were not detected in the soil and groundwater samples.

The current land use for this parcel is industrial. Given the results of the Phase II investigation, as well as the parcel's previous and current industrial operations, hazardous materials are known to be present in fill, soil, and groundwater at this parcel above the screening levels summarized above. In addition, the presence of existing buildings limited the extent of the Phase II investigation to accessible areas. Excavation at this parcel should expect to encounter hazardous materials. Because of the site's history and the Phase II investigation results, remediation of these parcels may be required to enable future uses. Finally, given the age of some of the structures, ACM and LBP may be present, along with lead in soil from flaking LBP. A survey should be performed before demolition to determine whether pre-demolition abatement is required.

APN 264-15-015 (365 Royal Avenue)
APN 264-15-016 (379 Royal Avenue)
APN 264-15-017 (655 Auzerais Avenue)
APN 264-15-018 (661 Auzerais Avenue)
APN 264-15-019 (667 Auzerais Avenue)
APN 264-15-063 (667 Auzerais Avenue)
APN 264-15-064 (720 West San Carlos Street)
APN 264-15-065 (720 West San Carlos Street)

A Phase I assessment has been completed for this parcel, which is occupied by two large buildings, and associated parking and landscaping.[83] The northern building is the former Orchard Supply Hardware (OSH) store and is currently vacant. The southern building is a more recent OSH store that has since closed. The current land use is commercial.

Historical records indicate that the neighborhood was predominantly occupied by canning and fruit processing facilities in the late 1800s. The parcels have contained various structures since at least 1884. In 1908, a portion of the parcels was converted into a baseball field. The now-vacant warehouse was constructed in 1946, and the eastern portion of the property was occupied by single-family residences from at least the 1930s through the 1960s. The currently operating OSH store was constructed in 2014. The Phase I assessment indicated the following:

- Between 1986 and 1990, four USTs containing diesel, petroleum-based solvents, and gasoline were removed from APN 264-15-064 from the southern portion of the new OSH retail store. The Regional Water Quality Control Board granted case closure in 1996. However, residual contamination, including gasoline and BTEX, remained in subsurface soil above screening levels in the location of the tank excavation. At the time of case closure, the soil remaining at the bottom of the excavation was found to have detectable levels of TPH as gasoline and benzene at concentrations above residential, commercial/industrial, and construction worker screening levels. Groundwater did not contain detectable levels of TPH as gasoline or benzene; only a low level of toluene below the groundwater screening level was present in groundwater.

[83] ENGEO, *Phase I Environmental Site Assessment, 720 W. San Carlos Street, San José, California*, April 1, 2019.

- Given the age of the vacant warehouse constructed in 1946, ACM and LBP may be present, along with lead in soil from flaking LBP. A survey should be performed before demolition to determine whether pre-demolition abatement is required.

The current land use is commercial with hazardous materials storage. The soil may still have gasoline at concentrations above residential, commercial/industrial, and construction worker screening levels; excavation in the area of the former USTs may encounter impacted soil. Groundwater did not have detectable levels of chemicals above groundwater screening levels. The Phase I assessment recommended that a Soil Management Plan be prepared and implemented to address the contaminated soil. Given the age of the building constructed in the 1970s, ACM and LBP may be present, along with lead in soil from flaking LBP. A survey should be performed before demolition to determine whether pre-demolition abatement is required.

Off-Site Conditions

Off-site properties with hazardous materials issues may have the potential to affect the project site if contamination from such properties extends to or beneath the project site. The off-site properties with soil contamination issues that could affect on-site parcels would be limited to properties immediately adjacent to the project site.

The off-site properties with groundwater contamination issues that could affect on-site parcels would be limited to properties located upgradient of the project site (i.e., where groundwater flow is from the off-site property toward the project site). Based on information from the review of the Phase I assessments and Phase II investigations discussed above, the reported directions of groundwater flow vary, with many of the reported flow directions identified as generally to the east or southeast. However, flow at some properties to the north of the project site have been reported as to the north, and some reported flow direction south of the project site have been reported to the west or southwest. The variations may be due to localized pumping, seasonal variations, and/or proximity to creeks. Based on the dynamic nature of groundwater flow in the area, the potential for off-site conditions to extend onto the project site should be considered on a case-by-case basis.

Properties with known hazardous materials issues adjacent to the project site are shown on **Figure 3.7-6** and summarized in **Table 3.7-2**. Of the 25 listed off-site properties, most are closed UST sites, where the USTs and contaminated soil have been removed and the results of verification sampling indicate that the residual concentrations of chemicals, if any, are not expected to be able to affect surrounding properties. These adjacent and nearby sites are therefore not considered to be able to affect the project site. Based on the residual chemical concentrations, if any, the overseeing regulatory agency has granted case closure and requires no further action. Four of the sites are open cases with ongoing investigation or remedial action is in progress (Sites 8, 14, 15, and 20). One site is closed but has land use restrictions (Site 2). Two sites are not listed as open cases with a regulatory agency, but sampling has revealed chemicals at concentrations above screening levels (Sites 9 and 23). The open cases, unlisted sites under investigation and/or remediation, and the land use restriction site are listed in bold in Table 3.7-2 and discussed below. Each is analyzed for the potential to affect the project site. The sites discussed below are generally from north to south.

SOURCE: Engeo, 2019

Downtown West Mixed-Use Plan

Figure 3.7-6
Nearby Offsite Hazardous Materials Sites

TABLE 3.7-2
SUMMARY OF OFF-SITE PROPERTIES WITH HAZARDOUS MATERIALS ISSUES

Site No.	Property and Address	Status and Issues
Southern Pacific Tracks	**Rail alignment**	**Older rail alignment that transported freight**
1	Gruthfield Property, 370 North Montgomery Street	Closed UST site
2	**AC Label/Berryman Products, 350 North Montgomery Street**	**Closed cleanup site with land use restrictions**
3	Montgomery Street Property, 341 North Montgomery Street	Closed UST site
4	Don Bocci Mobil Service, 395 Stockton Avenue	Closed UST site
5	Air Systems, 381 Stockton Avenue	Closed UST site
6 and 7	SJUSD, 250 Stockton Avenue	Closed UST site
8	**138 Stockton, 138 Stockton Avenue**	**Open cleanup program site; active remedial action**
9	**Landscaping business, 260 North Montgomery Street**	**Not listed on GeoTracker; soil above screening levels**
10	San José Foundry, 525 West St. John Street	Closed UST site
11	Manada Tile, 517 West St. John Street	Closed UST site
12	Custom Pad & Pattern La Fiesta, 555 West St. John Street	Closed UST site
13	Six closed UST sites, 443 to 589 West Santa Clara Street	Closed UST sites
14	**Del Monte Plant 51, 50 Bush Street**	**Open inactive cleanup program and closed UST site**
15	**Diridon Caltrain Station, 65 Cahill Street**	**Open cleanup program site pending closure by regulatory agency**
16	Vitale Auto Body, 52 South Autumn Street	Closed UST site
17	Rush Roofing, 777 Park Avenue	Closed UST site
18	Independent Scissor Lift, 236 McEvoy Street	Closed UST site
19	Three closed UST sites: 598 and 602 West San Carlos Street and 395 Bird Avenue	Closed UST sites
VTA Tracks	**Rail alignment**	**Recent (between 1998 and 2006) construction; previously residential**
20	**Dariano & Sons, 638 Auzerais Avenue**	**Open UST site; investigation ongoing**
21	Kralyevich Property, 696 Auzerais Avenue	Closed UST site
22	Roofguard, 740 West San Carlos Street	Closed UST site
23	**Auto Repair, 356 and 358 Royal Avenue**	**Not listed on GeoTracker; soil gas and groundwater above screening levels**

NOTES:
SJUSD = San José Unified School District; UST = underground storage tank; VTA = Santa Clara Valley Transportation Authority
Sites in bold text are discussed below.

SOURCE: Data compiled from ENGEO environmental report database in 2019 and Elevate Environmental, *Consulting, Assessment of Environmental Concerns of Select Parcels within the Diridon Project*, February 11, 2020.

Southern Pacific Rail Tracks (APNs 259-27-018 through 259-27-022)

The Phase I assessment stated that Southern Pacific Railroad tracks are located on APNs 259-27-018 through 259-27-022 and bisect the project footprint.[84] The parcels were in residential use

[84] Elevate Environmental Consultants, *Assessment of Environmental Concerns of Select Parcels within the Diridon Project*, February 11, 2020.

before the tracks were constructed sometime before 1939. Although Southern Pacific owns APNs 259-27-021 and 259-27-022, these parcels are currently used for car parking associated with the adjacent APN 259-27-011—discussed above in the *On-Site Parcel Conditions* section—and therefore, contamination on APN 259-27-011 is discussed above.

Although soil has generally not been tested on this railroad alignment (other than for APN 259-27-011 discussed above and APN 259-27-022 discussed below), it is not uncommon for arsenic, lead, and other contaminants to be present at elevated levels in the soil along rail alignments. Sources of contamination include old railroad ties dipped in an arsenic or creosote solution to prevent wood decay, arsenic or organochlorine herbicides for weed control, and arsenic-laced slag used as railroad bed fill. Lubrication oil and diesel that dripped from the trains are also likely sources of petroleum products found along lines. Other sources of contaminants may include coal ash from engines and PAHs from the diesel exhaust. Finally, spillage from materials transported in the rail cars may also be present. Given that this rail alignment dates to at least 1939, contamination may be present and may have spread to the adjacent on-site project area.

In addition, the Phase I assessment stated that a 15,000-gallon heating oil tank was formerly located on APN 259-27-022. The tank was removed on an unspecified date and soil was excavated from the former tank pit. Sampling was conducted in 2017 in conjunction with the on-site investigation of APNs 259-27-011, 259-27-014, and 259-27-015 (discussed above in the *On-Site Parcel Conditions* section). As discussed previously, soil, soil gas, and groundwater concentration results exceed various screening levels, and in the case of lead in soil, above hazardous waste disposal levels.

Site 2—AC Label/Berryman Products (350 North Montgomery Street)

This property is located east of the project site and has one building occupied by automotive repair and automotive body shops.[85] The property is listed as a closed cleanup program site with land use restrictions. Contaminants (i.e., TPH as gasoline and chlorinated solvents) remain in the soil, soil gas, and groundwater. At the time of case closure, the concentrations of certain chemicals in soil gas exceeded residential and, in some cases, commercial/industrial screening levels. A land use covenant was established restricting development of residential or sensitive receptor facilities, and extraction of groundwater. This site is located adjacent to the project site but across North Montgomery Street. Therefore, it is unlikely that contaminated soil or soil gas extends from this site to the project site. Assuming that the direction of groundwater flow is to the east or southeast, contaminated groundwater from this property is unlikely to have affected groundwater beneath the project site. Therefore, this site would not affect the project site.

Site 8—138 Stockton (138 Stockton Avenue)

This site is located west of the project site and has one recently constructed, multi-story, mixed-use commercial and residential building.[86] Shallow soils beneath the building are contaminated with copper, lead, and nickel at concentrations above all screening levels. These contaminated soils were

[85] ENGEO, *Phase I Environmental Site Assessment, 345–351 N. Autumn Street and 344-350 N. Montgomery Street, San José, California*, March 9, 2018.

[86] Santa Clara County Department of Environmental Health, *Site Cleanup Program—138 Stockton Development, SCP Case No. 2017-03s, 138 Stockton Ave., San José, California*, June 27, 2019.

excavated and placed in a consolidated layer between 6 and 9 feet below grade and capped by the concrete foundation of the new building. As of June 27, 2019, the County was requiring the submittal of technical documents to prepare a Deed Restriction/Environmental Covenant that would prohibit disturbing the buried contaminated soils without County approval. Groundwater did not contain TPH as diesel and motor oil or VOCs above any screening levels.[87] Although located next to the project site, railroad tracks separate this site from the project site, and the contaminated soil has been encapsulated. Therefore, this site would not affect the project site.

Site 9—Landscaping Business (260 North Montgomery Street)

This property is located east of the project site and is occupied by a landscaping business with one main building used as an office, maintenance and storage area, and hazardous materials storage; one shipping container converted to pesticide/herbicide/fertilizer storage; and an additional shipping container converted to a supply shed.[88] The Phase I assessment observed the presence of drums, some areas of minor spills, and "generally poor housekeeping practices." Phase II soil sampling reported metals (lead, chromium, and arsenic), pesticides (dieldrin), and semivolatile organic compounds (benz[a]anthracene, benzo[b]fluoranthene, benzo[a]pyrene, and ideno[1,2,3-cd]pyrene) at concentrations that exceed residential, commercial/industrial, and construction worker screening levels.[89,90] However, this site is separated from the project site by North Montgomery Street, making it unlikely that contaminants in soil at this site could affect the project site. Therefore, this site would not affect the project site.

Site 14—Del Monte Plant 51 (50 Bush Street)

This site, located west of the project site, has three connected buildings previously used by Del Monte for the processing and packaging of dried fruit product between 1916 and 1992.[91] Two fuel oil USTs were removed in 1988. Soil samples detected residual levels of diesel and motor oil, lead, and organochlorine pesticides at concentrations below all screening levels, with the exception of arsenic that was detected at concentrations above all screening levels. No further investigation has been reported since 2005 and the regulatory case remains open but inactive. The site has been redeveloped for residential use by renovating the existing buildings. As a metal, arsenic is not relatively mobile, and its presence on this site is not expected to affect the project's site. Review of the records did not indicate whether groundwater was tested. Because the results for soil tests were below all screening levels for all tested chemicals except arsenic, and arsenic is not relatively mobile, groundwater beneath this site is unlikely to affect groundwater beneath the project site. Therefore, this site would not affect the project site.

87 Bureau Veritas, *Limited Subsurface Investigation, Commercial Property at 106-138 Stockton Avenue, San José, Santa Clara County, California*, September 25, 2013.
88 ENGEO, *Phase I Environmental Site Assessment Update, 260 N. Montgomery and 255 N. Autumn Street, San José, California*, March 13, 2019.
89 ENGEO, *Phase II Environmental Site Assessment, 260 N. Montgomery Street and 255 N. Autumn Street, San José, California*, September 28, 2018.
90 ENGEO, *Estimated Quantity of Impacted Material and Remedial Cost, 260 N. Montgomery and 255 N. Autumn Street, San José, California*, October 31, 2018.
91 Lowney Associates, *Soil Management Plan, Cahill Block North, Del Monte Plant 51, San José, California*, February 28, 2005.

Site 15—Diridon Caltrain Station and Caltrain Parking Lots (65 Cahill Street)

The train station has served as a railway station since the 1880s and is located west of the project site.[92] A waste coolant tank, waste oil/water separator, and two 500-gallon and two 3,000-gallon used oil storage tanks were removed on an undocumented date. Previous investigations indicated elevated concentrations of TPH as diesel and motor oil, and arsenic in soil at concentrations above all screening levels. Groundwater samples indicated TPH as diesel and motor oil, and lead at concentrations above all screening levels. The reported direction of shallow groundwater flow is toward the southeast, toward the project site.

Remediation activities consisting of removal of impacted soil were conducted in 2009. An oxygen-releasing compound was applied to soil and groundwater to break down the petroleum hydrocarbons. Groundwater monitoring was subsequently conducted and new monitoring wells were installed in 2011. Impacts on groundwater are limited in extent and contaminated soil was excavated and removed. Impacts of TPH as diesel and motor oil on groundwater are residual and are expected to attenuate over time. The Regional Water Quality Control Board is currently processing closure for this site as a low-threat case, pending destruction of site monitoring wells.[93] The regulatory case files do not document the most recent soil and groundwater concentrations; however, to qualify for closure, sources of contamination were removed, contaminated soil was removed, groundwater was treated, and the residual chemical levels are considered by the Regional Water Quality Control Board to not pose a threat to the surrounding properties. Therefore, this site would not affect the project site.

Some of the Diridon Station parking lot parcels owned by Caltrain are not included in the proposed project and are therefore part of the off-site conditions. Information regarding environmental concerns on the Caltrain parking lot parcels is summarized where available.

- APN 261-34-012 (33 South Montgomery Street)
- APN 261-34-013 (51 South Montgomery Street)
- APN 261-34-014 (53 and 63 South Montgomery Street)
- APN 261-34-016 (77 South Montgomery Street)
- APN 261-34-017 (91 South Montgomery Street)
- APN 261-34-018 (no street address)
- APN 261-34-019 (no street address)

An assessment of environmental concerns that included reviewing regulatory records and environmental documents was conducted for these parcels.[94] The parcels are currently used as parking lots for the San José Diridon Rail Station. Historical aerial photographs show that the

92 State Water Resources Control Board, *Case Summary, Diridon Caltrain Station*, 2019.
93 San Francisco Bay Regional Water Quality Control Board, *Diridon Caltrain Station San Jose—Well Destructions*, September 27, 2017.
94 Elevate Environmental Consulting, *Assessment of Environmental Concerns of Select Parcels within the Diridon Project*, February 11, 2020.

parcels have been used mostly for parking since at least 1948. A review of regulatory records and environmental documents indicated the following:[95]

- **APN 261-34-012:** This parcel was previously occupied by a church and adjacent dwelling, and by an auto repair shop. Automotive operations have historically involved the use and handling of hazardous materials including motor oils, paints, degreasers, brake fluids, coolants, and other solvents.
- **APN 261-34-013:** This parcel was previously occupied by a residential dwelling, machinery shop, and miscellaneous storage. Machine shops have historically used metals, oils and grease, degreasers, and solvents.
- **APN 261-34-014:** This parcel was previously occupied by a portion of a fruit drying operation, residential dwellings, warehouse, a shed housing up to nine cars, truck repair shop, auto parts and service, a glass and industrial door business, a welding and body shop, an electrical repair business, and an auto shop with a large/empty AST in 1990.

  Before 1992, an oil/water separator and the associated pump were removed from the 53 South Montgomery Street site at an unknown time. Petroleum hydrocarbon–impacted soil was excavated from the pit containing the former oil/water separator in 1991 and 1992. Confirmation sample results detected chemicals in soil at concentrations below residential, commercial/industrial, construction worker, and leaching to groundwater screening levels. A 500-gallon coal, heating, or diesel oil UST was removed from the 53 South Montgomery Street site in 1992. Subsequent soil sampling at the base of the UST excavation did not detect diesel in soil. Groundwater samples collected from beneath the 53 South Montgomery Street site did not detect chemicals at concentrations above residential, commercial/industrial, construction worker, and leaching to groundwater screening levels. In January 2018, the 53 South Montgomery Street site received a No Further Action letter from the Regional Water Quality Control Board with a priority status of low threat.

  A 1990 site investigation noted several areas of discolored soil; piles of rubble and auto parts; and a 3-foot-wide, 4-foot-deep, 65-foot-long pit used to store tires and other equipment inside the former auto repair shop. One of several oil-stained areas on the property was sampled and found to contain oil and grease at a concentration exceeding residential and construction worker screening levels, but not the commercial/industrial screening level. A monitoring well installed on the property reported TPH as diesel at a concentration exceeding the odor/nuisance threshold, but not the residential, commercial/industrial, construction worker, and leaching to groundwater screening levels. The 1990 investigation recommended that the areas of discolored soil be investigated further; however, no additional investigations are known to have been completed.
- **APN 261-34-016:** This parcel was previously occupied by an automatic car wash from 1950 to 1989. Five gasoline USTs were removed from the site in 1989. Impacted soil from under the tanks was excavated and disposed. Subsequently, groundwater monitoring was conducted at two monitoring wells, and no chemicals were detected above 1989 screening levels. The site case was closed by Valley Water on November 2, 1995.

[95] ENGEO, Information downloaded from ENGEO website, 2019.

However, certain chemicals were reported at levels that exceed current (i.e., 2020) screening levels:

- TPH as gasoline in soil was reported at concentrations exceeding the odor/nuisance screening level, but not the residential, commercial/industrial, construction worker, and leaching to groundwater screening levels.
- Benzene was reported in soil at concentrations exceeding the residential and leaching to groundwater screening levels, but not the commercial/industrial, construction worker, and odor/nuisance screening levels.
- Toluene, ethylbenzene, and xylenes were reported in soil at concentrations exceeding the leaching to groundwater screening level, but not the residential, commercial/industrial, construction worker, and odor/nuisance screening levels.
- Naphthalene was reported in soil at concentrations exceeding the leaching to groundwater screening level, but not the residential, commercial/industrial, construction worker, and odor/nuisance screening levels.
- TPH as gasoline was reported in groundwater at concentrations exceeding the MCL and odor/nuisance screening level.
- Benzene was reported in groundwater at concentrations exceeding the MCL and residential and commercial/industrial vapor intrusion screening levels.
- Ethylbenzene was reported in groundwater at concentrations exceeding the MCL, the residential and commercial/industrial vapor intrusion, and the odor/nuisance screening levels.
- Xylenes were reported in groundwater at concentrations exceeding the MCL and odor/nuisance screening level, but not the residential or commercial/industrial vapor intrusion screening levels.

- **APN 261-34-017:** This parcel was previously occupied by a wine warehouse, a hardwood planing mill (veneer factory, oil tank), and a playground appliance manufacturing facility (with assembling and painting operations). The planing mill and appliance manufacturing operations would be expected to have used fuels, oils and lubricants, paints and thinners, and cleaning solvents.
- **APN 261-34-018:** This parcel was previously occupied by a residential dwelling with carriage house, equipment display, and vehicle parking for a neighboring truck shop.
- **APN 261-34-019:** This parcel was previously occupied by a portion of a fruit drying operation, and by warehouses.

The current land use for these parcels is commercial parking lots. Because all structures have been removed from the parking lots, there would be no ACM or LBP. Historical records indicate previous industrial use. The USTs and contaminated soil have been removed. However, the remaining soil and groundwater have concentrations above various soil and groundwater screening levels. It is unknown whether contamination from the prior uses has migrated east to the parcels of the proposed project. Therefore, these parcels have the potential to affect the project site parcels to the immediate east.

Santa Clara Valley Transportation Authority Rail Tracks
APN 259-38-014 (71 South Autumn Street)
APN 259-38-114 (70 South Autumn Street)
APN 259-38-133 (68 South Montgomery Street)
APN 259-38-134 (No Address)
APN 259-38-139 (No Address)

The Phase I assessment stated that the VTA railroad tracks are located on the above-listed parcels and bisect the project footprint.[96] The parcels were in residential use before the VTA tracks were constructed between 1998 and 2006. Similar to the formerly residential parcels discussed above in the *On-Site Parcel Conditions* section, residential land use would have a negligible potential for contamination of soil and groundwater, and the potential for exceedances of soil and groundwater screening levels is considered unlikely. Because the VTA tracks were recently constructed and the rail cars carry passengers, not chemicals or other materials, this use would have a negligible potential for contamination of soil and groundwater. The exceedance of soil and groundwater screening levels is considered unlikely. Therefore, this site would not affect the project site.

Site 20—Dariano & Sons (638 Auzerais Avenue)

This site, located southeast of the project site, is occupied by a smog shop and a hydroponics supply store.[97] Two 550-gallon gasoline USTs and contaminated soil were removed in 1989. Soil and groundwater have been contaminated with gasoline, and this site has been undergoing investigation and remediation since then. During the May 2019 monitoring event, 5.34 feet of gasoline was reported floating on groundwater beneath this site, which would exceed all screening levels. Remediation consists of soil vapor extraction. The direction of groundwater flow has been mostly to the southwest, parallel to the southern border of the project site; however, the flow direction has fluctuated, with some observed flow to the south. Given the location, contaminated groundwater may affect the southernmost portion of the project site, such as APNs 264-15-17, 264-15-18, and 264-15-019. No off-site wells have been constructed between this site and the project site, indicating that it is unknown whether the groundwater contamination extends beneath the project site.

Site 23—Auto Repair (356 and 358 Royal Avenue)

The 2019 Phase I assessment for these parcels included APNs 264-20-008 (356 and 358 Royal Avenue), 264-20-009 (354 Royal Avenue), 264-20-010 (348 Royal Avenue), and 264-20-021 (365 Bird Avenue).[98] The property consists of two buildings; one is used as a convenience store (365 Bird Avenue) and the second is used as an automotive repair shop (Royal Avenue addresses), along with associated parking and landscaping. Groundwater samples did not report chemicals above groundwater screening levels. As noted above for Site 20, the direction of groundwater flow in this local area is southwest to south, which would be toward the project site. However, because chemicals were not detected in groundwater at concentrations above groundwater screening levels, this condition would not affect the project site.

---

96 Elevate Environmental Consultants, *Assessment of Environmental Concerns of Select Parcels within the Diridon Project*, February 11, 2020.
97 GeoRestoration, *Remediation Progress Report—Third Quarter 2019*, October 31, 2019.
98 ENGEO, *Phase II Environmental Site Assessment, 354–358 Royal Avenue & 365 Bird Avenue, San José, California*, December 20, 2018.

Summary of Off-Site Property Hazardous Materials Issues

As discussed above, of the nearby off-site hazardous materials cases, Site 20—Dariano & Sons at 638 Auzerais Avenue—is known to have the potential to affect the southernmost portion of the project site, such as APNs 264-15-17, 264-15-018, and 264-15-019. The extent of the contaminated groundwater from this site is under investigation. In this case, construction activities that include excavation to and below the depth to groundwater could encounter contaminated groundwater. In addition, water generated through dewatering of excavation in these areas could require treatment before discharge or disposal as a hazardous waste.

In addition, the extent of soil and groundwater contamination from historical uses at the Diridon Station Caltrain parking lots is uncertain. Although the proposed project is separated from the parking lots by Cahill Street, it is unknown whether contaminated soil and groundwater from historical sources on the parking lots extends east onto or under parcels of the proposed project.

Finally, and as described in Section 2.7.6, *Off-Site Transportation Improvements*, the project applicant would undertake a series of improvements to the off-site transportation network intended to enhance transit ridership and pedestrian and bicycle circulation in the project vicinity. These improvements would include various surface improvements, such as restriping, grading, and adding or altering pork-chop islands or bulb-outs (e.g., bus stops, bike lanes). However, these surface improvements would not require excavation below the roadway surfaces, and would therefore not encounter contaminated soil—the only actual hazard risk associated with such actions—and are not discussed further.

Proximity to Schools

The following two schools are within 0.25 miles of the project site:

- Gardner Elementary School, 502 Illinois Avenue, about 0.22 miles southeast of the project site
- Santa Clara County Community School, 258 Sunol Street, about 0.15 miles west of the project site

Proximity to Airports

Norman Y. Mineta San José International Airport (Airport) is located about one mile northwest of the project site. The flight paths to and from the Airport pass directly over the project site.[99]

3.7.2 Regulatory Framework

Federal and State

The primary federal agencies with responsibility for hazards and hazardous materials management are EPA, the Occupational Safety and Health Administration of the U.S. Department of Labor, the

[99] Santa Clara County Airport Land Use Commission, *Comprehensive Land Use Plan, Norman Y. Mineta San José International Airport*, amended November 16, 2016.

U.S. Department of Transportation (DOT), and the Federal Aviation Administration (FAA). **Table 3.7-3** summarizes federal laws, regulations, and responsible agencies.

TABLE 3.7-3
FEDERAL LAWS AND REGULATIONS RELATED TO HAZARDOUS MATERIALS MANAGEMENT

Classification	Law or Responsible Federal Agency	Description
Hazardous Materials Management	Community Right-to-Know Act of 1986 (also known as Title III of the Superfund Amendments and Reauthorization Act)	Imposes requirements to ensure that hazardous materials are properly handled, used, stored, and disposed of and to prevent or mitigate injury to human health or the environment in the event that such materials are accidentally released.
Hazardous Waste Handling	Resource Conservation and Recovery Act of 1976	Under RCRA, EPA regulates the generation, transportation, treatment, storage, and disposal of hazardous waste from "cradle to grave."
	Hazardous and Solid Waste Act	Amended RCRA in 1984, affirming and extending the "cradle to grave" system of regulating hazardous wastes. The amendments specifically prohibit the use of certain techniques for the disposal of some hazardous wastes.
Hazardous Materials Transportation	U.S. Department of Transportation	DOT has the regulatory responsibility for the safe transportation of hazardous materials. DOT regulations govern all means of transportation except packages shipped by mail (49 CFR).
	U.S. Postal Service	USPS regulations govern the transportation of hazardous materials shipped by mail.
Occupational Safety	Occupational Safety and Health Act of 1970	OSHA sets standards for safe workplaces and work practices, including the reporting of accidents and occupational injuries (29 CFR 1910).
Structural and Building Components (LBP, PCBs, and ACM)	Toxic Substances Control Act	Regulates the use and management of PCBs in electrical equipment, and sets forth detailed safeguards to be followed during the disposal of such items.
	U.S. Environmental Protection Agency	EPA monitors and regulates hazardous materials used in structural and building components and their effects on human health. See *Summary of Hazardous Building Materials Regulations* below for relevant specific regulations.
Federal Regulation 49 CFR Part 77, Objects Affecting Navigable Airspace	Federal Aviation Administration	Proximity to San José International Airport triggers the application of Federal Aviation Regulation Part 77, Objects Affecting Navigable Airspace, referred to as FAR Part 77, which sets forth criteria and requirements for proposed structures to be filed with the FAA for airspace safety review. The FAA review determines whether the proposed structure would constitute an obstruction or hazard to aircraft.

NOTES:

ACM = asbestos-containing materials; CFR = Code of Federal Regulations; DOT = U.S. Department of Transportation; EPA = U.S. Environmental Protection Agency; FAA = Federal Aviation Administration; FAR = Federal Aviation Regulations; LBP = lead-based paint; OSHA = Occupational Safety and Health Administration; PCB = polychlorinated biphenyl; RCRA = Resource Conservation and Recovery Act; USPS = U.S. Postal Service

SOURCE: Data compiled by Environmental Science Associates in 2019.

State and local agencies often have either parallel or more stringent rules than federal agencies. In most cases, state law mirrors or overlaps federal law, and enforcement of these laws is the responsibility of the state or a local agency to which enforcement powers are delegated. The primary state agencies with responsibility for hazardous materials management in the region are

DTSC and the Regional Water Quality Control Board, California Occupational Safety and Health Administration, California Department of Public Health, California Highway Patrol (CHP), and the California Department of Transportation (Caltrans). **Table 3.7-4** summarizes state laws, regulations, and responsible agencies.

TABLE 3.7-4
STATE LAWS AND REGULATIONS RELATED TO HAZARDOUS MATERIALS MANAGEMENT

Classification	Law or Responsible State Agency	Description
Hazardous Materials Management	Unified Program; CUPA	In January 1996, the California Environmental Protection Agency adopted regulations, which implemented a Unified Hazardous Waste and Hazardous Materials Management Regulatory Program, also known as the "Unified Program." The plan is implemented at the local level and the agency responsible for implementation of the Unified Program is called the Certified Unified Program Agency or CUPA, which for San José, is the SCCDEH.
	State Hazardous Waste and Substances List ("Cortese List"); DTSC, San Francisco Bay Regional Water Quality Control Board, Santa Clara County Department of Environmental Health	The project site includes multiple hazardous materials sites on the Cortese List compiled pursuant to Government Code Section 65962.5 and referenced in Public Resources Code Section 21092.6. The oversight of hazardous materials sites often involves several different agencies that may have overlapping authority and jurisdiction. For the on-site hazardous materials cases and issues, the San Francisco Bay Regional Water Quality Control Board is the lead agency. Other cases may be overseen by DTSC, the San Francisco Bay Regional Water Quality Control Board, the SCCDEH, or other agencies. The San Francisco Bay Regional Water Quality Control Board derives its authority to require cleanups under Health and Safety Code Section 25296.10 and 23 CCR Sections 2720–2727.
Hazardous Waste Handling	California Hazardous Materials Release Response Plan and Inventory Law of 1985; CUPA	The California Hazardous Materials Release Response Plan and Inventory Law of 1985, or Business Plan Act, requires that businesses that store hazardous materials on-site prepare a Hazardous Materials Business Plan and submit it to the local CUPA, which in this case is the SCCDEH.
	California Hazardous Waste Control Act; DTSC	Under the California Hazardous Waste Control Act (California Health and Safety Code Section 25100 et seq.), DTSC regulates the generation, transportation, treatment, storage, and disposal of hazardous waste in California. The hazardous waste regulations establish criteria for identifying, packaging, and labeling hazardous wastes; dictate the management of hazardous waste; establish permit requirements for hazardous waste treatment, storage, disposal, and transportation; and identify hazardous wastes that cannot be disposed of in landfills. DTSC is also the administering agency for the California Hazardous Substance Account Act. California Health and Safety Code Section 25300 et seq., also known as the State Superfund law, provides for the investigation and remediation of hazardous substances pursuant to state law.
	CCR Title 24, Part 9, California Fire Code	The California Fire Code contains regulations consistent with nationally recognized and accepted practices for safeguarding life and property from the hazards of fire and explosion, and dangerous conditions arising from the storage, handling, and use of hazardous materials and devices.
Hazardous Materials Transportation	CCR Title 26	Regulates the transportation of hazardous waste originating in the state and passing through the state through Caltrans (26 CCR).
	CHP and Caltrans	These two state agencies have primary responsibility for enforcing federal and state regulations and responding to hazardous materials transportation emergencies.

TABLE 3.7-4
STATE LAWS AND REGULATIONS RELATED TO HAZARDOUS MATERIALS MANAGEMENT

Classification	Law or Responsible State Agency	Description
Occupational Safety	Cal/OSHA	Cal/OSHA has primary responsibility for developing and enforcing workplace safety regulations in California. Because California has a federally approved OSHA program, it is required to adopt regulations that are at least as stringent as those found in CFR Title 29. Cal/OSHA standards are generally more stringent than federal regulations.
	Cal/OSHA regulations (8 CCR)	The use of hazardous materials in the workplace requires employee safety training, safety equipment, accident and illness prevention programs, warnings about exposure to hazardous substances, and preparation of emergency action and fire prevention plans.
	California Office of Statewide Health Planning and Development	The Office of Statewide Health Planning and Development serves as the regulatory building agency for all hospitals and nursing homes in California. Its primary goal in this regard is to ensure that patients in these facilities are safe in the event of an earthquake or other disaster, and that the facilities remain functional after such an event to meet the needs of the community affected by the disaster.
Construction General Permit (Order 2009-0009-DWQ, NPDES No. CAS000002; as amended by Orders 2010-0014-DWQ and 2012-006-DWQ)	San Francisco Bay Regional Water Quality Control Board	Dischargers whose project disturbs one or more acres of soil, or where projects disturb less than one acre but are part of a larger common plan of development that in total disturbs one or more acres, are required to obtain coverage under the *NPDES General Permit for Stormwater Discharges Associated with Construction and Land Disturbance Activities*, or Construction General Permit (Order 2009-0009-DWQ, NPDES No. CAS000002; as amended by Orders 2010-0014-DWQ and 2012-006-DWQ). Construction activities subject to this permit include clearing, grading, grubbing, and other disturbances to the ground such as excavation and stockpiling, but do not include regular maintenance activities performed to restore the original line, grade, or capacity of a facility. The Construction General Permit requires the development and implementation of an SWPPP that includes specific BMPs designed to prevent sediment and pollutants from contacting stormwater from moving off site into receiving waters. The BMPs fall into several categories, including erosion control, sediment control, waste management, and good housekeeping, and are intended to protect surface water quality by preventing the off-site migration of eroded soil and construction-related pollutants from the construction area. Additional details are provided in Section 3.8, *Hydrology and Water Quality*.
MS4 Permit, NPDES No. CAS612008 and Order No. R2-2015-0049	San Francisco Bay Regional Water Quality Control Board	The MS4 permit requires permittees to reduce pollutants and runoff flows from new development and redevelopment using BMPs to the maximum extent practical. The MS4 permittee also has its own development standards, also known as Low Impact Development/post-construction standards, that include a hydromodification element. The MS4 permit requires specific design concepts for Low Impact Development/post-construction BMPs in the early stages of a project during the entitlement and CEQA process and the development plan review process. Additional details are provided in Section 3.8, *Hydrology and Water Quality*.

TABLE 3.7-4
STATE LAWS AND REGULATIONS RELATED TO HAZARDOUS MATERIALS MANAGEMENT

Classification	Law or Responsible State Agency	Description
Industrial Storm Water General Permit Order No. 2014-0057-DWQ	San Francisco Bay Regional Water Quality Control Board	Stormwater discharges associated with industrial sites must comply with the regulations contained in Industrial Storm Water General Permit Order No. 2014-0057-DWQ. The IGP regulates discharges associated with certain defined categories of industrial activities including manufacturing facilities; hazardous waste treatment, storage, or disposal facilities; landfills, land application sites, and open dumps; cement manufacturing; fertilizer manufacturing; petroleum refining; phosphate manufacturing; recycling facilities; steam electric power generating facilities; transportation facilities; and sewage or wastewater treatment works. The IGP requires the implementation of BMPs, a site-specific SWPPP, and monitoring plan. The IGP also includes criteria for demonstrating no exposure of industrial activities or materials to stormwater, and no discharges to waters of the United States.
Underground Infrastructure	California Government Code Sections 4216 through 4216.9	Sections 4216 through 4216.9, "Protection of Underground Infrastructure," require an excavator to contact a regional notification center (e.g., Underground Services Alert or Dig Alert) at least two days before excavation of any subsurface installations. Any utility provider seeking to begin a project that could damage underground infrastructure can call Underground Service Alert, the regional notification center for Northern California. Underground Service Alert will notify the utilities that may have buried lines within 1,000 feet of the project. Representatives of the utilities are then notified and are required to mark the specific location of their facilities within the work area before the start of project activities in the area.
Emergency Response	California Governor's Office of Emergency Services and local government partners	The State of California and local governments throughout the Bay Area, including the City of San José, have made investments in the planning and resources necessary to respond to natural and human-caused emergencies and disasters. Cal OES and its local government partners developed the Bay Area Regional Emergency Coordination Plan with support from the U.S. Department of Homeland Security to provide a framework for collaboration and coordination during regional events. The Regional Emergency Coordination Plan has been prepared in accordance with national and state emergency management systems and plans. The RECP provides an all-hazards framework for collaboration among responsible entities and coordination during emergencies in the San Francisco Bay Area. The RECP defines procedures for regional coordination, collaboration, decision-making, and resource sharing among emergency response agencies in the Bay Area. The RECP does not replace existing emergency response systems. Rather, it builds on the Standardized Emergency Management System and the California State Emergency Plan to provide methods for cooperation among Operational Areas and Cal OES, Coastal Region. The RECP provides linkages to ensure that existing Bay Area emergency response systems work together during the response to an event. In addition, the RECP complies with the requirements of the National Incident Management System, and is consistent with the National Preparedness Goal.

NOTES:

BMP = best management practice; Business Plan Act = California Hazardous Materials Release Response Plan and Inventory Law of 1985; Cal OES = California Governor's Office of Emergency Services; Cal/OSHA = California Occupational Safety and Health Administration; CCR = California Code of Regulations; CEQA = California Environmental Quality Act; CFR = Code of Federal Regulations; CHP = California Highway Patrol; Construction General Permit = *NPDES General Permit for Stormwater Discharges Associated with Construction and Land Disturbance Activities*; CUPA = Certified Unified Program Agency; DTSC = California Department of Toxic Substances Control; IGP = Industrial Storm Water General Permit; MS4 = Municipal Separate Storm Sewer System; NPDES = National Pollutant Discharge Elimination System; OSHA = Occupational Safety and Health Administration; RECP = Regional Emergency Coordination Plan; SCCDEH = Santa Clara County Department of Environmental Health; SWPPP = Stormwater Pollution Prevention Plan; Unified Program = Unified Hazardous Waste and Hazardous Materials Management Regulatory Program

SOURCE: Data compiled by Environmental Science Associates in 2019.

Summary of Hazardous Building Materials Regulations

From the above-listed regulations, the use of hazardous building materials is subject to the following regulations specific to the demolition and renovation of structures:

- **Asbestos-containing materials:** Code of Federal Regulations (CFR) Title 40, Part 61, Subpart M (Asbestos National Emission Standards for Hazardous Air Pollutants [NESHAP]); California Code of Regulations (CCR) Title 8, Sections 1529 and 5208; and Bay Area Air Quality Management District (BAAQMD) Regulation 11, Rule 2
- **Lead-based paint:** Title IV, Toxic Substances Control Act, Sections 402, 403, and 404; 8 CCR Section 1532.1; and BAAQMD Regulation 11, Rule 1
- **PCBs:** Resource Conservation and Recovery Act: 4 CFR 761; Toxic Substances Control Act: U.S. Code Title 15, Section 2695; 22 CCR Section 66261.24; Municipal Separate Storm Sewer System Permit Provision C.12.f
- **Mercury and/or PCBs in light tubes and switches:** 22 CCR Sections 66262.11, 66273 et seq., and 67426.1 through 67428.1
- **Freon (chlorofluorocarbon and hydrochlorofluorocarbon refrigerants):** California Health and Safety Code, Sections 25143.2 and 25143.9

Regional and Local

Certified Unified Program Agency Program

The Certified Unified Program Agency (CUPA) program was created by Senate Bill 1082 (1993) to consolidate, coordinate, and make consistent the administrative requirements, permits, inspections, and enforcement activities for several environmental and emergency management programs. The Unified Program is intended to provide relief to businesses complying with the overlapping and sometimes conflicting requirements of formerly independently managed programs. The following six programs are administered locally under the state's Unified Program:

- Hazardous Waste Generator Program and Hazardous Waste On-Site Treatment activities authorized under the permit-by-rule, conditionally authorized, and conditionally exempt tiers—Health and Safety Code Division 20, Chapter 6.5, and 22 CCR Division 4.5.
- Aboveground Storage Tank Program Spill Prevention Control and Countermeasure Plan requirements—Health and Safety Code Section 25270.5(c).
- UST Program—Health and Safety Code Division 20, Chapter 6.7, and 23 CCR Chapters 16 and 17.
- Hazardous Materials Release Response Plans and Inventory Program—Health and Safety Code Division 20, Chapter 6.95, Article 1, and 19 CCR Sections 2620–2734.
- California Accidental Release Prevention (CalARP) program—Health and Safety Code Division 20, Chapter 6.95, Article 2, and 19 CCR Sections 2735.1 through 2785.1.
- Hazardous Materials Management Plans and Hazardous Materials Inventory Statement requirements—California Fire Code, Sections 2701.5.1 and 2701.5.2.

The SCCDEH is the CUPA for the City of San José. Although not included in the CUPA program, SJFD also administers a local Hazardous Materials Storage Ordinance (San José Municipal Code Chapter 17.68), which is discussed below under *Regional and Local*.

San José International Airport Comprehensive Land Use Plan

The project site is located approximately one mile southeast of Norman Y. Mineta San José International Airport and is partially located within the Airport Influence Area for the Airport as delineated in the Airport Comprehensive Land Use Plan (CLUP), last amended in 2016.[100] As required by the California State Aeronautics Act (Public Utilities Code Section 21670 et seq.), the CLUP was prepared by the Santa Clara County Airport Land Use Commission (ALUC) to provide for the orderly growth of the areas surrounding the Airport and to ensure that new land uses do not affect the Airport's continued operation. To further this goal, the CLUP provides land use compatibility policies addressing aircraft noise exposure, the control of objects in navigable airspace, and the safety of persons on the ground and in aircraft. These policies are applicable in specific areas identified using Community Noise Equivalent Level (CNEL) contours (noise restriction area), safety zones (safety restriction area), and imaginary airspace surfaces as defined in 14 CFR Part 77 (Federal Aviation Regulations [FAR] Part 77) (height restriction area).

The project site is located in areas covered by the FAR Part 77 imaginary airspace surfaces for the Airport and portions of the project site are located within the CNEL contour. The height restrictions specific to the project site are discussed in the *City of San José Downtown Airspace Development Capacity Study* section below. The project site is located outside the safety restriction area identified in the CLUP. Local agencies are required to ensure that their land use plans are consistent with the CLUP. In addition, any proposed plan, project, or land use change within the Airport Influence Area must be submitted to the ALUC for review to determine whether it is consistent or inconsistent with the CLUP. Applicable CLUP noise policies are discussed further in Section 3.10, *Noise and Vibration*. Relevant CLUP height restriction policies include:

> **Policy H-1.** Any structure or object that penetrates the Federal Aviation Regulations Part 77, Objects Affecting Navigable Airspace (FAR Part 77) surfaces, as illustrated in Figure 6, is presumed to be a hazard to air navigation and will be considered an incompatible land use, except in the following circumstance. If the structure or object is above the FAR Part 77 surface, the proponent may submit the project data to the FAA for evaluation and air navigation hazard determination, in which case the FAA's determination shall prevail.
>
> **Policy H-2.** Any project that may exceed a FAR Part 77 surface must notify the Federal Aviation Administration (FAA) as required by FAR Part 77, Subpart B on FAA Form 7460-1, Notice of Proposed Construction or Alteration. (Notification to the FAA under FAR Part 77, Subpart B, is required even for certain proposed construction that does not exceed the height limits allowed by Subpart C of the FARs.)
>
> **Policy T-1.** The applicant for any proposed project anywhere in the County for construction or alteration of a structure (including antennas) higher than 200 feet above ground level shall submit to the FAA a completed copy of FAA Form 7460-1, Notice of Proposed Construction

[100] Santa Clara County Airport Land Use Commission, *Comprehensive Land Use Plan, Norman Y. Mineta San José International Airport*, amended November 16, 2016.

or Alteration. A copy of the submitted form shall be submitted to the Santa Clara County ALUC as well as a copy of the FAA's response to this form.

Policy T-2. Any proposed project anywhere in the County for construction or alteration of a structure (including antennas) higher than 200 feet above ground level shall comply with FAR 77.13(a)(1) and shall be determined inconsistent if deemed to be a hazard by the FAA or if the ALUC determines that the project has any impact on normal aircraft operations or would increase the risk to aircraft operations.

CLUP policies allow local agencies to overrule an ALUC's finding of inconsistency with a CLUP; however, the agency must hold a public hearing, make specific findings that the action proposed is consistent with the purposes of the ALUC statute, and approve the proposed action through a two-thirds vote of the local agency's governing body. The City of San José conducted updated airspace protection mapping in 2019 and updated the One-Engine Inoperative height restrictions, as discussed below.

City of San José Downtown Airspace Development Capacity Study

The existing height limits on the project site range from 65 to 130 feet above grade in the southern portion of the site; 130 feet in the site's central area; and from 80 to 100 feet on the site's northern parcels. In 2007, the City undertook new airspace protection mapping that placed height limitations on allowable development surrounding Norman Y. Mineta San José International Airport to minimize impacts on airline service. The airspace protection mapping consisted of a combination of the lowest critical One-Engine Inoperative and United States Terminal Instrument Procedures airspace protection surfaces. However, because of the changing environment in aviation operations, and the need and desire for future building development in San José, a new study was undertaken to assess the existing conditions and future needs of the Airport and the development community. The study evaluated various scenarios of flight weights, flight directions, and height restrictions.

On March 12, 2019, the San José City Council approved a new policy on airspace surface protection heights for the Downtown Core and Diridon Station areas that also provides for additional height opportunities for development. The final report describing the scenarios evaluated was published in August 2019.[101] Scenario 4 was selected, which uses the FAA's lowest United States Terminal Instrument Procedures obstacle clearance surface to determine maximum building heights for the Diridon Station area. Upon final approval, the height restrictions for Scenario 4 range from 235 feet in elevation above mean sea level (amsl, using the North American Vertical Datum of 1988) at the north edge of the project site (APN 259-26-017) to 390 feet amsl from the southern border of APN 261-37-031 to farther south.

City of San José Emergency Operations Plan (Municipal Code Section 8.08.030)

The Office of Emergency Management is the lead agency for the City of San José under the Standardized Emergency Management System (refer to *Emergency Response* in Table 3.7-4), the purpose of which is to prepare the City to respond efficiently and effectively to emergencies that threaten life, property, or the environment. The Office of Emergency Management administers

[101] Landrum & Brown, *Downtown Airspace Development Capacity Study (DADCS)*. August 2019.

and operates the Emergency Operations Center (EOC), from which centralized emergency management can be conducted. The EOC is activated by an on-call City OES coordinator in the event of an emergency. Under such conditions, the EOC supports and coordinates emergency response and recovery operations; coordinates and works with other appropriate federal, state, and other local government agencies; and prepares and disseminates emergency public information, among other responsibilities.

The City of San José adopted the current Emergency Operations Plan in 2019.[102] The plan is an extension of the state's California Emergency Plan, and provides tasks, policies, and procedures for managing multi-agency and multi-jurisdictional emergency operations, public information functions, and resource management. The Emergency Operations Plan identifies a number of potential threats based on a hazard analysis, including earthquakes, wildland urban/interface fire, extreme weather, public health emergency, technological and resource emergency, hazardous material incident, terrorism, floods, and landslides.

The SJFD Hazardous Incident Team's emergency response unit responds to emergency calls related to hazardous materials in the city. The San José Police Department and San José Public Works Department also provide support. Along with the City's response capabilities, other responders or responsible agencies may include the CHP, Caltrans, the San Francisco Bay Regional Water Quality Control Board, Valley Water, BAAQMD, DTSC, and the California Department of Fish and Wildlife. The California Governor's Office of Emergency Services' California State Warning Center also must be notified of all significant releases or threatened releases of a hazardous material, including oil and radioactive materials.

Envision San José 2040 General Plan Policies

The City has adopted various policies in the *Envision San José 2040 General Plan* to reduce or avoid impacts related to hazards and hazardous materials. The following goals, policies, and actions are relevant to the proposed project:

Hazardous Materials

Goal EC-6—Hazardous Materials. Protect the community from the risks inherent in the transport, distribution, use, storage, and disposal of hazardous materials.

Policy EC-6.1: Require all users and producers of hazardous materials and wastes to clearly identify and inventory the hazardous materials that they store, use or transport in conformance with local, state and federal laws, regulations and guidelines.

Policy EC-6.2: Require proper storage and use of hazardous materials and wastes to prevent leakage, potential explosions, fires, or the escape of harmful gases, and to prevent individually innocuous materials from combining to form hazardous substances, especially at the time of disposal by businesses and residences. Require proper disposal of hazardous materials and wastes at licensed facilities.

[102] City of San José, *Emergency Operations Plan, Base Plan*, January 24, 2019.

Policy EC-6.4: Require all proposals for new or expanded facilities that handle hazardous materials that could impact sensitive uses off site to include adequate mitigation to reduce identified hazardous materials impacts to less than significant levels.

Policy EC-6.5: The City shall designate transportation routes to and from hazardous waste facilities as part of the permitting process in order to minimize adverse impacts on surrounding land uses and to minimize travel distances along residential and other non-industrial frontages.

Policy EC-6.6: Address through environmental review all proposals for new residential, park and recreation, school, day care, hospital, church or other uses that would place a sensitive population in close proximity to sites on which hazardous materials are or are likely to be located, the likelihood of an accidental release, the risks posed to human health and for sensitive populations, and mitigation measures, if needed, to protect human health.

Policy EC-6.7: Do not approve land uses and development that use hazardous materials that could impact existing residences, schools, day care facilities, community or recreation centers, senior residences, or other sensitive receptors if accidentally released shall not be approved without the incorporation of adequate mitigation or separation buffers between uses.

Action EC-6.8: The City will use information on file with the SCCDEH under the California Accidental Release Prevention (CalARP) Program as part of accepted Risk Management Plans to determine whether new residential, recreational, school, day care, church, hospital, seniors or medical facility developments could be exposed to substantial hazards from accidental release of airborne toxic materials from CalARP facilities.

Action EC-6.9: Adopt City guidelines for assessing possible land use compatibility and safety impacts associated with the location of sensitive uses near businesses or institutional facilities that use or store substantial quantities of hazardous materials by June 2011. The City will only approve new development with sensitive populations near sites containing hazardous materials such as toxic gases when feasible mitigation is included in the projects.

Action EC-6.12: Regulate new development on or in proximity to high pressure natural gas pipelines to promote public safety and reduce risks from land use incompatibility.

Environmental Contamination

Goal EC-7—Environmental Contamination. Protect the community and environment from exposure to hazardous soil, soil vapor, groundwater, and indoor air contamination and hazardous building materials in existing and proposed structures and developments and on public properties, such as parks and trails.

Policy EC-7.1: For development and redevelopment projects, require evaluation of the proposed site's historical and present uses to determine if any potential environmental conditions exist that could adversely impact the community or environment.

Policy EC-7.2: Identify existing soil, soil vapor, groundwater and indoor air contamination and mitigation for identified human health and environmental hazards to

future users and provide as part of the environmental review process for all development and redevelopment projects. Mitigation measures for soil, soil vapor and groundwater contamination shall be designed to avoid adverse human health or environmental risk, in conformance with regional, state and federal laws, regulations, guidelines and standards.

Policy EC-7.3: Where a property is located in proximity to known groundwater contamination with volatile organic compounds or within 1,000 feet of an active or inactive landfill, evaluate and mitigate the potential for indoor air intrusion of hazardous compounds to the satisfaction of the City's Environmental Compliance Officer and appropriate regional, state and federal agencies prior to approval of a development or redevelopment project.

Policy EC-7.4: On redevelopment sites, determine the presence of hazardous building materials during the environmental review process or prior to project approval. Mitigation and remediation of hazardous building materials, such as lead-paint and asbestos containing materials, shall be implemented in accordance with state and federal laws and regulations.

Policy EC-7.5: On development and redevelopment sites, require all sources of imported fill to have adequate documentation that it is clean and free of contamination and/or acceptable for the proposed land use considering appropriate environmental screening levels for contaminants. Disposal of groundwater from excavations on construction sites shall comply with local, regional, and state requirements.

Action EC-7.8: Where an environmental review process identifies the presence of hazardous materials on a proposed development site, the City will ensure that feasible mitigation measures that will satisfactorily reduce impacts to human health and safety and to the environment are required of or incorporated into the projects. This applies to hazardous materials found in the soil, groundwater, soil vapor, or in existing structures.

Action EC-7.9: Ensure coordination with the County of Santa Clara Department of Environmental Health, Regional Water Quality Control Board, Department of Toxic Substances Control or other applicable regulatory agencies, as appropriate, on projects with contaminated soil and/or groundwater or where historical or active regulatory oversight exists.

Action EC-7.10: Require review and approval of grading, erosion control and dust control plans prior to issuance of a grading permit by the Director of Public Works on sites with known soil contamination. Construction operations shall be conducted to limit the creation and dispersion of dust and sediment runoff.

Action EC-7.11: Require sampling for residual agricultural chemicals, based on the history of land use, on sites to be used for any new development or redevelopment to account for worker and community safety during construction. Mitigation to meet appropriate end use such as residential or commercial/industrial shall be provided.

Safe Airport

Goal TR-14—Safe Airport. Ensure that airport facilities in San José are safe by removing potential conflicts between land use and airport operations.

Policy TR-14.1: Foster compatible land uses within the identified Airport Influence Area overlays for Mineta San José International and Reid-Hillview airports.

Policy TR-14.2: Regulate development in the vicinity of airports in accordance with Federal Aviation Administration regulations to maintain the airspace required for the safe operation of these facilities and avoid potential hazards to navigation.

Policy TR-14.3: For development in the Airport Influence Area overlays, ensure that land uses and development are consistent with the height, safety, and noise policies identified in the Santa Clara County Airport Land Use Commission (ALUC) comprehensive land use plans for Mineta San José International and Reid Hillview airports, or find, by a two-thirds vote of the governing body, that the proposed action is consistent with the purposes of Article 3.5 of Chapter 4 of the State Aeronautics Act, Public Utilities Code Section 21670 et seq.

Policy TR-14.4: Require aviation and "no build" easement dedications, setting forth maximum elevation limits as well as for acceptance of noise or other aircraft related effects, as needed, as a condition of approval of development in the vicinity of airports.

Community Health, Safety, and Wellness

Goal CD-5—Community Health, Safety, and Wellness. Create great public places where the built environment creates attractive and vibrant spaces, provides a safe and healthful setting, fosters interaction among community members, and improves quality of life.

Policy CD-5.8: Comply with applicable Federal Aviation Administration regulations identifying maximum heights for obstructions to promote air safety.

City of San José Municipal Code

Chapter 17.68: Hazardous Materials Storage Permit

This code describes the requirements for the storage of hazardous materials, which include acquiring a storage permit, developing and submitting a Hazardous Materials Management Plan, and complying with requirements for storage, transportation, monitoring and inspection, and secondary containment. The plan must contain information on responsible parties, a facility description, a facility storage map, a description of the name and quantity of all hazardous materials, and a description of separation and protection methods for stored hazardous materials, monitoring methods, and recordkeeping procedures. The Hazardous Materials Management Plan must include an emergency response plan that describes emergency equipment availability, testing, and maintenance.

City of San José Building Codes

The California Building Standards Commission updates the state building codes (CCR Title 24) every three years. The 2019 codes were published on July 1, 2019, and become applicable to all

building permit applications made on or after January 1, 2020. The City of San José has adopted the 2019 California Building Codes. The updated codes adopted by the City are:

- 2019 California Building Code—CCR Title 24, Part 2
- 2019 California Residential Code—CCR Title 24, Part 2.5
- 2019 California Electrical Code—CCR Title 24, Part 3
- 2019 California Mechanical Code—CCR Title 24, Part 4
- 2019 California Plumbing Code—CCR Title 24, Part 5
- 2019 California Historical Building Code—CCR Title 24, Part 8
- 2019 California Existing Building Code—CCR Title 24, Part 10

City of San José Fire Code

The San José Fire Code adopted the 2019 California Fire Code, subject to certain deletions, amendments, exceptions, and additions that are specified in the City code. The revisions focus mostly on adding details to building and fire access requirements, and to the storage, handling, and use of regulated materials. Possible hazards involving toxic air contaminants are discussed in Section 3.1, *Air Quality*, of this EIR.

San José Standard Conditions of Approval

The City's Standard Conditions of Approval (SCAs) relevant to the proposed project's hazards and hazardous materials impacts are presented below. If the proposed project is approved by the City, all applicable SCAs would be adopted as conditions of approval; the project applicant would be required, as applicable, to implement the SCAs during project construction and operation to address impacts related to hazards and hazardous materials. The SCAs are incorporated and required as part of the project, so they are not listed as mitigation measures.

Asbestos and Lead-based Paint. If asbestos-containing materials (ACM) or lead-based paint (LBP) are present and need to be removed during the demolition of structures, the project applicant shall implement the following conditions:

- Conduct a visual inspection/pre-demolition survey, and possible sampling in conformance with state and local laws, to determine the presence of ACMs and/or LBP prior to the demolition of on-site building(s).
- Remove all building materials containing LBP during demolition activities, in accordance with Cal/OSHA Lead in Construction Standard, Title 8, California Code of Regulations (CCR) Section 1532.1, including employee training, employee air monitoring, and dust control. Dispose any debris or soil containing LBP or coatings at landfills that meet acceptance criteria for the type of lead being disposed.
- Remove all potentially friable ACMs in accordance with National Emission Standards for Air Pollution (NESHAP) guidelines before demolition or renovation activities that may disturb ACMs. Undertake all demolition activities in accordance with Cal/OSHA standards contained in Title 8, CCR Section 1529, to protect workers from asbestos exposure.
- Retain a registered asbestos abatement contractor to remove and dispose of ACMs identified in the asbestos survey performed for the site in accordance with the standards stated above.

- Materials containing more than 1 percent asbestos are also subject to BAAQMD regulations. Remove materials containing more than 1 percent asbestos in accordance with BAAQMD requirements and notifications.
- Implement the following conditions in accordance with Cal/OSHA rules and regulations, to limit impacts to construction workers.
  - Before commencement of demolition activities, complete a building survey, including sampling and testing, to identify and quantify building materials containing LBP.
  - During demolition activities, remove all building materials containing LBP in accordance with Cal/OSHA Lead in Construction Standard, Title 8, CCR Section 1532.1, including employee training, employee air monitoring, and dust control.
  - Dispose of any debris or soil containing LBP or coatings at landfills that meet acceptance criteria for the type of waste being disposed.

3.7.3 Impacts and Mitigation Measures

Significance Criteria

For the purposes of this EIR, a hazardous and hazardous materials impact would be significant if implementing the proposed project would:

- Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials;
- Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment;
- Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school;
- Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would create a significant hazard to the public or the environment;
- For a project located within 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 result in a safety hazard or excessive noise for people residing or working in the project area; or
- Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan.

Approach to Analysis

The analysis of hazards and hazardous materials impacts is based on the proposed project as described in Chapter 2, *Project Description*. Information about hazards and hazardous materials affecting the project site was derived from various sources and compiled in this section to develop a comprehensive understanding of the potential constraints and hazards of construction (including demolition of existing on-site structures) and long-term operation of the proposed project. Information sources include the cited assessment, investigation, and cleanup reports provided by the project applicant and the results of regulatory agency database searches.

The project would be extensively regulated with respect to hazards and hazardous materials by the various laws, regulations, and policies summarized in Section 3.7.2, *Regulatory Framework*. This analysis assumes that the proposed project would comply with applicable federal, state, and local laws and regulations. State and local agencies would be expected to continue to enforce applicable requirements to the extent that they do so now. Note that compliance with many of the regulations is a standard condition of permit approval.

A significant impact would be determined to occur if, based on the features described in Chapter 2, *Project Description*, and after compliance with regulatory requirements, the project would still meet any of the criteria for a significant impact. For impacts considered to be significant, mitigation measures are proposed to reduce the identified impacts.

As described in Section 2.13.1, *Construction Phases*, the project would be constructed in three primary phases. The regulations summarized in Section 3.7.2, *Regulatory Framework*, would apply to all phases. In addition, if any current regulations are updated between the present time and the initial implementation of a work phase, the updated regulations would apply.

Possible hazards involving toxic air contaminants are discussed in Section 3.1, *Air Quality*, of this EIR. Possible hazards relative to water quality are also discussed in Section 3.8, *Hydrology and Water Quality*.

Impact Analysis

Hazardous and Hazardous Materials

Impact HA-1: The proposed project would not create a significant hazard to the public or the environment through the routine transport, use, or disposal, or through reasonably foreseeable upset and accidental release of hazardous materials. *(Less than Significant)*

Construction

The proposed project's construction equipment and materials would include fuels, oils and lubricants, solvents and cleaners, glues and adhesives, paints and thinners, degreasers, cement and concrete, and asphalt mixtures, which are all commonly used in construction. The routine use, or an accidental spill of, a hazardous material used during construction could result in exposure or an inadvertent release, which could adversely affect construction workers, the public, and the environment. For an analysis of the potential impacts of encountering hazardous materials contamination from prior uses (e.g., contaminated soil, soil gas, or groundwater) during construction, refer to Impact HA-3.

Project construction activities would be required to comply with the numerous federal, state, and local hazardous materials regulations summarized in Section 3.7.2, *Regulatory Framework*. Those regulations are enforced to ensure that hazardous materials are transported, used, stored, and disposed of in a safe and legal manner to protect construction workers' safety and the environment. They are also intended to reduce the potential for construction-related fuels or other hazardous materials to be released into the environment, including stormwater and downstream receiving water bodies.

Project contractors would be required to prepare and implement Hazardous Materials Business Plans (Business Plans). Those plans would require that hazardous materials used during construction be used and stored properly in appropriate containers, with secondary containment as needed to contain a potential release. In addition, all hazardous materials must be used, stored, transported, and disposed of in compliance with the code requirements of the City of San José Fire Department, the San José–Santa Clara Wastewater Treatment Facility, the SCCDEH, and Caltrans, which require measures for the safe storage and handling of hazardous materials.

Numerous regulations require that work sites be inspected and/or tested for the presence of hazardous materials when demolition and renovation activities may disturb or require the removal of building materials that consist of, contain, or are coated with asbestos-containing materials and/or lead-based paint and/or other hazardous building materials. If present, the hazardous materials must be managed and disposed of in accordance with applicable laws and regulations. The treatment or removal of hazardous building materials is a standard condition of construction or occupation permits, as required by the City's Standard Conditions of Approval for ACM and LBP.

The identification, removal, and disposal of both ACM and LBP are regulated under the California Code of Regulations: 8 CCR Sections 1529 and 5208 (for ACM) and 8 CCR Section 1532.1 (for LBP). Both ACM and LBP are also regulated under the City's SCAs. All work must be conducted by a state-certified professional, which would ensure compliance with all applicable regulations. If ACM and/or LBP are identified on-site and the building is planned for demolition, a site-specific hazard control plan must be prepared, detailing removal methods and instructions for providing protective clothing and equipment to abatement personnel. A state-certified ACM and/or LBP removal contractor would be retained to conduct the plan's required abatement measures. Wastes from abatement and demolition activities would be transported and disposed of at a landfill permitted to accept such waste and in compliance with applicable federal, state, and local laws and regulations.

Once all abatement measures have been implemented, the contractor would conduct a clearance examination and provide written documentation to BAAQMD, as required. The documentation would specify that testing for ACM and LBP—and, if required, abatement—have been completed in accordance with all federal, state, and local laws and regulations.

As discussed in Section 3.5, *Geology, Soils, and Paleontological Resources*, and Section 3.8, *Hydrology and Water Quality*, construction contractors would be required to prepare a stormwater pollution prevention plan (SWPPP) for construction activities in compliance with the requirements of the National Pollutant Discharge Elimination System (NPDES) General Construction Permit. The SWPPP would list the hazardous materials (including petroleum products) proposed for use during construction and would describe spill prevention measures, equipment inspections, and equipment and fuel storage; protocols for responding immediately to spills; and best management practices (BMPs) for controlling site run-on and runoff. This would include preventing site runoff into Los Gatos Creek and the Guadalupe River.

In addition, DOT, Caltrans, and the CHP would regulate the transportation of hazardous materials. Together, federal and state agencies determine driver-training requirements, load-labeling procedures, and container specifications designed to minimize the risk of an accidental release.

Finally, in the event of a spill that releases hazardous materials, a coordinated response would occur at the federal, state, and local levels, including the City of San José. SJFD is the local hazardous materials response team. In the event of a hazardous materials spill, the San José Police and Fire Departments would be notified simultaneously and sent to the scene to assess and respond to the situation.

The required compliance with the numerous laws and regulations discussed above that govern the transportation, use, handling, and disposal of hazardous materials would limit the potential for the proposed project to create hazardous conditions from the transport, use, disposal, or accidental release of hazardous materials. This impact would be **less than significant**.

Operations

The proposed residential and commercial land uses described in Section 2.3, *Development Program*, would use and store chemicals (fuels, oils and lubricants, solvents and cleaners, and paints and thinners) commonly used for operation and maintenance. Routine use or an accidental spill of a hazardous material could result in an inadvertent release, which could adversely affect workers, the public, and the environment.

As required by the state's Hazardous Materials Management Program, the commercial, industrial, and residential property management companies would prepare and submit Hazardous Materials Business Plans to the Santa Clara County Hazardous Materials Compliance Division, the local CUPA for Santa Clara County, before beginning to operate any facility that would manage hazardous materials subject to the requirement. Business Plans include information about the handling and storage of hazardous materials, including site layout, storage in appropriate containers with secondary containment to contain a potential release, and emergency response and notification procedures in the event of a spill or release. In addition, the Business Plans require annual employee health and safety training.

The Business Plans must be approved by the CUPA before the start of operations, and the various facilities would be subject to periodic compliance inspections. The Business Plans would also provide local agencies with the information needed to plan appropriately for a chemical release, fire, or other incident, reducing the potential for an accidental release to harm the health of workers or the public or substantially degrade the environment. All hazardous materials must be stored and handled according to manufacturers' directions and federal, state, and local regulations.

The California Fire Code would also require measures for the safe storage and handling of hazardous materials. As a part of the CUPA program, all hazardous materials must be used, stored, transported, and disposed of in compliance with the code requirements of the City of San José Fire Department, the San José–Santa Clara Wastewater Treatment Facility, the SCCDEH, and Caltrans. Transportation and disposal of wastes, such as spent cleaning solutions, would also be subject to regulations for safe handling, transportation, and disposal. These regulations would include appropriate containerization and labeling, transportation by licensed hazardous materials haulers, and disposal at licensed facilities permitted to accept the waste.

The proposed project would include one or two on-site, electricity-powered central utility plants to supply heated and chilled water to on-site buildings for building heating and cooling, instead of using individual boilers and chillers with cooling towers in each building. The distribution system would require periodic cleaning to prevent scale buildup inside the pipes. The periodic cleaning would likely use cleaning and/or mildly acidic solutions. The project could include a centralized solid waste collection facility (essentially, a mini-transfer station), which could employ a pneumatic collection system. The pneumatic pistons would require the use of hydraulic oil. The chemicals used in these processes would be regulated under the Hazardous Materials Business Plans prepared and implemented by the property owners/managers.

The proposed project includes an option to construct and operate an on-site wastewater treatment plant that would employ a membrane bioreactor, which is a hybrid of a conventional biological wastewater treatment system with a physical liquid/solid separation process that uses microfiltration. The wastewater would be treated to levels acceptable for reuse as irrigation and toilet flushing (non-potable water). The water would not be treated to drinking water standards and would therefore not be disinfected using drinking water disinfection chemicals, such as sodium hypochlorite. However, it is assumed that some cleaning solutions would be stored and used on-site to clean the system's filters and pipes. In addition, the treatment process would create waste solids (e.g., concentrated solids, salt, and other pollutants). As a water treatment facility, the on-site wastewater treatment plant would be required to acquire an operating permit from the Regional Water Quality Control Board. The permit would include routine testing to ensure that the treated water meets non-potable reuse standards. The on-site wastewater treatment plant and its operating regulations are discussed further in Section 3.8, *Hydrology and Water Quality*.

Finally, the facilities proposed by the project would be required to comply with the development standards of the municipal stormwater permit for municipal separate storm sewer systems, as discussed in Section 3.8, *Hydrology and Water Quality*, Section 3.8.2, *Regulatory Framework*, which would reduce pollutants and runoff flows from new development and redevelopment using BMPs and Low Impact Development/post-construction standards.

The required compliance with the numerous laws and regulations discussed above that govern the transportation, use, storage, handling, and disposal of hazardous materials—such as the code requirements of the City of San José Fire Department, San José–Santa Clara Wastewater Treatment Facility, SCCDEH, and Caltrans—would limit the potential for the project to create hazardous conditions from the use or accidental release of hazardous materials. Therefore, this impact would be **less than significant**.

Mitigation: None required.

Impact HA-2: The proposed project would not emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school. ***(Less than Significant with Mitigation)***

As discussed in Section 3.7.1, *Environmental Setting*, there are two schools within 0.25 miles of the project site: Gardner Elementary, 502 Illinois Avenue, about 0.22 miles southeast of the

project site; and Santa Clara County Community School, 258 Sunol Street, about 0.15 miles west of the project site. The use, transportation, or accidental spill of hazardous materials could result in exposures or inadvertent releases, which could adversely affect schools.

Construction

As discussed in Impact HA-1, construction would be expected to use fuels, oils and lubricants, solvents and cleaners, glues and adhesives, paints and thinners, degreasers, cement and concrete, asphalt mixtures, and other typical construction materials. However, construction contractors would be required to implement their respective Hazardous Materials Business Plans, which would include BMPs to properly transport, use, store, and dispose of hazardous materials. In addition, the transportation of hazardous materials would be required to comply with DOT, Caltrans, and CHP regulations for the containerization, labeling, and transportation of hazardous materials.

As discussed in Section 3.7.1, *Environmental Setting*, some parcels on the project site have chemicals at concentrations above screening levels in soil, soil gas, groundwater, and/or building materials. As part of the proposed project, hazardous materials would be removed, treated, and/or encapsulated to prevent exposure to construction workers, the public, and the environment. The removal of hazardous materials would include transporting the hazardous materials on city streets to off-site treatment or disposal facilities. The routes would be from streets within the project site to major roadway arteries, including Interstate 280 south of the project site and State Route 87 east of the project site.

Gardner Elementary School is southeast of the project site, is not on a major roadway, and is located on the south side of Interstate 280. Santa Clara County Community School is west of the project site in the middle of a north-south block; the east-west streets from the project site do not pass by this school and the local streets close to this school are not access routes to Interstate 280 or State Route 87, which would be the access routes to the project site. Vehicles accessing and leaving the project site during construction and operations would not be expected to pass by or near these schools; therefore, hazardous materials would not be transported past them. In addition, as discussed in Impact HA-1, DOT, Caltrans, and the CHP would regulate the containerization and transportation of hazardous materials. Together, federal and state agencies determine driver-training requirements, load-labeling procedures, and container specifications designed to minimize the risk of an accidental release.

As discussed above, the materials transportation routes would not pass by area schools, and numerous regulations are enforced to ensure the safe containerization, handling, and transportation of hazardous materials. Nonetheless, the two schools are located within one-quarter mile of the project site, and remediation of the various hazardous materials sites on the project footprint could involve transporting hazardous waste. To mitigate the handling of hazardous materials during the project site cleanup, the proposed project would implement **Mitigation Measure HA-3b, Health and Safety Plan**, and **Mitigation Measure HA-3c, Site Management Plan** (discussed below under Impact HA-3). Implementing these mitigation measures would ensure that the hazardous waste is containerized, handled, and transported safely and in accordance with all applicable federal, state, and local regulations. Because the project would comply with existing regulations and would implement Mitigation Measures HA-3b and HA-3c

regarding the containerization, labeling, and transportation of hazardous materials, and because the routes of traffic from the project site would not pass by area schools, the impact would be **less than significant with mitigation incorporated**.

Mitigation Measures

Mitigation Measure HA-3b: Health and Safety Plan (refer to Impact HA-3)

Mitigation Measure HA-3c: Site Management Plan (refer to Impact HA-3)

Significance after Mitigation: Less than significant.

Operations

Once construction is complete, the residential and commercial uses on the project site would be expected to use common maintenance products, such as cleaning products, paints, and thinners, and potentially small quantities of hazardous substances associated with their respective uses. The on-site wastewater treatment facility and the heated/chilled water would periodically use cleaning and/or mildly acidic solutions to clean system filters and pipes. The solid waste facility would use hydraulic oil in the pneumatic pistons. None of these activities would require transporting large amounts of hazardous materials. In addition, as discussed above under *Construction*, transportation routes from the project site would not pass by area schools. During operations, **no impact** would occur.

Mitigation: None required.

Impact HA-3: The proposed project is located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would create a significant hazard to the public or the environment. *(Less than Significant with Mitigation)*

Construction

As discussed above in Section 3.7.1, *Environmental Setting*, under *On-Site Conditions*, at least 51 of the parcels on the project site are known to have soil, soil gas, and/or groundwater with chemical concentrations above screening levels. As a result, some of the parcels are listed on the Government Code Section 65962.5 (Cortese) list of hazardous materials sites.

In addition, certain parcels on the project site have land use covenants or similar land use restrictions because of the presence of on-site hazardous materials: Lots A, B, and C (APNs 259-28-031, 259-28-041, 259-28-043, and 259-28-044); Lot D (APN 259-38-130); and APN 261-35-014. These covenants or similar restrictions enforce land use restrictions, require regulatory agency approvals before the parcels are disturbed, and require that soil and groundwater management plans be implemented if contaminated materials are to be disturbed. Given the long history of industrial use throughout the project site and surrounding area, undiscovered contaminated areas may be encountered during redevelopment of the parcels. Finally, development of the project may encounter fuel or oil USTs, for either home heating or industrial use, that were not documented and left in place.

Therefore, construction activities are expected to encounter hazardous materials, which would be a **significant** impact. To address encountering contaminated materials during construction and site cleanups, the proposed project would implement the following mitigation measures:

- For parcels with land use restrictions:
  - **Mitigation Measure HA-3a: Land Use Limitations**
  - Mitigation Measure HA-3b: Health and Safety Plan
  - Mitigation Measure HA-3c: Site Management Plan
  - **Mitigation Measure HA-3d: Vapor Mitigation** (for sites impacted with VOCs at concentrations above applicable screening levels for the intended land use)
- For all parcels with known or suspected contamination:
  - Mitigation Measure HA-3b: Health and Safety Plan
  - Mitigation Measure HA-3c: Site Management Plan
  - Mitigation Measure HA-3d: Vapor Mitigation (for sites impacted with VOCs at concentrations above applicable screening levels for the intended land use)
- For all other parcels:
  - Mitigation Measure HA-3b: Health and Safety Plan

Further, as discussed in Section 3.7.1, *Environmental Setting*, certain parcels are known to have soil gas concentrations above soil gas screening levels. In addition, the completion of Phase II investigations discussed in Mitigation Measure HA-3c may result in identification of additional parcels where soil gas concentrations exceed soil gas screening levels. Parcels with soil gas with concentrations that exceed screening levels may pose a risk to residential, commercial, and industrial occupants by seeping into structures and increasing the concentrations in indoor air to above indoor air action levels—specifically the screening levels listed in Table 3, *Screening Levels for Ambient Air*, in Department of Toxic Substances Control's (DTSC's) *Human Health Risk Assessment (HHRA) Note Number: 3, DTSC-Modified Screening Levels (DTSC-SLs)*, released in April 2019. These are recently promulgated screening levels specific to indoor air.

Implementing Mitigation Measures HA-3a through HA-3d, as applicable, would reduce this impact to **less than significant with mitigation incorporated**.

Mitigation Measures

Mitigation Measure HA-3a: Land Use Limitations

Before construction activities on parcels with land use covenants, other regulatory land use restrictions, open remediation cases, or contamination identified as part of a Phase II investigation above regulatory environmental screening levels, the project applicant for the specific work proposed shall obtain regulatory oversight from the appropriate agency. The project applicant shall perform further environmental investigation or remediation as needed to ensure full protection of construction workers, the environment, and the public.

For properties with land use limitations, the limitations and restrictions may be reduced or removed entirely if the underlying contamination is removed or treated to below the regulatory screening levels for the proposed land use (residential, commercial, or industrial). The project applicant shall be required to prepare a remedial action plan describing the

proposed cleanup actions, the target cleanup levels, and the proposed land use after cleanup. The remedial action plan shall be submitted to the regulatory agency enforcing the land use limitations for its review and approval. Upon regulatory agency approval, the project applicant shall implement the remedial action to clean up the site, followed by confirmation sampling and testing of soil, soil gas, and/or groundwater to verify that the cleanup achieved the target cleanup levels. The project applicant shall prepare a report documenting the cleanup activities, comparing the sample results to the target cleanup levels, and request that the land use limitations be modified or removed. The regulatory agency shall review the report and, if satisfied that the cleanup is sufficient, modify or remove the land use limitations. The report shall also be submitted to the Environmental Services Department's Municipal Environmental Compliance Officer.

For properties with land use covenants (LUCs) that have incomplete Phase II investigations or that need further investigation to inform changes or removals of LUCs, Phase II investigations shall be performed before the start of any construction activities. If the Phase II investigations show soil, soil gas, and/or groundwater concentrations that exceed regulatory screening levels, the project applicant shall obtain regulatory oversight from the appropriate regulatory agency. The project applicant shall perform further environmental investigation and remediation if needed to ensure full protection of construction workers, the environment, and the public. Mitigation Measures HA-3b and HA-3c, described below, would be required and would describe the remediation measures to be implemented. Mitigation Measure HA-3d, described below, may also be implemented if appropriate to the particular site.

Mitigation Measure HA-3b: Health and Safety Plan

Before the start of ground-disturbing activities, including grading, trenching, or excavation, or structure demolition on parcels within the project site, the project applicant for the specific work proposed shall require that the construction contractor(s) retain a qualified professional to prepare a site-specific health and safety plan (HSP) in accordance with federal Occupational Safety and Health Administration regulations (29 CFR 1910.120) and California Occupational Safety and Health Administration regulations (8 CCR Section 5192).

The HSP shall be implemented by the construction contractor to protect construction workers, the public, and the environment during all ground-disturbing and structure demolition activities. HSPs shall be submitted to the Director of Planning, Building, and Code Enforcement, or the Director's designee, the Environmental Services Department Municipal Environmental Compliance Officer, and any applicable oversight regulatory agency (if regulatory oversight is required) for review before the start of demolition and construction activities and as a condition of the grading, construction, and/or demolition permit(s). The HSP shall include, but not be limited to, the following elements:

- Designation of a trained, experienced site safety and health supervisor who has the responsibility and authority to develop and implement the site HSP.
- A summary of all potential risks to demolition and construction workers and maximum exposure limits for all known and reasonably foreseeable site chemicals.
- Specified personal protective equipment and decontamination procedures, if needed.

- The requirement to prepare documentation showing that HSP measures have been implemented during construction (e.g., tailgate safety meeting notes with signup sheet for attendees).
- A requirement specifying that any site worker who identifies hazardous materials has the authority to stop work and notify the site safety and health supervisor.
- Emergency procedures, including the route to the nearest hospital.
- Procedures to follow if evidence of potential soil or groundwater contamination is encountered (such as soil staining, noxious odors, debris or buried storage containers). These procedures shall be followed in accordance with hazardous waste operations regulations and specifically include, but not be limited to, immediately stopping work in the vicinity of the unknown hazardous materials release; notifying the PBCE and the regulatory agency overseeing site cleanup, if any; and retaining a qualified environmental firm to perform sampling and remediation.

Mitigation Measure HA-3c: Site Management Plan

In support of the health and safety plans described in Mitigation Measure HA-3b, the project applicant for the specific work proposed shall develop and require that its contractor(s) develop and implement site management plans (SMPs) for the management of soil, soil gas, and groundwater before any ground-disturbing activity for all parcels with land use limitations and all parcels with known or suspected contamination. SMPs may be prepared for the entire project site, for groups of parcels, or for individual parcels. In any case, all such parcels shall be covered by an SMP. Each SMP shall include the following, at a minimum:

- Site description, including the hazardous materials that may be encountered.
- Roles and responsibilities of on-site workers, supervisors, and the regulatory agency.
- Training for site workers focused on the recognition of and response to encountering hazardous materials.
- Protocols for the materials (soil and/or dewatering effluent) testing, handling, removing, transporting, and disposing of all excavated materials and dewatering effluent in a safe, appropriate, and lawful manner.
- Reporting requirement to the overseeing regulatory agency and the Planning, Building, and Code Enforcement (PBCE), documenting that site activities were conducted in accordance with the SMP.

SMPs for parcels with soil, soil gas, and/or groundwater above environmental screening levels for the proposed land use shall be submitted to the regulatory agency with jurisdiction (i.e., Department of Toxic Substances Control, the Regional Water Quality Control Board, or the SCCDEH), for review, and to the Director of Planning, Building, and Coded Enforcement or the Director's designee, and the Environmental Services Municipal Environmental Compliance Officer to inform their permit approval process before the start of demolition and construction activities and as a condition of the grading, construction, and/or demolition permit(s). The overseeing regulatory agency, if it accepts oversight, will require enrolment in its cleanup program and payment for oversight. The Contract specifications shall mandate full compliance with all applicable federal, state, and local regulations related to the identification, transportation, and disposal of hazardous materials.

For work at parcels that would encounter groundwater, as part of the SMPs, contractors shall include a groundwater dewatering control and disposal plan specifying how groundwater (dewatering effluent), if encountered, will be handled and disposed of in a safe, appropriate, and lawful manner. The groundwater portion of the SMPs shall include the following, at a minimum:

- The locations at which groundwater dewatering is likely to be required.
- Test methods to analyze groundwater for hazardous materials.
- Appropriate treatment and/or disposal methods.
- Discussion of discharge to a publicly owned treatment works or the stormwater system, in accordance with any regulatory requirements the treatment works may have, if this effluent disposal option is to be used.

Mitigation Measure HA-3d: Vapor Mitigation

To mitigate exceedances of indoor air standards, the project applicant shall incorporate at least one or more of the vapor mitigation methods listed below on each parcel known to have soil gas concentrations above soil gas screening levels or identified to have concentrations above screening levels as a result of Phase II investigations included in Mitigation Measure HA-3c. The proposed work-specific vapor mitigation, if not in compliance with then-current guidance, must be pre-approved by the applicable regulatory oversight agency (e.g., DTSC, the Regional Water Quality Control Board, or the Santa Clara County Department of Environmental Health [SCCDEH]):

- Excavate and remove contaminated materials (soil and, if needed, groundwater), to levels where subsequent testing verifies that soil gas levels are below screening levels. This approach would remove the source of soil gas and would not require a physical barrier such as a high-density polyethylene vapor barrier to prevent vapor intrusion.
- Install a physical vapor barrier (e.g., liner) beneath the structure foundation that prevents soil gas from seeping into breathing spaces inside the structure.
- Install a passive or powered vapor mitigation system layer that draws soil gas out of the under-foundation base rock and directs that soil gas to a treatment system to prevent people from being exposed outdoors.

Upon completion, the project applicant shall prepare a report documenting the testing results and installed vapor mitigation method and submit the report to the regulatory agency with jurisdiction (i.e., DTSC, SCCDEH, or the Regional Water Quality Control Board). A copy of the report shall be provided to Director of Planning, Building and Code Enforcement, or the Director's designee, and the Environmental Services Department Municipal Environmental Compliance Officer to inform them of compliance with this requirement. The implemented mitigation measure shall result in indoor air concentrations that do not exceed the screening levels provided in the above-referenced DTSC HHRA Note 3.

Significance after Mitigation: Less than significant.

Operation

As discussed above under *Construction*, Mitigation Measures HA-3a through HA-3d would require the proposed project to conduct site investigations and cleanups, as needed; address land use limitations imposed by regulatory agencies, where existing and if needed; implement HSPs (and SMPs as appropriate) for each parcel or group of parcels on the project site, depending on parcel conditions; and install vapor mitigation, where needed. With implementation of the mitigation measures during construction, hazardous materials, if present, would be removed, treated, or encapsulated before operations. In addition, certain parcels (previously identified above) have land use covenants that include requirements to periodically inspect and maintain the site remedies (e.g., caps that isolate buried contaminated materials, and/or restrictions on specific types of land uses). After the completion of construction activities, contamination would be reduced to below all applicable screening levels, regulatory cleanup levels, or isolated under caps that may not be disturbed as enforced by an LUC. Although parcels may remain on the Cortese List and be identified as closed sites, the parcels would no longer pose a threat to the public, construction workers, or the environment because they would have been treated, mitigated, cleaned up, or capped. With compliance with existing regulations and implementation of the mitigation measures during the construction phase discussed above, hazardous materials issues, where present, would have been addressed. This impact would be **less than significant**.

Mitigation: None required.

Impact HA-4: The proposed project is located within 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, but would not result in a safety hazard or excessive noise for people residing or working in the project area. ***(Less than Significant with Mitigation)***

As discussed above in Section 3.7.1, *Environmental Setting, Proximity to Airports*, Norman Y. Mineta San José International Airport is about one mile northwest of the project site. Part of the project site is located within the Airport Influence Area for the Airport as delineated in the Airport's CLUP. Accordingly, the CLUP's noise compatibility and height compatibility policies would be applicable to the project. The applicability of CLUP noise policies to the project is discussed in Section 3.10, *Noise and Vibration*, which identifies **Mitigation Measure NO-3, Exposure to Airport Noise**. This measure would require that residential structures located within the Airport's 2037 65 CNEL noise contour for operation of the 2020 *SJC Airport Master Plan Update* include noise reduction measures (e.g., sound-rated window, wall, and door assemblies) to achieve an acceptable interior noise level in accordance with the land use compatibility guidelines of the Noise Element of the General Plan Despite this measure, Impact NO-3 was determined to be significant an unavoidable because of a conflict with CLUP Policy N-4. (This policy prohibits residential or transient lodging within the 65 dBA CNEL contour boundary unless it can be demonstrated that the resulting interior sound levels would be less than 45 dBA CNEL and there are no outdoor patios or outdoor activity areas associated with the residential portion of a mixed-use residential project or a multi-unit residential project.) Notwithstanding the significant impact resulting from the inconsistency with CLUP Policy N-4, exposure to aircraft noise at the levels that currently exist, and that would exist in the future, on the project site would not result in adverse health or safety impacts, with implementation

of Mitigation Measure NO-3 to ensure acceptable indoor noise levels. This is because, as explained in the noise analysis, indoor noise levels would be acceptable and projected exposure to outdoor noise would not exceed 77 CNEL. A noise exposure of 77 CNEL is equivalent to a 24 hour exposure of 70 dBA Leq, a level under which EPA[103] has determined is protective for the purposes of hearing conservation. Furthermore—if outdoor exposure is determined to be a nuisance (which would not be considered a hazardous condition), this could be easily avoided by moving indoors from outdoor open space such as a balcony or patio. Accordingly, with implementation of Mitigation Measure NO-3, the hazards-related effect would be rendered less than significant, and the remainder of this discussion focuses on compatibility of the proposed project with the CLUP safety-related policies that are not analyzed elsewhere in the EIR.

As discussed above in Section 3.7.2, *Regulatory Framework*, the currently approved Maximum Structure Heights (defined by the elevation of the Airport's FAR Part 77 imaginary surfaces) that extend south from the Airport on the project range from 65 to 130 feet above grade in the southern portion of the site, 130 feet in the site's central area, and from 80 to 100 feet at the site's northern parcels. As discussed in Chapter 2, Section 2.5, *Building Heights*, in March 2019, the San José City Council directed Planning Department staff to develop new height limits for portions of the downtown area based on FAA regulations for aircraft operations at the Airport. Once approved, the future height restrictions will range from 235 feet elevation amsl at the north edge of the project site (APN 259-26-017) to 390 feet amsl from the southern border of APN 261-37-031 to farther south (to the highest point of the structure).

Because the Maximum Structure Heights applicable to the proposed project would not exceed the FAR Part 77 imaginary airspace surfaces, the project would be consistent with Height Restriction Policies H-1 and H-2. However, according to Policy T-1 in the CLUP, the proponent for any project in Santa Clara County that would construct or alter a structure higher than 200 feet above ground level must submit a completed copy of FAA Form 7460-1, *Notice of Proposed Construction or Alteration*, to the FAA. Submitting this form prompts the FAA to prepare an aeronautical study to determine whether the structure would be a hazard to air navigation. This requirement applies to both permanent buildings and temporary structures (e.g., construction cranes). Upon completing the aeronautical study, the FAA would either issue a "Determination of Hazard," meaning that the project would cause airspace impacts that would have a substantial adverse effect on air navigation, or a "Determination of No Hazard," meaning that the project would not be a hazard to air navigation. In determining that a structure would not be a hazard to air navigation, the FAA may recommend the application of lighting and marking consistent with the guidance in FAA Advisory Circular 70/7460-1, Obstruction Marking and Lighting. The project applicant would be required to obtain a "Determination of No Hazard" from the FAA before the City issues building permits.

[103] U.S. Environmental Protection Agency, *Information on Levels of Environmental Noise Requisite to Protect Public Health and Welfare with an Adequate Margin of Safety*, March 1974. Available at https://nepis.epa.gov/Exe/ZyPDF.cgi/2000L3LN.PDF?Dockey=2000L3LN.PDF.

Policy T-1 requires that both a copy of Form 7460-1 and the FAA's hazard determination be sent to the ALUC as part of a submittal seeking a determination of consistency with the CLUP. The proposed project would be submitted to the ALUC for a consistency determination.

Should the ALUC determine that the project is inconsistent with the CLUP, the ALUC would notify the City. In such an event, California Public Utilities Code Section 21676(b) permits a local agency, such as the City of San José, to overrule the ALUC if the City Council votes, by a two-thirds margin and following a public hearing, to do so.

To override the ALUC determination, the City Council must make specific findings that the proposed action is consistent with the purposes the of the State Aeronautics Act (Public Utilities Code Section 21670 et seq.) "to protect public health, safety, and welfare by ensuring the orderly expansion of airports and the adoption of land use measures that minimize the public's exposure to excessive noise and safety hazards within areas around public airports to the extent that these areas are not already devoted to incompatible uses" (California Public Utilities Code Section 21670(a)(2)). The City must provide at least 45 days' notice to the ALUC of a proposed decision to overrule the ALUC, and the ALUC and the California Division of Aeronautics (a part of Caltrans) may provide advisory comments to the City within 30 days of receiving the City's proposed decision and findings; any such comments must be included in the public record of any final decision to overrule the ALUC.[104]

Because the project applicant would be required to obtain an FAA "Determination of No Hazard," and because—in the event the ALUC determines the project is inconsistent with the CLUP—the City would have to make findings that the project would protect public health, safety, and welfare and minimize the public's exposure to excessive noise and safety hazards within areas around public airports to the extent that these areas are not already devoted to incompatible uses, this impact would be less than significant **with mitigation**.

Mitigation Measure

Mitigation Measure NO-3: Exposure to Airport Noise (refer to Section 3.10, *Noise and Vibration*)

Significance after Mitigation: Less than significant.

Impact HA-5: The proposed project would not impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan. ***(Less than Significant)***

Construction

Project construction activities would occur mostly within the footprint of parcels on the project site, with the exception of the off-site transportation of equipment and materials; utility

[104] It is noted that the City Council in 2016 made such findings in overruling the ALUC with respect to the Delmas Mixed-Use Development Project on the former San Jose Water Company site, which occupies the portion of the project site just south of West Santa Clara Street, east and west of Delmas Avenue (File Nos. PDC15-051, PD15-061, PT16-012, and HP16-002).

improvements on adjacent streets; and off-site transportation improvements (described in Section 2.7.6, *Off-Site Transportation Improvements*). Construction equipment and materials would enter and exit parcel work sites via existing public roads. The temporary increases in construction traffic and potential temporary closures of nearby roads could interfere with emergency services traffic in the project vicinity.

The City of San José would require the preparation and implementation of construction traffic plans for each parcel, group of parcels, or off-site improvements as condition of construction and building permits. The construction traffic plans would manage the movement of vehicles, including those transporting hazardous materials, on roads. Although construction activities may result in temporary single-lane closures, these activities would not require the complete closure of streets. Therefore, emergency access would be maintained.

During the construction of the new egress for the SAP Center, the fire department would not allow egress construction to occur at the same time as an event. Therefore, the construction activities would not interfere with emergency access for the SAP Center. In addition, the removal and replacement of the SAP Center stairs would be required to conform with building and fire code requirements, ensuring adequate egress during emergencies.

With implementation of the required construction traffic plans, the volume and timing of construction traffic would be managed to avoid adversely affecting the level of service on nearby roads. The impact of the proposed project relative to emergency response or evacuation plans would be **less than significant**.

Mitigation: None required.

Operation

The proposed project's land uses would increase the daily population at the project site, including from increases of employees and patrons of commercial enterprises, and increases in the permanent residential population. Adequate emergency response and evacuation plans would be needed to serve the project in the event of a large natural or man-made emergency.

As discussed in Section 3.7.2, *Regulatory Framework*, the City of San José adopted the Emergency Operations Plan, an extension of the state's California Emergency Plan. Under this plan, the City has established policies and procedures to respond to a variety of emergencies. In addition, the City participates in the Association of Bay Area Governments' Local Hazard Mitigation Plan, *Taming Natural Disasters*. These plans have established policies and procedures for responding to earthquakes, fires, extreme weather, public health emergencies, technological and resource emergencies, hazardous materials incidents, terrorism, floods, and landslides.

As discussed in Section 3.12, *Public Services and Recreation*, new development on the project site would be reviewed by SJFD to ensure that the street system serving the proposed land uses would accommodate emergency response and evacuation. In addition, as discussed in Section 3.13, *Transportation*, the proposed project would include a program for managing traffic and minimizing congestion on and surrounding the project site during construction activities.

As discussed in Impact TR-4 in Section 3.13, *Transportation*, roadway extensions and new streets would need to comply with the City of San José's Complete Streets Design & Guidelines (May 2018), which include design specifications that consider emergency vehicle access requirements. All new street segments would be designed in accordance with City policies, would provide adequate emergency vehicle access, and would not impede emergency vehicle access to the project site and surrounding area.

As discussed in Section 2.7, *Transportation and Circulation*, the proposed project would establish the required emergency vehicle access at the northern end of the site before occupancy. The proposed project has evaluated a range of options for a new at-grade railroad crossing or new grade separation under the railroad. Grade separation options proposed by the project include an underpass at Lenzen Avenue or North Montgomery Street. The project does not propose a grade separation over the railroad because the elevations required for rail clearance would not be feasible given the current roadway geometry. At-grade rail crossing options proposed by the project include modifying the existing North Montgomery Street at-grade crossing or constructing a new at-grade crossing on the north leg of the Warm Springs wye[105] (the Union Pacific Railroad track that runs southeasterly from the Caltrain tracks north of the project site) to the San Jose Market Center (the retail center northeast of the site). In addition, with the introduction of new technologies, such as remotely controlled bollards/gates, integrated communications between building fire alarm systems and rail and/or mass notification systems, North Montgomery Street could potentially continue to serve as the sole access point for emergency vehicles.

The specific proposal for emergency vehicle access has not been finalized because of the need to coordinate with other efforts that affect the feasibility of certain options. The City is applying to the Federal Railroad Administration for a quiet zone on the Warm Springs corridor from North Montgomery Street to Horning Street, about a mile northeast of the project site, which may include improvements to the North Montgomery Street at-grade railroad crossing. In addition, the Diridon Integrated Station Concept Plan partner agencies are studying a concept layout that would elevate the railroad tracks that currently limit access to the north end of the site. Elevation of the tracks, consistent with the Concept Layout, would allow for at-grade or nearly at-grade reconnections of streets to the north end of the site. These streets could include North Autumn Street, Cinnabar Street (note that Cinnabar Street would provide no benefit as long as PG&E retains its existing service yard east of Stockton Avenue), and Lenzen Avenue. Any new emergency vehicle access proposed by the project at the north end of the site could be reconfigured, replaced, or supplemented by alternative access options at the time that the railroad is elevated as proposed by the Diridon Integrated Station Concept Plan partner agencies. The new at-grade or grade-separated crossing ultimately proposed by the project would require coordination with the City as well as the California Public Utilities Commission and/or the Federal Railroad Administration, and Caltrain and Union Pacific Railroad as applicable. This action would increase the amount of emergency access.

Finally, California Fire Code Chapter 10, *Means of Egress*, requires that all habitable structures—both residential and commercial buildings—comply with all relevant sections of the Fire Code, which includes designing structures to enable ingress and egress during fires and other

[105] A wye is a triangle of railroad track used for turning locomotives or trains.

emergencies. The code includes design for ingress and egress, emergency escape routes, exit design requirements, and lighting.

The proposed project and existing emergency response requirements are sufficient to ensure that the impact of the proposed project related to possible impairment or implementation of any emergency response or evacuation plans would be **less than significant**.

Mitigation: None required.

Cumulative Impacts

This section analyzes the cumulative effects of the proposed project in combination with other past, present, and reasonably foreseeable future projects that could cause cumulatively considerable impacts.

The geographic area affected by the proposed project and its potential to contribute to cumulative impacts vary based on the environmental resource under consideration. The geographic scope of the analysis for cumulative hazardous materials impacts encompasses and is limited to the project site and its immediately adjacent area. Impacts related to hazardous materials are generally site-specific and depend on the nature and extent of the hazardous materials release, and on existing and future soil and groundwater conditions. For example, most hazardous materials incidents tend to be limited to a smaller, more localized area surrounding the immediate spill location and extent of the release, and could be cumulative only if two or more hazardous materials releases were to spatially overlap.

The timeframe during which the proposed project could contribute to cumulative hazards and hazardous materials effects includes the construction and operational phases. For the proposed project, the operational phase is relatively permanent. However, similar to the geographic limitations discussed above, it should be noted that impacts related to hazardous materials are generally time-specific. Hazardous materials events could be cumulative only if two or more hazardous materials releases were to occur at the same time, and overlap at the same location.

A significant cumulative impact related to hazards and hazardous materials could occur if the incremental impacts of the project were to combine with the incremental impacts of one or more of the cumulative projects identified in Table 3-1 and Figure 3-1 at the beginning of Chapter 3, *Environmental Setting, Impacts, and Mitigation*, to substantially increase cumulative impacts.

Impact C-HA-1: The proposed project would not combine with other projects to result in significant cumulative impacts related to hazardous materials. *(Less than Significant with Mitigation)*

Cumulative Impacts during Project Construction

Routine Transport, Use, and Disposal; Accidental Spills; and Proximity to Schools

All of the cumulative projects would be subject to the same regulatory requirements as discussed for the proposed project, including the implementation of Hazardous Materials Business Plans to

ensure the safe and legal management of hazardous materials and the establishment of spill response protocols. Cumulative projects involving the use or spillage of hazardous materials also would be required to manage hazardous materials on their respective sites to the same established regulatory standards. This cumulative impact would be **less than significant**.

Hazardous Materials Sites

Relative to hazardous materials sites, as discussed in Section 3.7.1, *Environmental Setting*, under *Off-Site Conditions*, and shown on Figure 3.7-6, *Nearby Off-Site Hazardous Materials Sites*, a number of sites with known hazardous materials issues are near the project site, and have the potential to result in cumulative impacts.

The regulatory statuses of most of the nearby hazardous materials sites are closed or pending closure, meaning that cleanup at these sites was conducted to the satisfaction of the overseeing regulatory agency. Closure granted by the regulatory agency means that, based on the testing data, the regulatory agency is satisfied that the site does not pose a threat to the public or the environment, including nearby properties. As discussed in Section 3.7.1, *Environmental Setting*, under *Off-Site Conditions*, the only off-site cases that have the potential to combine with the project site for a cumulatively considerable impact would be Site 20, Dariano & Sons at 638 Auzerais Avenue, an open UST site with verification monitoring, and the Diridon Caltrain Station parking lots, with several contamination sources that may extend to within the project site.

Site 20 has soil and groundwater contaminated with gasoline, and this site has been undergoing investigation and remediation. Gasoline has been reported floating on groundwater beneath this site since 2005. Ongoing remediation consists of soil vapor extraction. The direction of groundwater flow has been mostly to the southwest, generally parallel to the southern border of the project site, but has fluctuated with some observed flow directions to the south. Given the location immediately adjacent and south of the project site, contaminated groundwater—including floating gasoline—may extend to the southern border of the project site. This could result in a cumulatively considerable impact.

Site 20 would be subject to the same regulatory requirements as discussed for the proposed project, including the implementation of health and safety plans and soil and groundwater management plans, as needed. That is, the owner of Site 20 is being required to remediate its site to established regulatory standards. This would be the case regardless of the number, frequency, or size of the release(s), or the residual amount of chemicals present in the soil from previous spills. The responsible party for Site 20 would be required to remediate site conditions to the same established regulatory standards.

However, Site 20 is currently undergoing investigation and cleanup, and the cleanup may not be complete before construction of the proposed project begins. Therefore, depending on the timing of project construction and the depth of construction that might encounter contaminated soil and groundwater, the proposed project and Site 20 could result in a cumulatively considerable impact that would require mitigation.

The historical records for the Diridon Caltrain Station parking lots indicate previous industrial use. USTs and contaminated soil have been removed. However, the remaining soil and groundwater have concentrations above various soil and groundwater screening levels. It is unknown whether contamination from the prior uses has migrated east to the parcels of the proposed project.

As discussed in Section 2.7.6, *Off-Site Transportation Improvements*, under *SAP Center Parking*, additional SAP Center parking could be developed off-site in the vicinity of the project, including on a group of assessor's parcels known as "Lot E." Although the specific parcels have not been selected, the properties under consideration would potentially include Site 10, San Jose Foundry, and Site 11, Manada Tile, discussed above in the *Off-Site Conditions* section. As listed on Table 3.7-2, both sites are former UST sites that have been closed to the satisfaction of the regulatory agencies. Consequently, construction at these two sites would not be expected to encounter hazardous materials and would not contribute to cumulative impacts.

As discussed above in Impact HA-3, the proposed project would implement Mitigation Measures HA-3b, Health and Safety Plan; HA-3c, Site Management Plan; and HA-3d, Vapor Mitigation. In particular, Mitigation Measure HA-3c requires that contractors develop a groundwater dewatering control and disposal plan specifying how groundwater (dewatering effluent), if encountered, will be handled and disposed of in a safe, appropriate, and lawful manner. The Site Management Plan must identify the locations at which groundwater dewatering is likely to be required, the test methods for analyzing groundwater for hazardous materials, the appropriate treatment and/or disposal methods, and licensed treatment or disposal facilities permitted to accept the waste. The contractor(s) may also discharge the effluent under an approved permit to a publicly owned treatment works, in accordance with any requirements the treatment works may have. Implementing the Site Management Plan would reduce the project's contribution to any cumulative impacts to **less than cumulatively considerable**. Therefore, the cumulative impact would be **less than significant with mitigation incorporated**.

Mitigation Measures

Mitigation Measure HA-3b, Health and Safety Plan (refer to Impact HA-3)

Mitigation Measure HA-3c, Site Management Plan (refer to Impact HA-3)

Mitigation Measure HA-3d, Vapor Mitigation, as appropriate (refer to Impact HA-3)

Significance after Mitigation: Less than Significant

Cumulative Impacts during Project Operations

Routine Transport, Use, and Disposal; Accidental Spills; and Proximity to Schools

Significant cumulative impacts related to operational hazards could occur if the incremental impacts of the proposed project were to combine with those of one or more of the cumulative projects to cause a substantial increase in risk that people or the environment would be exposed to hazardous materials used or encountered during the operations phase.

As discussed under Impact 3.7-1, operation of the project facilities would require the use of various chemicals including solvents and cleaning agents, paints and thinners, and other chemicals associated with routine operations and maintenance activities. Compliance with the various

regulations for the safe transport, use, storage, and disposal of hazardous materials would reduce the project-specific incremental impact to a less-than-significant level.

Similar to the proposed project, the cumulative project components involving the handling, storage, and disposal of hazardous materials would be required to prepare and implement a Hazardous Materials Business Plan and comply with applicable regulations, including those governing containment, site layout, and emergency response and notification procedures in the event of a spill or release. Transportation and disposal of wastes, such as spent cleaning solutions, would also be subject to regulations for the safe handling, transportation, and disposal of chemicals and wastes. As noted previously, such regulations include standards to which parties responsible for hazardous materials releases must return spill sites, regardless of location, frequency, or size of release, or existing background contaminant concentrations to their original conditions.

Compliance with existing regulations regarding hazardous materials transport would reduce the risk of environmental or human exposure to such materials. The combined effects of the proposed project and cumulative projects would result in a **less-than-significant cumulative impact**.

Hazardous Materials Sites

Once project construction has been completed, hazardous materials issues on the project site would have been addressed and would not be able to combine with hazardous materials issues from cumulative projects. Accordingly, the proposed project and cumulative projects would result in a **less-than-significant cumulative impact**.

Mitigation: None required.

Impact C-HA-2: The proposed project would not combine with other projects to result in significant cumulative impacts related to proximity to airports. ***(Less than Significant with Mitigation)***

Cumulative Impacts during Project Construction

The cumulative sites listed on Figure 3-1 that are west of State Route 87 are within the FAR Part 77 building height restriction area south of Norman Y. Mineta San José International Airport. As discussed previously in Section 3.7.2, *Regulatory Framework, City of San José Downtown Airspace Development Capacity Study*, the height limits are in the process of being revised, which will result in an increase in the allowable building heights. Similar to the proposed project, cumulative projects that would include the construction of structures within the building height restriction area would be subject to the same height restrictions as discussed above in Impact HA-4. In addition, for cumulative projects located within the Airport Influence Area for the Airport as delineated in the Airport's CLUP, CLUP noise compatibility policies would be applicable to the cumulative project. CLUP noise policies are discussed in Section 3.10, *Noise and Vibration*, and would be required to implement a mitigation measure similar to Mitigation Measure NO-3 discussed above in Impact HA-4. Compliance with those restrictions would be a condition of their construction permits. As described in Impact HA-4, exposure to aircraft noise would not result in adverse health or safety impacts with implementation of Mitigation Measure NO-3 to ensure acceptable indoor noise levels and therefore the hazards-related effect would be rendered

less than significant with mitigation. Accordingly, the proposed project and cumulative projects would result in a **less-than-significant cumulative impact with mitigation**.

Mitigation Measure

Mitigation Measure NO-3: Exposure to Airport Noise (refer to Section 3.10, *Noise and Vibration*)

Significance after Mitigation: Less than significant.

Cumulative Impacts during Project Operations

Once project construction has been completed for both the proposed project and cumulative projects, structure height restrictions would have been complied with as a condition of their construction permits. Accordingly, the proposed project and cumulative projects would result in a **less-than-significant cumulative impact**.

Mitigation: None required.

Impact C-HA-3: The proposed project would not combine with other projects to result in significant cumulative impacts related to impairment of implementation of or physical interference with adopted emergency response or evacuation plans. ***(Less than Significant)***

Cumulative Impacts during Project Construction

Similar to the proposed project, cumulative projects that would include construction activities that would encroach on public streets would be required to develop and implement traffic control plans as conditions of their construction permits. Each plan would be required to ensure that emergency vehicles would be able to access or pass by the construction site. Accordingly, the proposed project and cumulative projects would result in a **less-than-significant cumulative impact**.

Mitigation: None required.

Cumulative Impacts during Project Operations

Once project construction has been completed for both the proposed project and cumulative projects, no further street encroachments would occur. Note that as discussed in Section 2.7, *Transportation and Circulation*, the project applicant is proposing to change certain streets to improve circulation and emergency access. The changes would be based on the final design of the project to account for and accommodate the increased volume of traffic. Once complete, the changes would cause streets to be at acceptable levels of service. Accordingly, the proposed project and cumulative projects would result in a **less-than-significant cumulative impact**.

Mitigation: None required.

3.8 Hydrology and Water Quality

This section describes existing hydrology and water quality in the project vicinity, including wastewater and stormwater management, existing and future flooding, and groundwater conditions; explains the existing regulatory framework governing these topics; and discusses potential construction-related and operational impacts of the proposed project. Mitigation measures are provided to avoid or reduce significant impacts, as appropriate. The impact assessment evaluates water quality issues related to both construction activities and operation of the proposed project.

3.8.1 Environmental Setting

Regional and Local Hydrology

The city of San José is located in the Santa Clara Valley between the Santa Cruz Mountains to the west and the Diablo Range to the east. The climate in this region is characterized by coastal and bay influences, with mild to moderate temperatures year-round. The region averages approximately 14.5 inches of rain per year, with rainfall generally occurring between October and May, as typical for California's Mediterranean climate.[1]

The project site is located within the Guadalupe watershed in western San José. This watershed encompasses approximately 171 square miles, from the headwaters in the eastern Santa Cruz Mountains near the summit of Loma Prieta through the Santa Clara Valley to South San Francisco Bay. Surface waters within the Guadalupe watershed include the tributaries and mainstem of the Guadalupe River. The river begins at the confluence of Alamitos Creek and Guadalupe Creek in the Almaden/Alamitos area of San José and flows north for 14 miles through the cities of San José, Campbell, and Santa Clara before reaching lower South San Francisco Bay, via Alviso Slough.

The Guadalupe River and Los Gatos Creek are perennial waterways that flow south to north, just east of the project's development boundary. Los Gatos Creek crosses the southernmost portion of the project site and then continues north along the east side of the project site. Land use in the upper watershed is characterized by heavy forests with pockets of residential parcels. Residential density increases to high density on the valley floor, mixed with commercial, urban, and industrial uses in San José and its surrounding municipalities. Existing impervious (paved) surfaces in San José contribute to conditions of rapid runoff and periodic flooding during storms. The existing site is approximately 97 percent impervious as a result of existing land uses, which include industrial and commercial development with many large asphalt parking lots and minimal existing landscaped areas. Under existing conditions, stormwater runoff from the project site is not treated before its discharge to the City's collection network.[2]

[1] Western Regional Climate Center, Period of Record Monthly Climate Summary, San Jose, California (047821), January 1, 1893, to June 6, 2016. Available at https://wrcc.dri.edu/cgi-bin/cliRECtM.pl?ca7821. Accessed September 9, 2019.

[2] Arup, Lendlease & Sherwood Design Engineers, *Google Downtown West Infrastructure Plan*, October 7, 2020.

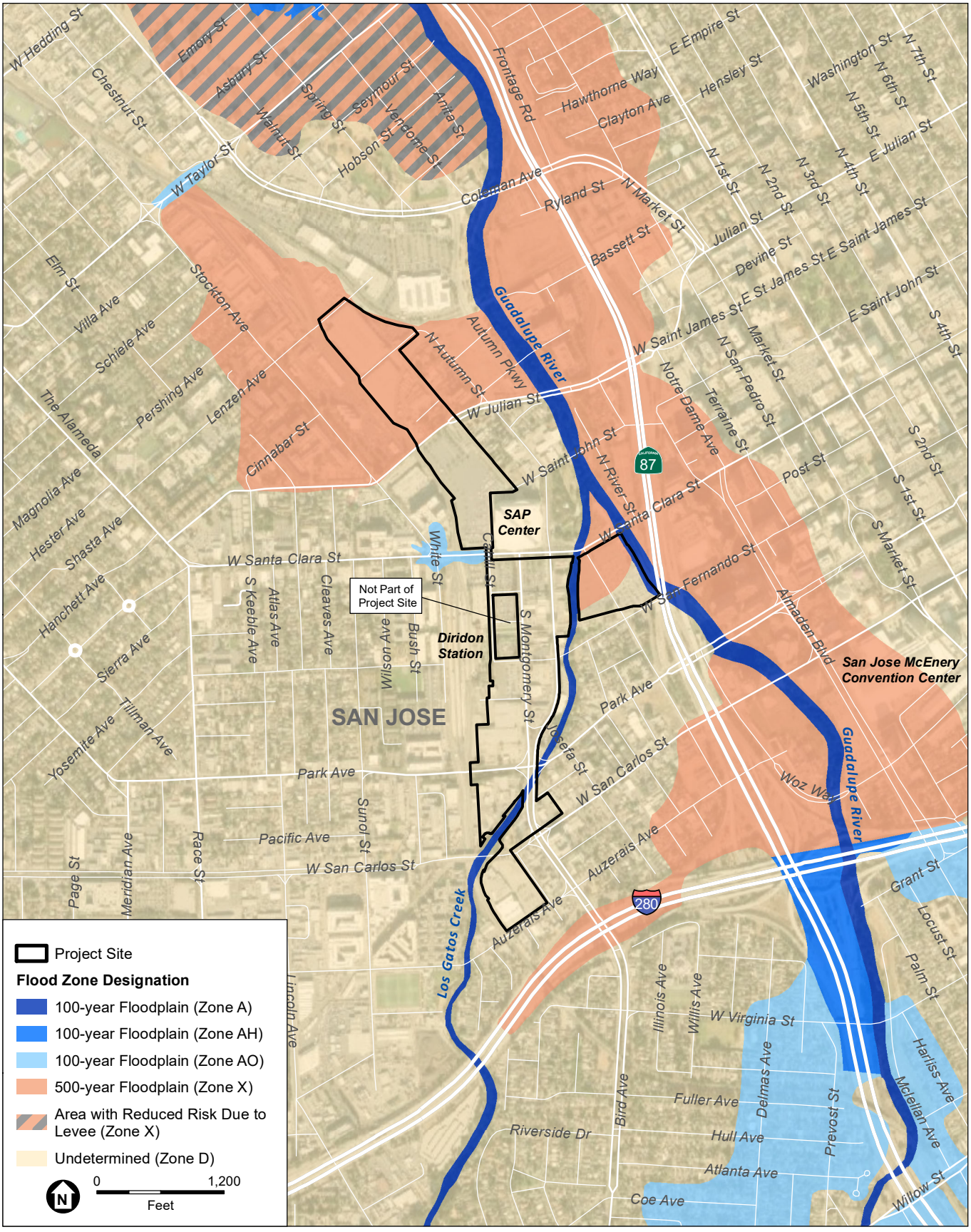
Los Gatos Creek, the largest tributary, connects to the Guadalupe River approximately 3.5 miles downstream of the river's origin and crosses through Santa Clara County land, the towns of Monte Sereno and Los Gatos, and the cities of Campbell and San José. Los Gatos Creek has been described as one of the few urban streams in the Santa Clara Valley that remains relatively intact, and serves as a riparian corridor and a network of flood protection for San José.[3] Under existing conditions, the channel of Los Gatos Creek (in reaches between the West Santa Clara Street bridge and the West San Carlos Street bridge) contains large invasive trees and shrubs, as well as logjams, trash, and other debris that constrain floodwater conveyance during storms. The existing West San Fernando Street bridge contains in-stream support piers that also contribute to displacement of flow, as floodwaters periodically overtop Los Gatos Creek.[4] **Figure 3.8-1** shows surface waters and flood hazard areas in the vicinity of the project site.

Groundwater Hydrology

The project site is located in the Santa Clara Groundwater Basin, Santa Clara Subbasin (Basin 2.9-02), which has been identified as a high-priority basin under the Sustainable Groundwater Management Act (SGMA).[5] In normal rainfall years, about 50 percent of Santa Clara County's water supply is provided locally, primarily from groundwater. Municipal water supplied to Downtown San José draws mainly from groundwater, which is generally more available in the Santa Clara Valley than elsewhere in the county.[6] In drought years, however, up to 90 percent of the water has been imported to serve municipal demand.[7] Groundwater has been encountered at depths of 15.1 to 20.9 feet north of West Santa Clara Street,[8] and at 25 feet below the ground surface in the southern portion of the project site near Auzerais Avenue.[9]

Groundwater in the Santa Clara Subbasin is of generally good quality. Key issues of concern in the subbasin are land subsidence caused by past groundwater overdraft, and saline intrusion into groundwater through tidal channels near southern portions of San Francisco Bay. For additional discussion of water quality, refer to Section 3.8.2, *Regulatory Framework.*

3 Santa Clara County Parks, Los Gatos Creek County Park. Available at https://www.sccgov.org/sites/parks/parkfinder/Pages/LosGatosCreek.aspx. Accessed October 17, 2019.
4 Schaaf & Wheeler, *Google San Jose Hydrology and Flood Control Measures,* August 2020.
5 California Department of Water Resources, *Sustainable Groundwater Management Act 2019 Basin Prioritization: Process and Results*, May 2020. Available at https://water.ca.gov/Programs/Groundwater-Management/Basin-Prioritization. Accessed May 14, 2020.
6 Santa Clara Valley Water District, *Annual Groundwater Report for Calendar Year 2018*, 2018. Available at https://www.valleywater.org/sites/default/files/2020-03/2018%20Annual%20Groundwater%20Report_Final-Web%20Version.pdf. Accessed September 9, 2019.
7 City of San José, *Envision San José 2040 General Plan*, adopted November 1, 2011 (amended March 16, 2020). Available at https://www.sanjoseca.gov/home/showdocument?id=22359. Accessed January 16, 2020.
8 City of San José, *San José Arena (SAP Center) Third Five Year Review*, Appendix B, *Groundwater Monitoring Report*, August 2018.
9 Georestoration Inc., *Remediation Progress Report First Quarter 2019, 638 Auzerais Avenue San José*, SCCDEH Case No. 12-023, April 30, 2019.



SOURCES: Esri, 2019, City of San Jose, 2019, FEMA, 2018; ESA, 2020

Downtown West Mixed-Use Plan

Figure 3.8-1
Surface Waters and Flood Zones in the Project Vicinity

Flood Zone

According to Federal Emergency Management Agency (FEMA) Flood Insurance Rate Maps (FIRMs), the majority of the project site is located in Zone D, classified by FEMA as an "area of undetermined but possible flood hazards" (refer to Figure 3.8-1). Storm-related flooding (from the overtopping of creeks and storm drains) is the type of flooding most likely to affect the project site. The project proposes land uses on more than 20 acres in areas of moderate flood risk, labeled Zone X. These are areas between the limits of the 1-percent-annual-chance (or "100-year") flood, which FEMA refers to as the "other flood areas," with average depths of less than 1 foot or with drainage areas less than 1 square mile, and the 0.2-percent-annual-chance (or "500-year") flood zone. A small area of the project site, east of the intersection of Stockton and Santa Clara Streets, lies within a special flood hazard area that is subject to inundation by a 1-percent-annual-chance flood. This area is classified by FEMA as Zone AO, a flood zone with potential flood depths of 1 to 3 feet (usually sheet flow on sloping terrain).[10] Finally, as shown on Figure 3.8-1, about 1.16 acres of the site in the floodplain of Los Gatos Creek south of Park Avenue and north of West San Carlos Street and the floodplain of the Guadalupe River between West Santa Clara and West San Fernando Streets are within FEMA Zone A (areas within a 100-year floodplain but for which no detailed hydraulic analyses have been performed; therefore, no base flood elevations or flood depths are provided by FEMA).

Table 3.8-1 quantifies the acreage of the project site that is located within FEMA flood zones.

TABLE 3.8-1
AREAS OF THE PROJECT SITE WITHIN A FLOOD ZONE

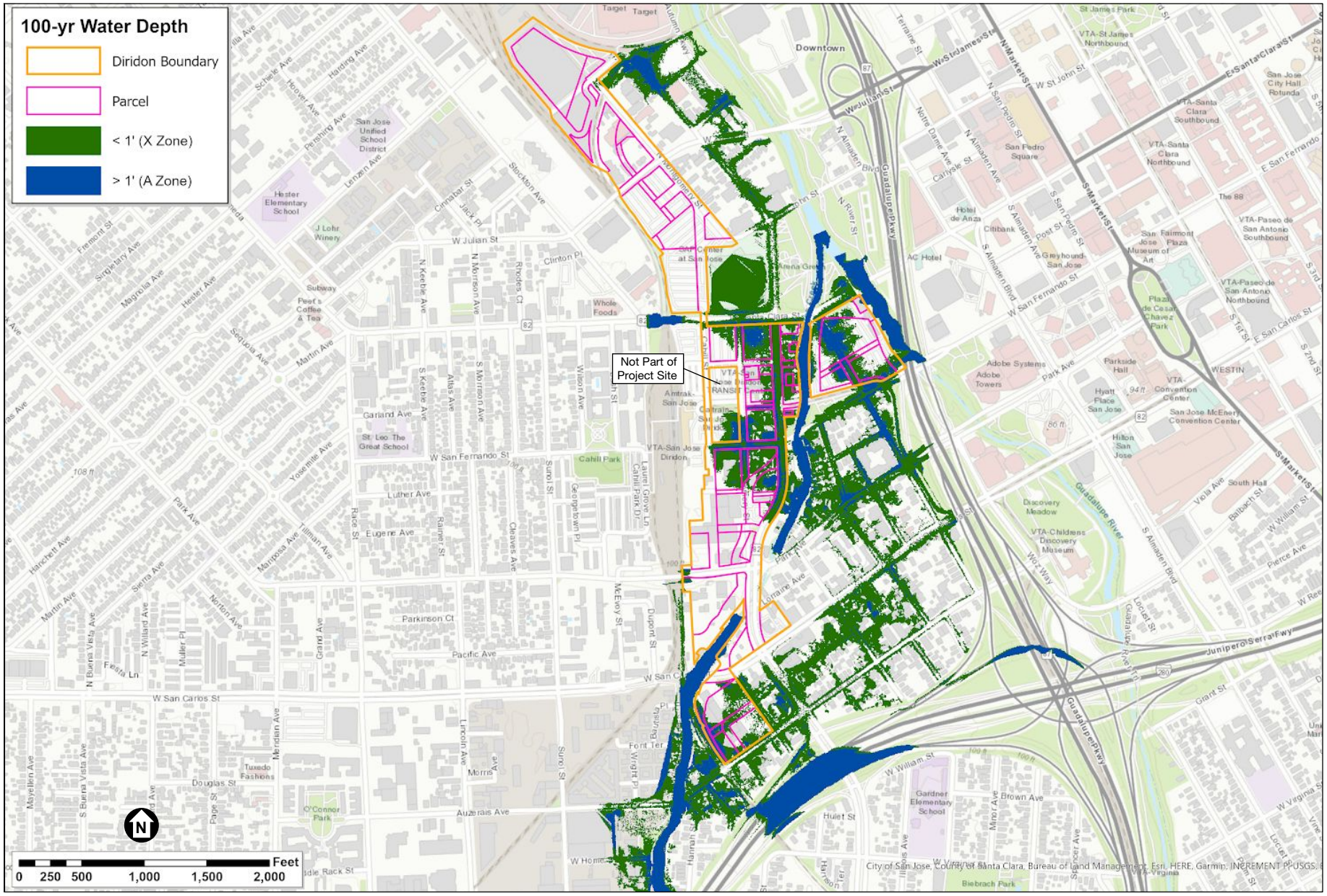
Flood Zone Designation	Acreage of Project Site within Flood Zone
Zone A: 100-year floodplain	1.16 acres
Zone AH: 100-year floodplain	0 acres
Zone AO: 100-year floodplain	0.04 acres
Zone X: 500-year floodplain	22.12 acres
Zone D: Undetermined flood risk zone	58.26 acres
	Total project area: 81.58 acres

SOURCE: Federal Emergency Management Agency, *Flood Insurance Mapping Program*, map revisions through March 7, 2019; FEMA Flood Zone designations; mapped areas compiled from the National Flood Hazard Layer (NFHL). Available at http://www.fema.gov/national-flood-hazard-layer-nfhl. Accessed October 9, 2019.

To assess site-specific flood hazards under a development scenario, the Santa Clara Valley Water District (Valley Water) developed a two-dimensional hydraulic HEC-RAS model of Los Gatos Creek, which represents the best available floodplain data applicable to analysis of the proposed project. The model provides a detailed analysis of locations that could experience increased flood depths (under a development scenario) and identifies a deficiency of channel capacity resulting from overbank flooding during the 100-year event not identified in the FEMA FIRM (refer to **Figure 3.8-2**).[11]

[10] Federal Emergency Management Agency, *National Flood Insurance Program Flood Insurance Rate Map, Santa Clara County, California, and Incorporated Areas*, Panel 234, effective May 18, 2009. Available at https://msc.fema.gov/portal/search?AddressQuery=Santa%20Clara%20County#searchresultsanchor. Accessed September 2019.

[11] Schaaf & Wheeler, *Google San Jose Hydrology and Flood Control Measures*, August 2020.



SOURCES: Valley Water, Schaaf & Wheeler, 2020

Downtown West Mixed-Use Plan

Figure 3.8-2
Valley Water Best Available 100-year Floodplain Map

Dam Inundation

Most of Downtown San José, including the project site, lies within a dam failure inundation zone for one or more reservoirs, notably Anderson Reservoir (19 miles southeast of the project site) and Lenihan (Lexington) Dam (10 miles southwest of the project site), both owned and managed by Valley Water.[12] Two flooding scenarios are presented and defined in the dam failure inundation maps prepared by Valley Water. The "fair weather" scenario assumes a dam failure occurring during non-storm conditions; the "inflow design flood" scenario assumes a dam failure occurring under a large storm event with high pool elevations in the reservoir and high-flow conditions downstream.

Valley Water is currently engaged in a seismic retrofit of Anderson Dam, which involves sharply reducing the amount of water that can be stored in the reservoir while the seismic retrofit is in progress. The Federal Energy Regulatory Commission and the California Division of Safety of Dams have approved the storage restriction, allowing Anderson Reservoir to fill up to 58 percent of capacity to prevent an uncontrolled release of water in the event of seismic failure.[13]

Lenihan Dam at Lexington Reservoir was built with a spillway that conveys flows downstream to Los Gatos Creek during storms. A seismic evaluation of Lenihan Dam, which was corroborated by the California Division of Safety of Dams, concluded that the dam was built on bedrock and would perform well when subjected to ground motion at Maximum Credible Earthquake levels.[14]

Tsunami and Seiche

Tsunamis are ocean waves generated by vertical movement of the sea floor, normally associated with earthquakes or volcanic eruptions. *Seiches* are oscillations of enclosed or semi-enclosed bodies of water that result from seismic events, wind stress, volcanic eruptions, underwater landslides, and local basin reflections of tsunamis. The project site is not located in a coastal area subject to tsunami or seiche.[15]

Stormwater Management

The City of San José manages stormwater runoff—rainwater that flows across impervious surfaces and is not absorbed into the soil—through the storm sewer system, a network of storm drainages that consists of inlets, manholes, pipes, outfalls, channels, and pump stations. Stormwater is collected through storm drains, conveyed through pipes and channels, and discharged to receiving waters through outfalls. The project area includes 3.5 miles of backbone storm drain pipe (18 inches in diameter or larger) with five outfalls extending to the Guadalupe

[12] Santa Clara Valley Water District, Dam Failure Inundation Maps, Leroy Anderson Dam, scale 1" = 40,000', April 2016. Available at https://www.valleywater.org//sites//default//files//Anderson%20Dam%20Inundation%20Maps%202016.pdf. Accessed October 2, 2019.

[13] Santa Clara Valley Water District, Anderson Dam Seismic Retrofit Project: About this Project. Available at https://www.valleywater.org/anderson-dam-project. Accessed April 30, 2020.

[14] Santa Clara Valley Water District, *Seismic Stability Evaluations of Chesbro, Lenihan, Stevens Creek, and Uvas Dams (SSE2),* Compilation Report No. SSE2A-LN, December 2012. Available at https://www.valleywater.org/sites/default/files/Compilation%20Report_Dec%202012.pdf. Accessed December 23, 2019.

[15] California Governor's Office of Emergency Services, My Hazards Mapping Tool. Available at http://myhazards.caloes.ca.gov/. Accessed September 27, 2019.

River and nine outfalls to Los Gatos Creek. Three pump stations drain under the railway underpass, at Julian Street, Santa Clara Street, and Park Avenue. This infrastructure serves to prevent flooding of streets and highways and is maintained by the City's Department of Transportation and Public Works Department. Existing stormwater management systems serving the project site lack capacity to adequately convey floodwaters during a 10-year, 24-hour event as described in Chapter 2, *Project Description*, Section 2.8.7, *Stormwater*. According to City-modeled storm system analysis, areas that experience stormwater flooding under existing conditions include Stockton Avenue between Santa Clara Street and Lenzen Avenue; the intersection of Montgomery Street and Cinnabar Street; and along Santa Clara Street between Cahill Street and Autumn Street.[16]

The City and numerous other municipalities in Santa Clara County are co-permittees in the Municipal Regional Stormwater National Pollutant Discharge Elimination System (NPDES) program, discussed further in Section 3.8.2, *Regulatory Framework*. They share resources and collaborate in the project area to reduce pollution and minimize waterway impacts through the Santa Clara Valley Urban Runoff Pollution Prevention Program.

3.8.2 Regulatory Framework

Federal

Clean Water Act

Under the Federal Water Pollution Control Act, better known as the Clean Water Act (CWA), the U.S. Environmental Protection Agency (EPA) seeks to restore and maintain the chemical, physical, and biological integrity of the nation's waters by implementing water quality regulations. Multiple CWA sections apply to activities near or within surface water or groundwater. The federal Antidegradation Policy, established in 1968 under CWA Section 303, is designed to protect existing uses, water quality, and national water resources. The states implement a set of antidegradation measures when evaluating activities that may affect the quality of waters of the United States. Implementing antidegradation measures is integral to the comprehensive protection and enhancement of surface water and groundwater quality.

CWA Section 303(d) requires states to identify water bodies or segments of water bodies that are "impaired." (Impaired water bodies do not meet one or more of the water quality standards established by the state, even after point sources of pollution have been equipped with the minimum required levels of pollution control technology.) A *point source* is any discernible, confined, and discrete conveyance (e.g., a pipe discharge) of pollutants to a water body from sources such as industrial facilities or wastewater treatment plants. EPA must approve a state's 303(d) list before the list is considered final.

Including a water body on the Section 303(d) List of Impaired Water Bodies triggers development of a total maximum daily load (TMDL) for that water body and a plan to control the associated pollutant/stressor on the list. The *TMDL* is the maximum amount of a pollutant/stressor

[16] Schaaf & Wheeler, Google San Jose Storm System Analysis, August 2020.

that a water body can assimilate and still meet the water quality standards. Typically, a TMDL is the sum of the allowable loads of a single pollutant from all contributing point and non-point sources. *Non-point pollutant sources* are those that do not have a single, identifiable discharge point but are rather a combination of many sources. For example, a non-point source can be stormwater runoff from land that contains petroleum from parking lots, pesticides from farming operations, or sediment from soil erosion. The regional water quality control plan (referred to as the "basin plan") is amended to legally establish the TMDL and specify regulatory requirements, including waste load allocations for entities that have permitted discharges. The project site is under the jurisdiction of the San Francisco Bay Regional Water Quality Control Board. The *Water Quality Control Plan for the San Francisco Bay Basin* (Basin Plan) forms the basis for implementing water quality measures in the region, as discussed further below in the *Regional* section.

Table 3.8-2 lists the beneficial uses and impairment statuses of water bodies in the project area, along with the pollutants that cause the impairments. Once a water body is placed on the Section 303(d) List of Water Quality Limited Segments, it remains on the list until a TMDL or alternative approach is adopted and the water quality standards are attained, or until sufficient data become available to demonstrate that water quality standards have been met and delisting should take place. Under certain circumstances, alternative restoration approaches are approved in lieu of a TMDL. Implementation generally includes a near-term plan, a description of actions to be taken, and a schedule and milestones for achieving water quality standards.

CWA Section 404 authorizes the U.S. Army Corps of Engineers (USACE) to regulate the discharge of dredged or fill material to waters of the United States, including wetlands (U.S. Code Title 33, Section 1344 [33 USC 1344]). USACE issues site-specific individual or general (i.e., Nationwide) permits for such discharges.

Under CWA Section 401, any applicant for a federal license or permit to conduct an activity that may result in a discharge into navigable waters must provide the licensing or permitting agency with a certification that the discharge would comply with the applicable CWA provisions (33 USC 1341). It is anticipated that the proposed project's in-stream construction and demolition of existing support structures in Los Gatos Creek would include dredge and fill activity in jurisdictional waters of the United States. If a federal permit is required, such as a USACE Section 404 Nationwide Permit for dredge and fill discharges, the project applicant must also obtain a Section 401 Water Quality Certification from the regional water board.

CWA Section 402(p) regulates discharges to surface waters through the NPDES, a nationwide surface water discharge permit program for municipal and industrial point sources. In California, NPDES permitting authority is delegated to and administered by the nine regional water boards. Under Section 402, the San Francisco Bay Regional Water Quality Control Board has set standard conditions for each permittee in the Bay Area, including effluent limitation and monitoring programs. In addition to issuing and enforcing compliance with NPDES permits, each regional water board is responsible for preparing and revising the relevant basin plan (refer to the discussion of state regulations below).

TABLE 3.8-2
BENEFICIAL USES AND IMPAIRMENT STATUS OF WATER BODIES IN THE PROJECT AREA

Water Body	Beneficial Use(s)	Impairment Status	Pollutants
Guadalupe River	• Groundwater Recharge (GWR) • Cold Freshwater Habitat (COLD) • Migratory (MIGR) • Fish Spawning (SPWN) • Wildlife Habitat (WILD) • Preservation of Rare and Endangered Species (RARE) • Water Contact Recreation (REC-1) • Noncontact Water Recreation (REC-2)	At least one beneficial use is not supported; a TMDL has been developed, and the approved implementation plan is expected to result in full attainment.	Diazinon, mercury, and trash *Sources unknown*
Los Gatos Creek	• Municipal and Domestic Water Supply (MUN) • Freshwater Replenishment (FRSH) • Groundwater Recharge (GWR) • Cold Freshwater Habitat (COLD) • Migratory (MIGR) • Fish Spawning (SPWN) • Wildlife Habitat (WILD) • Preservation of Rare and Endangered Species (RARE) • Water Contact Recreation (REC-1) • Noncontact Water Recreation (REC-2)	At least one beneficial use is not supported; a TMDL has been developed, and the approved implementation plan is expected to result in full attainment.	Diazinon *Source unknown*
Santa Clara Valley (Coyote Valley) Groundwater Subbasin	• Municipal and Domestic Water Supply (MUN) • Industrial Process Water Supply (PROC) • Industrial Water Service Supply (IND) • Agricultural Water Supply (AGR)	N/A	N/A
San Francisco Bay, South	• Estuarine Habitat (EST) • Sport and Commercial Fishing (COMM) • Preservation of Rare and Endangered Species (RARE) • Water Contact Recreation (REC-1) • Noncontact Water Recreation (REC-2) • Fish Spawning (SPWN) • Wildlife Habitat (WILD)	At least one beneficial use is not supported and a TMDL is needed.	Chlordane, DDT, Dieldrin, dioxin compounds, furan compounds, invasive species, mercury, PCBs, selenium *Sources unknown*

NOTES:
DDT = dichlorodiphenyltrichloroethane; N/A = not applicable; PCB = polychlorinated biphenyl; TMDL = total maximum daily load

SOURCE: San Francisco Bay Regional Water Quality Control Board, *Water Quality Control Plan (Basin Plan) for the San Francisco Bay Basin*, amendments adopted through May 4, 2017. Available at https://www.waterboards.ca.gov/sanfranciscobay/basin_planning.html. Accessed September 12, 2019.

National Flood Insurance Program

FEMA determines flood elevations and floodplain boundaries based on studies by USACE. FEMA also distributes the Flood Insurance Rate Maps, or FIRMs, used in the National Flood Insurance Program (NFIP). These maps identify the locations of special flood hazard areas, including 1-percent-annual-chance (100-year) floodplains.

Code of Federal Regulations Title 44, Part 60, sets forth federal regulations that govern development in floodplains. Those regulations enable FEMA to require municipalities participating in the NFIP to adopt certain flood hazard reduction standards for construction and development in 100-year floodplains. These standards are described in the discussion of local regulations later in this section.

State

Porter-Cologne Water Quality Control Act

The Porter-Cologne Water Quality Control Act, also known as the Porter-Cologne Act (Division 7 of the California Water Code), provides the basis for water quality regulation in California. The Porter-Cologne Act defines water quality objectives as the limits or levels of water constituents that are established for reasonable protection of beneficial uses of surface, ground, and saline waters of the state. The State Water Resources Control Board (State Water Board) administers water rights, water pollution control, and water quality functions throughout California, while the San Francisco Bay Regional Water Quality Control Board conducts planning, permitting, and enforcement activities.

The Porter-Cologne Act requires each regional water board to establish a regional basin plan with objectives for achieving and maintaining water quality, while acknowledging that water quality may change to some degree without unreasonably affecting beneficial uses. Changes in water quality are allowed if the change is consistent with the state's maximum beneficial use, does not unreasonably affect present or anticipated beneficial uses, and does not result in water quality less than that prescribed in the basin plans.

Under federal regulations, beneficial uses, together with the corresponding water quality objectives, are defined as standards. Therefore, the regional basin plans form the regulatory references for meeting both federal (CWA) and state (Porter-Cologne) requirements for water quality control. Beneficial uses for water bodies and water quality objectives for waters in the Santa Clara Valley Basin are designated in the San Francisco Bay Regional Water Quality Control Board's Basin Plan.[17]

Construction General Stormwater Permit

As described in Section 3.5, *Geology, Soils, and Paleontological Resources*, the proposed project would be subject to the NPDES *General Permit for Stormwater Discharges Associated with Construction and Land Disturbance Activities*, referred to here as the "Construction General

[17] San Francisco Bay Regional Water Quality Control Board, *Water Quality Control Plan (Basin Plan) for the San Francisco Bay Basin*, amendments adopted through May 4, 2017. Available at https://www.waterboards.ca.gov/sanfranciscobay/basin_planning.html. Accessed September 12, 2019.

Permit" (State Water Board Order 2009-0009-DWQ, NPDES No. CAS000002; as amended by Orders 2010-0014-DWQ and 2012-006-DWQ). The Construction General Permit requires development of a stormwater pollution prevention plan (SWPPP) that includes best management practices (BMPs) to prevent sediment and pollutants from entering a waterway, and that regulates stormwater discharges from construction or demolition activities, such as clearing and excavation; construction of buildings; and linear underground projects, including installation of water pipelines and other utility lines.

To comply with the Construction General Permit, stormwater discharges and authorized non-stormwater discharges must not contain pollutants that cause or contribute to an exceedance of any applicable water quality objective or water quality standard (identified in the basin plan). The receiving water risk is based on whether the project drains to a "sediment-sensitive water body." A sediment-sensitive water body is one that:

- Appears on the most recent CWA Section 303(d) list for water bodies as impaired for sediment;
- Has an EPA-approved TMDL implementation plan for sediment; or
- Has the beneficial uses of cold freshwater habitat, fish migration, and fish spawning.

As identified in Table 3.8-2, the Guadalupe River and Los Gatos Creek have such beneficial uses and are on the 303(d) impaired waters list.

Lake and Streambed Alteration Agreement for Routine Maintenance Activities

California Fish and Game Code Section 1602 requires any person, state, or local government agency, or public utility to notify the California Department of Fish and Wildlife (CDFW) before beginning an activity that may divert or obstruct the natural flow of, change the bed, channel, or bank of, deposit or dispose of material into, or use material from any river, stream, or lake in California without a Lake and Streambed Alteration Agreement.[18] This agreement (or permit) covers several categories of actions, including those implemented regularly for ongoing flood control purposes: vegetation management, removal of sediment and debris, erosion control, maintenance and repair of flood control structures, and levee maintenance.

Under this (five-year) permit, an annual work plan is developed for the necessary activities and submitted to CDFW for review. The permit also requires follow-up reporting on the actual activities performed.

State Water Resources Control Board Order WQ 2016-0068-DDW, Water Reclamation Requirements for Recycled Water Use

The State Water Board established general conditions for the use of recycled water, in part to offset demand for water resources. Only treated municipal wastewater for non-potable uses can be permitted, such as landscape or crop irrigation, dust control, and industrial/commercial

[18] California Department of Fish and Wildlife, Lake and Streambed Alteration Program. Available at https://wildlife.ca.gov/Conservation/LSA. Accessed March 11, 2020.

cooling, consistent with the tertiary disinfection standards in Title 22 of the California Code of Regulations.[19] The recycled-water use order, WQ 2016-0068, was issued following the Governor's 2014 executive order pertaining to drought conditions, which directed the State Water Board to "adopt statewide general waste discharge requirements to facilitate the use of treated wastewater that meets standards set by the California Department of Public Health (CDPH), in order to reduce demand on potable water supplies."

Because the proposed project may include a recycled-water treatment facility as part of the utilidor described in Section 2.8.3, *Utility Corridor*, the following conditions for reuse of recycled water contained in the Recycled Water Use Order would be applicable to the project:[20]

a. Recycled water use shall not cause unacceptable groundwater and/or surface water degradation.
    i. Regional water boards have discretion regarding permitting storage of recycled water in unlined ponds. Applicants shall improve storage facilities if deemed necessary by a regional water board.
    ii. Application of recycled water is limited to agronomic rates, which limits the potential for significant amounts of recycled water to impact groundwater quality and allows plants to take up wastewater constituents such as nitrogen compounds.
    iii. Recycled water use shall be controlled to prevent significant runoff from application areas. This General Order authorizes use of recycled water for application to land, where recycled water is further treated in natural soil processes.

b. Recycled water shall not create nuisance conditions.
    i. The Uniform Statewide Recycling Criteria requires wastewater to be oxidized, which removes putrescible matter and requires dissolved oxygen. Maintaining dissolved oxygen in the wastewater will generally prevent nuisance odors.
    ii. Application of recycled water is controlled to prevent airborne spray from entering dwellings, eating areas, or food handling areas.
    iii. Application of recycled water to saturated soil is prohibited. Application to saturated soil reduces the soil treatment processes and may create conditions for mosquito breeding.

c. Recycled water shall only be used consistent with the Uniform Statewide Recycling Criteria and any other requirements specified in the Notice of Applicability.
    i. A written approval of a Title 22 Engineering Report must be obtained from the State Water Board before a Notice of Applicability (NOA) can be issued.
    ii. Uses of recycled water are subject to category-specific use area signage, and monitoring frequency requirements as specified in the Uniform Statewide Recycling Criteria. Uses not addressed by the Uniform Statewide Recycling Criteria will be considered on a case-by-case basis by regional water boards, after consulting with and

[19] California Code of Regulations, Title 22, Section 60301.230, Disinfected Tertiary Recycled Water. Available at https://govt.westlaw.com/calregs/. Accessed May 4, 2020.

[20] State Water Resources Control Board, Order WQ 2016-0068, Water Reclamation Requirements for Recycled Water Use, adopted June 7, 2016. Available at https://www.waterboards.ca.gov/board_decisions/adopted_orders/water_quality/2016/wqo2016_0068_ddw.pdf. Accessed January 22, 2020.

receiving the recommendations of the State Water Board. These recommendations become requirements of the Order when specified in the Notice of Applicability.

iii. Uses of recycled water are subject to backflow prevention, cross connection tests, and setback requirements for surface impoundments, wells, etc. as contained in the Uniform Statewide Recycling Criteria and California Code of Regulations, title 17, division 1, article 2.

Industrial General Stormwater Permit

The Statewide General Permit for Stormwater Discharges Associated with Industrial Activities, Order 2014-0057-DWQ (Industrial General Permit) implements federal regulations at the state level for stormwater from industrial activities that is discharged to waters of the United States. The Industrial General Permit regulates operators of facilities that are subject to stormwater permitting for industrial activity. Under this permit, dischargers must develop and implement SWPPPs and include minimum and advanced BMPs as necessary to achieve compliance with effluent and receiving water limitations. The Industrial General Permit requires facility operators to comply with monitoring and reporting requirements and complete exceedance response actions (in the event of exceedance of numeric action levels).[21]

Sustainable Groundwater Management Act

The Sustainable Groundwater Management Act of 2014, effective January 1, 2015, authorizes local agencies to manage groundwater in a sustainable manner and allows limited state intervention when necessary to protect groundwater resources.

The SGMA defined "sustainable groundwater management"; established a framework for local agencies to develop plans and implement strategies to sustainably manage groundwater resources; prioritized the basins with conditions of overdraft (ranked as high and medium priority); and set a 20-year timeline for implementation. Basins were initially prioritized under the SGMA by the California Department of Water Resources in 2014 under the California Statewide Groundwater Elevation Monitoring Program.

The SGMA requires the creation of a groundwater sustainability agency that would develop and implement a Groundwater Sustainability Plan to manage and use groundwater in a manner that can be maintained during the planning and implementation horizon without undesirable results, defined as follows:

(1) Chronic lowering of groundwater levels, indicating a significant and unreasonable depletion of supply;

(2) Significant and unreasonable reduction of groundwater storage;

(3) Significant and unreasonable seawater intrusion;

[21] State Water Resources Control Board, *National Pollutant Discharge Elimination System (NPDES) General Permit Fact Sheet for Stormwater Discharges Associated with Industrial Activities*, NPDES Case No. CAS000001, updated January 2015. Available at https://www.waterboards.ca.gov/water_issues/programs/stormwater/docs/industrial/2014indgenpermit/factsheet.pdf . Accessed January 27, 2020.

(4) Significant and unreasonable degraded water quality, including the migration of contaminant plumes that impair water supplies;

(5) Significant and unreasonable land subsidence that substantially interferes with surface land uses; or

(6) Depletions of interconnected surface water that have significant and unreasonable adverse impacts on beneficial uses of the surface water.

The project site is within Basin 2-009.02, Santa Clara Valley Basin, which is a high-priority basin. Valley Water, the local groundwater sustainability agency, submitted its *2016 Groundwater Management Plan: Santa Clara and Llagas Subbasins* as an alternative groundwater sustainability plan (GSP). Under the SGMA, local agencies have an opportunity to submit an "alternative" GSP, provided that the alternative satisfies the act's objectives for the basin. An alternative could be either an existing groundwater management plan, an adjudication, or an analysis of basin conditions that demonstrates that the basin has operated within its sustainable yield for a minimum of 10 years.[22] The following basin sustainability goals related to groundwater supply reliability and protection of water quality were developed for the Valley Water GSP:[23]

- Groundwater supplies are managed to optimize water supply reliability and minimize land subsidence.
- Groundwater is protected from contamination, including salt water intrusion.

Basin management strategies for achieving these goals are also identified in the GSP, as follows:

(1) Manage groundwater in conjunction with surface water.

(2) Implement programs to protect and promote groundwater quality.

(3) Maintain and develop adequate groundwater models and monitoring networks.

(4) Work with regulatory and land use agencies to protect recharge areas, promote natural recharge, and prevent groundwater contamination.

Regional

National Pollutant Discharge Elimination System Waste Discharge Regulations

Discharges of stormwater runoff from municipal separate storm sewer systems (MS4s) are regulated by the Municipal Regional Stormwater NPDES permit, under Order No. R2-2015-

[22] California Department of Water Resources, Alternatives to Groundwater Sustainability Plans. Available at https://water.ca.gov/Programs/Groundwater-Management/SGMA-Groundwater-Management/Alternatives. Accessed December 20, 2019.

[23] Santa Clara Valley Water District, *2016 Groundwater Management Plan: Santa Clara and Llagas Subbasins*, November 2016. Available at https://s3.us-west-2.amazonaws.com/assets.valleywater.org/2016%20Groundwater%20Management%20Plan.pdf. Accessed December 20, 2019.

0049; NPDES Permit No. CAS612008, issued by the San Francisco Bay Regional Water Quality Control Board.[24] An MS4 is a conveyance or system of conveyances that:

- Is owned by a state, city, town, village, or other public entity that discharges to waters of the United States;
- Is designed or used to collect or convey stormwater (e.g., storm drains, pipes, ditches);
- Is not a combined sewer; and
- Is not part of a sewage treatment plant or publicly owned treatment works.

Under CWA Section 402(p), stormwater permits are required for discharges from MS4s that serve populations of 100,000 or more. The Municipal Regional Permit (MRP) manages the Phase I Permit Program (serving municipalities of more than 100,000 people), the Phase II Permit Program (for municipalities of fewer than 100,000 people), and the Statewide Storm Water Permit for the California Department of Transportation.

The State Water Board and the individual water boards implement and enforce the MRP. Multiple municipalities, including the City of San José, along with Santa Clara County (County) and Valley Water are co-permittees. These entities formed the Santa Clara Valley Urban Runoff Pollution Prevention Program (SCVURPPP) to collectively address waste discharge requirements (WDRs) and manage stormwater runoff from storm drains and watercourses within their jurisdictions. The mission of the SCVURPPP is "to assist in the protection of beneficial uses of receiving waters by preventing pollutants generated from activities in urban service areas from entering runoff to the maximum extent practicable." Member agencies implement pollution prevention, source control, monitoring, and outreach to reduce stormwater pollution in waterways and protect the water quality and beneficial uses of San Francisco Bay and Santa Clara County creeks and rivers.[25,] The SCVURPPP produced the Santa Clara Basin Stormwater Resource Plan, which notes the presence of legacy pollutants of concern in the basin, specifically mercury and polychlorinated biphenyls (PCBs) that pose a risk to water resources through urban runoff.[26]

Municipal Regional Permit Provision C.3

Under Provision C.3 of the MRP, new and redevelopment projects that create or replace 10,000 square feet or more of impervious surface area, or 5,000 square feet or more of impervious surface area for regulated projects involving special land use categories (i.e., auto service, retail gasoline station, restaurant, and/or uncovered parking), are required to implement site design, source control, and Low Impact Development–based stormwater treatment controls to treat post-construction stormwater runoff. Low Impact Development–based treatment controls are intended to maintain or restore the site's natural hydrologic functions, maximizing opportunities for infiltration and evapotranspiration, and for using stormwater as a resource (e.g., rainwater

[24] San Francisco Bay Regional Water Quality Control Board, *California Regional Water Quality Control Board San Francisco Bay Region Municipal Regional Stormwater NPDES Permit*, Order No. R2-2015-0049, NPDES Permit No. CAS612008, November 19, 2015. Available at https://www.waterboards.ca.gov/sanfranciscobay/water_issues/programs/stormwater/Municipal/R2-2015-0049.pdf. Accessed September 12, 2019.

[25] Santa Clara Valley Urban Runoff Pollution Prevention Program, About SCVURPPP. Available at https://scvurppp.org/about-scvurppp/. Accessed December 23, 2019.

[26] Santa Clara Valley Urban Runoff Pollution Prevention Program, *Santa Clara Basin Stormwater Resource Plan*, August 2019. Available at https://scvurppp.org/wp-content/uploads/2019/08/SCB_SWRP_FINAL_8-20-19.pdf.

harvesting for non-potable uses). The MRP also requires that stormwater treatment measures be properly installed, operated, and maintained.

In addition, the MRP requires new development and redevelopment projects that create or replace 1 acre or more of impervious surface to manage development-related increases in peak runoff flow, volume, and duration, where such hydromodification is likely to cause increased erosion, generate silt pollutants, or cause other impacts on local rivers, streams, and creeks. Projects may be deemed exempt from these requirements if they do not meet the minimum size threshold, drain into tidally influenced areas or directly into San Francisco Bay, or drain into hardened channels, or if they are infill projects in subwatersheds or catchment areas that are at least 65 percent impervious.

Municipal Regional Permit Provision C.12.f

Provision C.12.f of the MRP requires co-permittee agencies to implement a control program for PCBs that reduces PCB loads by a specified amount during the term of the permit, thereby making substantial progress toward achieving the Basin Plan's waste load allocation for PCBs in urban runoff by March 2030. Programs must include focused implementation of PCB control measures, such as source control, treatment control, and pollution prevention strategies. Municipalities throughout the Bay Area are updating their demolition permit processes to incorporate the management of PCBs in demolition building materials to ensure that PCBs are not discharged to storm drains during demolition. As of July 1, 2019, buildings constructed between 1955 and 1978 that are proposed for demolition must be screened for the presence of PCBs before a demolition permit can be issued.

San Francisco Bay Water Quality Control Plan

San Francisco Bay waters are under the jurisdiction of the San Francisco Bay Regional Water Quality Control Board, which established regulatory standards and objectives for water quality in the bay in the *Water Quality Control Plan for the San Francisco Bay Basin*, commonly referred to as the Basin Plan. The Basin Plan identifies existing and potential beneficial uses for surface water and groundwater and provides numerical and narrative water quality objectives designed to protect those uses.

Table 3.8-2 lists the beneficial uses and impairment status and the sources of pollution for water bodies in the project vicinity. The preparation and adoption of water quality control plans is required by the California Water Code (Section 13240) and supported by the federal CWA. Because beneficial uses, together with their corresponding water quality objectives, can be defined pursuant to federal regulations as water quality standards, the Basin Plan is a regulatory reference for meeting federal and state requirements for water quality control, and is the basis for standards outlined in discharge permits. Adoption or revision of surface water standards is subject to approval by EPA.

Waste Discharge Requirements and Water Quality Certification for the Santa Clara Valley Water District Stream Maintenance Program Santa Clara County

Valley Water is currently conducting stream maintenance activities under WDRs Order Number R2-2014-0015. The stream maintenance program activities provide flood protection and maintain channel conveyance capacity, while protecting natural resources with avoidance and minimization measures.[27] This permit is proposed for renewal in 2020. The Guadalupe River watershed is one of four watersheds in Santa Clara County that participates in the stream maintenance program under this permit. The project's proposed channel maintenance activities would be within jurisdictional waterways and would be required to be performed in a manner consistent with the terms and conditions of this water quality certification, along with other permits for in-stream activities.

Local

Envision San José 2040 General Plan Policies

In the *Envision San José 2040 General Plan* (General Plan), the City has adopted numerous goals, policies, and outlined actions with the objective of reducing and/or avoiding impacts on the city's water resources.[28] The following goals and policies are relevant to the proposed project:

Goal MS-3: Water Conservation and Quality. Maximize the use of green building practices in new and existing development to minimize use of potable water and to reduce water pollution.

Policy MS-3.1: Require water-efficient landscaping, which conforms to the State's Model Water Efficient Landscape Ordinance, for all new commercial, institutional, industrial, and developer-installed residential development unless for recreation needs or other area functions.

Policy MS-3.4: Promote the use of greenroofs (i.e., roofs with vegetated cover), landscape-based treatment measures, pervious materials for hardscape, and other stormwater management practices to reduce water pollution.

Policy MS-3.5: Minimize areas dedicated to surface parking to reduce rainwater that comes into contact with pollutants.

Goal MS-20: Water Quality. Ensure that all water in San José is of the highest quality appropriate for its intended use.

Policy MS-20.2: Avoid locating new development or authorizing activities with the potential to negatively impact groundwater quality in areas that have been identified as

[27] San Francisco Bay Regional Water Quality Control Board, *Waste Discharge Requirements and Water Quality Certification (Order Number R2-2014-0015) for the Santa Clara Valley Water District Stream Maintenance Program, Santa Clara County*, 2014. Available at https://s3.us-west-2.amazonaws.com/assets.valleywater.org/SMP%20Permit%20San%20Francisco%20Regional%20Water%20Quality%20Control%20Board.pdf. Accessed March 23, 2020.

[28] City of San José, *Envision San José 2040 General Plan*, adopted November 1, 2011 (amended March 16, 2020). Available at https://www.sanjoseca.gov/home/showdocument?id=22359. Accessed January 16, 2020.

having a high degree of aquifer vulnerability by the Santa Clara Valley Water District or other authoritative public agency.

Policy MS-20.3: Protect groundwater as a water supply source through flood protection measures and the use of stormwater infiltration practices that protect groundwater quality. In the event percolation facilities are modified for infrastructure projects, replacement percolation capacity will be provided.

Policy MS-20.4: Work with local, regional and state agencies to protect and enhance the watershed, including the protection of surface water and ground water supplies from pollution and degradation.

Goal ER-2: Riparian Corridors. Preserve, protect, and restore the City's riparian resources in an environmentally responsible manner to protect them for habitat value and recreational purposes.

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).

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 environmental impacts would occur.

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.

Policy ER-2.4: When disturbances to riparian corridors cannot be avoided, implement appropriate measures to restore, and/or mitigate damage and allow for fish passage during construction.

Policy ER-2.5: Restore riparian habitat through native plant restoration and removal of non-native/invasive plants along riparian corridors and adjacent areas.

Goal ER-8: Stormwater. Minimize the adverse effects on ground and surface water quality and protect property and natural resources from stormwater runoff generated in the City of San José.

Policy ER-8.1: Manage stormwater runoff in compliance with the City's Post-Construction Urban Runoff (6-29) and Hydromodification Management (8-14) Policies.

Policy ER-8.2: Coordinate with regional and local agencies and private landowners to plan, finance, construct, and maintain regional stormwater management facilities.

Policy ER-8.3: Ensure that private development in San José includes adequate measures to treat stormwater runoff.

Policy ER-8.4: Assess the potential for surface water and groundwater contamination and require appropriate preventative measures when new development is proposed in areas where storm runoff will be directed into creeks upstream from groundwater recharge facilities.

Policy ER-8.5: Ensure that all development projects in San José maximize opportunities to filter, infiltrate, store and reuse or evaporate stormwater runoff on site.

Policy ER-8.6: Eliminate barriers to and enact policies in support of the reuse of stormwater runoff for beneficial uses in existing infrastructure and future development in San José.

Policy ER-8.7: Encourage stormwater reuse for beneficial uses in existing infrastructure and future development through the installation of rain barrels, cisterns, or other water storage and reuse facilities.

Policy ER-8.8: Consider the characteristics and condition of the local watershed and identify opportunities for water quality improvement when developing new or updating existing development plans or policies including, but not limited to, specific or area land use plans.

Goal ER-9: Water Resources. Protect water resources because they are vital to the ecological and economic health of the region and its residents.

Policy ER-9.1: In consultation with the Santa Clara Valley Water District, other public agencies and the SCVWD's [Santa Clara Valley Water District's] Water Resources Protection Guidelines and Standards (2006 or as amended), restrict or carefully regulate public and private development in streamside areas so as to protect and preserve the health, function and stability of streams and stream corridors.

Policy ER-9.2: In consultation with the SCVWD restrict or carefully regulate public and private development in upland areas to prevent uncontrolled runoff that could impact the health and stability of streams.

Policy ER-9.3: Utilize water resources in a manner that does not deplete the supply of surface or groundwater or cause overdrafting of the underground water basin.

Policy ER-9.4: Work with the SCVWD to preserve water quality by establishing appropriate public access and recreational uses on land adjacent to rivers, creeks, wetlands, and other significant water courses.

Policy ER-9.5: Protect groundwater recharge areas, particularly creeks and riparian corridors.

Policy ER-9.6: Require the proper construction and monitoring of facilities that store hazardous materials in order to prevent contamination of the surface water, groundwater and underlying aquifers. In furtherance of this policy, design standards for such facilities should consider high groundwater tables and/or the potential for freshwater or tidal flooding.

Goal EC-5: Flooding Hazards. Protect the community from flooding and inundation and preserve the natural attributes of local floodplains and floodways.

Policy EC-5.1: The City shall require evaluation of flood hazards prior to approval of development projects within a Federal Emergency Management Agency (FEMA) designated floodplain. Review new development and substantial improvements to existing structures to ensure it is designed to provide protection from flooding with a one

percent annual chance of occurrence, commonly referred to as the "100-year" flood or whatever designated benchmark FEMA may adopt in the future. New development should also provide protection for less frequent flood events when required by the State.

Policy EC-5.2: Allow development only when adequate mitigation measures are incorporated into the project design to prevent or minimize siltation of streams, flood protection ponds, and reservoirs.

Policy EC-5.3: Preserve designated floodway areas for non-urban uses.

Policy EC-5.4: Develop flood control facilities in cooperation with the Santa Clara Valley Water District to protect areas from the occurrence of the "1%" or "100-year" flood or less frequent flood events when required by the State.

Policy EC-4.12: Require review and approval of grading plans and erosion control plans (if applicable) prior to issuance of a grading permit by the Director of Public Works.

City of San José Policy 6-29 (Post-Construction Urban Runoff Management)

City of San José Policy 6-29 implements the stormwater treatment requirements of Provision C.3 of the MRP. City Council Policy 6-29 requires new development and redevelopment projects to implement post-construction BMPs and treatment control measures. This policy also established specific design standards for post-construction treatment control measures for projects that create or replace 10,000 square feet, or special land use projects that create or replace 5,000 square feet or more of impervious surfaces.

The project applicant would submit a Stormwater Control Plan as part of the City's grading and drainage permit process. The Stormwater Control Plan would provide detailed information such as design calculations, conceptual drainage, stormwater treatment control measures, source control measures, calculations for pervious and impervious surface areas, and drainage management calculations.[29]

City of San José Policy 6-34 (Riparian Corridor Protection and Bird Safe Design)

The City conducted a riparian corridor policy study in 1994 (revised in 1999) to inform policy for protecting riparian corridors along the city's creeks and rivers. The study also provided other guidance for protecting water quality and fish and wildlife habitat. The General Plan incorporates many of these policies to protect city waterways.[30] The Riparian Corridor Policy Study provided recommendations and guidance, and formed the basis for the Riparian Corridor Protection Policy, Policy 6-34.

Policy 6-34 contains design guidelines to minimize intrusion into riparian corridors. The policy establishes 100-foot setbacks for new residential buildings, commercial/institutional buildings, parking facilities, roads, and new buildings in existing urban infill areas adjacent to a riparian

[29] Arup, Lendlease & Sherwood Design Engineers, *Google Downtown West Infrastructure Plan*, October 7, 2020.
[30] City of San José, *Envision San José 2040 General Plan*, adopted November 1, 2011 (amended March 16, 2020). Available at https://www.sanjoseca.gov/home/showdocument?id=22359. Accessed January 16, 2020.

corridor.[31] Under Policy 6-34, reduced setbacks may be considered under if required findings are made, including for developments located within the boundaries of the Downtown Area, as those boundaries are defined in the General Plan.

City of San José Policy 8-14 (Post-construction Hydromodification Management)

Consistent with the Municipal Regional Stormwater NPDES Permit, City Policy 8-14, *Post-construction Hydromodification Management* (2005, revised 2010) implements a framework for measures to control the hydromodification impacts of new development or redevelopment projects, where such activity is likely to increase erosion, generate silt, or otherwise adversely affect local rivers and creeks. In the context of the policy, *hydromodification* refers to projects that create and/or replace 1 acre or more of impervious surface, and are located in subwatersheds or catchment areas that are less than 65 percent impervious or are "under review."[32] Applicable areas are provided in a map attached to Policy 8-14. A review of the Policy 8-14 maps shows that the proposed project would not be located within the applicable areas; therefore, Policy 8-14 does not apply to the proposed project.

Guidelines & Standards for Land Use near Streams

The Santa Clara Valley Water Resources Protection Collaborative was formed in 2002 and consists of multiple stakeholders, the County, and 15 municipalities, including the City of San José. The collaborative adopted the *Guidelines & Standards for Land Use Near Streams* to inform development review of proposals near streams. The document includes requirements and recommendations to protect streams and water resources in Santa Clara County. Key recommendations include protection and enhancement of riparian buffers; use of locally native plant species; a slope stability and erosion control guidance; and guidelines for establishing freeboard for bridge crossings for flood control, among others.[33]

The City of San José affirmed the consistency of City policies with the guidance presented in the Santa Clara Valley Water Resources Protection Collaborative *Guidelines & Standards for Land Use near Streams*.[34] The project's removal of bridge abutments and other proposed in-stream elements would be subject to City review and approval based on these standards.

---

31 City of José, City Council Policy No. 6-34, Riparian Corridor Protection and Bird Safe Design, effective August 23, 2016. Available at https://www.sanjoseca.gov/home/showdocument?id=12815. Accessed January 27, 2020.

32 City of San José, City Council Policy No. 8-14, Post-construction Hydromodification Management, effective October 18, 2005 (revised February 23, 2010). Available at https://www.sanjoseca.gov/home/showdocument?id=12743. Accessed October 30, 2019.

33 Santa Clara Valley Water Resources Protection Collaborative, *Guidelines & Standards for Land Use near Streams*, August 2005 (revised July 2006). Available at https://www.valleywater.org/contractors/doing-businesses-with-the-district/permits-for-working-on-district-land-or-easement/guidelines-and-standards-for-land-use-near-streams. Accessed December 23, 2019.

34 City of San José, Resolution Number 73644, February 12, 2007.

City of San José Requirements for Special Flood Hazard Area

The City Code contains specific requirements pertaining to new developments in special flood hazard areas:[35]

A. The Floodplain Administrator shall review subdivision applications and other proposed new development applications in the special flood hazard area to assure that:

   1. All such applications are consistent with the need to minimize flood damage;

   2. All public utilities and facilities, such as sewer, gas, electrical and water systems are located, elevated and constructed to minimize or eliminate flood damage; and

   3. Adequate drainage is provided so as to reduce exposure to flood hazards. Such subdivision applications and other proposed new development applications shall include base flood elevation data available from federal, state and local sources.

B. The Floodplain Administrator shall require that all manufactured homes to be placed within such special flood hazard areas be anchored to resist flotation, collapse or lateral movement by providing over-the-top or frame ties to ground anchors. Specific requirements shall be determined by the floodplain administrator, and shall include an elevation certificate, but in no way are to be of lesser magnitude than those specified in the Federal Insurance Administration's National Flood Insurance Program revised regulations (44 C.F.R. [Code of Federal Regulations] Part 60). Pursuant to state law, certification meeting the standards above is required of the local enforcement agency responsible for regulating the placement, installation and anchoring of individual manufactured home units.

C. The Floodplain Administrator shall require that until a floodway is designated by the administrator, no new construction, subdivision, improvement or other development, including fill, shall be permitted within a special flood hazard area on the community FIRM unless it is demonstrated that the cumulative effect of the proposed development, when combined with all other existing and anticipated development, will not increase the water surface elevation of the base flood more than one foot at any point within the community.

D. The floodplain administrator shall prohibit encroachments, including fill, new construction, substantial improvement, and other development within designated floodways unless certification by a registered professional engineer is provided demonstrating that encroachments shall not result in any increase in flood levels during the occurrence of the base flood discharge.

City of San José Green Stormwater Infrastructure Plan

In 2019, the City developed a green stormwater infrastructure (GSI) plan (required under the Municipal Regional Stormwater NPDES Permit) that establishes guidance for reducing the long-term, adverse impacts of urbanization and urban runoff on the water quality of receiving waters. The GSI Plan includes integrated design measures to capture and treat stormwater runoff using soil, plants, and pervious surfaces in a manner consistent with the City's planning and

[35] City of San José, *City of San José Code of Ordinances*, Title 17, Buildings and Construction; Chapter 17.08, Special Flood Hazard Areas; Part 5, Requirements; Section 17.08.640, New Developments. Available at https://library.municode.com/ca/san_jose/codes/code_of_ordinances?nodeId=TIT17BUCO_CH17.08SPFLHAARE_PT5RESPFLHAAR_17.08.640NEDE. Accessed January 15, 2020.

sustainability goals and regulatory requirements.[36] The proposed project would implement design measures consistent with the hydrology and water quality goals of the GSI Plan. The goals of the GSI Plan are as follows:

- Protect beneficial uses of waterways within San José, including the Bay, and provide environmental and community benefits.
- Capture, infiltrate, treat and/or repurpose stormwater with multibenefit projects that can enhance public spaces, water supply, flood control, habitat, and green spaces.
- Retrofit public rights-of-way to exhibit complete streets with GSI.
- Reduce pollutants discharging to creeks from the MS4.
- Demonstrate quantitatively the pollutant load reductions that can be achieved through implementation of GSI.

City of San José Environmental Standard Conditions for Approval

The following condition of approval in the City's Environmental Standard Conditions for Approval (SCAs) is applicable to the proposed project:

SCA HY-1 Construction-related Water Quality.[37] The project applicant shall implement the following conditions:

- Install burlap bags filled with drain rock around storm drains to route sediment and other debris away from the drains.
- Suspend earthmoving or other dust-producing activities during periods of high winds.
- Water all exposed or disturbed soil surfaces at least twice daily to control dust as necessary.
- Water or cover stockpiles of soil or other materials that can be blown by the wind.
- Cover all trucks hauling soil, sand, and other loose materials and maintain at least two feet of freeboard on all trucks.
- Sweep all paved access roads, parking areas, staging areas, and residential streets adjacent to the construction sites daily (with water sweepers).
- Replant vegetation in disturbed areas as quickly as possible.
- Fill with rock all unpaved entrances to the site to remove mud from tires prior to entering City streets. Install a tire wash system if requested by the City.
- Comply with the City of San José Grading Ordinance, including implementing erosion and dust control during site preparation and with the City's zoning ordinance requirements for keeping adjacent streets free of dirt and mud during construction.

[36] City of San José, *City of San José Green Stormwater Infrastructure Plan*, September 2019.
[37] City of San José, *City of San José Standard Conditions for Hydrology and Water Quality*, Construction-Related Water Quality, October 7, 2019.

Diridon Station Area Plan Standard Measures

The Diridon Station Area Plan outlined specific measures that would be required for future projects constructed under the plan. The proposed project would implement the following standard measures during construction:

Standard Measures for Erosion Control

- Standard erosion control and grading BMPs will be implemented during construction to prevent substantial erosion from occurring during site development. The BMPs shall be included in all construction documents.
- BMPs may include, but not be limited to, the following:
  i. Restrict grading to the dry season or meet City requirements for grading during the rainy season;
  ii. Use effective, site-specific erosion and sediment control methods during the construction periods. Provide temporary cover of all disturbed surfaces to help control erosion during construction. Provide permanent cover as soon as is practical to stabilize the disturbed surfaces after construction has been completed;
  iii. Cover soil, equipment, and supplies that could contribute non-visible pollution prior to rainfall events or perform monitoring of runoff with secure plastic sheeting or tarps;
  iv. Implement regular maintenance activities such as sweeping driveways between the construction area and public streets. Clean sediments from streets, driveways, and paved areas on-site using dry sweeping methods. Designate a concrete truck washdown area;
  v. Dispose of all wastes properly and keep site clear of trash and litter. Clean up leaks, drips, and other spills immediately so that they do not contact stormwater; and
  vi. Place fiber rolls or silt fences around the perimeter of the site. Protect existing storm and sewer inlets in the project area from sedimentation with filter fabric and sand or gravel bags.
- Prior to issuance of a Public Works Clearance, the applicant must obtain a grading permit before commencement of excavation and construction. In accordance with General Plan Policy EC-4.12, the applicant may be required to submit a Grading Plan and/or Erosion Control Plan for City review and approval, prior to issuance of a grading permit[38]; and
- Projects over 1 acre in size would be required to prepare an SWPPP under the NPDES Construction General Permit and City Municipal Code.

Measures Included to Reduce and Avoid Impacts during Dewatering

- If dewatering is necessary during construction, the design level geotechnical investigation shall be prepared to evaluate the underlying sediments and determine the potential for settlements to occur. If it is determined that unacceptable settlements may occur, then alternative groundwater control systems shall be required.

[38] Note: It is assumed that the project applicant would be required to submit grading and erosion control plans before a grading permit is issued.

3.8.3 Impacts and Mitigation Measures

Significance Criteria

For the purposes of this EIR, a hydrology and water quality impact would be significant if implementing the proposed project would:

- Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality;
- Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin;
- Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:
  - Result in substantial erosion or siltation on- or off-site;
  - Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site;
  - Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or
  - Impede or redirect flood flows;
- In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation; or
- Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan.

Approach to Analysis

The following analysis discusses the potential significant impacts of the proposed project related to changes in hydrology and water quality or other hydrology-related impacts on the project site. This section analyzes both potential construction-related and operational impacts of the proposed project. Impacts are assessed based on changes to the existing conditions described in this section. In cases where impacts would remain significant after implementation of the standard measures, mitigation measures are recommended as necessary to reduce impacts to less-than-significant levels.

Impact Analysis

Impact HY-1: The proposed project could violate a water quality standard or waste discharge requirement or otherwise substantially degrade surface or groundwater quality. ***(Less than Significant with Mitigation)***

Because the proposed project would be located under the water quality jurisdiction of the San Francisco Bay Regional Water Quality Control Board, the standards and requirements

contained in the Basin Plan would be applicable to the assessment of impacts on surface water and groundwater quality.

Construction

The proposed project would include construction of a mixed-use development; on-site district utilities, including a new utility corridor, recycled-water conveyance infrastructure, stormwater system upgrades, and a new stormwater outfall to Los Gatos Creek; a new clear-span bridge replacing the existing West San Fernando Street bridge; a new clear-span footbridge over Los Gatos Creek between West Santa Clara Street and the VTA light-rail tracks approximately 15 acres of new parks and open space and off-site transportation improvements, including a trail connection, some potions of which would run alongside Los Gatos Creek (described in detail in Section 2.7.6, *Off-Site Transportation Improvements*). This construction would involve site preparation activities such as excavation, grading, trenching, and ground disturbance that could increase runoff and violate water quality standards for the Guadalupe River and Los Gatos Creek. As described in the Downtown West District Infrastructure Plan prepared for the project, although the project would use existing storm drains to the extent feasible, approximately 6,300 feet of new subsurface stormwater pipes would be installed to accommodate site drainage for the new development.[39] Project activity would disturb soils and could temporarily generate exceedances of federal or state water quality standards during construction, or affect beneficial uses for these receiving waters (identified in Table 3.8-2).

As noted in Table 3.8-2, the Basin Plan identifies the Guadalupe River and Los Gatos Creek as impaired and subject to the requirements of a TMDL to limit the introduction of pollutants into surface waters and groundwater. In the absence of proper controls, stormwater runoff from project construction could lead to surface water and groundwater contamination, which could degrade water quality, compromise aquatic habitats, and/or result in violations of water quality standards.

As discussed in Section 3.2, *Biological Resources*, the proposed project would include trail construction within or adjacent to the Los Gatos Creek riparian corridor, which would affect Los Gatos Creek and be located near and within the riparian corridor and could disturb the corridor, which provides a natural protective buffer for water resources. Project work would also include demolition of the existing bridge over Los Gatos Creek at West San Fernando Street, including removal of in-stream pile structures; replacement of an existing 18-inch-diameter stormwater outfall (to be abandoned in place) with an upgraded (33-inch-diameter) stormwater outfall; and construction of a replacement bridge, including a utilidor crossing over Los Gatos Creek. In addition, construction of a new footbridge over Los Gatos Creek between the West San Fernando Street/Santa Clara Valley Transportation Authority (VTA) bridge and West Santa Clara Street, connecting South Autumn Street and Blocks E1, E2, and E3, is proposed along with associated pathways. It is assumed that bridge replacement activities would include vegetation removal within the existing rights-of-way in the riparian corridor, as discussed in Section 3.2, *Biological Resources*. An additional utilidor crossing on the southern part of the project site, as described in Section 2.8.3, *Utility Corridor*, would use jack and bore construction methods to

[39] Arup, Lendlease & Sherwood Design Engineers, *Google Downtown West Infrastructure Plan*, October 7, 2020.

cross beneath Los Gatos Creek. Jacking and receiving pits required in this crossing option would be placed outside of the riparian corridor to minimize impacts to aquatic resources.

Initial restoration is also proposed in and along the banks of Los Gatos Creek, which would remove debris, logjams, invasive species, and dead trees in the channel to improve floodwater conveyance. Engineered log structures would be installed in the waterway for fish habitat enhancement to improve ecological function.[40] Ongoing periodic stream maintenance activities would also be likely to occur as part of the proposed project (as discussed further under Impact HY-3), in conjunction with Valley Water, to maintain the creek's capacity for conveying floodwaters. The resulting disturbance of the riparian corridor, including in-channel construction, would alter the landscape and could affect water quality.

Demolishing piles, removing debris, and construction of the new stormwater outfall would require a streambed alteration agreement pursuant to California Fish and Game Code Section 1602, in addition to a CWA Section 404 permit from USACE, as described in Section 3.8.2, *Regulatory Framework*. In-stream work to remove the pier/pilings for replacement of the West San Fernando Street bridge, or any other in-water work in Los Gatos Creek or the Guadalupe River, would require the project applicant to apply for waste discharge requirements, subject to conditions specified by the San Francisco Bay Regional Water Quality Control Board, and apply for coverage under an existing water quality certification (Order No. 2014-0015) to permit ongoing flood control activities, in coordination with the current Valley Water stream maintenance program.

To reduce water quality impacts associated with in-stream activities and from potential increased runoff during construction, City Standard Conditions of Approval SCA HY-1, Construction-related Water Quality, would be implemented along with **Mitigation Measure HY-1, Water Quality Best Management Practices during Construction Activities in and near Waterways**, a specific water quality protection mitigation measure intended to limit the potential impacts of construction in or near waterways.

Additional measures to minimize disturbance and protect the riparian corridor would also be implemented. Refer to **Mitigation Measure BI-1a, General Avoidance and Protection Measures**, in Section 3.2, *Biological Resources*.

The proposed project also would be required to adhere to the terms of the Construction General Permit, which would require that an SWPPP (or separate SWPPPs for each construction phase) be developed for the project. The SWPPP would be designed to protect waterways from stormwater contamination. The SWPPP would include BMPs for construction to limit contamination associated with site run-on and runoff, such as installing tracking controls to limit contamination of city streets; placing straw wattles and silt barriers adjacent to storm drains; and following good-housekeeping measures such as covering spoils piles and regularly removing trash from construction sites. To ensure that construction activities do not compromise water quality, appropriate measures would be

[40] *Engineered fish habitat enhancement log structures* are human-made structures introduced into a waterway to mimic the function of logs and logjams that provide refuge for migrating steelhead. Unlike logs and logjams, these structures can be maintained over time to ensure continuing habitat provision while avoiding increased flood risk.

taken to limit deliveries of pollutants and potentially hazardous materials, as described in Section 3.7, *Hazards and Hazardous Materials*, Impact HA-1.

Excavation is proposed for the construction of subsurface parking on the project site. Although groundwater levels vary based on annual rainfall conditions, groundwater is known to be encountered on the project site at less than 25 feet below ground surface; thus, dewatering is likely to be required. For additional details regarding parcel site–specific groundwater levels and contamination issues, refer to Section 3.7, *Hazards and Hazardous Materials*.

Should dewatering be necessary for project construction, the proposed project would be required to provide for the proper management of dewatering effluent. At a minimum, dewatering effluent would be contained before discharge to allow sediments to settle, and would be filtered if necessary to ensure that only clear water would be discharged to the storm drain or sanitary sewer system. In areas of suspected groundwater contamination (areas underlain by fill or near sites of known or suspected chemical releases, as described in Section 3.7, *Hazards and Hazardous Materials*, Impact HA-3), a state-certified laboratory would sample and analyze the groundwater for the suspected pollutants before discharge (refer to Mitigation Measure HA-3c). Based on the results of analytical testing, the project applicant would work with the San Francisco Bay Regional Water Quality Control Board and/or the San José–Santa Clara Regional Wastewater Facility to determine appropriate options for discharge. Options could include retreatment before discharge, depending on the type of contaminant detected during water testing. In addition, the proposed project would be constructed in a manner consistent with SCA HY-1, Construction-related Water Quality, in the City's Environmental Standard Conditions for Approval. Access roads, parking areas, and staging sites would be swept daily to reduce mud and dirt track-out onto city streets, which would also reduce the delivery of silt and sediment into Los Gatos Creek and the Guadalupe River.

To ensure that contaminants would not be released into groundwater during construction excavation, the project would implement **Mitigation Measure HA-3b, Health and Safety Plan**, and **Mitigation Measure HA-3c, Site Management Plan**, as described in Section 3.7, *Hazards and Hazardous Materials*. Mitigation Measure HA-3b specifies procedures for hazardous materials response that would limit the contamination of water resources by dewatering activities. Mitigation Measure HA-3c requires development of a plan to provide for the safe handling, transport, and disposal of potentially hazardous materials, if encountered in site soils, soil gases, or groundwater.

With implementation of these mitigation measures and compliance with regulatory requirements, including measures required by the SWPPP and the City's construction and demolition requirements, construction-related impacts on water quality would be **less than significant with mitigation incorporated**.

Mitigation Measures

Mitigation Measure HY-1: Water Quality Best Management Practices during Construction Activities in and near Waterways

To avoid and/or minimize potential impacts on water quality (and jurisdictional waters) for project activities that would be conducted in, over, or within 100 feet of waterways,

the project contractor shall implement the following standard construction best management practices (BMPs), applicable to project construction activities in, near, or over waterways, to prevent releases of construction materials or hazardous materials and to avoid other potential environmental impacts:

- If the project includes activities such as debris removal or pier/pile demolition, the project applicant for the specific work proposed shall be required to submit a notice of intent to comply with waste discharge requirements and conditions identified by the San Francisco Bay Regional Water Quality Control Board. No debris, rubbish, soil, silt, sand, cement, concrete, or washings thereof, or other construction-related materials or wastes, oil, or petroleum products shall be allowed to enter jurisdictional waters, or shall be placed where it would be subject to erosion by rain, wind, or waves and enter into jurisdictional waters, except as permitted by the San Francisco Bay Regional Water Quality Control Board under an approved waste discharge requirement permit condition. Staged construction materials with the potential to be eroded/entrained during a rainfall event shall be covered every night and during any rainfall event (as applicable).
- In-stream construction shall be scheduled during the summer low-flow season to the extent feasible to minimize impacts on aquatic resources.
- To the maximum extent practicable, construction materials, wastes, debris, sediment, rubbish, trash, fencing, etc., shall be removed from the project site's riparian areas daily during construction, and thoroughly at the completion of the project. Debris shall be transported to a pre-designated upland disposal area.
- Protective measures shall be used to prevent accidental discharges of oils, gasoline, or other hazardous materials to jurisdictional waters during fueling, cleaning, and maintenance of equipment, as outlined in the project's soil and groundwater management plan. Well-maintained equipment shall be used to perform construction work, and except in the case of failure or breakdown, equipment maintenance shall be performed off-site, to the extent feasible. Crews shall check heavy equipment daily for leaks; if a leak is discovered, it shall be immediately contained and use of the equipment shall be suspended until repaired. The source of the leak shall be identified, material shall be cleaned up, and the cleaning materials shall be collected and properly disposed.
- Vehicles and equipment used during construction shall be serviced off-site, as feasible, or in a designated location a minimum of 100 feet from waterways. Fueling locations shall be inspected after fueling to document that no spills have occurred. Any spills shall be cleaned up immediately.

Mitigation Measure BI-1a: General Avoidance and Protection Measures (refer to Section 3.2, *Biological Resources*)

Mitigation Measure HA-3b: Health and Safety Plan (refer to Section 3.7, *Hazards and Hazardous Materials*)

Mitigation Measure HA-3c: Site Management Plan (refer to Section 3.7, *Hazards and Hazardous Materials*)

Significance after Mitigation: Less than significant.

Operation

The majority of the project site consists of previously disturbed and urbanized land. Based on the preliminary stormwater evaluation, the proposed project is designed to include a net reduction of approximately 9 percent of impervious surface area compared to existing conditions, from approximately 97 percent impervious under existing conditions to about 88 percent impervious with project implementation. The project includes green stormwater infrastructure elements, which would enhance source control and interception of pollutants.[41] As described in Section 3.2, *Biological Resources*, project construction activities in the riparian corridor would include: developing public pathways and re-vegetating disturbed areas near the Guadalupe River and Los Gatos Creek; constructing a storm drain outfall; debris, logjam, and dead and invasive tree removal within Los Gatos Creek; completing minor improvements to creek access; constructing both a new footbridge and a reconstructed bridge (West San Fernando Street/VTA); and installing a utilidor crossing beneath Los Gatos Creek north of San Carlos Street at the southern part of the project site. Post-construction monitoring and treatment controls, as required by MRP Provision C.3 and the Construction General Permit and pursuant to City Policy 6-29, would be implemented to ensure that the proposed project would not have ongoing adverse residual impacts on receiving waters.

As the project would be located in an urban area subject to conditions in an existing MRP stormwater permit, the proposed project must demonstrate that stormwater would be managed in a manner consistent with the County's Urban Runoff Program C.3 Stormwater Handbook and the goals of the City's GSI Plan for improving municipal stormwater quality. The proposed project would be designed to be consistent with local guidelines for land use to protect streams and water resources in Santa Clara County, and would be consistent with the design guidance of the Santa Clara Valley Urban Runoff Pollution Prevention Program. The project would implement stormwater treatment and runoff pollution prevention measures, as required under the City's MRP, to reduce runoff and prevent increases in runoff flows.

As discussed in Section 3.8.2, *Regulatory Framework*, a stormwater control plan would be prepared for the project and submitted to the City. The plan would document site conditions, conceptual drainage and treatment areas, drainage management calculations, areas of pervious and impervious surfaces (compared to existing conditions), and source control measures, among other information. These stormwater control measures would include site design details for roadside bioretention areas, landscaping with native plants, inclusion of pervious paving, and other design elements.

The project's design includes upgrades to existing storm drain infrastructure that would be consistent with County and City standards such as the City's Stormwater Management Plan, which is aligned with the terms of the MRP. By using specific design measures and BMPs after construction, the project would intercept contaminants and reduce runoff during storms. Furthermore, as described in Section 3.7, *Hazards and Hazardous Materials*, the proposed project would remove existing sources of contamination such as mercury and PCBs, which would improve base conditions and improve the quality of runoff.

[41] Arup, Lendlease & Sherwood Design Engineers, *Google Downtown West Infrastructure Plan*, October 7, 2020.

The project would add a new outfall and flap gate to Los Gatos Creek in conjunction with an upgrade to the existing storm drain in West Santa Clara Street (refer to the discussion of Impact HY-4). The outfall would be constructed according to the requirements of the San Francisco Bay Regional Water Quality Control Board and Valley Water, as well as those of any other applicable agencies such as USACE and CDFW. Following the on-site stormwater treatment and runoff pollution prevention measures as described above and the regulations noted above would ensure that stormwater discharged from the project site to Los Gatos Creek via the new outfall, and from other existing outfalls to Los Gatos Creek or the Guadalupe River, would not degrade water quality in either water body.

As described in Section 2.8.5, *Wastewater*, the proposed project would construct and maintain an on-site private sanitary sewer collection network and potential water reuse facility and would use and expand the existing public sewer infrastructure. With the on-site facility, wastewater would be treated to Title 22 tertiary-level disinfection standards, which would allow for water reuse. Treated recycled water would be used for cooling and distributed to blocks for reuse in irrigation, water closet and urinal flushing. As an option, the project applicant would not build and operate an on-site wastewater treatment and reuse facility, but instead would connect to the public sewer system and extend recycled-water conveyance infrastructure. Under this option, project-generated wastewater would be transported via existing and, where required, upgraded collection facilities to the San José–Santa Clara Regional Wastewater Facility in the Alviso neighborhood of north San José. The project's water reuse would conform to State Water Board requirements and standards to protect surface water and groundwater and limit nuisance conditions, and would be consistent with CDPH requirements. No new creek outfalls are proposed as part of the project in connection with the on-site water reuse facility.

Mitigation Measure BI-2a, Avoidance of Impacts on Riparian Habitat, would provide for re-vegetation and ongoing monitoring of the riparian corridor after construction to repair construction-related disturbance of the corridor and reduce site runoff, erosion, and potential contamination of surface waters. Mitigation Measure HA-3c, Site Management Plan, would require development of a plan that would include protocols for assessing potential site-specific contamination; handling requirements for dewatering effluent; and other protections for groundwater quality (including jurisdictional notification), as well as soil and groundwater sampling, as described in Section 3.7, *Hazards and Hazardous Materials*. With implementation of these mitigation measures and compliance with regulatory requirements, the proposed project would operate and be maintained in a manner consistent with the Basin Plan's water quality standards and would not substantially degrade surface or groundwater quality. Impacts would be **less than significant with mitigation incorporated**.

Mitigation Measures

Mitigation Measure BI-2a: Avoidance of Impacts on Riparian Habitat (refer to Section 3.2, *Biological Resources*)

Mitigation Measure HA-3c: Site Management Plan (refer to Section 3.7, *Hazards and Hazardous Materials*)

Significance after Mitigation: Less than significant.

Impact HY-2: The proposed project would not substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin. ***(Less than Significant)***

Based on the preliminary stormwater evaluation, impervious surface areas would be reduced in the project area by approximately 9 percent compared to existing conditions The project is designed to include green infrastructure elements that may include bioretention, flow-through planters, pervious paving, green roofs, and possibly rainwater harvesting or infiltration facilities, consistent with green stormwater infrastructure objectives and MRP requirements for stormwater. Thus, the proposed project would not interfere with recharge and would be consistent with the sustainable management of groundwater resources in the Santa Clara Groundwater Basin.

The project site is located in the Santa Clara Groundwater Basin, and is designated as a high-priority basin with respect to groundwater.

The proposed project would use San Jose Water Company (San Jose Water) groundwater resources to serve residents and businesses in San José, which would place demands on groundwater supplies in a high-priority basin. San Jose Water works closely with Valley Water to manage demand, which depends in part on groundwater resources from the Santa Clara Valley Subbasin for its drinking water supply (refer to Section 3.14, *Utilities and Service Systems*, Section 3.14.1, for additional discussion of municipal water sources). According to the water supply assessment prepared for the proposed project, the project's projected water demand is within previously determined growth projections for the San Jose Water system.[42] Furthermore, to the extent feasible, the project applicant would implement conservation measures and provide for the use of recycled water to offset the project's water demand. Therefore, decreases in groundwater from operation of the proposed project would not be substantial. This impact would be **less than significant**.

Mitigation: None required.

Impact HY-3: The proposed project could substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would result in substantial erosion or siltation on- or off-site; or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site. ***(Less than Significant with Mitigation)***

Construction

Project construction would occur on an 81-acre project site and would include substantial excavation, grading, trenching, and other ground-disturbing activities, some near or in waterways. These activities would result in temporary impacts, including a potential for increased runoff during construction and minor alterations of waterways. Construction would also alter existing drainage patterns of the project site. In the absence of mitigation, such impacts would be

[42] San Jose Water, *Downtown West Mixed-Use Project (Google Project) Water Supply Assessment*, January 2020.

potentially significant. As discussed in Impact HY-1, during construction, the project would implement BMPs identified in the SWPPP and applicable development design standards and Mitigation Measures HY-1 and BI-1a to protect waterways and limit or minimize erosion, runoff, and/or siltation on-site or off-site. Implementation of these measures would reduce impacts to less-than-significant levels. Construction impacts would be less than significant with mitigation incorporated.

Mitigation Measures

Mitigation Measure HY-1: Water Quality Best Management Practices during Construction Activities in and near Waterways (refer to Impact HY-1)

Mitigation Measure BI-1a: General Avoidance and Protection Measures (refer to Section 3.2, *Biological Resources*)

Significance after Mitigation: Less than significant.

Operation

As stated under Impact HY-2, based on the preliminary stormwater evaluation, the proposed project would result in an estimated 9 percent net reduction in impervious surfaces compared to existing conditions. The project would create approximately 15 acres of new parks and open space and include native vegetation, pervious paving, and infiltration facilities. Therefore, the project would have a less-than-significant impact related to the addition of impervious surfaces that would cause substantial erosion or siltation on or off site, or substantially increase the rate or amount of surface runoff in a manner that would result in flooding on or off site.

Although removal of the existing West San Fernando Street bridge, including in-stream abutments, and replacement with a clear-span bridge would include alteration within the channel of Los Gatos Creek, the proposed improvements would result in reduced flooding risk.[43] The proposed channel rehabilitation would involve alteration within the channel of Los Gatos Creek but also would reduce flood risk and improve creek conveyance.[44] The channel rehabilitation would be designed and implemented in consultation with the jurisdictional agencies, consistent with the regulations and permit requirements of the San Francisco Bay Regional Water Quality Control Board, USACE, and Valley Water. As such, replacement of the West San Fernando Street bridge and channel rehabilitation would not alter Los Gatos Creek in a manner that results in substantial erosion or siltation, or substantially increase the rate or amount of surface runoff in a manner that would result in flooding on or off site. Together, the proposed improvements would reduce flood risk and improve conveyance of Los Gatos Creek.

As described in Appendix H2, the project's hydrologic analysis determined that replacing the West San Fernando Street bridge and rehabilitating Los Gatos Creek channel would eliminate flood risk for most of the project site—except for portions of up to five blocks.[45] Buildings in these areas would need to be elevated above grade or flood proofed. The project's hydrology

[43] Schaaf & Wheeler, *Google San Jose Hydrology and Flood Control Measures*, August 2020, p. 12.
[44] Schaaf & Wheeler, *Google San Jose Hydrology and Flood Control Measures*, August 2020, p. 5.
[45] Schaaf & Wheeler, *Google San Jose Hydrology and Flood Control Measures*, August 2020, pp. 6 and 9.

analysis also determined that doing so would not increase flood risk for adjacent parcels, leaving only small portions of the project site within "Zone A" for flood risk.[46] See **Figure 3.8-3, Overland Flow Impacts**. Development in such areas would have to comply with the City's Requirements for Special Flood Hazard Areas, pursuant to City Code of Ordinances Chapter 17.08, which requires the City's Floodplain Administrator to review building permit applications to determine that buildings and structures would be protected against flood damage.

However, because subsequent approvals from other local, state, and federal agencies are required for the bridge replacement and channel rehabilitation, there is uncertainty as to the timing and ability to pursue these improvements. As such, if these features were not constructed, development could occur in other areas of existing flood risk as identified on FEMA flood maps and/or the best available data from the City or Valley Water. Such development would alter the existing drainage pattern of the project site, which could substantially increase the rate or amount of surface runoff in a manner that would result in flooding on- or off-site. Accordingly, the project's hydrologic analysis included two other scenarios (i.e., no channel rehabilitation or bridge replacement, and only bridge replacement) and determined that under these scenarios, structures at additional blocks throughout the project site would be subject to an increased risk for flooding and would need to be elevated above grade or flood-proofed.[47] In such scenarios, development would alter the existing drainage pattern of the project site with the potential to increase the rate or amount of surface runoff and result in additional flooding risk for areas within the City's right of way.[48] A summary of the impacts associated with each of these scenarios is presented below.

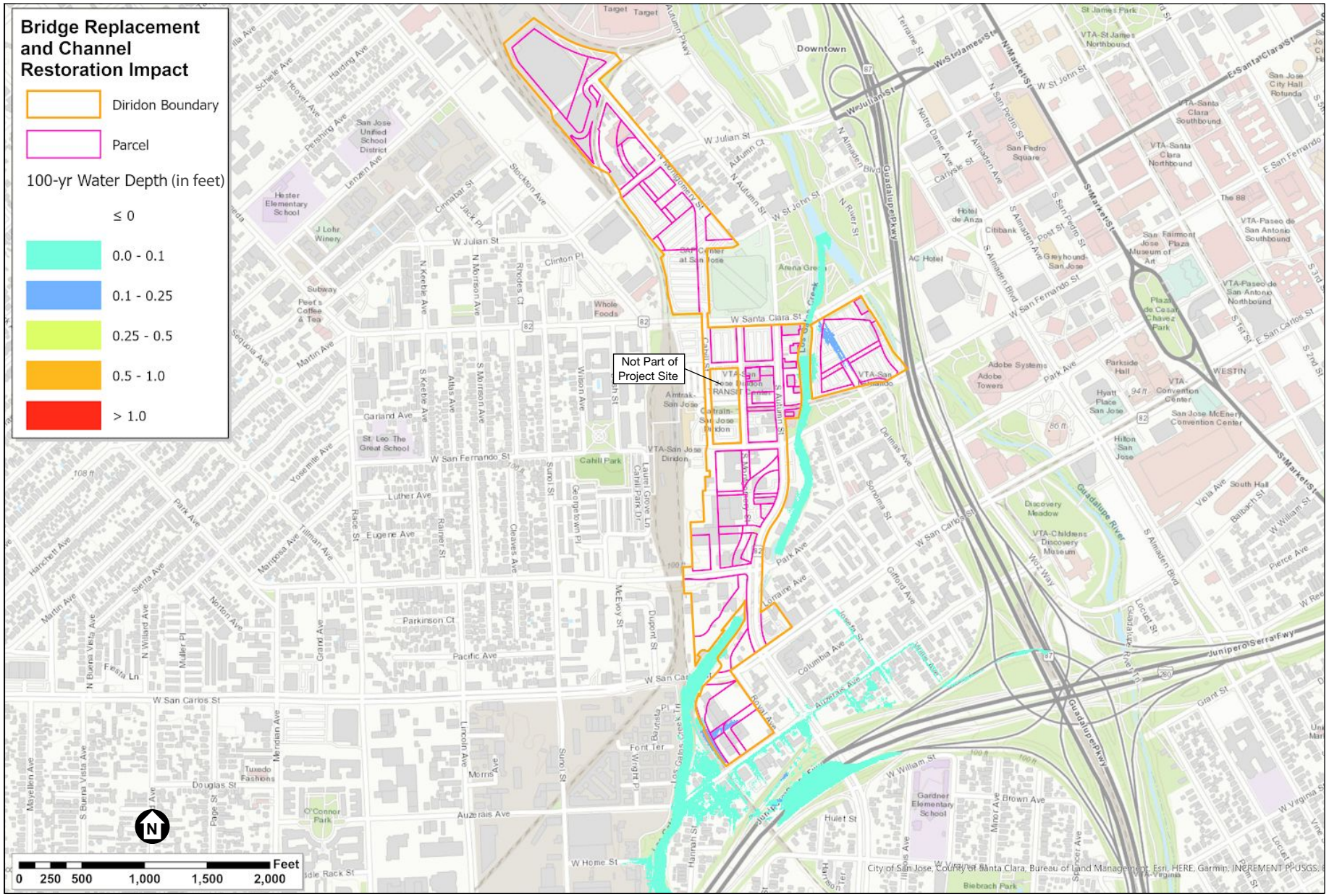
With bridge replacement and channel rehabilitation scenario

Even with the proposed bridge replacement and in-stream channel rehabilitation, minor flooding could occur. Effects would be limited to streets within the proposed development, which could experience a less than 0.25-foot increase in base flood elevation, as described in Appendix H2 and depicted on Figure 3.8-3. Project structures remaining in floodplain would be elevated or flood proofed, consistent with City Code Chapter 17.08. However, the magnitude and extent of flooding would be reduced throughout the project site and under this scenario, there would be no impact on adjacent parcels with respect to impeding or redirecting flood flow.

Without bridge replacement and without channel rehabilitation scenario

Project structures proposed for placement in the floodplain would be elevated or flood proofed and effects under the scenario with no bridge replacement or channel rehabilitation would be limited to a maximum isolated 1.1-foot rise in overland flow base flood elevations within the City right-of way and thus, would not be have a direct significant impact on property or public safety.

[46] Schaaf & Wheeler, *Google San Jose Hydrology and Flood Control Measures*, August 2020, pp. 6, 9, and 12.
[47] Schaaf & Wheeler, *Google San Jose Hydrology and Flood Control Measures*, August 2020, pp. 8–9.
[48] Schaaf & Wheeler, *Google San Jose Hydrology and Flood Control Measures*, August 2020, pp. 13–14.



SOURCES: Valley Water, Schaaf & Wheeler, 2020

Downtown West Mixed-Use Plan

Figure 3.8-3
Overland Impacts to Flood Flows with Channel Rehabilitation and Bridge Reconstruction

With bridge replacement but without channel rehabilitation scenario

With bridge replacement and no channel rehabilitation, project effects would be limited to a maximum isolated 0.4-foot rise in overland flow base flood elevation; with an isolated area (contained within the channel of Los Gatos Creek) with greater than one-foot increase in base flood elevation. Under this scenario although flooding could occur, project structures would be elevated or flood proofed and impacts would be less than significant.

However, under any of these scenarios, flooding could occur and potentially exceed of the City's adopted performance standards, which would be considered a significant impact. As the final design scenario has not been selected, mitigation would be required to address potential impacts. Such mitigation would provide for flood risk analysis to be integrated into the final design (in consultation with Valley Water, and the City) prior to construction. To ensure that potential impacts associated with the project's flood risks would be reduced to less than significant levels.

Mitigation Measure HY-3a, Flood Risk Analysis and Modeling, would be implemented. Mitigation Measure HY-3a addresses potential substantial increases in the rate or amount of surface runoff resulting in an increased flood risk associated with the alteration of existing drainage patterns within existing flood risk areas (as identified on FEMA flood maps and/or the best available data from the City or Valley Water). To provide for an integrated plan for ongoing maintenance of Los Gatos Creek (in the event that in-channel rehabilitation is undertaken), **Mitigation Measure HY-3b, Plan for Ongoing Creek Maintenance**, would be implemented. Mitigation Measure HY-3b would ensure that stream maintenance activities not conflict with the ongoing Valley Water stream maintenance program and shall be coordinated with the City, in consultation with the appropriate jurisdictional agencies. With adherence to existing regulations and implementation of Mitigation Measures HY-1, HY-3a, and HY-3b, potential impacts associated with runoff and flooding would be reduced to **less-than-significant** levels **with mitigation incorporated**.

Mitigation Measures

Mitigation Measure HY-1: Water Quality Best Management Practices during Construction Activities in and near Waterways (refer to Impact HY-1)

Mitigation Measure HY-3a: Flood Risk Analysis and Modeling

Once the final design is complete and before the issuance of any building permit for any portion of the project potentially subject to flooding according to FEMA flood maps and/or the best available data from the City or Valley Water, the project applicant for the specific work proposed shall conduct a hydrologic analysis of the final project design to address flood risks.

The project applicant shall prepare a thorough hydrologic technical evaluation and demonstrate that the project poses minimal flood risk to occupants, residents, visitors, and surrounding properties. The project design shall be modified to minimize the impacts of the proposed development and shall be submitted to the City for review and approval. The design shall ensure that proposed new structures are elevated or flood-proofed above the 1 percent (100-year) base flood elevation, consistent with the City's adopted

performance standards[49] that limit development within a special flood hazard area (Zone A) unless demonstrated that the cumulative effect of the proposed development not increase the water surface elevation of the base flood more than 1 foot at any point within the City of San José.

The hydrologic technical evaluation shall demonstrate that after construction of the new structure(s), floodplain encroachments shall not result in any increase in flood levels during the occurrence of the base flood discharge for existing adjacent structures or, for those structures located in the 100-year floodplain under existing conditions, the project shall not result in increases in the base flood elevation of more than one foot, consistent with the City's adopted performance standard.

Final design measures shall be developed in consultation with Valley Water, subject to review and approval by the City Department of Public Works and Department of Planning, Building and Code Enforcement. Measures could include any of the following:

- Use in-stream and associated floodplain restoration strategies in the riparian corridor to expand a greenway along Los Gatos Creek and conduct associated floodplain restoration.
- Remove existing obstructions to flood conveyance, such as channel debris or existing structures within the floodway.
- Upgrade the City's storm drain network.
- Install protective infrastructure for subsurface structures to reduce the risk of inundation.
- Raise the level of the project's structures to minimize risks to occupants and the surrounding community.
- Flood-proof project structures with, including but not limited to, permanent or removable standing barriers, garage flood gates, or automated flip-up barriers.

Mitigation Measure HY-3b: Plan for Ongoing Creek Maintenance

In the event that the project includes channel rehabilitation, within 30 days of completion of the initial restoration program within Los Gatos Creek, the project applicant shall submit to Valley Water and to the Director of Planning, Building, and Code Enforcement for review and approval a plan for ongoing maintenance of the affected reach of Los Gatos Creek. The Plan shall be consistent with the conditions in the existing permits for Valley Water's ongoing stream maintenance program and/or shall be subject to its own project-specific permitting regime, subject to jurisdictional agency review and approval.

Significance after Mitigation: Less than significant.

---

[49] City of San José, *City of San José Code of Ordinances*, Title 17, Buildings and Construction; Chapter 17.08, Special Flood Hazard Areas; Part 5, Requirements; Section 17.08.640, New Developments. Available at https://library.municode.com/ca/san_jose/codes/code_of_ordinances?nodeId=TIT17BUCO_CH17.08SPFLHAARE_PT5RESPFLHAAR_17.08.640NEDE. Accessed January 15, 2020.

Impact HY-4: The proposed project could create or contribute runoff water that could exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff, or impede or redirect flood flows. ***(Less than Significant with Mitigation)***

The proposed project would substantially alter the site's existing drainage but would reduce impervious surfaces by approximately 9 percent. The project would include placement of straw wattles, silt fences, and other erosion control measures to reduce the potential for erosion or siltation near waterways, in conformance with applicable development design standards and guidelines, as described in Section 2.11, *Flood Control Improvements*. These development design standards would be consistent with City policies for stormwater management and flood protection.

In addition, the proposed project would upgrade green stormwater infrastructure (GSI), to accommodate stormwater drainage or tie into the City's storm drain network. The specific measures to be taken would be determined during final project design, and would be subject to City review and approval. The project design includes an improved storm drain network that could incorporate stormwater facilities with bioretention, flow-through planters, pervious paving, green roofs, and possibly rainwater harvesting or infiltration facilities. Where public streets proposed for modification contain stormwater drainage structures that would trigger treatment recommendations from the GSI Plan, the streets would be designed to incorporate stormwater treatment facilities (pervious paving and/or biofiltration elements) in the public right-of-way. Private blocks would be designed to implement site design, source control, and Low Impact Development–based stormwater management consistent with Provision C.3 of the MRP, and would incorporate recommendations from the GSI Plan to limit contamination in stormwater runoff. Specific measures may include biofiltration for pollutant source control, capture, and remediation and landscaping with native plants, which would be installed and maintained as part of the proposed project.

The proposed project would include planned stormwater collection and treatment infrastructure designed to accommodate project-related stormwater drainage from within the development footprint. The proposed stormwater improvements are designed to convey 10-year flood flows at a hydraulic grade level below the street elevation, consistent with City development standards, so that the system would not exceed its capacity. Thus, the project would be constructed and maintained in a manner consistent with the GSI Plan's goals for the management of municipal stormwater and compatible with the objectives of the San José Urban Pollution Prevention Program.

As discussed in Impact HY-3, replacement of the West Street San Fernando bridge and channel rehabilitation of Los Gatos Creek would involve alterations within the channel of Los Gatos Creek but would improve stream conveyance and reduce flooding risks.

Through compliance with existing regulations and implementation of Mitigation Measures HY-1 and HY-3a and HY-3b, impacts associated with the project's alteration of existing drainage patterns, impervious surfaces, and/or the channel of Los Gatos Creek related an increased potential for capacity exceedances and runoff or impeding or redirecting flood flows would be **less than significant with mitigation incorporated**.

Mitigation Measure

Mitigation Measure HY-1: Water Quality Best Management Practices during Construction Activities in and near Waterways (refer to Impact HY-1)

Mitigation Measure HY-3a: Flood Risk Analysis and Modeling (refer to Impact HY-3)

Mitigation Measure HY-3b: Plan for Ongoing Creek Maintenance (refer to Impact HY-3)

Significance after Mitigation: Less than significant.

Impact HY-5: The proposed project could risk release of pollutants in a flood hazard, tsunami, or seiche zone due to project inundation. ***(Less than Significant with Mitigation)***

The proposed project is not located in an area that would be subject to inundation by tsunami or seiche; thus, there is no risk for the release of pollutants as a result of these hazards.

As described under Impact HY-3, the project is proposed for a location that is partially subject to flooding. As noted in Table 3.8-1, more than 20 acres (up to 35 percent) of the project site is proposed for development in an area identified by FEMA as Zone X. Figure 3.8-2 depicts an updated flood scenario, based on modeling by Valley Water. The model suggests that with creek restoration and bridge replacement, the depth and extent of potential flooding would be reduced. However, development on portions of up to five project blocks would need to be raised above the existing grade or flood-proofed because their locations remain within "Zone A," where flood levels could exceed 1 foot of vertical inundation in a 100-year flood event.[50] Thus, implementation of Mitigation Measures HY-1, HY-3a, and HY-3b would ensure that the final design for the proposed project does not increase flood risks for the site and surrounding communities.

The project's hydrologic analysis also evaluated options for alleviating flooding conditions based on engineering models for two other development scenarios (elevating or flood-proofing structures only with no channel rehabilitation or bridge replacement, and elevating or flood proofing structures with bridge replacement but no channel rehabilitation).[51] As detailed in Section 2.11, *Flood Control Improvements*, the proposed project is designed such that the ground floor of buildings would be flood-proofed or constructed at an elevation above the modeled flood elevation. As the preferred design option, the project proposes to reduce the number of structures requiring flood-proofing or elevation by removing the existing pile-supported West San Fernando Street bridge over Los Gatos Creek and replacing the structure with a clear-span bridge, while also undertaking in-stream restoration and ongoing creek maintenance to increase flood capacity. These changes would improve conditions for flood conveyance and reduce flood risks for the site and surrounding community.[52] As discussed in Impact HY-3, in scenarios where the bridge replacement or channel

[50] Schaaf & Wheeler, *Google San Jose Hydrology and Flood Control Measures*, August 2020.
[51] Schaaf & Wheeler, *Los Gatos Independent QC and Revisions to Final HEC-RAS Model*, December 2019.
[52] Another, but not preferred, option would be to raise portions of the project site out of the floodplain.

rehabilitation is not pursued and additional portions of the site or surrounding community would be subject to flood risks, Mitigation Measures HY-1, HY-3a, and HY-3b would be implemented.

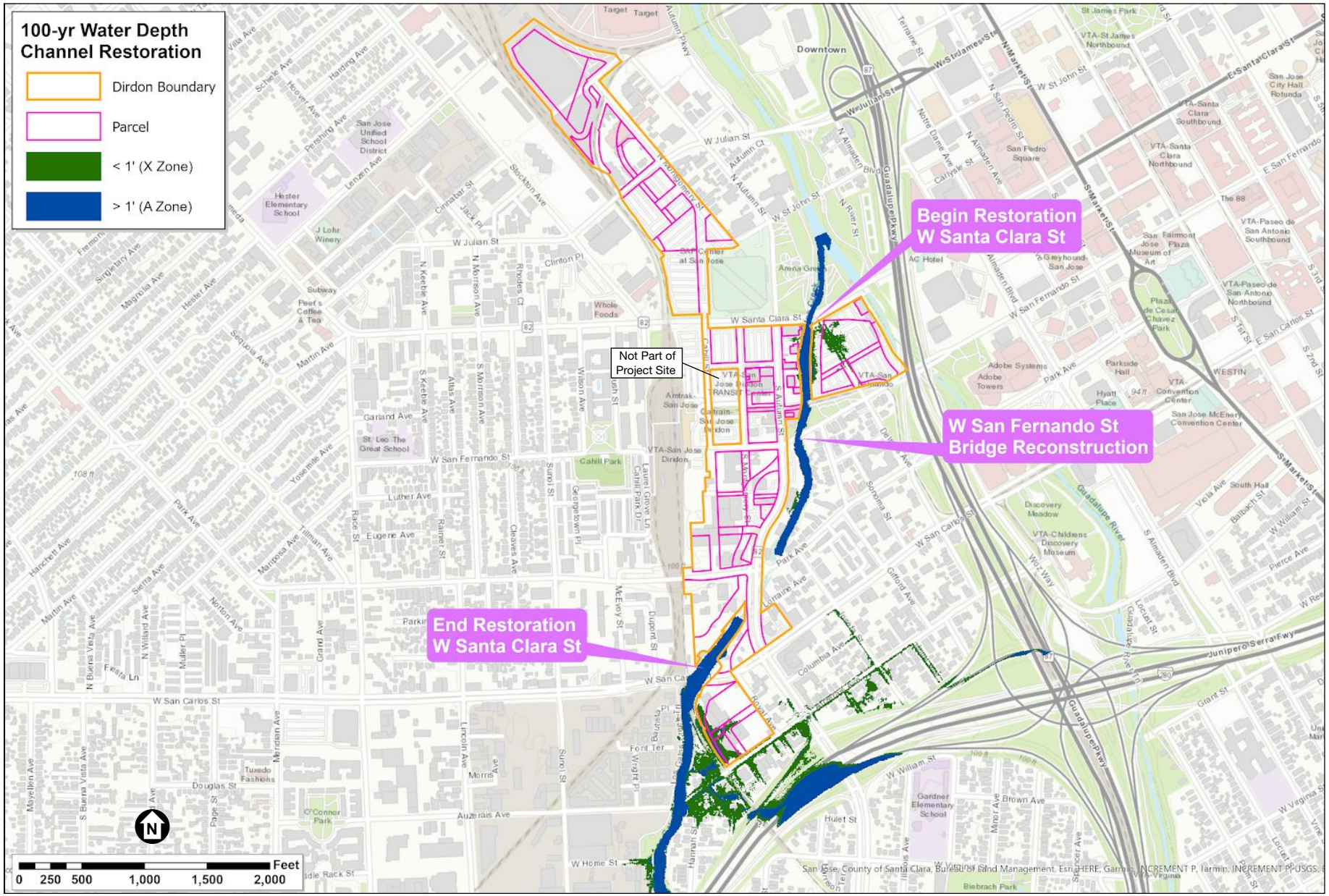
Because flood inundation can also result from inadequate stormwater drainage, the City developed an assessment of the capacity of the existing storm system for the project area and greater watershed as part of its ongoing storm drain master plan project. Two improvements were modeled within the project site boundary to assess storm drain flooding. The analysis determined that upgrading the City's stormwater conveyance system, including increasing the capacity of existing drainage infrastructure and constructing new pipes, would reduce the flood risk for the project site in a 10-year flood event.[53]

The southern and eastern portions of the project site, including the area nearest to the confluence of Los Gatos Creek and the Guadalupe River, are located within the creek's 100-year floodplain; thus, the project site and surrounding sites east of these waterways would be at risk of flooding from Los Gatos Creek. Consistent with City regulations for new development in special flood hazard areas, the project design calls for raising the ground elevation or flood-proofing development on blocks that remain within Zone A of the 100-year floodplain under a design scenario that would include flood conveyance improvements and remove existing bridge obstructions. This analysis is based on the Valley Water hydraulic model and is depicted on **Figure 3.8-4**.

All structures designated solely for residential land uses would be required to be elevated. In the event that residential uses and below-grade parking is proposed in a Zone A flood zone, such a structure would be designed as a mixed-use facility, allowing for commercial, retail, or office use within the structure. Mixed-use structures would be dry flood-proofed or elevated so that the lowest final grade to the foundation and all entrances would be above the modeled flood elevation. Ground level of these buildings would be at an elevation of, at minimum, 1 foot above the base flood elevation levels determined to be adequate by flood modeling conducted for the project; or the buildings would be designed as mixed use, and dry flood-proofed to that same elevation with all residential uses elevated.

Working in collaboration with the City, applicable landholders, and resource agencies, the project would improve Los Gatos Creek by removing the existing West San Fernando Street bridge and columns supporting the structure and replacing them with a clear-span structure to increase the creek's floodwater conveyance capacity. Initial conveyance and habitat improvements would include creek restoration, removal of dead and live trees, and removal of debris, along with installation of engineered fish habitat enhancement log structures. Ongoing maintenance of the channel would occur in coordination with Valley Water's stream maintenance program for flood control.

[53] Schaaf & Wheeler, *Google San Jose Storm System Analysis*, August 2020.



SOURCES: Valley Water, Schaaf & Wheeler, 2020

Downtown West Mixed-Use Plan

Figure 3.8-4
100-year Floodplain with Channel Rehabilitation
and Bridge Reconstruction Implemented

Improvements such as upgrades to the storm drain conveyance infrastructure would also be required to reduce potential flooding. The project proposes construction of a new larger storm drainage pipe in Cinnabar Street in the northern portion of the site, to connect with a new storm drain installed in North Autumn Street in connection with the under-construction Platform 16 project. These new storm drainage pipes would connect to an existing outfall across Autumn Parkway, between old West Julian Street and Howard Street, upstream of the railroad bridge—to be increased in size by the City as part of its ongoing Capital Improvement Program—that drains into the Guadalupe River. The pipe in North Montgomery Street south of Cinnabar Street would be increased in size. In West Santa Clara Street, the project would replace an existing storm drainage pipe with a larger pipe between Cahill Street and Los Gatos Creek; this new storm drain would discharge via a new 33-inch outfall to Los Gatos Creek, replacing an existing 18-inch outfall, as described in Impact HY-1. Also refer to Section 2.8.7, *Stormwater*, and Section 3.14, *Utilities and Service Systems*, Section 3.14.9, *Impacts and Mitigation Measures*.

In addition to these conveyance structures, a pump station near Park Avenue and South Montgomery Street is proposed for relocation, as described in Section 2.8.7. The locations proposed (within the same block, or within the existing street right-of-way if space is available) would not be within the 100-year flood zone, under any project design scenario, based on the updated Valley Water hydrologic model.

Mitigation Measure HY-3a and Mitigation Measure HY-3b would be implemented to address flooding risks. As a result, this impact would be **less than significant with mitigation incorporated**.

Mitigation Measure

Mitigation Measure HY-3a: Flood Risk Analysis and Modeling (refer to Impact HY-3)

Mitigation Measure HY-3b: Plan for Ongoing Creek Maintenance (refer to Impact HY-3)

Significance after Mitigation: Less than significant.

Impact HY-6: The proposed project could conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan. *(Less than Significant with Mitigation)*

For the purposes of this analysis, the San Francisco Bay Regional Water Quality Control Board's Basin Plan and the *2016 Groundwater Management Plan: Santa Clara and Llagas Subbasin* (described in Section 3.8.2, *Regulatory Framework*) are the relevant plans that pertain to this criterion for consideration of project impacts.

Construction

As discussed in Impact HY-1, the proposed project would comply with the conditions stipulated in the Construction General Permit and would include BMPs to minimize impacts related to site

runoff. Erosion control measures and site management would reduce sedimentation and the associated delivery of pollutants into Los Gatos Creek or the Guadalupe River. Therefore, the project would not conflict with or obstruct implementation of the Basin Plan.

Mitigation Measures HA-3b and HA-3c would be implemented so that the proposed project would not contaminate groundwater resources. Mitigation Measure HA-3b includes procedures to follow in the event of potential soil and groundwater contamination. Mitigation Measure HA-3c requires preparing and planning for the safe handling of contaminants so that excavated materials and dewatering effluent (generated during project construction) would be handled, transported, and disposed of in a manner consistent with public health and safety and applicable regulations, as described in Section 3.7, *Hazards and Hazardous Materials*. Regulatory agencies would review the Soil and Groundwater Management Plan before construction or issuance of grading permits. Such preparation would reduce the likelihood of groundwater contamination. As a result, this impact would be **less than significant with mitigation incorporated**.

Mitigation Measures

Mitigation Measure HA-3b: Health and Safety Plan (refer to Section 3.7, *Hazards and Hazardous Materials*)

Mitigation Measure HA-3c: Site Management Plan (refer to Section 3.7, *Hazards and Hazardous Materials*)

Significance after Mitigation: Less than significant.

Operation

The project proposes to construct up to 7.3 million gross square feet of office space; up to 5,900 residential units; up to 500,000 gross square feet of active uses; up to 300 hotel rooms; up to 800 rooms of limited-term corporate accommodations, and an event and conference center. All of these uses would require water or otherwise place demands on the water supply, much of which is acquired from groundwater resources. Growth in Downtown San José resulting from the proposed project would be within the citywide growth parameters identified in the General Plan. The project would require amending the Diridon Station Area Plan to accommodate land use changes proposed by the project. The proposed project would generate demand for groundwater resources but would implement multiple design measures to offset that demand, such as conservation measures and development of recycled water facilities including an on-site water reuse facility or connection to the City's recycled water line.

The proposed project's water supply assessment (Appendix H1) acknowledged that groundwater levels vary because of periodic droughts and increased demands. However, the assessment demonstrated (based on a 90-year data set) that the groundwater elevation in the Santa Clara Valley Subbasin has rebounded in recent years and stated that storage in the basin is now within the normal range.[54] San Jose Water and Valley Water actively participate in water conservation programs to compensate for reductions in water supply caused by drought or climate change. As summarized in the water supply assessment, the increased demand associated with the proposed

[54] San Jose Water, *Downtown West Mixed-Use Project Water Supply Assessment*, January 2020.

project is consistent with San Jose Water's 2015 Urban Water Management Plan, which projected a 12.3 percent increase in total system demand between actual 2013 demand and projected 2040 demand. Thus, the proposed project would not exceed projected use and would not result in conflicts with respect to sustainable groundwater management.

As appropriate, the proposed project would pave public spaces as pervious surfaces to allow infiltration and recharge of groundwater. As designed, the project proposes an estimated 9 percent net reduction in impervious surfaces on the site, compared to existing conditions. The project would not extract on-site groundwater, and therefore, is not expected to contribute to subsidence. The project would improve groundwater recharge conditions while also allowing for biofiltration, effectively providing source control of pollutants. Thus, the project would be generally consistent with the objectives for sustainable management of groundwater resources, which include managing groundwater to optimize water supply reliability and minimize land subsidence, and protecting against groundwater contamination. The project would also include mitigation to protect groundwater quality and would not conflict with the South Santa Clara Basin Groundwater Management Plan.

As described in Section 3.7, *Hazards and Hazardous Materials*, some of the project's parcels are likely to contain contaminants in the soil and groundwater, which could contaminate surface water and/or groundwater if handled improperly. Mitigation Measures HA-3b and HA-3c would be implemented to ensure that surface water and groundwater quality would be protected during project construction. With implementation of these mitigation measures, operation of the proposed project would not conflict with the water quality objectives identified in the Basin Plan, and this impact would be **less than significant with mitigation incorporated**.

Mitigation Measures

Mitigation Measure HA-3b: Health and Safety Plan (refer to Section 3.7, *Hazards and Hazardous Materials*)

Mitigation Measure HA-3c: Site Management Plan (refer to Section 3.7, *Hazards and Hazardous Materials*)

Significance after Mitigation: Less than significant.

Cumulative Impacts

The geographic scope for potential cumulative hydrology and water quality impacts consists of the project area and surrounding watershed lands. The temporal scope for potential cumulative impacts includes the time frame for construction and would be considered permanent for ongoing operation of the project.

The analysis of potential cumulative impacts on hydrology and water quality considers the cumulative projects shown on Figure 3-1 and listed in Appendix B. The analysis focuses on cumulative adverse effects on water quality from construction and operation of the proposed project, when considered along with past, present, or reasonably foreseeable future projects.

Impact C-HY-1: The proposed project, in combination with past, present, and reasonably foreseeable future projects in the site vicinity, could result in a considerable contribution to cumulative impacts on hydrology and water quality. ***(Less than Significant with Mitigation)***

The majority of future development that could affect hydrology and water quality would be required to comply with the requirements listed in Section 3.8.2, *Regulatory Framework*, including the San José Green Stormwater Infrastructure Plan and the General Plan goals and City Policies 6-29 and 8-14, to reduce and/or avoid potential adverse environmental effects. As such, cumulative impacts on hydrology and water quality would generally be mitigated on a project-by-project basis, and in accordance with the established regulatory framework, through the regulatory review process.

Construction of the proposed project could cause degradation of water quality by increasing soil erosion and sedimentation of water bodies as a result of stormwater runoff, or through accidental releases of hazardous materials. In addition, discharges of dewatering effluent from excavated areas could adversely affect water quality (refer to Impact HY-1).

Nearly all the cumulative projects identified in Table 3-1 (refer to Appendix B), as well as two large-scale projects in and near the proposed project site (Bay Area Rapid Transit [BART] Silicon Valley Phase II Project and the activity permitted under the Diridon Station Area Plan), would involve excavation and the use of heavy construction equipment close to Los Gatos Creek. The BART project would include construction of subsurface concourses and would implement BMPs and design measures based on rigorous geotechnical engineering. It is anticipated that construction of the BART station would occur within the same general time frame as the proposed project. Therefore, the cumulative projects, described above, would have the potential to degrade surface water quality through construction-related soil erosion or accidental discharges of hazardous construction chemicals.

Several cumulative projects could also require construction dewatering, similar to the proposed project. However, controls to prevent contamination of waterways would also be required for dewatering for these projects (as with the proposed project). The majority of the cumulative projects listed in Appendix B are not adjacent to waterways, which would limit direct effects on water quality.

As described in Impact HY-1, the project would comply with the Construction General Permit and MRP requirements, including implementation of BMPs to reduce impacts associated with runoff. The project would also implement mitigation measures to address potential impacts associated with in- or near-water construction; hazardous materials; and disturbance in riparian corridors; measures to re-vegetate habitat areas and conduct monitoring would also be implemented. This would protect surface waters from the water quality impacts associated with cumulative development in the watershed. Mitigation Measure HA-3c requires contractors to develop a groundwater dewatering control and disposal plan specifying how groundwater (dewatering effluent), if encountered, would be handled and disposed of safely, appropriately, and lawfully. Such measures would limit groundwater contamination and reduce the likelihood of a contribution to cumulative effects. Cumulative projects would have to comply with the same regulatory requirements and, where applicable, mitigation measures. This would substantially

limit the effects of any cumulative project, generally precluding cumulative significant impacts on hydrology and water quality.

With respect to the proposed project, adherence to the regulatory requirements and implementation of Mitigation Measures HY-1, BI-1a, BI-2a, HA-3b, and HA-3c as listed under Impacts HY-1 and HY-5, would ensure that the effects of the proposed project would not constitute a cumulatively considerable contribution to a significant cumulative impact. Impacts would be **less than significant with mitigation incorporated**.

Mitigation Measures

Mitigation Measure HY-1: Water Quality Best Management Practices during Construction Activities in and near Water (refer to Impact HY-1)

Mitigation Measure BI-1a: General Avoidance and Protection Measures (refer to Section 3.2, *Biological Resources*)

Mitigation Measure BI-2a: Avoidance of Impacts on Riparian Habitat (refer to Section 3.2, *Biological Resources*)

Mitigation Measure HA-3b: Health and Safety Plan (refer to Section 3.7, *Hazards and Hazardous Materials*)

Mitigation Measure HA-3c: Site Management Plan (refer to Section 3.7, *Hazards and Hazardous Materials*)

Significance after Mitigation: Less than significant.

Impact C-HY-2: The proposed project, in combination with past, present, and reasonably foreseeable future projects in the site vicinity, could result in a considerable contribution to cumulative impacts related to potentially substantial decreases in groundwater supplies. ***(Less than Significant)***

The proposed project would develop mixed-use facilities anticipated to generate demands for potable water, presumably drawn in part from groundwater supplies in the region. Such demands could be considerable in a cumulative context, when viewed with other development projects. The project would result in a net reduction of impervious surfaces, which could enhance recharge capabilities in the Santa Clara Basin, offsetting some portion of this demand. The project's water supply assessment concluded that San Jose Water is able to meet the service area's needs through at least 2035 for average and single dry years without a call for water use reductions, and that the project's impact (with respect to water use) would not be consequential because it is located in a zone with many water supply inputs.[55]

Because the water supply assessment considered the proposed project in the context of cumulative development with water use demands with an extended time frame and determined proposed water use would not be consequential, it can be concluded fairly that the project's contribution to (the impact of decreases in groundwater supplies would not constitute a

[55] San Jose Water, *Downtown West Mixed-Use Project Water Supply Assessment*, January 2020. Summary (p. 16).

cumulatively considerable contribution to a significant cumulative impact. Furthermore, the project's net reduction in impervious surface area would increase recharge in the basin. Therefore, impacts would be **less than significant** when considered in a cumulative scenario.

Mitigation: None required.

Impact C-HY-3: The proposed project, in combination with past, present, and reasonably foreseeable future projects in the site vicinity, could result in a considerable contribution to cumulative impacts related to flood hazards. ***(Less than Significant with Mitigation)***

Similar to the proposed project, many of the projects listed on Figure 3-1 (e.g., the Diridon BART station project) and other proposed developments would place fill or impervious surfaces in flood hazard areas. In the absence of measures to reduce flood risk, impacts from development of these projects, when combined with the impacts of the proposed project, could increase the flood risk.

However, regulatory requirements, such as City ordinances governing development in special flood hazard zones, are in place to reduce the risks of development in flood zones; these regulations include site design measures, subject to design review approval, to limit impacts. Like the proposed project, all potential concurrent development (if any) and future development would be required to demonstrate that the projects would not adversely affect or increase flood risk for the sites and surrounding areas, consistent with City General Plan policies and local codes pertaining to development in a Special Flood Hazard Area.

As described in Section 2.11, *Flood Control Improvements*, the proposed project would be designed with buildings placed at an elevation above the modeled flood elevation to the extent feasible; or the buildings would be flood-proofed, consistent with applicable City regulations, with protective measures installed to reduce flood risks to the site and surrounding community. To ensure that the proposed project would not contribute to a cumulative increase in base flood elevation consistent with the City's adopted performance standards, the project would implement Mitigation Measure HY-3a, Flood Risk Analysis and Modeling, which includes provisions such as the removal of existing debris and obstructions from Los Gatos Creek (as a flood control measure) and/or complete improvements to the riparian corridor to improve floodwater conveyance, based on an updated hydrologic model developed for the project (per Mitigation Measure HY-3a). Mitigation Measure HY-3b would ensure ongoing maintenance of Los Gatos Creek would occur in a manner consistent with Valley Water's existing stream maintenance program. Other projects would similarly have to address site-specific flood risks, where present, thereby avoiding any cumulative significant effects related to flooding.

The proposed project would implement Mitigation Measure HY-3a and, as applicable, Mitigation Measure HY-3b, as described under Impact HY-3, to demonstrate that the proposed project would not increase risks from development in identified flood hazard zones. With implementation of these mitigation measures, the proposed project would not result in or contribute to impacts associated with flood risk to the site and surroundings that would be cumulatively considerable. Therefore, with mitigation measures incorporated, the proposed project, when viewed in

combination with other past, present, or reasonably foreseeable future projects, would not result in a cumulative impact. Impacts would be **less than significant with mitigation incorporated**.

Mitigation Measures

Mitigation Measure HY-3a: Flood Risk Analysis and Modeling (refer to Impact HY-3)

Mitigation Measure HY-3b: Plan for Ongoing Creek Maintenance (refer to Impact HY-3)

Significance after Mitigation: Less than significant.

3.9 Land Use

This section describes the existing environmental setting, summarizes the regulatory framework related to land use and planning and shadow, and analyzes potential impacts of the proposed project related to these topics.

The analysis discusses whether the proposed project would be consistent with applicable land use plans and policies that were adopted for the purpose of avoiding or mitigating an environmental effect. Land use policies are policies that pertain to the type, location, and physical form of new development. For this analysis, policies "adopted for the purpose of avoiding or mitigating an environmental effect" are those that, if implemented and adhered to, would avoid or mitigate physical impacts on the environment. Other policies that relate to avoiding or mitigating an environmental effect are considered in other environmental resource evaluations in Chapter 3, *Environmental Setting, Impacts, and Mitigation*. The Planning Commission and City Council staff reports for the proposed project will include a complete discussion of *Envision San José 2040 General Plan* (General Plan) policies and other applicable City policies.

CEQA Guidelines Section 15125 states that the EIR shall discuss "any inconsistencies between the proposed project and applicable general plans, specific plans and regional plans." Accordingly, the regulatory framework discussion considers potential inconsistencies between the proposed project and relevant regional and local plans and policies. The relevant regional and local plans addressed in this section are the Metropolitan Transportation Commission (MTC) and Association of Bay Area Governments' (ABAG) Sustainable Communities Strategy, *Plan Bay Area 2040* (Plan Bay Area), the San José International Airport Comprehensive Land Use Plan (CLUP), the General Plan, the City of San José Zoning Ordinance (Title 20, Zoning), the Downtown Strategy 2040, and the Diridon Station Area Plan (DSAP).

3.9.1 Environmental Setting

Land Use and Planning

Planning Background

From its founding in 1777 through World War II, the city of San José experienced relatively modest growth. However, after World War II, San José grew at a rapid pace, expanding from its Downtown area into geographically dispersed neighborhoods and smaller semi-rural communities. To accommodate the city's growth between World War II and 1960, the City constructed a water pollution control plant (now the San José–Santa Clara Regional Wastewater Facility) and pursued a policy of aggressive annexation, active business attraction policies, and flexible land use regulation.[1]

[1] City of San José, *Envision San José 2040 General Plan*, adopted November 1, 2011 (amended March 16, 2020). Available at https://www.sanjoseca.gov/home/showdocument?id=22359. Accessed January 16, 2020.

After decades of rapid growth, the City's 1975 general plan outlined policies to address traffic congestion, flooding issues, hillside development, and school crowding.[2] Through the 1980s, the City and Santa Clara County's transportation authority began considering the linkages between land use and transportation planning to support Downtown, transit-oriented development, and bicycle and pedestrian movement.[3]

The San José 2020 General Plan (1994) continued the trend of planning for more compact growth, reducing opportunities for urban growth at the city's edge, committing to higher intensity infill development along identified intensification corridors (generally along existing and planned light rail corridors).[4] In 1996, the City incorporated its urban growth boundary into its general plan.[5]

In 2011, the City adopted its current general plan, *Envision San José 2040*. The General Plan set forth 14 major strategies for community-based planning, form-based planning, focused growth, innovation and development as a regional employment center, concentration of growth in so-called urban villages, streetscapes, sustainability and environmental stewardship, fiscal strength, Downtown vibrancy, concern for natural resources, community health, and periodic General Plan review. (Specific General Plan policies are discussed in Section 3.9.2, *Regulatory Framework*.)

As of 2017, San José was the third most populous city in California, with just over 1 million residents, and Santa Clara County was the sixth most populous county in California.[6] Approximately 83,000 acres (68 percent) of the land in San José's urban growth boundary is developed land with urban uses.[7]

Refer to Section 3.3, *Cultural Resources and Tribal Cultural Resources*, for additional detail regarding the history of the project site and surrounding area.

Land Uses Surrounding the Project Site

To the north, the project site is bounded by a Caltrain equipment maintenance and operations facility and, across the Union Pacific Railroad tracks, by the San José Market Center retail center, which includes a Target store and other retail uses. North of West Santa Clara Street and east of the project site is a mix of one- to two-story commercial and residential buildings. Among the commercial buildings are a produce distribution center, a tobacco products distribution facility, automotive repair shops, and a restaurant. Also in this area is an office building occupied by the Santa Clara County Housing Authority. The remaining uses immediately east of the project site

[2] City of San José, *Envision San José 2040 General Plan*, adopted November 1, 2011 (amended March 16, 2020). Available at https://www.sanjoseca.gov/home/showdocument?id=22359. Accessed January 16, 2020.
[3] City of San José, *Envision San José 2040 General Plan*, adopted November 1, 2011 (amended March 16, 2020). Available at https://www.sanjoseca.gov/home/showdocument?id=22359. Accessed January 16, 2020.
[4] City of San José, *Envision San José 2040 General Plan*, adopted November 1, 2011 (amended March 16, 2020). Available at https://www.sanjoseca.gov/home/showdocument?id=22359. Accessed January 16, 2020.
[5] City of San José, *Envision San José 2040 General Plan*, adopted November 1, 2011 (amended March 16, 2020). Available at https://www.sanjoseca.gov/home/showdocument?id=22359. Accessed January 16, 2020.
[6] U.S. Census Bureau, 2013–2017 American Community Survey 5-Year Estimates. Available at https://data.census.gov/cedsci/table?t=Populations%20and%20People&tid=ACSDP5Y2017.DP05&hidePreview=true&vintage=2017&layer=VT_2018_050_00_PY_D1&cid=S0101_C01_001E&g=1600000US0668000_0500000US06085. Accessed September 9, 2019.
[7] H. T. Harvey & Associates, *Envision San José 2040 General Plan Update Biological Resources Report*, August 18, 2010.

and north of the SAP Center are six single-family homes and two transitional housing facilities operated by LifeMoves.

The SAP Center is an indoor arena with approximately 18,000 seats, located on the north side of West Santa Clara Street at South Autumn Street. The SAP Center borders the project site to the east. The arena's primary tenant is the San José Sharks of the National Hockey League. The SAP Center also hosts concerts, ice shows, and other events.

South of the SAP Center and east of the project site, the site is bordered by State Route (SR) 87, Los Gatos Creek, and various commercial uses including automotive repair shops, a security staffing and logistics business, a vacant commercial/industrial building, a three-story office building, a gas station, a window and shade business, a mini-mall, and a gas station. Beyond the commercial uses and south of West San Fernando Street are the Lakehouse, Park-Lorraine, and Auzerais-Josefa residential neighborhoods. The eight-story Delmas Park affordable housing building, which has ground-floor retail space, on the southeast corner of West San Carlos Street and Bird Avenue, is located across West San Carlos Street from the project site.

South of the project site, the surrounding land uses include an auto-related business, two single-family homes, a construction equipment business, an auto-related business, a window and door business, and a paint store.

The Caltrain tracks extend along the entire west side of the project site. The only land uses between the Caltrain tracks and the project site are the San José Diridon Station and a surface parking lot. West beyond the Caltrain tracks are a Pacific Gas and Electric Company (PG&E) substation and the St. Leo's and Sunol-Midtown residential neighborhoods.

The project site is approximately 1 mile south of the Norman Y. Mineta San José International Airport.

Development History of the Project Site

As stated in Section 3.3, *Cultural Resources and Tribal Cultural Resources*, in the late 19th and early 20th centuries, the project site was occupied by small cottages abutting industrial development, including a gas works, manufacturers of agricultural and processing equipment, fruit processing facilities, and lumberyards. By the mid-1930s, the Southern Pacific Railroad tracks were constructed in their current location along the western edge of the project site. After World War II, the project site transitioned from a residential and light industrial mixed-use area to primarily industrial as light industrial properties replaced many older residences. By the end of the 20th century, the SAP Center supplanted the former PG&E gasworks, buildings gave way to new parking lots, and construction of Guadalupe River Park began in the 1990s.

The Diridon Station Area has been the subject of multiple planning efforts, development projects, and transportation projects in its recent history. Past planning efforts at the project site include the previously approved San José Downtown Strategy 2000 Project, Diridon/Arena Strategic Development Plan, Midtown Specific Plan, Julian-Stockton Redevelopment Plan, and Delmas Park Neighborhood Improvement Plan.

Project Site Existing Land Uses

Much of the project site (approximately 40 percent) is currently occupied by surface parking lots serving the SAP Center, the Diridon Station, and private commercial businesses. Existing buildings occupy some of the parcels; the total built floor area is approximately 755,000 square feet, mostly in single-story structures.

Existing land uses on the project site are described from the northern area of the site (north of West Santa Clara Street) to the southern area (south of Park Avenue). As shown on **Figure 3.9-1**, the project site's northern area contains a variety of light and heavy industrial uses: a food wholesale warehouse, one occupied residential property, surface parking lots serving Diridon Station and the SAP Center, and the SAP Center. In the central area of the project site, between West Santa Clara Street and Park Avenue, surface parking lots serve Diridon Station and the SAP Center. Adjacent to the surface parking lots south of the SAP Center, there are a variety of light industrial, commercial, and food-related uses, a church, and a PG&E substation. In the southern area of the project site (south of Park Avenue), existing uses include a San José Fire Department training facility, retail, and vacant properties. Refer to Chapter 2, *Project Description*, for additional detail regarding existing uses on the project site.

Project Site Existing Land Use Designations

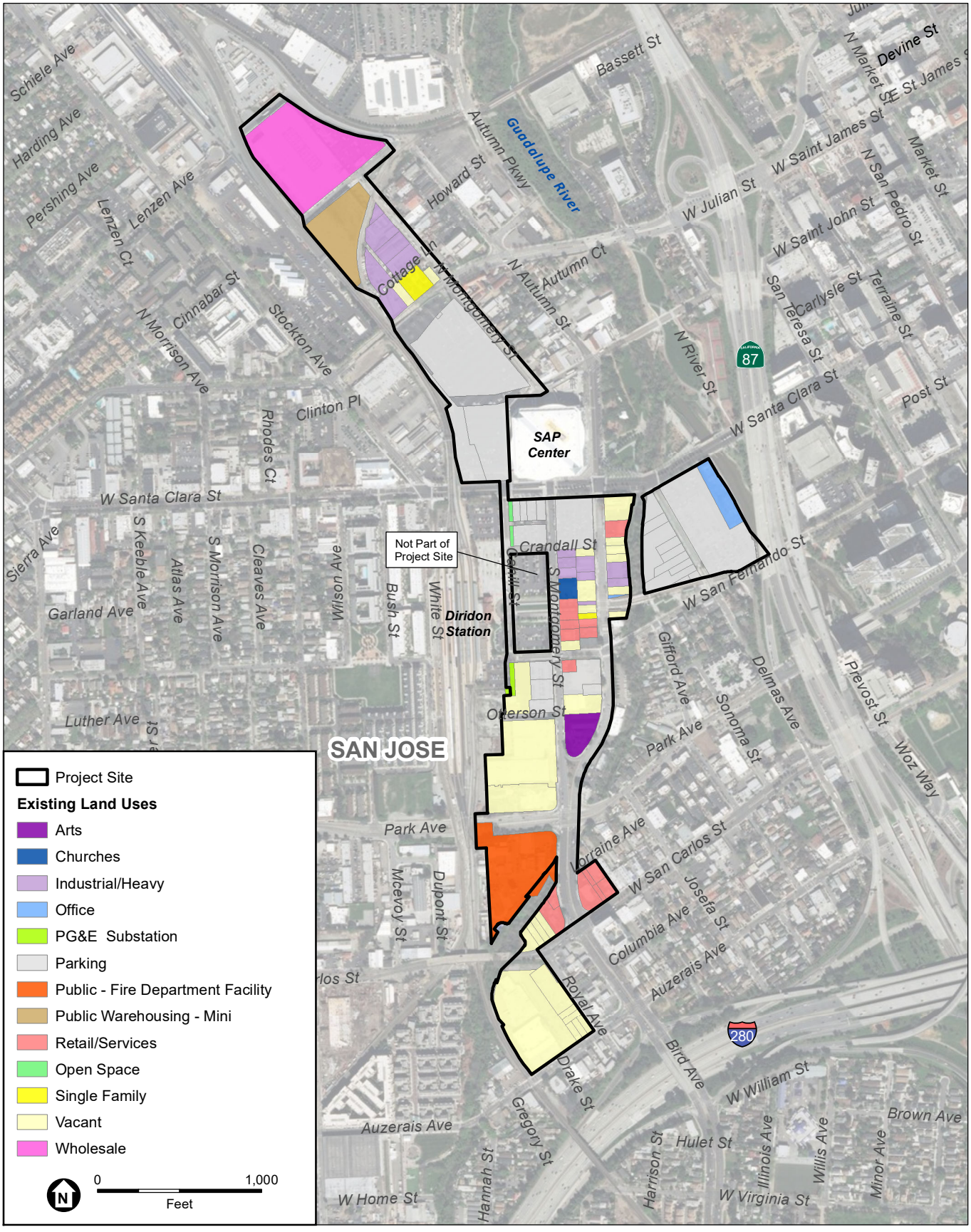
The entire project site is 81 acres and encompasses approximately 100 separate parcels. **Figure 3.9-2** shows the project site's General Plan land use designations. **Table 3.9-1** summarizes these land use designations, and these are described in more detail in Chapter 2, *Project Description*.

TABLE 3.9-1
EXISTING LAND USE DESIGNATIONS FOR THE PROJECT SITE IN THE ENVISION SAN JOSÉ 2040 GENERAL PLAN

Land Use	Acres
Commercial Downtown	18.3
Transit Employment Center	14.7
Public/Quasi-Public	10.8
Downtown	6.4
Combined Industrial/Commercial	6.9
Open Space, Parklands and Habitat	6.8

SOURCE: San José data download, available at https://www.sanjoseca.gov/your-government/departments-offices/public-works/resources/gis-data-downloads. Accessed September 9, 2019.

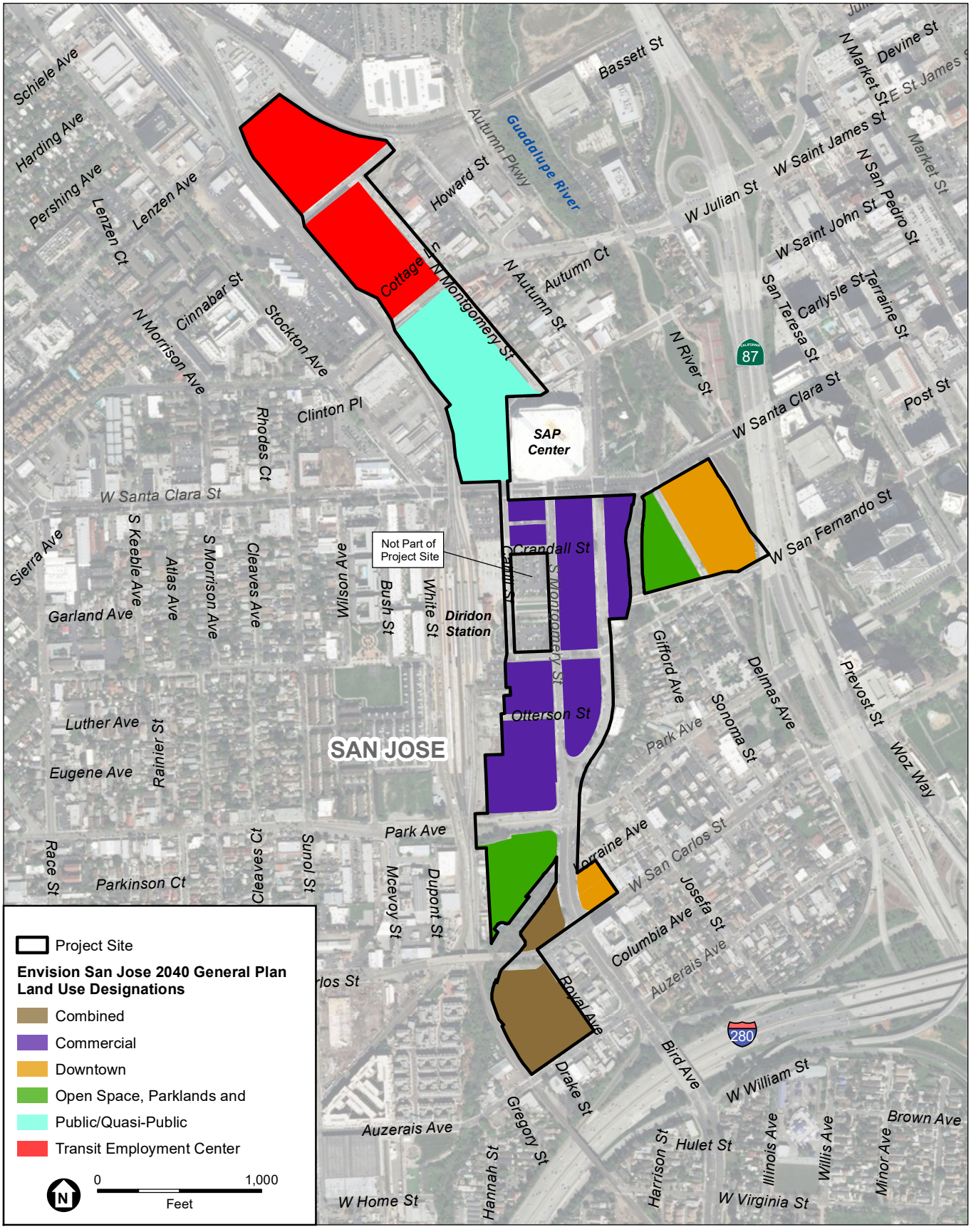
As shown in Table 3.9-1, more than half of the site (42 acres) is currently included in one of three designations: Commercial Downtown (18.3 acres), Transit Employment Center (14.7 acres), and Public/Quasi-Public (10.8 acres). Approximately 6 acres are designated Downtown, 6.9 acres are designated Combined Industrial/Commercial, and 6.8 acres are designated Open Space, Parklands, and Habitat.



SOURCES: Esri, 2019, City of San Jose, 2019, ESA, 2020

Downtown West Mixed-Use Plan

Figure 3.9-1
Existing Land Uses



SOURCES: Esri, 2019, City of San Jose, 2019, ESA, 2020

Downtown West Mixed-Use Plan

Figure 3.9-2
Envision San Jose 2040 General Plan Land Use Designations

Commercial Downtown

The Commercial Downtown District includes office, hotel, retail, service, and entertainment uses consistent with those supported by the Downtown designation. Residential uses are not permitted in the Commercial Downtown designation. This district calls for high-intensity commercial uses.

Transit Employment Center

This designation applies to areas planned for intensive job growth because of their high degree of transit accessibility and infrastructure connections. All Transit Employment Center–designated areas fall within identified Growth Areas.

Public/Quasi-Public

This designation is used for public land uses, including schools, colleges, corporation yards, homeless shelters, libraries, fire stations, water treatment facilities, convention centers and auditoriums, museums, governmental offices, and airports.

Downtown

The Downtown designation includes office, retail, service, residential, and entertainment uses in the Downtown area. Development in this designation is intended to support pedestrian and bicycle circulation and increase transit ridership.

Combined Industrial/Commercial

This designation allows flexibility for the development of commercial and industrial uses, including hospitals and private community gathering facilities.

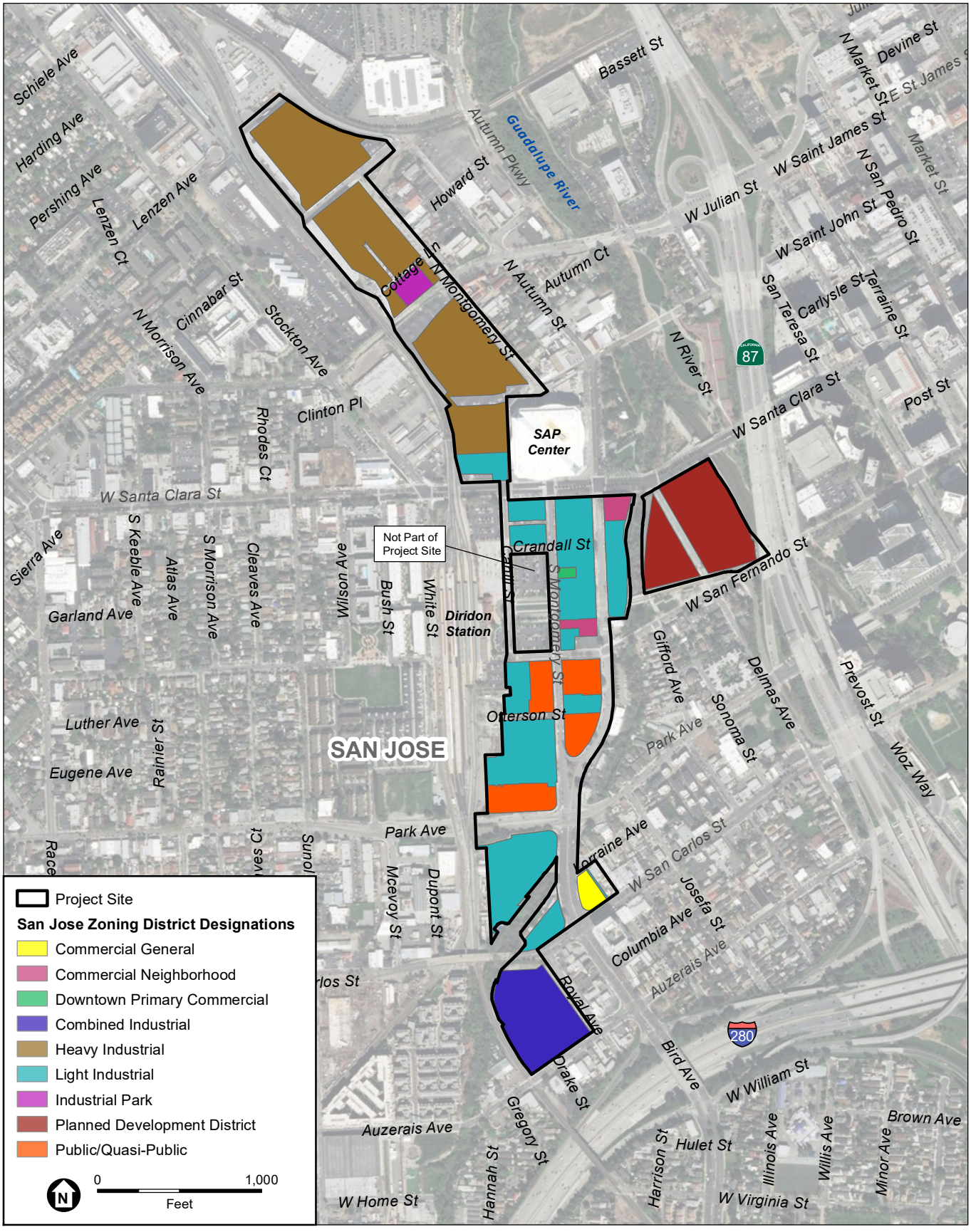
Open Space, Parklands and Habitat

This designation allows publicly or privately owned areas for low-intensity uses. Typical uses in this designation include open space, parks, recreation areas, trails, habitat buffers, nature preserves, and other permanent open space areas. This designation allows limited buildings or structures, but calls for the majority of the land area in this designation to be maintained as open space.

Existing Zoning

As shown on **Figure 3.9-3** and summarized in **Table 3.9-2**, the project site lies within the following zoning districts within the project site, from north to south: Heavy Industrial, Industrial Park, Light Industrial, Downtown Primary Commercial, Commercial Neighborhood, Planned Development, Public/Quasi-Public, Commercial General, and Combined Industrial/Commercial. A majority of the site is zoned either Heavy Industrial (18.4 acres) or Light Industrial (17.7 acres).

It is worth noting that the existing zoning for a majority of the site is not consistent with the General Plan designation. For example, SAP Center Lots A, B, and C are designated Public/Quasi-Public in the General Plan, but have a zoning designation of Heavy Industrial. Similarly, the San José Fire Department training center in the southern area of the project site is designated as Open Space in the General Plan, but has a Light Industrial zoning designation.



SOURCES: Esri, 2019, City of San Jose, 2019, ESA, 2020

Downtown West Mixed-Use Plan

Figure 3.9-3
San Jose Zoning District Designations

TABLE 3.9-2
EXISTING ZONING DISTRICTS FOR THE PROJECT SITE

Land Use	Acres
Combined Industrial/Commercial	5.4
Commercial General	0.6
Commercial Neighborhood	0.9
Downtown Primary Commercial	0.2
Heavy Industrial	18.4
Industrial Park	0.7
Light Industrial	17.7
Planned Development	7.6
Public/Quasi-Public	4.7

SOURCE: San José data download, available at https://www.sanjoseca.gov/your-government/departments-offices/public-works/resources/gis-data-downloads, Accessed January 6, 2020d.

Industrial Zoning Districts

The Combined Industrial/Commercial Zoning District is intended for commercial or industrial uses, or a compatible mixture of these uses. The Industrial Park zoning designation is a designation intended for a wide variety of industrial users such as research and development, manufacturing, assembly, testing, and offices. The Light Industrial district is also intended for industrial uses but excludes uses with unmitigated hazardous or nuisance effects. The Heavy Industrial Zoning District is less restrictive than the Light Industrial Zoning District and is intended for industrial uses with nuisance or hazardous characteristics that are best segregated from other uses for reasons of health, safety, environmental effects, or general welfare. Examples of typical Light Industrial uses are warehousing, wholesaling, and light manufacturing, while examples of Heavy Industrial uses include extractive and primary processing industries.

Commercial Zoning Districts

The Downtown Primary Commercial Zoning District allows a wide variety of uses, including commercial, multi-family residential, and institutional. The Commercial Neighborhood Zoning District is intended to provide for neighborhood-serving commercial uses. The type of development supported by this district includes neighborhood centers, multi-tenant commercial development along city connector and main streets, and small corner commercial establishments. The Commercial General Zoning District allows for a full range of retail and commercial uses with a local or regional market, including malls.

Planned Development Zoning District

The City's Municipal Code requires that a Planned Development Zoning District be combined with an existing base zoning district. A Planned Development Zoning District is effectuated by approval of a valid Planned Development Permit in compliance with the Planned Development Zoning District and General Development Plan. Development of property can occur only pursuant to an effective Planned Development Permit, or alternatively, prior to approval of a Planned Development Permit such property may be developed in accordance with the

requirements of the base zoning district. A Planned Development Zoning District allows any use or combination of uses provided for in the accompanying Planned Development Permit that is approved by the City. The City's approving bodies evaluate future projects in Planned Development Zoning Districts against the regulations in the Planned Development Zoning District, the adopted General Development Plan, and adopted design standards and guidelines (if any). For additional information regarding the project's Planned Development Zoning District and Design Standards and Guidelines, refer to Chapter 2, *Project Description*. The proposed Design Standards and Guidelines (Downtown West Design Standards and Guidelines) is included in Appendix M.

Shadow

Some publicly accessible open spaces and recreation facilities located nearby would have the potential to be affected by the proposed project. The following major Downtown open spaces were identified in the Downtown Strategy 2040 EIR as being particularly sensitive to shadow:

- **St. James Park**, a two-city-block public park encompassing 6.8 acres, located between North First and Third Streets and East St. John and St. James Streets. St. James Park was designated a San José Historic Landmark District in 1984.[8]
- **Plaza of Palms (also referred to as Circle of Palms Plaza)** is a group of palm trees encircling the California State Seal and is the site of California's first state capitol (1849–1851). The Plaza of Palms is located on Market Street near Plaza de César Chávez in Downtown San José.[9]
- **Plaza de César Chávez** is a 2.3-acre park in Downtown San José. This park is across South Market Street from the Plaza of Palms and contains grass lawns, paths, a fountain, and an amphitheater.
- **Paseo de San Antonio** is a pedestrian walkway between San José State University and Plaza de César Chávez.
- **Guadalupe River Park** is a multi-use linear park that surrounds the Guadalupe River in Downtown San José. The park has both designed and natural spaces, from plazas to park-like strolling paths to natural riparian habitat. The network of paths, called the River Walk, connects to other local and regional trail systems. In addition, the Guadalupe River Park is a Core Trail System in the city's trail network, and is designated as part of the National Recreation Trail.
- **McEnery Park** is a 1.3-acre park on the south side of San Fernando Street, east of the Guadalupe River, that contains two children's water play features and two playgrounds.

[8] Archives & Architecture LLC, *St. James Park Historical Evaluation*, 2016. Available at https://www.sanjoseca.gov/home/showdocument?id=9563. Accessed September 23, 2019.

[9] City of San José, San José History, 2019. Available at https://www.sanjoseca.gov/index.aspx?NID=126. Accessed September 23, 2019.

3.9.2 Regulatory Framework

Federal

14 CFR Part 77—Safe, Efficient Use, and Preservation of the Navigable Airspace

The Federal Aviation Administration (FAA) is tasked with managing the national airspace. The FAA has promulgated regulations at Code of Federal Regulations (CFR) Title 14, Part 77 (Part 77), to preserve the navigability of the nation's airspace and maintain its safe and efficient use. The Part 77 regulations establish requirements for notifying the FAA of certain types of proposed construction or alteration of already existing structures. In addition, Part 77 identifies the standards used to determine obstructions to air navigation, and the process for conducting aeronautical studies to identify obstructions to air navigation and their effect on airspace.

Under 14 CFR Part 77.9, the FAA requires that it be notified of certain types of construction. This includes any construction of a new structure or alteration of an existing structure that is more than 200 feet above ground level where it is located, or that would exceed certain imaginary surfaces extending outward and upward from an airport's runways.[10] The FAA is notified by submitting Form FAA 7460-1, Notice of Proposed Construction or Alteration, at least 45 days before the beginning of construction.[11]

In response to the submittal of Form 7460-1, the FAA will prepare an aeronautical study to identify whether the proposed construction or alteration would be considered an obstruction to air navigation. Obstructions in airspace are presumed to be hazards to air navigation unless the aeronautical study concludes otherwise. The standards for determining obstructions in airspace are established in 14 CFR Part 77.17.

Upon completion of the aeronautical study, the FAA will either issue a Determination of No Hazard to Air Navigation or a Determination of Hazard to Air Navigation. A Determination of No Hazard to Air Navigation may include certain additional information, such as supplemental notice requirements or recommendations for marking and lighting the structure consistent with guidance in FAA Advisory Circular 70/7460-1L Change 2, Obstruction Marking and Lighting. A Determination of Hazard to Air Navigation indicates that a structure would have a substantial impact on air navigation. Part 77 also includes provisions for petitioning the FAA for discretionary review of a project. Section 3.7, *Hazards and Hazardous Materials*, contains a discussion of safety hazards related to airports.

[10] The notification requirement includes both permanent structures and temporary structures such as tower cranes used in construction.

[11] Federal Aviation Administration, Form FAA 7460-1, *Notice of Proposed Construction or Alteration*, Section 77.9, Construction or Alteration Requiring Notice, 2017. Available at https://www.faa.gov/documentLibrary/media/Form/FAA_Form_7460-1_042020.pdf. Accessed September 2018.

State

Sustainable Communities and Climate Protection Act of 2008

Senate Bill (SB) 375 (Chapter 728, Statutes of 2008), the Sustainable Communities and Climate Protection Act, directs the California Air Resources Board to set regional targets for reducing greenhouse gas (GHG) emissions. The law establishes a "bottom up" approach to ensure that cities and counties are involved in the development of regional plans to achieve those targets.

SB 375 builds on the existing regional planning framework to tie together the regional allocation of housing needs and regional transportation planning in an effort to reduce GHG emissions from motor vehicle trips. Further, SB 375 established CEQA streamlining and exemptions for projects found to be consistent with the land use assumptions and other relevant policies of an adopted Sustainable Communities Strategy. Those exemptions and streamlining regulations are reflected in CEQA Guidelines Sections 15064.4 and 15183.5. For additional discussion of SB 375, including consistency of the proposed project with SB 375, refer to Section 3.6, *Greenhouse Gas Emissions*.

California State Aeronautics Act

The California Department of Transportation (Caltrans) Division of Aeronautics is responsible for administering much of the California State Aeronautics Act (Public Utilities Code Section 21001 et seq.). The State Aeronautics Act requires counties, with certain exceptions, to form airport land use commissions (ALUCs) (Public Utilities Code Section 21670(b)). The purpose of an ALUC is to conduct airport land use compatibility planning and to prevent the creation of new noise and safety problems in areas surrounding airports.

One of the primary responsibilities of ALUCs is to prepare airport land use compatibility plans (ALUCPs). The State Aeronautics Act directs the Caltrans Division of Aeronautics to provide guidance for ALUCs in preparing ALUCPs by publishing the Caltrans *California Airport Land Use Planning Handbook* (Caltrans Handbook).[12] The Caltrans Handbook was last updated in October 2011.

The Caltrans Handbook is intended to provide information on compatible land use planning to ALUCs, their staff, airport proprietors, cities, counties, consultants, and the public; identify the requirements and procedures for preparing effective compatibility planning documents; and define exceptions where applicable.[13] The Caltrans Handbook is to be used by all ALUCs responsible for providing compatible land use planning near each existing and new public-use or military airport within their jurisdictions. Although the Caltrans Handbook provides guidance for complying with baseline safety and compatibility requirements, ALUCs may choose to be more restrictive based on local conditions.

Public Resources Code Section 21096 states that if a lead agency prepares an EIR for a project situated within ALUCP boundaries, the Caltrans Handbook is to be used as a technical resource

[12] California Department of Transportation, Division of Aeronautics, *California Airport Land Use Planning Handbook*, October 2011.
[13] California Department of Transportation, Division of Aeronautics, *California Airport Land Use Planning Handbook*, October 2011, p. vii.

to assist in preparation of the EIR to the extent that the EIR analyzes airport-related safety hazards and noise problems.

Regional

Plan Bay Area 2040

SB 375 requires all metropolitan regions in California to complete a sustainable communities strategy (SCS) as part of a regional transportation plan. In the Bay Area, the MTC and ABAG are jointly responsible for developing and adopting an SCS that integrates transportation, land use, and housing to meet GHG reduction targets set by the California Air Resources Board.

Plan Bay Area 2040, adopted in 2017, serves as the SCS for the Bay Area, in accordance with SB 375. A core household and employment growth strategy of Plan Bay Area is "focused growth" in existing communities along the existing transportation network. Key to implementing this focused growth strategy are Priority Development Areas (PDAs), as recommended and approved by local governments. As defined by the plan, PDAs are areas where new development will support the needs of residents and workers in a pedestrian-friendly environment served by transit. Plan Bay Area also recommends increasing non-auto travel mode share and reducing vehicle miles traveled per capita and per employee by promoting transit-oriented development, transit improvements, and active transportation modes such as walking and bicycling. From fall 2019 to summer 2020, ABAG and the MTC are developing the blueprint for *Plan Bay Area 2050*. *Plan Bay Area 2050* is anticipated to be adopted by both agencies in June 2021.

The central portion of the project site, between Julian Street on the north and Park Avenue on the south, is located within the "San José: Greater Downtown" PDA. The remaining portions of the project site are located within the "Downtown Frame" PDA. The project site is entirely located in these two PDAs, meaning that the entire project site is within an existing community, within one-half mile of frequent transit, and in an area planned for future housing and job growth by the City and the regional agencies.

Comprehensive Land Use Plan for the San José International Airport

The Santa Clara County ALUC is a seven-member commission consisting of two members representing incorporated cities in Santa Clara County, two members representing Santa Clara County (County), two members having expertise in aviation, and one member representing the general public.[14] The Santa Clara County ALUC develops CLUPs[15] for the county's airports and assists local agencies in ensuring compatible land uses near local airports. The ALUC reviews proposed development, land use plans, regulations, and other actions of local agencies and airport

[14] Santa Clara County Airport Land Use Commission, *Bylaws of the Airport Land Use Commission of Santa Clara County*, adopted November 18, 2015. Available at https://www.sccgov.org/sites/dpd/DocsForms/Documents/ALUC_ByLaws.pdf. Accessed October 1, 2019.

[15] As of the 2011 update to the Caltrans Handbook, CLUPs are now referred to as airport land use compatibility plans. The CLUPs for Santa Clara County's airports, including Norman Y. Mineta San José International Airport, were prepared before the 2011 Caltrans Handbook update and relied on the 2002 Caltrans Handbook for guidance.

operators within the airport influence areas (AIAs) for the County's airports.[16] The AIAs represent the geographical extent of the ALUC's authority.

Development of the Comprehensive Land Use Plan

The project site is approximately 1 mile south of the Norman Y. Mineta San José International Airport (SJC or Airport). The project site is located in areas covered by the Part 77 imaginary airspace surfaces for SJC, and portions of the site are located within the community noise equivalent level (CNEL) contour (described later in this subsection). The project site is located outside the safety restriction area identified in the CLUP. The CLUPs have 20-year planning horizons and can be amended once every calendar year. The CLUP for SJC was adopted in May 2011 and last amended in November 2016.

The Santa Clara County ALUC developed the CLUP for SJC to ensure the general welfare of inhabitants in the AIA, to protect occupants of aircraft operating in the Airport vicinity, and to ensure that new land uses within the AIA are compatible with continued operation of the Airport. This is achieved through land use policies intended "to protect the public from the adverse effects of aircraft noise, to ensure that people and facilities are not concentrated in areas susceptible to aircraft accidents, and to ensure that no structures or activities adversely affect navigable airspace."[17] Local agencies located within the AIA must make their land use plans consistent with the CLUP or take special steps to overrule it. The overrule process requires a two-thirds vote of the local agency's governing body, supported by specific findings.[18]

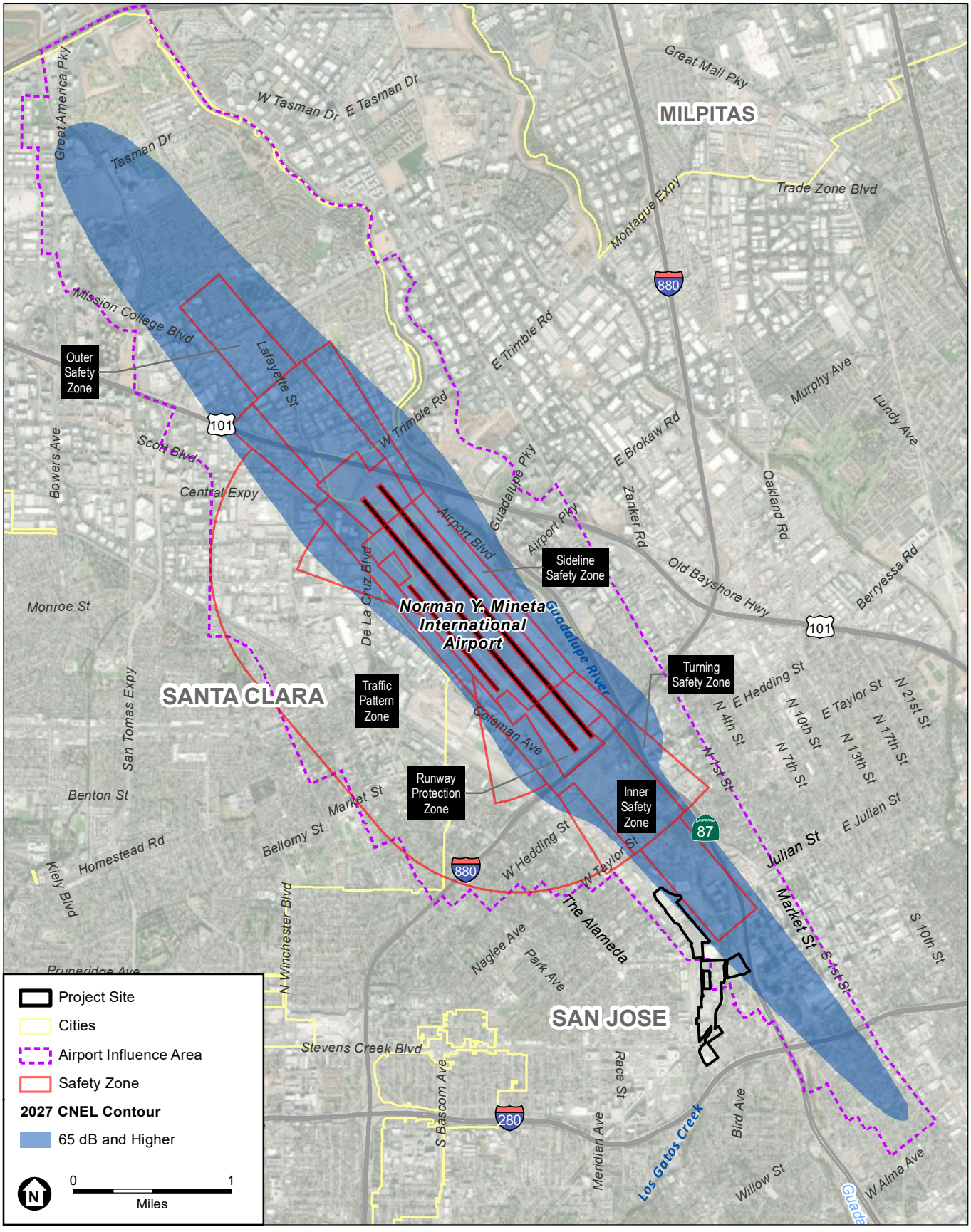
Noise Restriction, Height Restriction, Safety Restriction, and Overflight Restriction Areas

The SJC CLUP provides applicable policies with regard to Noise Restriction, Height Restriction, Safety Restriction, and Overflight Restriction Areas around the Airport. The AIA for SJC represents a composite of these areas and is shown on **Figure 3.9-4**.

16 Santa Clara County Airport Land Use Commission, *Norman Y. Mineta San José International Airport: Comprehensive Land Use Plan Santa Clara County*, prepared by Walter B. Windus, PE, adopted May 25, 2011 (amended 2016). Available at https://www.sccgov.org/sites/dpd/DocsForms/Documents/ALUC_SJC_CLUP.pdf. Accessed September 12, 2019.

17 Santa Clara County Airport Land Use Commission, *Norman Y. Mineta San José International Airport: Comprehensive Land Use Plan Santa Clara County*, prepared by Walter B. Windus, PE, adopted May 25, 2011 (amended 2016). Available at https://www.sccgov.org/sites/dpd/DocsForms/Documents/ALUC_SJC_CLUP.pdf. Accessed September 12, 2019, p. 1-1.

18 Santa Clara County Airport Land Use Commission, *Norman Y. Mineta San José International Airport: Comprehensive Land Use Plan Santa Clara County*, prepared by Walter B. Windus, PE, adopted May 25, 2011 (amended 2016). Available at https://www.sccgov.org/sites/dpd/DocsForms/Documents/ALUC_SJC_CLUP.pdf. Accessed September 12, 2019, p. 5-1.



SOURCES: Esri, 2019, Santa Clara County Airport Land Use Commission, 2019; ESA, 2020

Downtown West Mixed-Use Plan

Figure 3.9-4
San Jose international Airport Comprehensive Land Use Plan
Airport Influence Area and Safety and Noise Compatibility Layers

The *Noise Restriction Area* is defined by CNEL contours of 65 decibels (dB), 70 dB, and 75 dB and higher (refer to Figure 3.9-4 for the CNEL 65 dB noise contour, the only noise contour that overlaps the project site). The CNEL contours were produced using the FAA's Integrated Noise Model Version 6.0c and reflect forecasted 2027 aircraft operations at SJC, based on the forecast prepared for the 2007 San José International Airport Master Plan Update.[19] The noise policies in the CLUP apply in areas located within the CNEL contours. The policies include criteria for determining the acceptability of specific land uses based on exposure to the CNEL in bands of 5 dB (i.e., CNEL 55–60 dB, 60–65 dB, 65–70 dB, 70–75 dB, 75–80 dB, and 80–85 dB). Land use is defined as generally acceptable, conditionally acceptable, generally unacceptable, or unacceptable based on the CNEL contour in which it is located.

The *Height Restriction Area* represents height restrictions in areas covered by imaginary airspace surfaces at and around the Airport, as defined by criteria promulgated in 14 CFR Part 77. Development of the height restriction policies also considered height restrictions associated with one-engine-inoperative minimum clearance surfaces, as defined by performance criteria established in 14 CFR Part 25.121.[20] The FAA has no authority over local land use; therefore, the height restriction policies provide a nexus between federal regulations and local land use planning.

The *Safety Restriction Area* comprises six safety zones developed based on guidance provided in the 2002 Caltrans Handbook (refer to Figure 3.9-4). The safety zones represent areas of progressive risk for aircraft accidents. The safety policies in the CLUP apply in areas located within the safety zones. Like the noise policies, the safety policies include criteria determining the acceptability of specific land uses based on the safety zone. The compatibility criteria limit maximum population density and include requirements for maintaining various percentages of open space based on safety zone. As indicated above, the project site is outside the safety restriction area identified in the CLUP.

Finally, the *Overflight Restriction Area* covers all areas within the AIA. Aircraft overflight policies address sensitivity to aircraft overflights beyond the noise contours. The overflight policies require avigation easements for certain types of projects and apply state law requiring disclosure of a property's location within an AIA as part of the sale of residential real estate.[21]

Approximately 40 acres of the northern portion of the project site are located within the AIA. The proposed General Plan Amendment and rezoning must be submitted to the ALUC to be reviewed for consistency with the CLUP. For additional discussion of the Santa Clara County CLUP,

[19] The noise contour in the CLUP depicts 2027 conditions based on information from the 2007 Airport Master Plan, the master plan in effect at the time the CLUP was produced. The Airport Master Plan was last updated in April 2020 and the CLUP has not been updated to reflect changes in the 2020 Airport Master Plan. Policy N-3 in the CLUP states that noise impacts shall be evaluated according to the 2027 noise contour (see Figure 5 in the CLUP). Accordingly, the 2027 contour defines the Noise Restriction Area for purposes of applying CLUP policies. See Figure 3.10-5 for the full 2027 noise contours. For informational purposes, Figure 3.10-6 also provides the noise contours as shown in the 2020 Airport Master Plan reflecting the 2037 forecast.

[20] On March 12, 2019, the City of San José City Council accepted the completed Downtown Airspace and Development Capacity Study, selecting Scenario 4, which would affirm the City's development policy to use FAA Terminal Instrument Procedures (TERPS) surfaces in lieu of the One-Engine Inoperative (OEI) surfaces to determine maximum building heights in the Downtown Core and Diridon Station planning areas.

[21] An avigation [correct spelling] easement grants the right of overflight in the airspace above or near an affected property.

including consistency with policies related to noise and safety, refer to Section 3.7, *Hazards and Hazardous Materials*, in *Wildfire*, and Section 3.10, *Noise and Vibration*.

Applicable Policies

The following policies from the Santa Clara County CLUP are applicable to the General Plan Amendment and Rezoning:

General Policies

Policy G-4: Local jurisdictions should encourage the conversion of land uses that are currently incompatible with this CLUP to uses that are compatible, where feasible.

Policy G-5: Where legally allowed, dedication of an avigation easement to the City of San José shall be required to be offered as a condition of approval on all projects located within an Airport Influence Area, other than reconstruction projects as defined in paragraph 4.3.7 [of the CLUP]. All such easements shall be similar to that shown as Exhibit 1 in Appendix A [to the CLUP].

Policy G-6: Any proposed uses that may cause a hazard to aircraft in flight are not permitted within the AIA. Such uses include electrical interference, high intensity lighting, attraction of birds (certain agricultural uses, sanitary landfills), and activities that may produce smoke, dust, or glare. This policy requires the height at maturity of newly planted trees to be considered to avoid future penetration of the FAA FAR [Federal Aviation Regulations] Part 77 Surfaces.

Policy G-7: All new exterior lighting or large video displays within the AIA shall be designed so as to create no interference with aircraft operations. Such lighting shall be constructed and located so that only the intended area is illuminated and off-site glare is fully controlled. The lighting shall be arrayed in such a manner that it cannot be mistaken for airport approach or runway lights by pilots.

Noise Policies

Policy N-2: The Noise Compatibility Policies presented in the County's CLUP shall be used to determine if a specific land use is consistent with this CLUP.

Policy N-4: No residential or transient lodging construction shall be permitted within the 65 dB CNEL contour boundary unless it can be demonstrated that the resulting interior sound levels will be less than 45 dB CNEL and there are no outdoor patios or outdoor activity areas associated with the residential portion of a mixed use residential project or a multi-unit residential project. (Sound wall noise mitigation measures are not effective in reducing noise generated by aircraft flying overhead.)

Policy N-5: All property owners within the Airport Influence Area who rent or lease their property for residential use shall include in their rental/lease agreement with the tenant, a statement advising that they (the tenants) are living within a high noise area and the exterior noise level is predicted to be greater than 65 dB CNEL in a manner that is consistent with current state law including AB 2776 [Assembly Bill 2776] (2002).[22]

[22] AB 2776 was signed into law in September 2002 and became effective on January 1, 2004. This statute states that during real estate transfers, the residential property purchaser must be informed if the property is in an Airport Influence Area and must be informed of the potential impacts of the associated airport.

Policy N-6: Noise level compatibility standards for other types of land uses shall be applied in the same manner as the above residential noise level criteria. Table 4-1 [in the CLUP] presents acceptable noise levels for other land uses in the vicinity of the Airport.

Height Compatibility Policies

Policy H-1: Any structure or object that penetrates the Federal Aviation Regulations Part 77, Objects Affecting Navigable Airspace, (FAR Part 77) surfaces is presumed to be a hazard to air navigation and will be considered an incompatible land use, except in the following circumstance. If the structure or object is above the FAR Part 77 surface, the proponent may submit the project data to the FAA for evaluation and air navigation hazard determination, in which case the FAA's determination shall prevail.

Policy H-2: Any project that may exceed a FAR Part 77 surface must notify the FAA as required by FAR Part 77, Subpart B on FAA Form 7460-1, Notice of Proposed Construction or Alteration. (Notification to the FAA under FAR Part 77, Subpart B, is required even for certain proposed construction that does not exceed the height limits allowed by Subpart C of the FARs).

Policy T-1: The applicant for any proposed project anywhere in the County for construction or alteration of a structure (including antennas) higher than 200 feet above ground level shall submit to the FAA a completed copy of FAA Form 7460-1, Notice of Proposed Construction or Alteration. A copy of the submitted form shall be submitted to the Santa Clara County ALUC as well as a copy of the FAA's response to this form.

Policy T-2: Any proposed project anywhere in the County for construction or alteration of a structure (including antennas) higher than 200 feet above ground level shall comply with FAR 77.13(a)(1) and shall be determined inconsistent if deemed to be a hazard by the FAA or if the ALUC determines that the project has any impact on normal aircraft operations or would increase the risk to aircraft operations.

Overflight Policies

Policy O-1: All new projects within the AIA that are subject to discretionary review and approval shall be required to dedicate in compliance with state law, an avigation easement to the City of San José. The avigation easement shall be similar to that shown as Exhibit 1 in Appendix A.

Other Policies

Policy M-1: Modifications (defined as the modification of approvals and unbuilt development that does not change the intensity of development) shall be transmitted to the ALUC staff for review and comment.

Santa Clara Valley Habitat Plan

The project site is located within the permit area for the *Santa Clara Valley Habitat Plan* (Habitat Plan). The Habitat Plan is intended to promote the recovery of endangered species and enhance ecological diversity and function, while accommodating planned growth on approximately 500,000 acres, or two-thirds of southern Santa Clara County. The Santa Clara Valley Habitat Agency implements the plan.

The Habitat Plan requires permits for project-specific impacts on Habitat Plan species and removes the need to obtain approvals from the wildlife agencies, and reduces the number and

scope of required biological studies. The Habitat Plan generally requires a riparian corridor setback of at least 100 feet from the riparian corridor or top of bank, whichever is more restrictive (although exceptions can be granted to reduce the required setback) for projects covered by the Habitat Plan, land cover fees to offset impacts on land cover types, wetland fees for projects affecting wetlands, and nitrogen deposition fees for any increases in vehicle trips.

Local

The project site has been the subject of multiple planning efforts over the years, including the previously approved General Plan and the Diridon Station Area Plan.

Envision San José 2040 General Plan

California law requires that every city and county prepare and adopt a long-range comprehensive general plan to guide future development and to identify the community's environmental, social, and economic goals. As stated in California Government Code Section 65302, "The general plan shall consist of a statement of development policies and shall include a diagram or diagrams and text setting forth objectives, principles, standards, and plan proposals."

The *Envision San José 2040 General Plan*, adopted in 2011 and last amended on March 16, 2020, plans for the future growth, development, and the provision of municipal services for San José. In particular, the General Plan plans for the development of up to 382,000 new jobs and 120,000 new dwelling units, supporting a population of approximately 1.3 million people by 2040.

Land use policies in the General Plan emphasize growing jobs and housing in areas served by transit and other City services to minimize the environmental and fiscal impacts of new growth. The General Plan identifies Growth Areas to accommodate nearly all of San José's planned housing and job growth capacity. The Growth Areas include the Downtown, North San José, and Specific Plan areas; employment land areas; regional transit stations; and new urban villages located at transit stations, along commercial corridors, or within walking distance of existing neighborhoods.

The project site is within the Diridon Station Area Plan and the Downtown Growth Area.

Land Use Diagram

The General Plan's land use diagram identifies locations, types, and intensities of employment, residential, and mixed-use growth throughout San José.

As shown on Figure 3.9-2, the project site's land use designations are as follows:

- Transit Employment Center
- Public/Quasi-Public
- Open Space, Parklands and Habitat
- Downtown
- Commercial Downtown
- Combined Industrial/Commercial

General Plan Policies

The General Plan policies are intended to identify Growth Areas and transform them into higher-density, mixed-use, urban districts, or "Urban Villages" that can accommodate employment and housing growth and reduce the environmental impacts of growth by promoting transit and walkability. The following policies pertaining to land use are relevant to the proposed project:

Policy CD-1.12: Use building design to reflect both the unique character of a specific site and the context of surrounding development and to support pedestrian movement throughout the building site by providing convenient means of entry from public streets and transit facilities where applicable, and by designing ground level building frontages to create an attractive pedestrian environment along building frontages. Unless it is appropriate to the site and context, franchise-style architecture is strongly discouraged.

Policy CD-1.15: Consider the relationship between street design, use of the public right-of-way, and the form and uses of adjoining development. Address this relationship in the Urban Village Planning process, development of new zoning ordinances, and the review of new development proposals in order to promote a well-designed, active, and complete visual street environment.

Policy CD-4.5: For new development in transition areas between identified growth areas and nongrowth areas, use a combination of building setbacks, building step-backs, materials, building orientation, landscaping, and other design techniques to provide a consistent streetscape that buffers lower-intensity areas from higher-intensity areas and that reduces potential shade, shadow, massing, viewshed, or other land use compatibility concerns.

Policy CD-5.8: Comply with applicable Federal Aviation Administration regulations identifying maximum heights for obstructions to promote air safety.

Policy CD-5.9: To promote safety and to minimize noise and vibration impacts in residential and working environments, design development that is proposed adjacent to railroad lines to provide the maximum separation feasible between the rail line and dwelling units, yards, or common open space areas, offices and other job locations, facilities for the storage of toxic or explosive materials and the like. To the extent possible, devote areas of development closest to an adjacent railroad line to use as parking lots, public streets, peripheral landscaping, the storage of non-hazardous materials and so forth. In industrial facilities, where the primary function is the production, processing or storage of hazardous materials, for new development follow the setback guidelines and other protective measures called for in the City's Industrial Design Guidelines when such facilities are to be located adjacent to or near a main railroad line.

Policy TR-14.2: Regulate development in the vicinity of airports in accordance with Federal Aviation Administration regulations to maintain the airspace required for the safe operation of these facilities and avoid potential hazards to navigation.

Policy TR-14.3: For development in the Airport Influence Area overlays, ensure that land uses and development are consistent with the height, safety and noise policies identified in the Santa Clara County Airport Land Use Commission (ALUC) comprehensive land use plans for Mineta San José International and Reid Hillview airports, or find, by a two-thirds vote of the governing body, that the proposed action is consistent with the purposes of Article 3.5 of Chapter 4 of the State Aeronautics Act, Public Utilities Code Section 21670 et seq.

Policy TR-14.4: Require avigation and "no build" easement dedications, setting forth maximum elevation limits as well as for acceptable of noise or other aircraft related effects, as needed, as a condition of approval of development in the vicinity of airports.

Policy IE-1.5: Promote the intensification of employment activities on sites in close proximity to transit facilities and other existing infrastructure, in particular within the Downtown, North San José, the Berryessa International Business Park and Edenvale.

Policy IE-1.6: Plan land uses, infrastructure development, and other initiatives to maximize utilization of the Mineta San José International Airport, existing and planned transit systems including fixed rail (e.g., High-Speed Rail, BART [Bay Area Rapid Transit] and Caltrain), Light-Rail and Bus Rapid Transit facilities, and the roadway network. Consistent with other General Plan policies, promote development potential proximate to these transit system investments compatible with their full utilization. Encourage public transit providers to serve employment areas.

Policy IE-1.7: Advance the Diridon Station Area as a world-class transit hub and key transportation center for Northern California.

Policy FS-3.3: Promote land use policy and implementation actions that increase the ratio of Jobs to Employed Residents to improve our City's fiscal condition, consistent with economic development and land use goals and policies. Maintain or enhance the City's net total employment capacity collectively through amendments made to this General Plan in each Annual Review process.

Policy FS-4.1: Preserve and enhance employment land acreage and building floor area capacity for various employment activities because they provide revenue, near-term jobs, contribute to our City's long-term achievement of economic development and job growth goals, and provide opportunities for the development of retail to serve individual neighborhoods, larger community areas, and the Bay Area.

Policy FS-4.7: Encourage transit-oriented development as a means to reduce costs for expansion and maintenance of our City's street system, in addition to other benefits and consistent with the General Plan Transportation goals and policies.

Policy VN-1.7: Use new development within neighborhoods to enhance the public realm, provide for direct and convenient pedestrian access, and visually connect to the surrounding neighborhood. As opportunities arise, improve existing development to meet these objectives as well.

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.

Policy CD-1.5: Encourage incorporation of publicly accessible spaces, such as plazas or squares, into new and existing commercial and mixed-use developments.

Policy CD-1.10: Promote shared parking arrangements between private uses and the provision of commonly accessible commercial or public parking facilities which can serve multiple users in lieu of providing individual off-street parking on a property-by-property basis. Consider in-lieu parking fees or other policy actions to support this goal.

Policy CD-2.3: Enhance pedestrian activity by incorporating appropriate design techniques and regulating uses in private developments, particularly in Downtown, Urban Villages, Main Streets, and other locations where appropriate.

1. Include attractive and interesting pedestrian-oriented streetscape features such as street furniture, pedestrian scale lighting, pedestrian oriented way-finding signage, clocks, fountains, landscaping, and street trees that provide shade, with improvements to sidewalks and other pedestrian ways.
2. Strongly discourage drive-through services and other commercial uses oriented to occupants of vehicles in pedestrian-oriented areas. Uses that serve the vehicle, such as car washes and service stations, may be considered appropriate in these areas when they do not disrupt pedestrian flow, are not concentrated in one area, do not break up the building mass of the streetscape, are consistent with other policies in this Plan, and are compatible with the planned uses of the area.
3. Provide pedestrian connections as outlined in the Community Design Connections Goal and Policies.
4. Locate retail and other active uses at the street level.
5. Create easily identifiable and accessible building entrances located on street frontages or paseos.
6. Accommodate the physical needs of elderly populations and persons with disabilities
7. Integrate existing or proposed transit stops into project designs.

Policy CD-2.4: Incorporate public spaces (squares, plazas, etc.) into private developments to encourage social interaction, particularly where such spaces promote symbiotic relationships between businesses, residents, and visitors.

Policy CD-2.11: Within the Downtown and Urban Village Area Boundaries, consistent with the minimum density requirements of the pertaining Land Use/Transportation Diagram designation, avoid the construction of surface parking lots except as an interim use, so that long-term development of the site will result in a cohesive urban form. In these areas, whenever possible, use structured parking, rather than surface parking, to fulfill parking requirements. Encourage the incorporation of alternative uses, such as parks, above parking structures.

Policy CD-3.4: Facilitate development of retail and service establishments in Downtown, and support regional- and local-serving businesses to further primary objectives of this Plan.

Policy CD-3.5: Encourage shared and alternative parking arrangements and allow parking reductions when warranted by parking demand.

Policy CD-4.9: For development subject to design review, the design of new or remodeled structures will be 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).

Policy PR-1.7: Design vibrant urban public spaces and parklands that function as community gathering and local focal points, providing opportunities for activities such as community events, festivals and/or farmers markets as well as opportunities for passive and, where possible, active recreation.

Policy PR-1.8: Enhance existing parks and recreation facilities in built-out areas through new amenities and other improvements to ensure that residents' needs are being met.

Policy PR-1.11: Develop an integrated parks system that connects new and existing large parks together through a network of interconnected trails and/or bike lanes/routes.

Policy LU-1.1: Foster development patterns that will achieve a complete community in San José, particularly with respect to increasing jobs and economic development and increasing the City's jobs-to-employed resident ratio while recognizing the importance of housing and a resident workforce.

Policy LU-1.2: Encourage Walking. Create safe, attractive, and accessible pedestrian connections between developments and to adjacent public streets to minimize vehicular miles traveled.

Policy LU-1.3: Create safe, attractive, and accessible pedestrian connections between developments and to adjacent public streets to minimize vehicular miles traveled.

Policy LU-1.5: Encourage developers of large commercial and industrial projects to identify and appropriately address the potential need generated by these projects for child care facilities or services. The provision of on-site child care may be considered for a single tenant building in industrial areas primarily for use by employees of the industrial facility. Do not locate off-site, freestanding child care facilities within industrial areas, except for those areas that have been designated for such uses.

Policy LU-1.6: With new development or expansion and improvement of existing development or uses, incorporate measures to comply with current Federal, State, and local standards.

Policy LU-1.7: Locate employee-intensive commercial and industrial uses within walking distance of transit stops. Encourage public transit providers to provide or increase services to areas with high concentrations of residents, workers, or visitors.

Policy LU-1.8: Collaborate with appropriate external agencies with land use authority or regulations in San José. Consider applicable Airport Land Use Commission, Santa Clara Valley Water District, Local Area Formation Commission, and other policies from outside agencies when reviewing new or expanded uses.

Policy LU-2.1: Provide significant job and housing growth capacity within strategically identified "Growth Areas" in order to maximize use of existing or planned infrastructure (including fixed transit facilities), minimize the environmental impacts of new development, provide for more efficient delivery of City services, and foster the development of more vibrant, walkable urban settings.

Policy LU-3.1: Provide maximum flexibility in mixing uses throughout the Downtown area. Support intensive employment, entertainment, cultural, public/quasi-public, and residential uses in compact, intensive forms to maximize social interaction; to serve as a focal point for residents, businesses, and visitors; and to further the Vision of the *Envision San José 2040 General Plan*.

Policy LU-3.2: Support Downtown as a primary employment center in the region, especially for financial institutions, insurance companies, government offices, professional services,

information and communication technology companies, and businesses related to conventions.

Policy LU-3.5: Balance the need for parking to support a thriving Downtown with the need to minimize impacts of parking upon a vibrant pedestrian and transit-oriented urban environment. Provide for the needs of bicyclists and pedestrians, including adequate bicycle parking areas and design measures to promote bicyclist and pedestrian safety.

Policy LU-3.8: Leverage Downtown's urban nature and promote projects that will help achieve economic, fiscal, environmental, cultural, transportation, social, or other objectives of this plan.

Policy LU-4.4: Allow limited industrial uses in commercially designated areas if such uses are of a scale, design, or intensity that creates less than significant negative impacts to surrounding uses.

Policy LU-5.1: In order to create complete communities, promote new commercial uses and revitalize existing commercial areas in locations that provide safe and convenient multi-modal access to a full range of goods and services.

Policy LU-5.2: To facilitate pedestrian access to a variety of commercial establishments and services that meet the daily needs of residents and employees, locate neighborhood-serving commercial uses throughout the city, including identified growth areas and areas where there is existing or future demand for such uses.

Policy LU-5.3: Encourage new and intensification of existing commercial development, including stand-alone, vertical mixed-use, or integrated horizontal mixed-use projects, consistent with the Land Use / Transportation Diagram.

Policy LU-5.4: Require new commercial development to facilitate pedestrian and bicycle access through techniques such as minimizing building separation from public sidewalks; providing safe, accessible, convenient, and pleasant pedestrian connections; and including secure and convenient bike storage.

Policy LU-5.5: Encourage pedestrian and vehicular connections between adjacent commercial properties with reciprocal-access easements to encourage safe, convenient, and direct pedestrian access and "one-stop" shopping. Encourage and facilitate shared parking arrangements through parking easements and cross-access between commercial properties to minimize parking areas and curb-cuts.

Policy LU-5.7: Encourage retail, restaurant, and other active uses as ground-floor occupants in identified growth areas and other locations with high concentrations of development.

Policy LU-5.8: Encourage outdoor cafes and other outdoor uses in appropriate commercial areas to create a vibrant public realm, maximize pedestrian activity, and capitalize on San José's temperate climate.

Policy LU-6.2: Prohibit encroachment of incompatible uses into industrial lands, and prohibit non-industrial uses which would result in the imposition of additional operational restrictions and/or mitigation requirements on industrial users due to land use incompatibility issues.

Policy LU-6.3: When new uses are proposed in proximity to existing industrial uses, incorporate measures within the new use to minimize its negative impacts on existing nearby land uses and to promote the health and safety of individuals at the new development site.

Policy LU-9.1: Create a pedestrian-friendly environment by connecting new residential development with safe, convenient, accessible, and pleasant pedestrian facilities. Provide such connections between new development, its adjoining neighborhood, transit access points, schools, parks, and nearby commercial areas. Consistent with Transportation Policy TR-2.11, prohibit the development of new cul-de-sacs, unless it is the only feasible means of providing access to a property or properties, or gated communities, that do not provide through- and publicly-accessible bicycle and pedestrian connections.

Policy LU-9.2: Facilitate the development of complete neighborhoods by allowing appropriate commercial uses within or adjacent to residential and mixed-use neighborhoods.

Policy LU-10.2: Distribute higher residential densities throughout our city in identified growth areas and facilitate the development of residences in mixed-use development within these growth areas.

Policy LU-10.3: Develop residentially- and mixed-use-designated lands adjacent to major transit facilities at high densities to reduce motor vehicle travel by encouraging the use of public transit.

Policy LU-10.5: Facilitate the development of housing close to jobs to provide residents with the opportunity to live and work in the same community.

Policy LU-13.1: Preserve the integrity and fabric of candidate or designated Historic Districts.

Policy LU-13.2: Preserve candidate or designated landmark buildings, structures and historic objects, with first priority given to preserving and rehabilitating them for their historic use, second to preserving and rehabilitating them for a new use, or third to rehabilitation and relocation on-site. If the City concurs that no other option is feasible, candidate or designated landmark structures should be rehabilitated and relocated to a new site in an appropriate setting.

Policy TR-8.7: Encourage private property owners to share their underutilized parking supplies with the general public and/or other adjacent private developments.

Policy IP-1.6: Ensure that proposals to rezone and prezone properties conform to the Land Use/Transportation Diagram and advance 2040 General Plan Vision, goals and policies and benefit community welfare.

Policy IP-1.7: Use standard Zoning Districts to promote consistent development patterns when implementing new land use entitlements. Limit use of the Planned Development Zoning process to unique types of development or land uses which cannot be implemented through standard Zoning Districts, or to sites with unusual physical characteristics which require special consideration due to those constraints.

Policy IP-1.8: Consider and address potential land use compatibility issues, the form of surrounding development, and the availability and timing of infrastructure to support the proposed land use when reviewing rezoning or prezoning proposals.

Other General Plan actions and policies applicable to the proposed project are described in Section 3.1, *Air Quality* (see Table 3.1-4), Section 3.2, *Biological Resources* (see Table 3.2-3), Section 3.3, *Cultural Resources and Tribal Cultural Resources* (see Table 3.3-5), Section 3.4, *Energy* (see Subsection 3.4.2), Section 3.5, *Geology, Soils, and Paleontological Resources* (see Subsection 3.5.2), Section 3.6, *Greenhouse Gas Emissions* (see Table 3.6-12), Section 3.7, *Hazards and Hazardous Materials* (see Subsection 3.7.2), Section 3.8, *Hydrology and Water Quality* (see Subsection 3.8.2), Section 3.10, *Noise and Vibration* (see Subsection 3.10.2), Section 3.11, *Population and Housing* (see Subsection 3.11.2), Section 3.12, *Public Services and Recreation* (see Subsections 3.12.2, 3.12.5, 3.12.8, 3.12.11, and 3.12.14), Section 3.13, *Transportation* (see Table 3.13-2), and Section 3.14, *Utilities and Service Systems* (see Subsection 3.14.2, 3.14.5, 3.14.8, 3.14.11, and 3.14.14).

Diridon Station Area Plan

The majority of the project site is within the Diridon Station Area Plan.[23] The DSAP, approved by the City in 2014, establishes a vision for the Diridon Station Area in response to the planned extension of BART and high-speed rail service to San José. The purpose of the plan is to combine past and present plans into one vision to guide future development that takes full advantage of the high level of connectivity that the Diridon Station Area affords. The 2014 DSAP establishes maximum development capacities for residential, commercial, retail, and hotel uses.

The primary objectives of the DSAP relevant to the proposed project are:

- Establish a land use plan and policy framework that will guide future development and redevelopment toward land uses that support transit ridership and economic development and create a world-class cultural destination.
- Improve pedestrian, bicycle, motorized and transit connectivity between the station site and existing adjacent commercial and residential areas.
- Develop and implement urban design standards that promote walkable, livable, and business supportive environments within the Diridon Station Area.
- Provide a variety of commercial and mixed-use development opportunities, ranging from large-scale corporate or institutional sites to smaller infill development sites.
- Create a highly active and lively pedestrian and bicycle friendly environment with excellent connectivity to downtown destinations and regional transit.
- Expand Diridon Station to create a well-integrated center of architectural and functional significance.
- Ensure the continued vitality of the San José Arena, recognizing that the San José Arena is a major anchor for both Downtown San José and the Diridon Station area, and that sufficient parking and efficient access for San José Arena customers, consistent with the provisions of the Arena Management Agreement, are critical for the San José Arena's on-going success.

[23] Separate from the proposed project, the City is undertaking an update of the DSAP, as described in Chapter 2, *Project Description*. Among the revisions anticipated is a boundary change to the DSAP to include the entirety of the project site, among other locations. The project-specific DSAP Amendment will also address the boundary revision.

- Enhance the existing neighborhoods and add high-density residential-commercial mixed-use development within the study area and to act as a catalyst for similar developments in surrounding areas.
- Educate and inform the public about the area planning process and Transit-Oriented Development (TOD) concepts.
- Create a great place in the City of San José that is a local and regional destination.

As described in detail in Chapter 2, *Project Description*, and Section 3.11, *Population and Housing*, the City has initiated amendments to the DSAP in light of several changes in planning assumptions. The proposed project has separately initiated project-specific amendments for development of the project site and for consistency with the General Plan. However, neither the project-specific amendments nor the City-initiated DSAP amendments are expected to make major changes to the primary objectives of the DSAP.

Downtown Strategy 2040

The Downtown Strategy 2040 was adopted in December 2018, as amendments to the General Plan, and represents the City's most recent planning vision for the Downtown Growth Area, which encompasses the project site and the DSAP area.

The Downtown Strategy 2040 focuses on revitalizing Downtown San José by supporting higher density infill development and replacing underused properties. The strategy, which updated a prior strategy document, increased the total number of residential units Downtown to 14,360 and office uses to 14.2 million square feet, which is assumed to accommodate 58,500 jobs. Relevant objectives from the Downtown Strategy 2040 include:

- Continue to encourage ambitious job and housing growth capacity in Downtown. This growth capacity is important to achieve multiple City goals, including support for regional transit systems, correcting the City's jobs to housing imbalance, and for the development of Downtown as a regional job center, consistent with the 2040 General Plan, Downtown Strategy 2000.
- Allow additional residential development, consistent with the 2040 General Plan, to capitalize on the walkable, livable, and business supportive environments within the Downtown.
- Preserve the jobs sites (commercial, office, and hotel development) envisioned in the Downtown Strategy 2000 and 2040 General Plan.

The increased growth allowed by the Downtown Strategy 2040 applies to all areas in the Downtown Growth Area, which encompasses most of the DSAP area, including the entire project site. The Downtown Strategy 2040 did not, however, change the land use regulations and policies established in the DSAP. As described in Chapter 2, *Project Description*, and Section 3.11, *Population and Housing*, the City is proposing amendments to the DSAP in light of several changes in planning assumptions. In addition, the proposed project would initiate project-specific General Plan and DSAP amendments to reallocate growth to Downtown to accommodate the proposed project.

With respect to shadow, the Downtown Strategy 2040 established that development under the plan would have a significant shadow impact if any project were to result in a 10 percent or greater increase in the shadow cast onto one of the six Downtown open space areas described above, unless the project design could be revised to reduce the increase in shadow to less than 10 percent.

Other Plans

Los Gatos Creek Trail—Reach 5 Master Plan

This plan, adopted by the City in 2008, addresses the portion of the planned Los Gatos Creek Trail between Auzerais Avenue and Arena Green, north of W. Santa Clara Street. This segment of the planned trail is the final trail reach in the city to be developed. When complete, it will connect to Arena Green and the rest of Guadalupe River Park. The portion of the trail from Auzerais Avenue to just south of W. San Carlos Street has been constructed in connection with an adjacent residential project. However, the remainder of this trail reach remains unbuilt.

The Master Plan alignment calls for the trail to pass beneath an existing Caltrain bridge across Los Gatos Creek, just south of W. San Carlos Street, and beneath the W. San Carlos Street overpass. From there, the trail alignment ultimately meanders through the existing San José Fire Department training facility site (now part of the proposed Downtown West project site), assuming the relocation of that facility. From the S. Montgomery Street/Park Avenue intersection, the trail alignment follows the west bank of the creek to West San Fernando Street, then follows the S. Autumn Street sidewalk to W. Santa Clara Street, Arena Green, and Guadalupe River Park.

In connection with approved development of the site bounded by W. Santa Clara Street, the Guadalupe River, the light rail tracks, and Los Gatos Creek (also now part of the Downtown West project site), a segment of the trail is also planned along the east bank of Los Gatos Creek from the San Fernando light rail station north to W. Santa Clara Street and Arena Green.

Zoning Ordinance

The City's Zoning Ordinance is intended to promote and protect the public peace, health, safety, and general welfare. The purposes of the Zoning Ordinance are:

1. Guide, control, and regulate future growth and development in the city in a sound and orderly manner, and to promote achievement of the goals and purposes of the San José General Plan.
2. Protect the character and economic and social stability of agricultural, residential, commercial, industrial, and other areas in the city.
3. Provide light, air, and privacy to property.
4. Preserve and provide open space and prevent overcrowding of the land.
5. Appropriately regulate the concentration of population.
6. Provide access to property and prevent undue interference with and hazards to traffic on public rights-of-way.
7. Prevent unwarranted deterioration of the environment and promote a balanced ecology.

Figure 3.9-3 shows the project site's existing zoning districts. The project applicant proposes to rezone the entire site as a Planned Development Zoning District, which would allow implementation of site-specific development as set forth in the zoning district's general development plan, one or more Planned Development Permits, associated design standards and guidelines, and subsequent design conformance process. This process and associated project approvals are described in Chapter 2, Section 2.4.2, *Proposed Changes to General Plan Land Use and Diridon Station Area Plan Designations*.

3.9.3 Impacts and Mitigation Measures

Significance Criteria

For the purposes of this EIR, a land use and planning impact would be significant if implementing the proposed project would:

- Physically divide an established community; or
- 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.

A shadow impact would be significant if implementing the proposed project would:

- Result in 10 percent or more of the area of any one of the six major open space areas in the Downtown San José area (St. James Park, Plaza of Palms, Plaza de César Chávez, Paseo de San Antonio, Guadalupe River Park, McEnery Park) being newly shaded by the project.

Approach to Analysis

Land Use

This section relies on the CEQA Initial Study Checklist questions relevant to land use and planning and evaluates whether the proposed project would physically divide an established community or 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.

However, this section does not evaluate physical environmental impacts associated with compatibility or potential plan conflicts in detail. Instead, the various environmental resource evaluations elsewhere in this EIR chapter discuss the potential physical/environmental effects and potential incompatibilities that may be considered in the determination of physical environmental impacts. For example: Land uses that produce excessive noise, light, dust, odors, traffic, or hazardous emissions may be undesirable when they intrude on places used for residential activities (e.g., residences, parks). Thus, certain industrial or commercial uses—which can produce noise and odors—may not be considered compatible with residential, educational, or healthcare uses, unless buffers, landscaping, or screening could protect residents from health hazards or nuisances. Any such potential land use incompatibilities are addressed in the applicable environmental resource sections elsewhere in Chapter 3, *Environmental Setting, Impacts, and Mitigation* (e.g., Air Quality, Noise, Hazardous Materials, Transportation, and Cultural Resources), rather than in this section.

Similarly, the determination of a significant impact—which, by definition, must involve a physical change—is separate from the legal determination of plan consistency. Thus, the analysis in Impact LU-2 focuses on the proposed project's potential for a substantial conflict with a land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect, where the identified conflict would result in a significant environmental impact.

As described in Chapter 2, *Project Description*, the applicant is proposing site-specific Design Standards and Guidelines that would govern development on the project site. These enforceable standards and guidelines, a draft of which is provided in Appendix M, would be considered by the City as part of the Planned Development Permit application. The site-specific Design Standards and Guidelines would specify which of the City's existing Downtown Design Guidelines would continue to apply to the project and which would be superseded or modified by the project's site-specific Design Standards and Guidelines. The City's approving bodies would evaluate future proposed buildings in the Planned Development Zoning District against the project's adopted Design Standards and Guidelines to ensure conformity with applicable design guidelines and standards.

Shadow

To evaluate the shadow impacts of the proposed project, the project applicant's planning consultant prepared a three-dimensional virtual model of the project. The model includes the project site, potentially affected Downtown open spaces that are particularly sensitive to shadow, and the surrounding urban environment.

The purpose of this analysis is to inform decision-makers of the potential effects of the proposed project's shadow on existing public parks and publicly accessible open spaces, and to determine whether the proposed project would create a substantial amount of new shadow under the significance threshold adopted as part of the Downtown Strategy 2040.

The shadow model considers the proposed project at full buildout, assuming maximum potential building heights, except that for the existing small-scale buildings between South Autumn Street and Los Gatos Creek, the height controls specified in the Downtown West Design Standards and Guidelines (approximately one additional story) are assumed. Specific architectural designs for the buildings on the project site have not been developed, but will be required to conform to standards in the Downtown West Design Standards and Guidelines proposed for incorporation in the Planned Development Permit. The shadow analysis conservatively includes two assumptions for future buildout of the project:

- All project buildings would reach the maximum allowable height of 180 to 290 feet, as shown in Chapter 2, *Project Description*, Figure 2-5, *Existing and Proposed Zoning Districts*, based on review of the City's 2018 analysis of heights that would be permitted pursuant to the FAA's Terminal Instrument Procedures.
- All project buildings would cover the entire footprint of each block on the project site, as shown in Chapter 2, *Project Description*, Figure 2-6, *Existing Height Limits and Proposed Height Limits*.

The shadow model does not include required building setbacks at upper stories, and therefore, is a worst-case scenario.[24] The shadow consultant digitally projected building shadows onto the surrounding terrain, and the resulting graphics formed the basis for this analysis. Consistent with the notion that Downtown parks and open spaces are most heavily used during the midday hours, the analysis focuses on the period between 10 a.m. and 3 p.m. To bracket the range of potential impacts, the analysis was conducted for the summer solstice (June 21), winter solstice (December 21), and the spring and fall equinoxes (March 21/September 21), at 10 a.m., 12 noon, and 3 p.m.

Impact Analysis

Land Use and Planning

Impact LU-1: The proposed project would not physically divide an established community. *(Less than Significant)*

Under CEQA, physical division of an established community generally applies to projects, such as highway construction, that would create a barrier that would physically sever two or more connected parts of a community.[25] This CEQA criterion is not intended to apply to effects that may create a perceived barrier, such as increased traffic, or create a challenge to crossing a street, or other real or perceived inconveniences.

Most of the 81-acre project site is developed with a mix of low-intensity uses as described in Section 3.9.1, *Environmental Setting*, in an existing surrounding urbanized area that contains residential, commercial, entertainment, industrial, office, and parking uses. Many of the approximately 100 separate parcels are secured with fencing and do not permit public access, and the existing Diridon Station and railway track create a barrier for east-west movement across the project site. Thus, under existing conditions, many parcels on the project site do not allow for the connectivity of people in the existing community.

The design of the proposed project would not include physical barriers or obstacles to circulation that would restrict existing patterns of movement between the project site and the surrounding neighborhoods. In fact, the proposed project would include features designed to encourage and promote public access and vehicular and pedestrian circulation, where limited access exists today. Specifically, the project would enhance north-south connectivity across the length of the project site; provide adequate vehicular and pedestrian/bicycle access to the northern portion of the site; and include mid-block passages at several locations to facilitate pedestrian and bicycle access through the project site and break up the scale of larger blocks (refer to Chapter 2, *Project Description*, Figures 2-7, *Open Space Plan*, and 2-8, *Proposed Street Network Changes*).

The proposed project would also facilitate east-west connectivity across the site and to the surrounding neighborhoods through such improvements as a new footbridge over Los Gatos Creek south of West Santa Clara Street and a block-long extension of Post Street. The project

[24] Trees and landscaping are not included in the model. For the parks considered in this analysis, existing shading from trees and landscaping is described qualitatively.

[25] "We believe, however, that this guideline was intended to apply to projects, such as highway construction, that would constitute physical barriers dividing a community." *Cathay Mortuary, Inc. v. San Francisco Planning Commission* (207 Cal. App. 3d 275), January 20, 1989.

would also include other improvements to the public realm such as enhanced local pedestrian circulation, and improved bicycling linkages to Downtown for residents and visitors to leverage new regional transit connectivity in the immediate vicinity (Caltrain, Altamont Corridor Express [ACE] trains, planned BART service, and, potentially, high-speed rail).

Street Vacations and Network Changes

The proposed project would extend portions of certain streets across the project site and would remove parts of other streets (refer to Chapter 2, *Project Description*, Figure 2-8). Notably, the proposed project would extend Cahill Street from its current terminus at West Santa Clara Street to North Montgomery Street in the north and from West San Fernando Street to Park Avenue in the south to enhance north–south connectivity throughout the length of the project site. As described in Section 2.7.1, *Changes to the Street Network*, the project would also make much smaller additions to the street network on West St. John Street, Post Street, and between Royal Avenue and Auzerais Street, and would also create several privately owned service and loading streets. The proposed project would remove a number of street segments within the project site, the most notable of which would be the closure of South Montgomery Street between West San Fernando Street and Park Avenue. The project would also remove smaller segments of Delmas Avenue, Cinnabar Street, Otterson Street. In particular, Delmas Avenue would be closed between West Santa Clara and West San Fernando Streets, with the southern portion to be reconfigured as a private street/driveway from West San Fernando Street.

Overall, the proposed project would result in the vacation of a number of street segments as described above and in more detail in Section 2.7.1, *Changes to the Street Network*; however, the project would extend and connect the other streets described above to improve connectivity throughout the project site and implement the off-site pedestrian and bicycle improvements described in Chapter 2, *Project Description*. As discussed above, the project includes other features and designs to encourage public access and promote vehicular and pedestrian circulation. For instance, the footbridge north of West Santa Clara Street would be widened and a new footbridge over Los Gatos Creek would be added. Therefore, implementing the proposed project would not physically divide an established community. This impact would be **less than significant**.

Mitigation: None required.

Impact LU-2: The proposed project would cause a significant environmental impact due to a conflict with a land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect. ***(Significant and Unavoidable)***

The criterion for determining significance with respect to a land use plan emphasizes conflicts with plans, policies, or regulations adopted for the purpose of avoiding or mitigating an environmental effect. This criterion recognizes that an inconsistency with an individual plan, policy, or regulation does not necessarily equate to a significant physical impact on the environment.

Applicable regional and local land use plans that regulate development on the project site include Plan Bay Area, the Santa Clara County CLUP, the Santa Clara Valley Habitat Plan, the General Plan, Downtown Strategy 2040, the DSAP, and the Zoning Ordinance.

Plan Bay Area 2040

Plan Bay Area integrates transportation, land use, and housing to meet GHG emissions reduction targets for the San Francisco Bay Area. With regard to land use, Plan Bay Area focuses growth and development in Priority Development Areas, which are served by public transit and have been identified as appropriate for additional, compact development.[26] The project site is located within the Downtown "Frame" and Greater Downtown PDAs.[27]

The proposed project would develop a mix of primarily office and residential land uses. The project would also include smaller amounts of retail/restaurant and arts/cultural space, event/meeting space, maker spaces, space for non-profit organizations and small-format offices, and hotel uses, along with a network of open spaces and changes to vehicular and bicycle/pedestrian circulation. The proposed project's substantial jobs and housing growth would be undertaken within two PDAs proposed by the City and included in Plan Bay Area. By doing so, the project would further the objectives set forth for PDAs in Plan Bay Area, which include locating new growth in an existing community, within one-half mile of frequent transit, and in an area planned for future housing and job growth. Thus, the project would implement and not conflict with *Plan Bay Area 2040*, including its Sustainable Communities Strategy goals of supporting sustainable growth through a more consolidated, compact development pattern that encourages new density and intensity in infill opportunity areas accessible to a multitude of transportation options, including transit. For this reason, the impact related to Plan Bay Area would be **less than significant**.

Comprehensive Land Use Plan for the San José International Airport

Policies G-4, G-5, G-6, G-7, N-2, N-4, N-5, N-6, H-1, H-2, T-1, T-2, O-1, and M-1 in the SJC CLUP are applicable to the portions of the project site located within the CLUP's Airport Influence Area. (Those policies are described in Section 3.9.2, *Regulatory Framework*, under the heading *Comprehensive Land Use Plan for the San José International Airport*). The proposed project's design takes into consideration the building height limits of 180–290 feet, as shown in Chapter 2, *Project Description*, Figure 2-5, based on the City's 2018 analysis of Terminal Instrument Procedures (TERPS) surfaces and building heights.

Consistent with Policies G-6, G-7, H-1, H-2, T-1, and T-2 of the SJC CLUP, the proposed General Plan amendments and rezoning included with the proposed project would be consistent with CLUP policies pertaining to structure heights by requiring that proponents for all proposed developments subject to the requirements of 14 CFR Part 77, including proposed structures higher than 200 feet above ground level, submit Form 7460-1, *Notice of Proposed Construction or Alteration*, to the FAA. This would initiate preparation of an aeronautical study to determine whether specific development would include components that would obstruct airspace and

[26] Association of Bay Area Governments, *Plan Bay Area 2040*, Final, adopted July 26, 2017.
[27] Metropolitan Transportation Commission, Priority Development Areas, MTC Open Data Layer Library, 2018.

potentially operate as hazards to air navigation. In addition, consistent with Policies G-5 and O-1, the project applicant would dedicate an avigation easement to the City of San José.

As discussed in Section 3.10, *Noise and Vibration*, a portion of the project site designated for residential and hotel use is located within the 2027 65 dB CNEL contour. As stated in CLUP Policy N-4, no residential or transient lodging construction shall be permitted within the 65 dB CNEL contour boundary unless it can be demonstrated that the resulting interior sound levels will be less than 45 dB CNEL and there are no outdoor patios or outdoor activity areas associated with the residential portion of a mixed use residential project or a multi-unit residential project. **Mitigation Measure NO-3, Exposure to Airport Noise**, would require preparation of a noise reduction plan to ensure that residential buildings subject to such noise levels would be designed so that interior noise levels would not exceed 45 dBA. However, it is not possible to mitigate noise levels for any outdoor patios or outdoor activity areas because mitigation would essentially entail converting this outdoor space to indoor space, given that the source of aircraft noise is from aircraft flying above the residential receptors. Thus, this would represent a **significant and unavoidable** impact.

The State Aeronautics Act requires local agencies with jurisdiction over land in an AIA that propose to amend a general plan or specific plan, or to adopt or approve a zoning ordinance or building regulation, to submit the proposed action to the ALUC for a determination of consistency with the CLUP (Public Utilities Code Section 21676(b)). This requirement is reflected in CLUP Section 4.2.1, which assigns the ALUC the responsibility for reviewing all proposed amendments to determine whether they are consistent or inconsistent with the CLUP. The CLUP Safety Restriction Area overlaps a small area in the northern portion of the project site (Figure 3.9-4). Approximately 900 square feet of the project site is within the Outer Safety Zone. However, the area in question is too small to develop and would not be subject to CLUP Policies S-1 to S-8 related to population density, open space requirements, and land use. Therefore, there would be no obvious or substantial inconsistencies between the proposed project and the safety policies in the CLUP.

The ALUC makes a determination of whether a project is consistent with the CLUP when it reviews the General Plan and zoning amendments included in the project. If the ALUC finds that the project would be inconsistent with the CLUP policies, the city council may adopt a resolution by two-thirds majority vote (in the City of San José, eight affirmative votes) to override the ALUC determination, if it makes specific findings that the proposed action is consistent with the purposes of the enabling statute (refer to Public Utilities Code Section 21670(2)). Also refer to Section 3.7, *Hazards and Hazardous Materials, and Wildfire*, and Section 3.10, *Noise and Vibration*, for analyses related to the proposed project's location in the AIA.

Santa Clara Valley Habitat Plan

As explained in Section 3.2, *Biological Resources*, portions of the project site fall under fee zones and conditions identified in Chapter 6 of the *Santa Clara Valley Habitat Plan* (referred to in this EIR as the "Habitat Plan"). To avoid potential conflicts with the Habitat Plan, the proposed project would generally comply with applicable conditions in the plan, including payment of fees to offset impacts on land cover types, wetland fees for impacts on wetlands, and nitrogen deposition fees for

any increases in vehicle trips. The project applicant would also comply with the Habitat Plan by submitting the Santa Clara Valley Habitat Plan Coverage Screening Form to the City. Therefore, as explained in Impact BI-6, the proposed project's impact related to the Habitat Plan would be **less than significant**.

Envision San José 2040 General Plan and Downtown Strategy 2040

The General Plan, as adopted in 2011, envisioned Downtown San José growing by up to 10,360 residential units, 11.2 million gross square feet (gsf) of office uses, 1.4 million gsf of retail uses, and 3,600 hotel rooms by 2040. The General Plan was subsequently amended through the Downtown Strategy 2040, which increased the number of new residential units in the Downtown planning boundary to 14,360 and the square footage of new office uses to 14.2 million gsf. The amount of retail square footage and hotel rooms remained the same in the Downtown Strategy 2040 as in the Downtown Strategy 2000 and General Plan.

As described in Chapter 2, *Project Description*, the City is currently working to amend the DSAP. Included in the amendments is a proposed reallocation of General Plan-authorized growth from other General Plan growth areas in the city to Downtown that would increase the number of residential units and commercial/office uses projected in by 2040 in Downtown by up to 12,619 housing units and the equivalent of up to 14,144,154 gsf of commercial/office uses. The additional 12,619 housing units would likely be transferred from Horizon 2 and 3 Urban Village growth areas.[28] The commercial/office capacity would be shifted from other General Plan designated employment areas, such as the North Coyote Valley growth area.[29] The final growth allocation, including the precise numbers of dwelling units and jobs transferred from each growth area, will be determined by the San José City Council via adoption of a General Plan amendment following a public planning process for the proposed DSAP amendment.

The General Plan amendment for the proposed project would reallocate a subset of the total residential and office capacity reallocation being considered for the DSAP as a whole to ensure that Downtown has more than enough capacity for the project. Specifically, because the proposed project is anticipated to come before the City Council for approval in advance of the DSAP amendment, the project applicant proposes a project-specific General Plan amendment to reallocate up to 5,575 housing units and 6,306,000 gsf of commercial/office uses from other General Plan growth areas outside of Downtown to the Downtown. This reallocation would be a subset of the overall DSAP reallocation described in the preceding paragraph, and would not be in addition to that total. Also, this proposed reallocation is less than the overall development program for the proposed project because one portion of the project site—the former San Jose Water Company site (Blocks E1, E2, and E3 of the proposed project)—was entitled previously, and because there is sufficient retail and hotel development capacity within Downtown. With this

[28] Nearly half of the units would be moved from the Oakridge Mall and Vicinity urban village.

[29] In November 2019, the City Council voted to purchase 937 acres of North Coyote Valley. The transaction, in which the Peninsula Open Space Trust and the Santa Clara Valley Open Space Authority also participated financially, involved most of the land in the North Coyote Valley employment growth area. With the purchase, the North Coyote Valley land will be preserved for open space and conservation purposes rather than developed.

reallocation, the total amount of growth anticipated under the General Plan would not change, but instead would shift to the more transit-rich Downtown area.

As detailed in Table 3.9-3, the proposed project is generally consistent with the policies and goals of the General Plan. The proposed project is inconsistent with the following mandatory policies that prohibit the conversion of lands designated for industrial uses and mixed industrial-commercial uses to non-industrial uses and require the preservation of existing lands designated Public/Quasi-Public: Policies LU-1.9 and LU-6.1. These inconsistencies would be eliminated with the proposed General Plan amendments to Policies LU-1.9 and LU-6.1, which would permit the conversion of lands designated for industrial uses and mixed industrial-commercial uses to non-industrial uses and re-designation of existing Public/Quasi-Public lands within the project site. The proposed project would also be inconsistent with Policy LU-13.6, which requires that modifications to a Candidate City Landmark be consistent with the Secretary of the Interior's Standards for the Treatment of Historic Properties (Secretary's Standards). Under the proposed project, rehabilitation of the building at 150 South Montgomery Street would likely not comply with the Secretary's Standards.

Table 3.9-3 presents the project's consistency with the individual goals and policies of the *Envision San José 2040 General Plan*.

TABLE 3.9-3
PROJECT CONSISTENCY WITH APPLICABLE ENVISION SAN JOSÉ 2040 GENERAL PLAN POLICIES

Policy	Consistency Analysis
Goal CD-1: Attractive City	
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.	The Planned Development Permit application would include the Downtown West Design Standards and Guidelines (described further in Chapter 2, *Project Description*, Section 2.12, *Downtown West Design Standards and Guidelines*, and included as Appendix M to this EIR), which would reflect the City's standards of architectural and site design for the proposed project and the area. The proposed project would also continue to be subject to the Downtown Design Guidelines and Complete Streets Design Standards and Guidelines, which would continue to apply to the project site unless a standard or guideline is superseded by the proposed project-specific Design Standards and Guidelines.
CD-1.5: Encourage incorporation of publicly accessible spaces, such as plazas or squares, into new and existing commercial and mixed-use developments.	The project includes approximately 15 acres of publicly accessible open spaces, including plazas or squares.
CD-1.10: Promote shared parking arrangements between private uses and the provision of commonly accessible commercial or public parking facilities which can serve multiple users in lieu of providing individual off-street parking on a property-by-property basis. Consider in-lieu parking fees or other policy actions to support this goal.	The project's Transportation Demand Management plan includes parking that would be distributed over the site. For nonresidential uses, underground garages would be publicly accessible, allowing for shared use with multiple uses at the site.

TABLE 3.9-3
PROJECT CONSISTENCY WITH APPLICABLE ENVISION SAN JOSÉ 2040 GENERAL PLAN POLICIES

Policy	Consistency Analysis
CD-1.12: Use building design to reflect both the unique character of a specific site and the context of surrounding development and to support pedestrian movement throughout the building site by providing convenient means of entry from public streets and transit facilities where applicable, and by designing ground level building frontages to create an attractive pedestrian environment along building frontages. Unless it is appropriate to the site and context, franchise-style architecture is strongly discouraged.	Refer to **Policy CD-1.1** consistency analysis.
CD-1.15: Consider the relationship between street design, use of the public right-of-way, and the form and uses of adjoining development. Address this relationship in the Urban Village Planning process, development of new zoning ordinances, and the review of new development proposals in order to promote a well-designed, active, and complete visual street environment.	Refer to **Policy CD-1.1** consistency analysis.
Goal CD-2: Function	
CD-2.3: Enhance pedestrian activity by incorporating appropriate design techniques and regulating uses in private developments, particularly in Downtown, Urban Villages, Main Streets, and other locations where appropriate. 1. Include attractive and interesting pedestrian-oriented streetscape features such as street furniture, pedestrian scale lighting, pedestrian oriented way-finding signage, clocks, fountains, landscaping, and street trees that provide shade, with improvements to sidewalks and other pedestrian ways. 2. Strongly discourage drive-through services and other commercial uses oriented to occupants of vehicles in pedestrian-oriented areas. Uses that serve the vehicle, such as car washes and service stations, may be considered appropriate in these areas when they do not disrupt pedestrian flow, are not concentrated in one area, do not break up the building mass of the streetscape, are consistent with other policies in this Plan, and are compatible with the planned uses of the area. 3. Provide pedestrian connections as outlined in the Community Design Connections Goal and Policies. 4. Locate retail and other active uses at the street level. 5. Create easily identifiable and accessible building entrances located on street frontages or paseos. 6. Accommodate the physical needs of elderly populations and persons with disabilities 7. Integrate existing or proposed transit stops into project designs.	Refer to **Policy CD-1.1** consistency analysis.
CD-2.4: Incorporate public spaces (squares, plazas, etc.) into private developments to encourage social interaction, particularly where such spaces promote symbiotic relationships between businesses, residents, and visitors.	Refer to **Policy CD-1.5** consistency analysis.
CD-2.11: Within the Downtown and Urban Village Area Boundaries, consistent with the minimum density requirements of the pertaining Land Use/Transportation Diagram designation, avoid the construction of surface parking lots except as an interim use, so that long-term development of the site will result in a cohesive urban form. In these areas, whenever possible, use structured parking, rather than surface parking, to fulfill parking requirements. Encourage the incorporation of alternative uses, such as parks, above parking structures.	The project would replace surface parking lots with development that includes structured parking and alternative uses, including commercial, residential, and open space development. Development across the project site would create a cohesive urban form consistent with this policy.

TABLE 3.9-3
PROJECT CONSISTENCY WITH APPLICABLE ENVISION SAN JOSÉ 2040 GENERAL PLAN POLICIES

Policy	Consistency Analysis
Goal CD-3: Connections	
CD-3.4: Facilitate development of retail and service establishments in Downtown, and support regional- and local-serving businesses to further primary objectives of this Plan.	The project includes up to 500,000 gsf of active uses, which include retail and service establishments. The project would add residents and employees to support existing and proposed local businesses.
CD-3.5: Encourage shared and alternative parking arrangements and allow parking reductions when warranted by parking demand.	Refer to **Policy CD-1.10** consistency analysis.
Goal CD-4: Compatibility	
CD-4.5: For new development in transition areas between identified growth areas and nongrowth areas, use a combination of building setbacks, building step-backs, materials, building orientation, landscaping, and other design techniques to provide a consistent streetscape that buffers lower-intensity areas from higher-intensity areas and that reduces potential shade, shadow, massing, viewshed, or other land use compatibility concerns.	Refer to **Policy CD-1.1** consistency analysis.
CD-4.9: For development subject to design review, the design of new or remodeled structures will be 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).	Refer to **Policy CD-1.1** consistency analysis.
Goal CD-5: Community Health, Safety, and Wellness	
CD-5.8: Comply with applicable Federal Aviation Administration regulations identifying maximum heights for obstructions to promote air safety.	As shown in Chapter 2, *Project Description*, Figure 2-5, *Existing and Proposed Zoning Districts*, depicts maximum allowable building heights based on the City's 2018 analysis of the FAA's Terminal Instrument Procedures surfaces. FAA regulations require submittal of a Form 7460-1 for any structure higher than 200 feet, initiating preparation of an aeronautical study to determine whether the structure would be a hazard to aviation. The proposed project would comply with FAA regulations.
CD-5.9: To promote safety and to minimize noise and vibration impacts in residential and working environments, design development that is proposed adjacent to railroad lines to provide the maximum separation feasible between the rail line and dwelling units, yards, or common open space areas, offices and other job locations, facilities for the storage of toxic or explosive materials and the like. To the extent possible, devote areas of development closest to an adjacent railroad line to use as parking lots, public streets, peripheral landscaping, the storage of non-hazardous materials and so forth. In industrial facilities, where the primary function is the production, processing or storage of hazardous materials, for new development follow the setback guidelines and other protective measures called for in the City's Industrial Design Guidelines when such facilities are to be located adjacent to or near a main railroad line.	To the extent this policy concerns noise and vibration and hazards and hazardous materials, refer to Section 3.10, *Noise and Vibration*, and Section 3.7, *Hazards and Hazardous Materials*, respectively. To the extent this policy is intended to address land use compatibility, the Downtown West Design Standards and Guidelines (described further in Chapter 2, *Project Description*, Section 2.12, *Downtown West Design Standards and Guidelines*, and included as Appendix M to this EIR) address the siting and design of proposed land uses and reflect the City's desired land use for the project site and surroundings.
Goal TR-8: Parking Strategies	
TR-8.7: Encourage private property owners to share their underutilized parking supplies with the general public and/or other adjacent private developments.	Refer to **Policy CD-1.10** consistency analysis.

TABLE 3.9-3
PROJECT CONSISTENCY WITH APPLICABLE ENVISION SAN JOSÉ 2040 GENERAL PLAN POLICIES

Policy	Consistency Analysis
Goal TR-14: Safe Airport	
TR-14.2: Regulate development in the vicinity of airports in accordance with Federal Aviation Administration regulations to maintain the airspace required for the safe operation of these facilities and avoid potential hazards to navigation.	Refer to **Policy CD-5.8** consistency analysis.
TR-14.3: For development in the Airport Influence Area overlays, ensure that land uses and development are consistent with the height, safety and noise policies identified in the Santa Clara County Airport Land Use Commission (ALUC) comprehensive land use plans for Mineta San José International and Reid Hillview airports, or find, by a two-thirds vote of the governing body, that the proposed action is consistent with the purposes of Article 3.5 of Chapter 4 of the State Aeronautics Act, Public Utilities Code Section 21670 et seq.	Refer to **Policy CD-5.8** consistency analysis. General Plan Amendments and rezoning would be submitted to the ALUC for a review of project consistency with CLUP policies.
TR-14.4: Require avigation and "no build" easement dedications, setting forth maximum elevation limits as well as for acceptable of noise or other aircraft related effects, as needed, as a condition of approval of development in the vicinity of airports.	General Plan Amendments and rezoning would be submitted to the ALUC for a review of project consistency with CLUP policies.
Goal IE-1: Land Use and Employment	
IE-1.5: Promote the intensification of employment activities on sites in close proximity to transit facilities and other existing infrastructure, in particular within the Downtown, North San José, the Berryessa International Business Park and Edenvale.	The project would develop jobs and housing in close proximity to existing transit facilities and infrastructure in Downtown San José.
IE-1.6: Plan land uses, infrastructure development, and other initiatives to maximize utilization of the Mineta San José International Airport, existing and planned transit systems including fixed rail (e.g., High-Speed Rail, BART and Caltrain), Light-Rail and Bus Rapid Transit facilities, and the roadway network. Consistent with other General Plan policies, promote development potential proximate to these transit system investments compatible with their full utilization. Encourage public transit providers to serve employment areas.	Refer to **Policy IE-1.5** consistency analysis.
IE-1.7: Advance the Diridon Station Area as a world-class transit hub and key transportation center for Northern California.	The project would intensify development near Diridon Station by introducing additional housing and employment, which would serve to reinforce its use as a key transportation hub for the region.
Goal FS-6: Fiscally Sustainable Land Use Framework	
FS-3.3: Promote land use policy and implementation actions that increase the ratio of Jobs to Employed Residents to improve our City's fiscal condition, consistent with economic development and land use goals and policies. Maintain or enhance the City's net total employment capacity collectively through amendments made to this General Plan in each Annual Review process.	The project proposes to increase the ratio of jobs to employed residents in San José consistent with this policy.
Goal FS-4: Promote Fiscally Beneficial Land Use	
FS-4.1: Preserve and enhance employment land acreage and building floor area capacity for various employment activities because they provide revenue, near-term jobs, contribute to our City's long-term achievement of economic development and job growth goals, and provide opportunities for the development of retail to serve individual neighborhoods, larger community areas, and the Bay Area.	The project would result in an estimated 30,551 new jobs.

TABLE 3.9-3
PROJECT CONSISTENCY WITH APPLICABLE ENVISION SAN JOSÉ 2040 GENERAL PLAN POLICIES

Policy	Consistency Analysis
FS-4.7: Encourage transit-oriented development as a means to reduce costs for expansion and maintenance of our City's street system, in addition to other benefits and consistent with the General Plan Transportation goals and policies.	Refer to **Policy IE-1.5** and **Policy IE-1.7** consistency analyses.
Goal PR-1: High Quality Facilities and Programs	
PR-1.7: Design vibrant urban public spaces and parklands that function as community gathering and local focal points, providing opportunities for activities such as community events, festivals and/or farmers markets as well as opportunities for passive and, where possible, active recreation.	The project would include enhanced landscaping and new plantings on an aggregate 15 acres of new parks, plazas, open space, riparian setbacks, and mid-block passages on the project site, for the use and enjoyment of area residents, employees, and visitors alike. These approximately 15 acres would include an anchor event and entertainment area with an outdoor performance space, a series of "outdoor living rooms" that would provide space for passive recreational uses, and an array of potential active recreational features along publicly accessible trails and open spaces. For more information about the design of urban public spaces and parklands, refer to the Downtown West Design Standards and Guidelines (described further in Chapter 2, *Project Description*, Section 2.12, *Downtown West Design Standards and Guidelines*, and included as Appendix M to this EIR).
PR-1.8: Enhance existing parks and recreation facilities in built-out areas through new amenities and other improvements to ensure that residents' needs are being met.	Refer to **Policy PR-1.7** consistency analysis.
PR-1.11: Develop an integrated parks system that connects new and existing large parks together through a network of interconnected trails and/or bike lanes/routes.	The project includes a new public access trail that would extend for a mile along the project site's north-south axis. Some portions would be a Class I trail aligned along Los Gatos Creek and others may follow street rights-of-way as a Class IV bikeway. Open spaces in the southern portion of the site would consist primarily of passive recreation green space where a publicly accessible trail would follow Los Gatos Creek. For more information about the project's connection to the City park system, refer to the Downtown West Design Standards and Guidelines (described further in Chapter 2, *Project Description*, Section 2.12, *Downtown West Design Standards and Guidelines*, and included as Appendix M to this EIR). In addition, as described in in Chapter 2, *Project Description*, Section 2.7.5, *Building Access and Egress*, the project applicant would undertake a series of off-site transportation network improvements, including a new footbridge over Los Gatos Creek between West Santa Clara Street and the VTA light rail tracks; new at-grade crossings (crosswalk and curb improvements) for the Los Gatos Creek Trail to cross West Santa Clara Street at Delmas Avenue and to cross West San Carlos Street at Royal Avenue; and a two-way cycle track between the existing trail route on the west side of Los Gatos Creek at Auzerais Avenue and the Auzerais Avenue east of the Caltrain tracks, where the project's southernmost "supplemental" trail segment would begin.

TABLE 3.9-3
PROJECT CONSISTENCY WITH APPLICABLE ENVISION SAN JOSÉ 2040 GENERAL PLAN POLICIES

Policy	Consistency Analysis
Goal LU-1: General Land Use	
LU-1.1: Foster development patterns that will achieve a complete community in San José, particularly with respect to increasing jobs and economic development and increasing the City's jobs-to-employed resident ratio while recognizing the importance of housing and a resident workforce.	Refer to **Policy FS-3.3** consistency analysis. The project would also develop up to 5,900 dwelling units to assist in housing a resident workforce.
LU-1.2: Encourage Walking. Create safe, attractive, and accessible pedestrian connections between developments and to adjacent public streets to minimize vehicular miles traveled.	The project applicant proposes to construct mid-block passages at several locations to facilitate pedestrian and bicycle access through the project site and break up the scale of larger blocks. For more information about pedestrian connections, refer to the Downtown West Design Standards and Guidelines (described further in Chapter 2, *Project Description*, Section 2.12, *Downtown West Design Standards and Guidelines*, and included as Appendix M to this EIR).
LU-1.3: Create safe, attractive, and accessible pedestrian connections between developments and to adjacent public streets to minimize vehicular miles traveled.	Refer to **Policy LU-1.3** consistency analysis.
LU-1.5: Encourage developers of large commercial and industrial projects to identify and appropriately address the potential need generated by these projects for child care facilities or services. The provision of on-site child care may be considered for a single tenant building in industrial areas primarily for use by employees of the industrial facility. Do not locate off-site, freestanding child care facilities within industrial areas, except for those areas that have been designated for such uses.	The project has studied childcare facilities as part of the "active uses" proposed in mixed-use buildings.
LU-1.6: With new development or expansion and improvement of existing development or uses, incorporate measures to comply with current Federal, State, and local standards.	The project would comply with all federal, state, and local standards.
LU-1.7: Locate employee-intensive commercial and industrial uses within walking distance of transit stops. Encourage public transit providers to provide or increase services to areas with high concentrations of residents, workers, or visitors.	Refer to **Policy IE-1.5** consistency analysis.
LU-1.8: Collaborate with appropriate external agencies with land use authority or regulations in San José. Consider applicable Airport Land Use Commission, Santa Clara Valley Water District, Local Area Formation Commission, and other policies from outside agencies when reviewing new or expanded uses.	The project would coordinate with all external agencies with land use authority or regulations in San José, including the ALUC, Santa Clara Valley Water District, and Santa Clara Valley Habitat Agency, among others. Refer to Chapter 2, *Project Description*, Section 2.15, *Uses of the EIR and Required Project Approvals*, for a list of required project approvals.
Goal LU-2: Growth Areas	
LU-2.1: Provide significant job and housing growth capacity within strategically identified "Growth Areas" in order to maximize use of existing or planned infrastructure (including fixed transit facilities), minimize the environmental impacts of new development, provide for more efficient delivery of City services, and foster the development of more vibrant, walkable urban settings.	The project site is within the Diridon Station Area Plan and the Downtown Growth area, which have been designated as such to take full advantage of the transit connectivity the site affords. The proposed project has been designed to concentrate development, ensure efficient delivery of services, and create a walkable urban environment.

TABLE 3.9-3
PROJECT CONSISTENCY WITH APPLICABLE ENVISION SAN JOSÉ 2040 GENERAL PLAN POLICIES

Policy	Consistency Analysis
Goal LU-3: Downtown	
LU-3.1: Provide maximum flexibility in mixing uses throughout the Downtown area. Support intensive employment, entertainment, cultural, public/quasi-public, and residential uses in compact, intensive forms to maximize social interaction; to serve as a focal point for residents, businesses, and visitors; and to further the Vision of the Envision General Plan.	The project would develop a dense, mixed-use neighborhood that would include not only workplaces, but also housing, active commercial and open spaces with the amenities and services necessary to support a community of residents and workers.
LU-3.2: Support Downtown as a primary employment center in the region, especially for financial institutions, insurance companies, government offices, professional services, information and communication technology companies, and businesses related to conventions.	The project would support Downtown as an employment center by providing development of office space and related uses accommodating an estimated 30,551 new employees. A large majority of these would be employees of Google, which is a technology company.
LU-3.5: Balance the need for parking to support a thriving Downtown with the need to minimize impacts of parking upon a vibrant pedestrian and transit-oriented urban environment. Provide for the needs of bicyclists and pedestrians, including adequate bicycle parking areas and design measures to promote bicyclist and pedestrian safety.	Refer to Section 3.13, *Transportation*, for a discussion of project impacts related to bicyclist and pedestrian safety, and the **Policy CD-1.1** consistency analysis for a discussion of the Downtown West Design Standards and Guidelines.
LU-3.8: Leverage Downtown's urban nature and promote projects that will help achieve economic, fiscal, environmental, cultural, transportation, social, or other objectives of this plan.	The project would leverage Downtown San José's abundant transit and multi-modal transportation options by providing for a dense mixed-use development with ample public open space, pedestrian and bicycle facilities, and active uses.
Goal LU-4: Commercial	
LU-4.4: Allow limited industrial uses in commercially designated areas if such uses are of a scale, design, or intensity that creates less than significant negative impacts to surrounding uses.	The project would not propose industrial uses.
Goal LU-5: Neighborhood Serving Commercial	
LU-5.1: In order to create complete communities, promote new commercial uses and revitalize existing commercial areas in locations that provide safe and convenient multi-modal access to a full range of goods and services.	Refer to **Policy IE-1.5** consistency analysis.
LU-5.2: To facilitate pedestrian access to a variety of commercial establishments and services that meet the daily needs of residents and employees, locate neighborhood-serving commercial uses throughout the city, including identified growth areas and areas where there is existing or future demand for such uses.	The project would locate neighborhood-serving commercial uses in an identified growth area and proposes up to 500,000 gsf of such active uses.
LU-5.3: Encourage new and intensification of existing commercial development, including stand-alone, vertical mixed-use, or integrated horizontal mixed-use projects, consistent with the Land Use/Transportation Diagram.	The proposed project would remove low-intensity industrial uses and replace them with dense stand-alone office and residential buildings, as well as mixed-use buildings in City-designated growth areas near transit.
LU-5.4: Require new commercial development to facilitate pedestrian and bicycle access through techniques such as minimizing building separation from public sidewalks; providing safe, accessible, convenient, and pleasant pedestrian connections; and including secure and convenient bike storage.	Refer to Section 3.13, *Transportation*, for a discussion of project impacts related to bike storage and bicyclist and pedestrian safety, and to the Downtown West Design Standards and Guidelines (described further in Chapter 2, *Project Description*, Section 2.12, *Downtown West Design Standards and Guidelines*, and included as Appendix M to this EIR) for more information on the project's pedestrian and bicycle circulation features.

TABLE 3.9-3
PROJECT CONSISTENCY WITH APPLICABLE ENVISION SAN JOSÉ 2040 GENERAL PLAN POLICIES

Policy	Consistency Analysis
LU-5.5: Encourage pedestrian and vehicular connections between adjacent commercial properties with reciprocal-access easements to encourage safe, convenient, and direct pedestrian access and "one-stop" shopping. Encourage and facilitate shared parking arrangements through parking easements and cross-access between commercial properties to minimize parking areas and curb-cuts.	Refer to **Policy CD-1.1** consistency analysis and to the Downtown West Design Standards and Guidelines (described further in Chapter 2, *Project Description*, Section 2.12, *Downtown West Design Standards and Guidelines*, and included as Appendix M to this EIR) for how the project would encourage pedestrian and vehicular connections between adjacent properties and facilitate shared parking arrangements.
LU-5.7: Encourage retail, restaurant, and other active uses as ground-floor occupants in identified growth areas and other locations with high concentrations of development.	The majority of project buildings would have ground-floor active uses.
LU-5.8: Encourage outdoor cafes and other outdoor uses in appropriate commercial areas to create a vibrant public realm, maximize pedestrian activity, and capitalize on San José's temperate climate.	Refer to **Policy CD-1.1** consistency analysis.
Goal LU-6: Industrial Preservation	
LU-6.2: Prohibit encroachment of incompatible uses into industrial lands, and prohibit non-industrial uses which would result in the imposition of additional operational restrictions and/or mitigation requirements on industrial users due to land use incompatibility issues.	The proposed project would remove low-intensity industrial uses and replace them with dense stand-alone office and residential buildings as well as mixed-use buildings in City-designated growth areas near transit. The proposed project would also be consistent with the City's strategy to implement growth in Downtown, as expressed in Policies LU-3.1 to LU-3.8 discussed above, and would be consistent with regional plans to implement growth in transit-accessible areas as outlined in *Plan Bay Area 2040*.
LU-6.3: When new uses are proposed in proximity to existing industrial uses, incorporate measures within the new use to minimize its negative impacts on existing nearby land uses and to promote the health and safety of individuals at the new development site.	Refer to the analysis and mitigation measures throughout this EIR, which address potential environmental impacts on existing nearby land uses and future residents and employees at the project site.
Goal LU-9: High-Quality Living Environments	
LU-9.2: Facilitate the development of complete neighborhoods by allowing appropriate commercial uses within or adjacent to residential and mixed-use neighborhoods.	The project would develop commercial uses in a new mixed-use neighborhood and adjacent to the central Downtown, Garden Alameda, West San Carlos, Hannah-Gregory, Auzerais-Josefa, and Lakehouse neighborhoods.
Goal LU-10: Efficient Use of Residential and Mixed-Use Lands	
LU-10.2: Distribute higher residential densities throughout our city in identified growth areas and facilitate the development of residences in mixed-use development within these growth areas.	The project would develop high-density mixed-use buildings in Downtown, which is an identified growth area. The project applicant proposes that the entire project site be designated in both the General Plan and the DSAP with a combination of Downtown and Commercial Downtown designations. The Downtown land use designation allows a residential density of 800 units per acre.
LU-10.3: Develop residentially- and mixed-use-designated lands adjacent to major transit facilities at high densities to reduce motor vehicle travel by encouraging the use of public transit.	Refer to **Policy IE-1.5** consistency analysis.

TABLE 3.9-3
PROJECT CONSISTENCY WITH APPLICABLE ENVISION SAN JOSÉ 2040 GENERAL PLAN POLICIES

Policy	Consistency Analysis
LU-10.5: Facilitate the development of housing close to jobs to provide residents with the opportunity to live and work in the same community.	The project would develop housing and jobs to provide residents with the opportunity to live and work in the same community. Refer to Section 3.11, *Population and Housing*, for a discussion of the jobs/housing balance in the city of San José.
Goal LU-13: Landmarks and Districts	
LU-13.1: Preserve the integrity and fabric of candidate or designated Historic Districts.	Refer to Section 3.3, *Cultural Resources and Tribal Cultural Resources*.
LU-13.2: Preserve candidate or designated landmark buildings, structures and historic objects, with first priority given to preserving and rehabilitating them for their historic use, second to preserving and rehabilitating them for a new use, or third to rehabilitation and relocation on-site. If the City concurs that no other option is feasible, candidate or designated landmark structures should be rehabilitated and relocated to a new site in an appropriate setting.	The project would preserve and rehabilitate two CEQA-eligible historic resources, modify one historic resource in a manner that is not consistent with the *Secretary of the Interior's Standards, and* result in demolition of five CEQA-eligible historic resources. Refer to Section 3.3, *Cultural Resources and Tribal Cultural Resources*, for a discussion of the project's mitigation measures related to documentation, relocation, rehabilitation, and salvage to the extent feasible.
LU-13.6: Ensure modifications to candidate or designated landmark buildings or structures conform to the Secretary of the Interior's Standards for Treatment of Historic Properties and/or appropriate State of California requirements regarding historic buildings and/or structures, including the California Historical Building Code.	Alteration to 150 South Montgomery will not likely conform to the Secretary of the Interior's Standards.
Goal IP-1: Land Use/Transportation Diagram	
IP-1.6: Ensure that proposals to rezone and prezone properties conform to the Land Use/Transportation Diagram and advance 2040 General Plan Vision, goals and policies and benefit community welfare.	Refer to **Policy LU-5.3** consistency analysis.
IP-1.7: Use standard Zoning Districts to promote consistent development patterns when implementing new land use entitlements. Limit use of the Planned Development Zoning process to unique types of development or land uses which cannot be implemented through standard Zoning Districts, or to sites with unusual physical characteristics which require special consideration due to those constraints.	The project site contains unique physical characteristics, including its location at the edge of Downtown, bounded by transportation (rail and roadway) corridors, and proximity to a train station. Therefore, the project proposes a Planned Development zoning designation consistent with City and regional plans to take full advantage of the amenities the site affords.
IP-1.8: Consider and address potential land use compatibility issues, the form of surrounding development, and the availability and timing of infrastructure to support the proposed land use when reviewing rezoning or prezoning proposals.	The City would ensure consistency with this policy as part of its decision to approve amendments to the General Plan and DSAP, Planned Development Rezoning, Planned Development Permit, Downtown West Design Standards and Guidelines, and related entitlements.

NOTES:
ALUC = Airport Land Use Commission; BART = Bay Area Rapid Transit; CEQA = California Environmental Quality Act; City = City of San José; CLUP = Comprehensive Land Use Plan; DSAP = Diridon Station Area Plan; EIR = environmental impact report; FAA = Federal Aviation Administration; General Plan = *Envision San José 2040 General Plan*; gsf = gross square feet

SOURCE: City of San José, *Envision San José 2040 General Plan*, adopted November 1, 2011 (amended March 16, 2020). Available at https://www.sanjoseca.gov/home/showdocument?id=22359. Accessed January 16, 2020.

A project is consistent with the General Plan if, considering all of its aspects, it will further the objectives and policies of the General Plan and will not obstruct their attainment. Perfect conformity with every policy set forth in the General Plan is not required; rather, it is sufficient that the project would be in substantial conformance with the objectives, policies, general land uses and programs specified in the General Plan. At the same time, the project proposes certain amendments to the General Plan to ensure that the project would not conflict with any General Plan policy that is fundamental, mandatory, and clear. With approval of the proposed General Plan amendments, the project on balance would achieve consistency with the General Plan (including the Downtown Strategy 2040) and the DSAP because it would further the objectives, policies, general land uses, and programs of the General Plan, including the General Plan's Destination Downtown Strategy and Policy LU-2.2, which targets the Downtown area for ambitious job and housing growth to support key infrastructure investments, including the planned BART and high-speed rail systems. For this reason, the proposed project's impact related to the General Plan would be **less than significant**. As noted above, the project's proposed amendments to the General Plan include changes in growth allocations, assignment of the Downtown and Commercial Downtown land use designations to the project site, and reclassification of streets in the transportation diagram.

Diridon Station Area Plan

In 2014, the City approved the DSAP, which establishes a vision for Diridon Station and the surrounding area in response to the planned extension of BART and high-speed rail service to San José. The majority of the DSAP is within the Downtown boundary as defined in the Downtown Strategy 2040.

The DSAP would be amended to reclassify project site height limits as shown in Chapter 2, *Project Description*, Figure 2-6. In addition, the DSAP land use plan would be modified to reflect the proposed project. Additional changes to the DSAP would include but not be limited to accommodating proposed open space on the project site in a distributed manner, rather than as a single park; updating the land use plan and modifying bicycle and street connections and transit; modifying the DSAP primary zones for consistency with the envisioned character of each zone; revising the parking discussion; updating the infrastructure discussion; and revising the section on affordable housing to accommodate the proposed project.

Through amendments to the DSAP and General Plan, including changes to the land use designations on the project site and through DSAP amendments for reclassifying building height limits, the proposed project would be consistent with the amended DSAP and General Plan, and would reflect the City's desired vision for the area.[30] For this reason, the proposed project's impact related to the DSAP would be **less than significant**.

Zoning Ordinance

The General Plan sets the broad parameters for growth in San José and establishes future land use patterns. At the same time, the City uses zoning to establish uses and development standards for

[30] Separate from the proposed project, the City is undertaking an update of the DSAP, as described in Chapter 2, *Project Description*.

properties. The project site is within the following zoning districts: Heavy Industrial (HI), Industrial Park (IP), Light Industrial (LI), Commercial Neighborhood (CN), Planned Development (PD), Public/Quasi-Public (PQP), and Combined Industrial/Commercial (CIC).

The proposed project's uses would conflict with existing zoning designations on the project site. To resolve conflicts between existing zoning and the proposed uses, the project proposes to rezone the project site. The new zoning district would be reflected in the City's zoning map as a Planned Development Zoning District. The City's Municipal Code requires that a Planned Development Zoning District be combined with an existing base zoning district. The project applicant proposes amending the base zoning districts and proposes that the base district for the entire site be zoned Downtown Commercial. The new Planned Development Zoning District would establish permitted and conditionally permitted land uses, high-level development standards, and a subsequent process for conformance review of project phases and design review or vertical improvements and open space. Therefore, because the City's zoning map would be amended as described, the proposed project would not conflict with the City's Zoning Ordinance, and this impact would be **less than significant**.

Land Use and Planning Conclusion

If the San José City Council finds that amendments to the General Plan and Zoning Ordinance are warranted to allow implementation of the proposed project, the City would resolve conflicts between the General Plan, DSAP, and Zoning Ordinance, and the proposed project through a legislative amendment of the General Plan, DSAP, and the Zoning Ordinance.

A conflict with a plan, policy, or regulation does not indicate a significant environmental land use impact under CEQA unless the project substantially conflicts with a land use plan or policy adopted to avoid or mitigate an environmental effect, such that the conflict would result in a substantial adverse physical change in the environment related to land use. To the extent that such conflicts may result in substantial physical environmental impacts, this EIR discloses and analyzes these physical impacts in the relevant environmental topic sections, as noted in the introduction to this section. See, for example, Section 3.1, *Air Quality*; Section 3.3, *Cultural Resources and Tribal Cultural Resources*; Section 3.10, *Noise and Vibration*; and Section 3.13, *Transportation.*

For the most part, the proposed project would not conflict with land use plans and policies such that a substantial adverse physical change in the environment related to land use would result. However, as noted above, a portion of the project site designated for residential and hotel use is located within the CLUP 2027 65 dB CNEL contour and would conflict with CLUP Policy N-4. **Mitigation Measure NO-3, Exposure to Airport Noise**, would address interior noise levels, but would not protect outdoor areas associated with residential uses from aircraft noise.

Mitigation Measures

> **Mitigation Measure NO-3: Exposure to Airport Noise** (refer to Section 3.10, Noise and Vibration)
>
> **Significance after Mitigation:** Significant and Unavoidable. Mitigation Measure NO-3 would reduce interior noise levels for residential uses within the 65 dBA CNEL noise

contour to 45 dB CNEL or less. However, because the project could include outdoor residential areas within the airport's 65 dBA CNEL noise contour, it could result in a land use that is not compatible with the CLUP. This impact, therefore, would be significant and unavoidable.

Shadow

Impact LU-3: The proposed project would not result in 10 percent or more of the area of any one of the six major open space areas in the Downtown San José area (St. James Park, Plaza of Palms, Plaza de César Chávez, Paseo de San Antonio, Guadalupe River Park, McEnery Park) being newly shaded by the project. ***(Less than Significant)***

This analysis is based on a shadow study prepared by Integral Group, which is included as Appendix L to this Draft EIR. As described in *Approach to Analysis* earlier in this section, the shadow analysis assumes that all project buildings would reach the maximum allowable height (180–290 feet) shown in Chapter 2, *Project Description*, Figure 2-5, and would cover the entire footprint of each block on the project site, as shown in Chapter 2, *Project Description*, Figure 2-6. The shadow model does not include required building setbacks at upper stories, and therefore, is a worst-case scenario.[31] The shadow analysis evaluates project-generated shadows on the winter solstice, December 21, because this is the shortest day of the year and is when the sun is lowest in the sky and shadows are the longest at any given time of day. To bracket the range of impacts, the analysis also considers the summer solstice (June 21) and the spring/fall equinoxes (March 21/September 21), during the hours of 10 a.m., 12 noon, and 3 p.m.

Development of the proposed project would increase shadow on publicly accessible recreation and open spaces near the project site. The shadow analysis determined that the proposed project would not cast new shadow on St. James Park, Plaza of Palms, Plaza de César Chávez, Paseo de San Antonio, or McEnery Park during the times of year analyzed. However, the shadow analysis did identify that net new shadow would be cast on Guadalupe River Park; therefore, a quantitative analysis of net new shadow on Guadalupe River Park was prepared. The quantitative analysis determined that the maximum effect of the proposed project would increase the area shaded by 3.5 percent of the park area, at 3 p.m. on the winter solstice. At the other times analyzed, the increase in the area of Guadalupe River Park shaded would range from 0 percent to 1.8 percent. Because shadow cast by the proposed project would amount to less than 10 percent of the area of Guadalupe River Park at all times analyzed, the impact would be **less than significant**. These results are summarized in **Table 3.9-4**.

[31] Trees and landscaping are not included in the model. For the parks considered in this analysis, existing shading from trees and landscaping is described qualitatively.

TABLE 3.9-4
SUMMARY OF PROPOSED PROJECT SHADOW ON GUADALUPE RIVER PARK

Guadalupe River Park[a]	Existing Shadow		Proposed Project Shadow		Change	
	Area (sf)	Percent of Park (%)	Area (sf)	Percent of Park (%)	Percent Increase (%)	Exceeds 10% Threshold?
March 21/September 21 (Spring Equinox)						
10 a.m.	384,713	3.3	415,260	3.6	0.3	No
12 p.m.	343,638	3.0	360,655	3.1	0.1	No
3 p.m.	364,014	3.1	472,912	4.1	1.0	No
June 21 (Summer Solstice)						
10 a.m.[b]	351,926	3.0	351,926	3.0	0.0	No
12 p.m.[b]	295,426	2.5	295,426	2.5	0.0	No
3 p.m.	331,453	2.9	370,504	3.2	0.3	No
December 21 (Winter Solstice)						
10 a.m.	516,398	4.5	725,993	6.3	1.8	No
12 p.m.	446,820	3.9	628,213	5.4	1.5	No
3 p.m.	524,880	4.5	931,820	8.0	3.5	No

NOTES:

sf = square feet

[a] Guadalupe River Park has an area of 11,549,245 sf.

[b] Because the proposed project would add no new shadow at these times, existing shadow was not quantified.

SOURCE: Integral Group, *Shadow Analysis: Impact on Major Parks*, using parks GIS mapping data from San José Parks, Recreation, and Neighborhood Services Department, June 26, 2020.

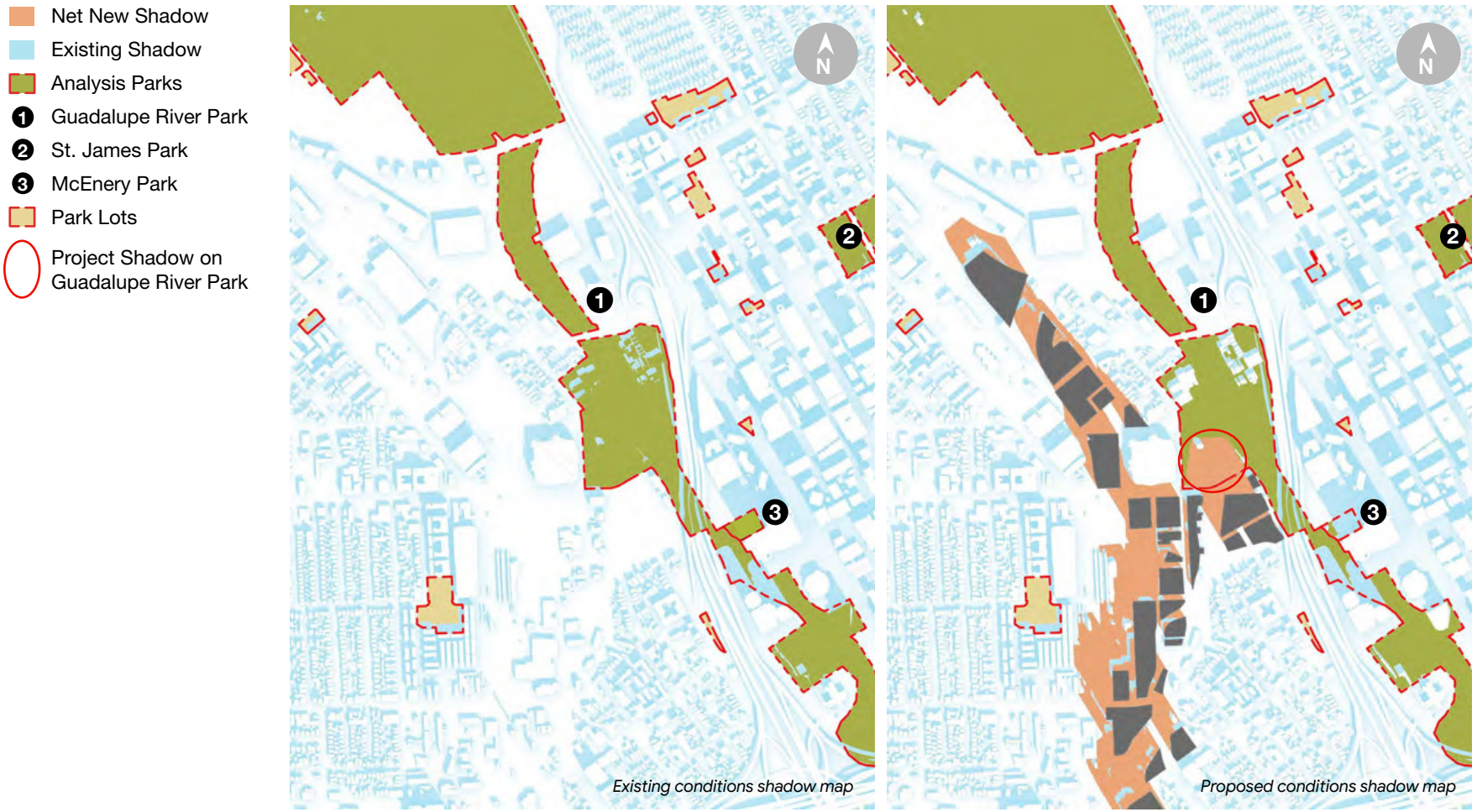
To provide a visual understanding of the location, size, and extent of the new shading, graphics were prepared to accompany the qualitative analysis for times of the year in which shading on Guadalupe River Park would increase by a perceptible amount (more than 0.5 percent of the area of Guadalupe River Park). **Figures 3.9-5 through 3.9-8** depict existing-plus-project shadow for the four times of the year when shading at Guadalupe River Park would exceed 0.5 percent of the park area. In these figures, a red dashed box highlights areas where net new shading would occur as a result of the proposed project.

As shown on Figure 3.9-5, at 3 p.m. on March 21/September 21, shadow from the proposed project would cover a planting of palm trees and a small portion of a grassy lawn at the southwest corner of Arena Green West (an area of Guadalupe River Park). At the same time, a small portion of the Guadalupe River Trail and adjacent landscaping in Guadalupe River Park between West Santa Clara Street and SR 87 would be shaded as well. Figures 3.9-6 through 3.9-8 depict existing-plus-project shadow in December at 10 a.m., 12 p.m., and 3 p.m., respectively. As shown on these figures, net new shadow cast by the proposed project would cover the Children's Carousel at Arena Green, a play structure, the Five Skaters sculpture, the Vietnam War Memorial, grassy areas, picnic tables, and benches at 10 a.m. By 12 p.m., net new shadow would travel east across Arena Green, receding from the carousel, play structure, and sculpture and crossing the Guadalupe River to Confluence East. Project shadow would cover the Vietnam War Memorial, grassy areas, benches, and picnic tables, as well as a short section of the Guadalupe River Trail just north of where it

SOURCE: Google LLC, 2020

Downtown West Mixed-Use Plan

Figure 3.9-5
Existing and Proposed Shadow Area – March 21 at 3 p.m. (September 21 similar)



SOURCE: Google LLC, 2020

Downtown West Mixed-Use Plan

Figure 3.9-6
Existing and Proposed Shadow Area – December 21 at 10 a.m.

SOURCE: Google LLC, 2020

Downtown West Mixed-Use Plan

Figure 3.9-7
Existing and Proposed Shadow Area – December 21 at 12 noon

SOURCE: Google LLC, 2020

Downtown West Mixed-Use Plan

Figure 3.9-8
Existing and Proposed Shadow Area – December 21 at 3 p.m.

crosses beneath SR 87. At 3 p.m., shadow would recede from the Vietnam War Memorial, but net new shadow would return to the Arena Green West palm trees, carousel, play structure, grassy lawns, and benches. In addition, at 3 p.m. on the winter solstice, net new shadow would be cast on the east side of Guadalupe River covering a portion of the Guadalupe River Trail.

It is noted that nearly all the net new shadow from the proposed project, except in December at 3 p.m., would be cast by buildings proposed on the site of a previously approved mixed-use project on the former San José Water Company site (now Blocks E1, E2, and E3 within the proposed project), which permitted up to 1.04 million gsf of commercial space, including approximately 994,000 gsf office and 31,000 gsf retail space, and 325 multifamily attached residences.[32] In general, shadows cast by the proposed project would be comparable to those that would have been cast by the previously approved project, except in December at 3 p.m., when the currently proposed project would also cast shadow on Arena Green from buildings other than those on the Water Company site. Additionally, the Downtown West Design Standards and Guidelines would include standards which would limit the massing of Blocks E1, E2, and E3, potentially resulting in less shadow on open spaces than that which is studied.

Mitigation: None required.

Cumulative Impacts

Land Use and Planning

Impact C-LU-1: The proposed project, in combination with past, present, existing, approved, pending, and reasonably foreseeable future projects within and in the vicinity of the project site, would not physically divide an established community. *(Less than Significant)*

The cumulative geographic context for land use divisions consists of projects located within 0.5 miles of the DSAP boundary, as identified in Figure 3-1 and Appendix B, and the large-scale projects described in the introduction to Chapter 3, *Environmental Setting, Impacts, and Mitigation*, in combination with the proposed project.

As discussed above, under CEQA, physical division of an established community typically applies to projects, such as highway construction, that would create a barrier that would physically sever two or more connected parts of a community.[33]

Like the proposed project, most of the cumulative projects are individual land use development projects that would occur on specific development parcels within the existing land use and

[32] Refer to Delmas Mixed-Use Project (File Nos. PDC15-051, PD15-061, PT16-012, and HP16-002). Available at: https://www.sanjoseca.gov/your-government/departments/planning-building-code-enforcement/planning-division/environmental-planning/environmental-review/negative-declaration-initial-studies/park-and-delmas-mixed-use-residential-project.

[33] *Cathay Mortuary, Inc. v. San Francisco Planning Commission*, No. A039937, 207 Cal. App. 3d 275; 254 Cal. Rptr. 778; 1989 Cal. App. LEXIS 22, January 20, 1989.

transportation fabric of the community. However, three large-scale projects could combine with impacts from the proposed project:

- The Peninsula Corridor Electrification Project, a key component of the Caltrain Modernization Program that will electrify the corridor from San Francisco's 4th and King Caltrain Station to the Tamien Caltrain Station, a distance of approximately 51 miles.
- The DSAP amendments, which include changes to the DSAP boundary and increases in height limits and development capacity.
- Valley Transportation Authority's BART Silicon Valley Extension Program, which will extend BART to Santa Clara through the Diridon Station area.

The Peninsula Corridor Electrification Project will be within the existing railroad right-of-way, and thus will not result in a new or expanded physical barrier.

The DSAP amendments would revise the DSAP boundary, incorporate development capacity changes, revise land use and zoning designations to eliminate a previously proposed Major League Baseball ballpark, and increase height limits. As described in the 2014 DSAP, a parking garage may be constructed on Lot E north of SAP Center, adjacent to the project site, or in the immediate vicinity. The proposed project in combination with the DSAP amendments would remove surface parking lots and improve the public realm to improve transit access and pedestrian and bicycle circulation and facilitate connectivity, both within the site and to and from surrounding neighborhoods.

In the vicinity of the project site, the BART Silicon Valley Extension will be largely underground; therefore, this project would not combine with the proposed project to result in an aboveground physical barrier in an established community.

The California High Speed Rail system, which would include a stop at Diridon Station, and the Diridon Station Integrated Concept Plan (DISC), an ongoing planning process focusing on Diridon Station and its interface with the urban fabric, are also somewhat relevant, although the physical forms of these plans have not been finalized. The California High Speed Rail and DISC are further described in Chapter 3, *Environmental Setting, Impacts, and Mitigation*.

Major elements of the DISC Plan suggest that pedestrian and bicycle access to and through Diridon Station; facilities for emerging modes of "micro-mobility" such as e-scooters; and urban integration (the connection between the station, track infrastructure, and surrounding neighborhoods and potential for amenities, such as plazas and community gathering space) would serve to configure the station and surrounding area in such a way to improve accessibility. Further, the DISC Plan would integrate Diridon Station with the surrounding area, optimizing passenger flows to, from, and through the station. This integration would ensure that ongoing and planned transportation projects would not result in a barrier that would physically divide an established community.

In addition, the project would provide various improvements to public areas such as sidewalk widening, plazas, mid-block passages, and green spaces. These improvements would be intended to improve pedestrian spaces and enhance connectivity to regional transit available in the

immediate vicinity (Caltrain, Altamont Corridor Express trains, planned BART service, and proposed high-speed rail); enhance local pedestrian circulation; and improve bicycling linkages to Downtown San José, adjacent neighborhoods, and regional trails for residents and visitors.

The land use development cumulative projects do not include any foreseeable projects that would physically divide or sever existing connected parts of the community, or make it impossible or extremely inconvenient for a person to get from one part of the established community to a previously connected part of the community. However, if there were any projects that could physically divide or sever existing connected parts of the community, the proposed project would not considerably contribute to this potential, related cumulative project impact. The design of each related project would be evaluated on a project-by-project basis to determine its compatibility with the surrounding uses. Further, related projects are subject to CEQA review, and to review by other regulatory agencies.

The related cumulative projects are urban infill in nature and, while increasing density, would be constructed on parcels that fit in with the existing framework of land use and circulation in the existing community, and would not create physical barriers that would physically divide an established community. As described previously, the proposed project would have a less-than-significant impact as a result of the extended network of public streets through the project site and pedestrian and bicycle circulation enhancements, in addition to new open space. All of these changes would enhance public access to and through the project site and to the Guadalupe River. Based on the above considerations, the proposed project, in conjunction with other cumulative development within the project vicinity, would not divide an established community. Therefore, the cumulative effect would be **less than significant**.

Impact C-LU-2: The proposed project, in combination with past, present, and reasonably foreseeable future projects in the vicinity of the project site, would result in a significant cumulative impact due to a conflict with a land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect. ***(Significant and Unavoidable)***

The cumulative geographic context for land use plans and policy considerations for development of the proposed project consists of projects located within 0.5 miles of the DSAP boundary, as identified in Figure 3-1 and Appendix B, and the large-scale projects described in the introduction to Chapter 3, *Environmental Setting, Impacts, and Mitigation*, in combination with the proposed project.

The proposed project would combine with growth in the areas described above, the Downtown Strategy 2040 Plan and DSAP areas, and with other reasonably foreseeable projects to transform the area surrounding Diridon Station. The area would transform from a low-density, substantially industrial/commercial area to a mixed-use residential-commercial area. However, this transformation would be largely consistent with both adopted local and regional plans, including the previously identified plans, the General Plan, and Plan Bay Area. As described in Section 3.11, *Population and Housing*, the proposed project, including reallocated growth and buildout of the DSAP, would be within the amount of overall planned growth in the General Plan.

Projected growth and the cumulative development projects would increase density in the area and, together with cumulative increases in transit infrastructure, would support the increased use of transit and other non-single-occupant vehicle modes of transportation. This would reduce the need for motor vehicle travel in the area surrounding the project site and support the revitalization of the city. This type and location of development is consistent with statewide, regional, and local plans that seek to accommodate increased population growth while achieving goals to reduce GHG emissions and other typical environmental effects of suburban sprawl and greenfield development.

Impacts related to conflicts with applicable land use plans, policies, or regulations of an agency with jurisdiction over the related projects generally are specific to the individual related projects; the impacts are not cumulative. However, the proposed project together with related cumulative projects would result in development, including high-density residential, commercial, hotel, and entertainment uses, that would be concentrated in a transit priority area. This transformation would be largely consistent with adopted regional and local plans, including the plans noted above, the General Plan, the DSAP, the *Santa Clara Valley Habitat Plan*, and Plan Bay Area.

However, as noted above, a portion of the project site designated for residential use is located within the 2027 65 dB CNEL contour. This portion of the proposed project would conflict with CLUP Policy N-4, which states that no residential or transient lodging construction shall be permitted within the 65 dB CNEL contour boundary unless it can be demonstrated that the resulting interior sound levels will be less than 45 dB CNEL and there are no outdoor patios or outdoor activity areas associated with the residential portion of a mixed use residential project or a multi-unit residential project. Implementation of **Mitigation Measure NO-3, Exposure to Airport Noise**, would require preparation of a noise reduction plan to ensure that residential buildings subject to such noise levels would be designed so that interior noise levels would not exceed 45 dBA. However, it is not possible to mitigate noise levels for any outdoor patios or outdoor activity areas because mitigation would essentially entail converting this outdoor space to indoor space, given that the source of aircraft noise is from aircraft flying above the residential receptors. Thus, as identified above, the proposed project would result in a significant and unavoidable project-level impact.

This impact would result from development on the project, affecting the future residential receptors on the project site. Areas outside of the project site are zoned for residential uses such that additional residential development could occur in the 65 dB CNEL contour, including the Market/Almaden, Washington/Guadalupe, Tamien, and Goodyear/Mastic neighborhoods to the southeast, and the Rosemary Gardens neighborhood as well as portions of the City of Santa Clara, from south of Montague Expressway to Tasman Drive, to the north. These neighborhoods have existing residential uses already within the 65 dB CNEL noise contour and new residential development there, should it occur, would likewise be subject to aircraft noise that could be in conflict with CLUP Policy N-4. Because the proposed project would also conflict with CLUP Policy N-4, the impact of the proposed project in combination with cumulative projects would likewise be **significant and unavoidable**.

Mitigation: Mitigation Measure NO-3, Exposure to Airport Noise.

Significance after Mitigation: Significant and Unavoidable. Because the proposed project alone would result in a conflict with CLUP Policy N-4, and future residential development within the 65 dB CNEL noise contour could likewise conflict with that policy, the proposed project, in combination with cumulative projects, would conflict with the CLUP such that future residential receptors in outdoor areas would be subject to elevated noise levels by being located in the 2027 65 dB CNEL contour. For this reason, the impact would be significant and unavoidable.

Shadow

Impact C-LU-3: The proposed project, in combination with past, present, existing, approved, pending, and reasonably foreseeable future projects within and in the vicinity of the project site, would not result in significant cumulative impacts related to shadow. *(Less than Significant)*

The cumulative geographic context for shadow impacts consists of projects located within 0.5 miles of the DSAP boundary, as identified in Figure 3-1 and Appendix B, and the large-scale projects described in the introduction to Chapter 3, *Environmental Setting, Impacts, and Mitigation*, in combination with the proposed project.

As required in the Downtown Strategy 2040 Plan EIR, all cumulative projects in Downtown San José, including portions of the DSAP area, would prepare project-specific shade and shadow analyses. The shade and shadow analysis must demonstrate that the proposed development would not cause 10 percent or more of the area of the six open space areas considered in this analysis to be newly shaded by the project. The project-level shadow analysis concluded that the proposed project would not cast shadow on St. James Park, Paseo de San Antonio, Plaza de César Chávez, Plaza of Palms, or McEnery Park. Thus, the proposed project would not contribute to cumulative shadow impacts on these parks. The project-level shadow analysis did conclude that the proposed project would add new shadow to Guadalupe River Park, but that the project would not result in an increase in shadow on this park by more than the 10 percentage points, the threshold for significant and unavoidable shadow impacts. Cumulative projects with the potential to cast shadow on the Guadalupe River park include the following projects:

- South Almaden Offices (386 feet tall, refer to number 19 on Figure 3-1);
- Adobe building (246 feet tall, refer to number 28 on Figure 3-1).
- River Corporate Center (104 feet tall, refer to number 29 on Figure 3-1); and
- Platform 16 (91 feet tall, refer to number 36 on Figure 3-1).

Shadow from other cumulative projects shown on Figure 3-1 and listed in Appendix B would not reach the Guadalupe River Park. As such, shadow from all other cumulative projects would not combine with shadow from the proposed project to increase shading on the Guadalupe River Park, and these projects are not discussed further in this section.

A quantitative analysis of net new shadow on Guadalupe River Park was prepared for the cumulative projects listed above. The quantitative analysis determined that the maximum effect

of cumulative shadow would increase the area shaded by 5.3 percent of the park area, at 3 p.m. on the winter solstice. At the other times analyzed, the increase in the area of Guadalupe River Park shaded would range from 0.1 percent to 3.3 percent. Shadow cast by the proposed project, in combination with cumulative projects, would amount to less than 10 percent of the area of Guadalupe River Park at all times analyzed. These results are summarized in **Table 3.9-5**.

TABLE 3.9-5
SUMMARY OF CUMULATIVE SHADOW ON GUADALUPE RIVER PARK

	Existing Shadow		Cumulative + Project Shadow		Change	
Guadalupe River Park[a]	**Area (sf)**	**Percent of Park (%)**	**Area (sf)**	**Percent of Park (%)**	**Percent Increase (%)**	**Exceeds 10% Threshold?**
March 21/September 21 (Spring Equinox)						
10 a.m.	384,713	3.3	566,181	4.9	1.6	No
12 p.m.	343,638	3.0	394,217	3.4	0.4	No
3 p.m.	364,014	3.1	509,735	4.4	1.3	No
June 21 (Summer Solstice)						
10 a.m.	351,926	3.0	495,559	4.3	1.3	No
12 p.m.	295,426	2.5	311,400	2.7	0.2	No
3 p.m.	331,453	2.9	370,870	3.2	0.3	No
December 21 (Winter Solstice)						
10 a.m.	516,398	4.5	895,933	7.7	3.2	No
12 p.m.	446,820	3.9	677,049	5.8	1.9	No
3 p.m.	524,880	4.5	1,141,522	9.8	5.3	No

NOTES:

sf = square feet

[a] Guadalupe River Park has an area of 11,549,245 sf.

SOURCE: Integral Group, *Shadow Analysis: Impact on Major Parks*, using parks GIS mapping data from San José Parks, Recreation, and Neighborhood Services Department, June 26, 2020.

As described in Chapter 2, *Project Description*, the City Council directed Planning Division staff in March 2019 to develop new height limits for portions of Downtown—including the Diridon Station Area—to allow taller buildings than are currently permitted. Accordingly, the City is considering amendments to the DSAP to increase building heights based on review of the City's 2018 analysis of heights that would be permitted pursuant to the FAA's Terminal Instrument Procedures. DSAP parcels not included in the project site that would be subject to building height increases as part of the DSAP amendments include the Platform 16 development, which was included in Table 3.9-5, and a number of other parcels that would have their shadow subsumed by shadow from the proposed project because they are shielded from Guadalupe River Park by the project. Moreover, shadow from DSAP parcels that were not quantified as part of this analysis would not reach the Guadalupe River Park at any time during the year.

As required in the Downtown Strategy 2040 Plan EIR, development subject to increased building heights in the DSAP area and all other cumulative projects in Downtown San José would be required to prepare project-specific shade and shadow analyses to demonstrate that projects

would not result in a 10 percent or greater increase in the shadow cast onto any one of the six major open space areas in the Downtown San José area. Furthermore, in accordance with General Plan Policy CD-7.8, development adjacent to public open space and parklands would incorporate site and architectural design measures to minimize potentially negative shade and shadow impacts on the park or plaza space. Therefore, cumulative projects, in combination with the proposed project, would not result in a significant cumulative impact. This impact would be **less than significant**.

Mitigation: None required.

This page intentionally left blank

3.10 Noise and Vibration

This section assesses the potential for the proposed project to result in significant adverse noise impacts or expose people or structures to vibration impacts, and identifies feasible mitigation measures to avoid or reduce potential adverse impacts. Potential impacts are discussed and evaluated, and appropriate mitigation measures or standard conditions of approval (SCAs) are identified, as necessary. Project-related noise and vibration effects on biological resources are discussed in Section 3.2, *Biological Resources*, and potential vibration-related impacts on historic structures are considered in Section 3.3, *Cultural Resources and Tribal Cultural Resources*. Section 3.9, *Land Use*, addresses impacts related to land use compatibility. **Appendix I** includes additional details supporting the analysis of noise and vibration impacts.

CEQA requires the analysis of potential adverse effects of a project on the environment. With some exceptions—such as projects located within the vicinity of a private airstrip or an airport land use plan—the potential effects of the environment on a proposed project are not legally required to be analyzed or mitigated under CEQA. As a result, where this section includes an analysis of non-airport noise impacts on proposed residents of the project area, the analysis is presented to document compliance with applicable City policies and for informational purposes.

3.10.1 Environmental Setting

Noise Principles and Descriptors

Noise is generally defined as unwanted sound. Sound, traveling in the form of waves from a source, exerts a sound pressure level (referred to as sound level) that is measured in decibels (dB), the standard unit of sound amplitude measurement. The dB scale is a logarithmic scale that describes the physical intensity of the pressure vibrations that make up any sound, with 0 dB corresponding roughly to the threshold of human hearing and 120 and 140 dB corresponding to the thresholds of feeling and pain, respectively. Pressure waves traveling through air exert a force registered by the human ear as sound.

Sound pressure fluctuations can be measured in units of hertz (Hz), which correspond to the frequency of a particular sound. Typically, sound does not consist of a single frequency, but rather a broad band of frequencies varying in levels of magnitude. When all audible frequencies of a sound are measured, a sound spectrum is plotted, consisting of a range of frequencies spanning 20 to 20,000 Hz. The sound pressure level, therefore, constitutes the additive force exerted by a sound corresponding to the sound frequency/sound power level spectrum.

The typical human ear is not equally sensitive to all frequencies of the audible sound spectrum. As a consequence, during the assessment of potential noise impacts, sound is measured using an electronic filter that deemphasizes frequencies below 1,000 Hz and above 5,000 Hz in a manner corresponding to the human ear's decreased sensitivity to extremely low and extremely high frequencies. This method of frequency weighting is referred to as A-weighting and is expressed in units of A-weighted decibels (dBA). A-weighting follows an international standard methodology for frequency de-emphasis and is typically applied to community noise measurements.

Figure 3.10-1 shows some representative noise sources and their corresponding A-weighted noise levels. All noise levels presented in this report are A-weighted unless otherwise stated.

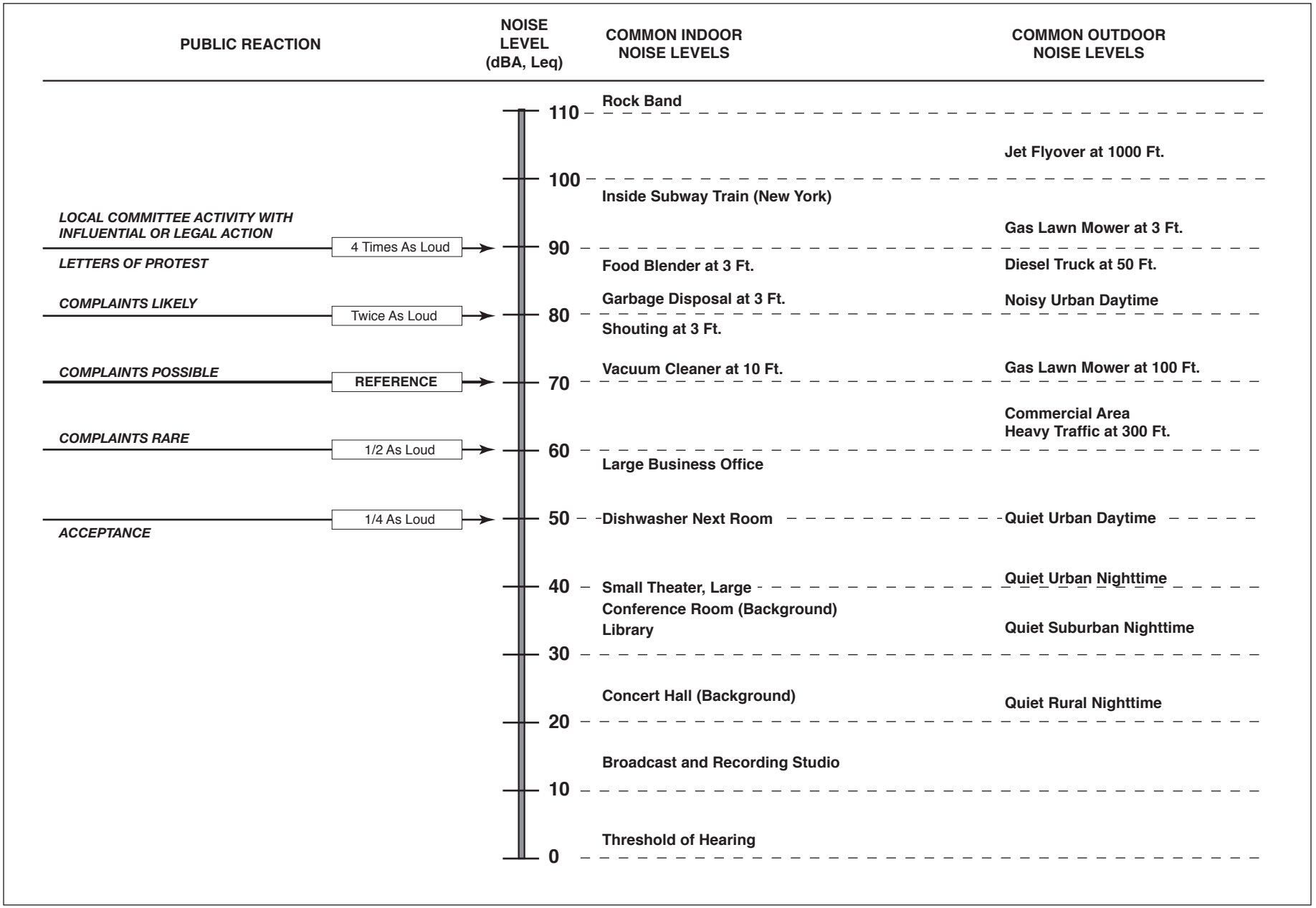
Noise Exposure and Community Noise

An individual's noise exposure is a measure of noise over a period of time. A noise level is a measure of noise at a given instant in time. The noise levels presented on Figure 3.10-1 are representative of measured noise at a given instant in time; however, they rarely persist consistently over a long period of time. Community noise is primarily the product of many distant noise sources, which constitute a relatively stable background noise exposure, with the individual contributors unidentifiable. The background noise level changes throughout a typical day, but does so gradually, corresponding with the addition and subtraction of distant noise sources such as traffic. What makes community noise variable throughout a day, besides the slowly changing background noise, is the addition of short-duration, single-event noise sources (e.g., aircraft flyovers, motor vehicles, sirens), which are readily identifiable to the individual.

These successive additions of sound to the community noise environment change the community noise level from instant to instant. Thus, noise exposure must be measured over a period of time to legitimately characterize a community's noise environment and evaluate cumulative noise impacts. This time-varying characteristic of environmental noise is described using statistical noise descriptors. The following are the most frequently used noise descriptors:

- **L_{eq}:** The equivalent-continuous sound level, used to describe noise over a specified period of time in terms of a single numerical value. The L_{eq} of a time-varying signal and that of a steady signal are the same if they deliver the same acoustic energy over a given time. Also referred to as the "average sound level."
- **L_{max}:** The maximum, instantaneous noise level experienced during a given period of time.
- **L_{min}:** The minimum, instantaneous noise level experienced during a given period of time.
- **L_{dn}:** The average A-weighted noise level during a 24-hour day that is obtained after 10 dBA are added to noise levels measured between 10 p.m. to 7 a.m. to account for nighttime noise sensitivity. Also referred to as the "day-night average noise level" (DNL). The L_{dn} is the metric used by the Noise Element of the *Envision San José General Plan* (General Plan) for assessing the land use compatibility of non-aviation sources.
- **CNEL:** The community noise equivalent level. This is the average A-weighted noise level during a 24-hour day that is obtained after 5 dBA are added to noise levels measured between 7 and 10 p.m. and 10 dBA are added to noise levels between 10 p.m. and 7 a.m. to account for noise sensitivity in the evening and nighttime, respectively. The CNEL metric is reported as a number and is generally understood to be in terms of A-weighted decibels. The CNEL is the metric generally used for assessment of aircraft noise. The result is normally about 0.5 dBA higher than L_{dn} using the same 24-hour data.[1]

[1] California Department of Transportation, *Technical Noise Supplement*, September 2013.



SOURCE: Caltrans Transportation Laboratory Noise Manual, 1982; and modification by ESA

Downtown West Mixed-Use Plan

Figure 3.10-1
Effects of Noise on People

Noise Attenuation

Stationary "point" sources of noise, including stationary mobile sources such as idling vehicles, attenuate (lessen) at a rate of 6 to 7.5 dBA per doubling of distance from the source, depending on the topography of the area and environmental conditions (e.g., atmospheric conditions and noise barriers, vegetative or manufactured). Widely distributed noise, such as that generated by a large industrial facility spread over many acres, or by a street with moving vehicles (known as a "line" source) would typically attenuate at a lower rate—approximately 3 to 4.5 dBA each time the distance doubles from the source, which also depends on environmental conditions.[2] Noise from large construction sites exhibits characteristics of both "point" and "line" sources, and attenuation will therefore generally range between 4.5 and 7.5 dBA each time the distance doubles.

Effects of Noise on People

Noise is generally loud, unpleasant, unexpected, or undesired sound that is typically associated with human activity that is a nuisance or disruptive. The effects of noise on people can be placed into four general categories:

- Subjective effects (e.g., dissatisfaction, annoyance)
- Interference effects (e.g., communication, sleep, and learning interference)
- Physiological effects (e.g., startle response)
- Physical effects (e.g., hearing loss)

Although exposure to high noise levels has been demonstrated to cause physical and physiological effects, the principal human responses to typical environmental noise exposure are related to subjective effects and interference with activities. Interference effects of environmental noise refer to those effects that interrupt daily activities and include interference with human communication activities, such as normal conversations, watching television, telephone conversations, and interference with sleep. Sleep interference effects can include both awakening and arousal to a lesser state of sleep. With regard to the subjective effects, the responses of individuals to similar noise events are diverse and are influenced by many factors, including the type of noise, the perceived importance of the noise, the appropriateness of the noise to the setting, the duration of the noise, the time of day and the type of activity during which the noise occurs, and individual noise sensitivity.

Overall, there is no completely satisfactory way to measure the subjective effects of noise, or the corresponding reactions of annoyance and dissatisfaction on people. A wide variation in individual thresholds of annoyance exists, and different tolerances to noise tend to develop based on an individual's past experiences with noise. Thus, an important way of predicting a human reaction to a new noise environment is the way it compares to the existing environment to which one has adapted (i.e., comparison to the ambient noise environment). In general, the more a new noise level exceeds the previously existing ambient noise level, the less acceptable the new noise

[2] California Department of Transportation, *Technical Noise Supplement*, September 2013.

level will be judged by those hearing it. With regard to increases in A-weighted noise level, the following relationships generally occur:[3]

- Except in carefully controlled laboratory experiments, a change of 1 dB cannot be perceived.
- Outside of the laboratory, a 3 dB change in noise levels is considered barely perceivable.
- A change in noise levels of 5 dB is considered readily perceivable.
- A change in noise levels of 10 dB is subjectively heard as doubling of the perceived loudness.

These relationships occur in part because of the logarithmic nature of sound and the decibel system. The human ear perceives sound in a non-linear fashion; hence the decibel scale was developed. Because the decibel scale is based on logarithms, two noise sources do not combine in a simple additive fashion, but rather logarithmically. For example, if two identical noise sources produce noise levels of 50 dB, the combined sound level would be 53 dB, not 100 dB.

Fundamentals of Vibration

As described by the Federal Transit Administration (FTA) in the *Transit Noise and Vibration Impact Assessment*,[4] groundborne vibration can be a serious concern for the neighbors of a transit system route or maintenance facility, which can cause buildings to shake and rumbling sounds to be heard. In contrast with airborne noise, groundborne vibration is not a common environmental problem. It is unusual for vibration from sources such as buses and trucks to be perceptible, even in locations close to major roads. Some common sources of groundborne vibration are trains, buses on rough roads, and construction activities such as blasting, pile driving, and operation of heavy earth-moving equipment.

Several different methods are used to quantify vibration. Peak particle velocity (PPV) is defined as the maximum instantaneous peak of the vibration signal. PPV is most frequently used to describe the impacts of vibration on buildings. The root mean square (RMS) amplitude is most frequently used to describe the effect of vibration on the human body. The RMS amplitude is defined as the average of the squared amplitude of the signal. Decibel notation (in vibration decibels [VdB]) is commonly used to measure RMS.

The relationship of PPV to RMS velocity is expressed in terms of the "crest factor," defined as the ratio of the PPV amplitude to the RMS amplitude. Peak particle velocity is typically a factor of 1.7 to 6 times greater than RMS vibration velocity.[5] The decibel notation acts to compress the range of numbers required to describe vibration.

Typically, groundborne vibration generated by human activity attenuates rapidly with distance from the source of the vibration. Sensitive receptors for vibration include structures (especially older masonry structures), people (especially residents, the elderly, and sick), and vibration-sensitive equipment.

[3] California Department of Transportation, *Technical Noise Supplement to the Traffic Noise Analysis Protocol*, September 2013.
[4] Federal Transit Administration, *Transit Noise and Vibration Impact Assessment Manual*, September 2018.
[5] Federal Transit Administration, *Transit Noise and Vibration Impact Assessment Manual*, September 2018.

The effects of groundborne vibration include movement of building floors, rattling of windows, shaking of items on shelves or hanging on walls, and rumbling sounds. In extreme cases, vibration can damage buildings. Building damage is not a factor for most projects, with the occasional exception of blasting and pile driving during construction. Annoyance from vibration often occurs when the vibration levels exceed the threshold of perception by only a small margin. A vibration level that causes annoyance will be well below the damage threshold for normal buildings. FTA's measure of the threshold of architectural damage for conventional sensitive structures is 0.2 inches per second (in/sec) PPV.[6]

In residential areas, the background vibration velocity level is usually around 50 VdB (approximately 0.0013 in/sec PPV, with a crest factor of 4). This level is well below the vibration-velocity-level threshold of perception for humans, which is approximately 65 VdB. A vibration velocity level of 75 VdB is considered to be the approximate dividing line between barely perceptible and distinctly perceptible levels for many people.[7]

For additional information on the fundamentals of noise and vibration, refer to Appendix I of this EIR.

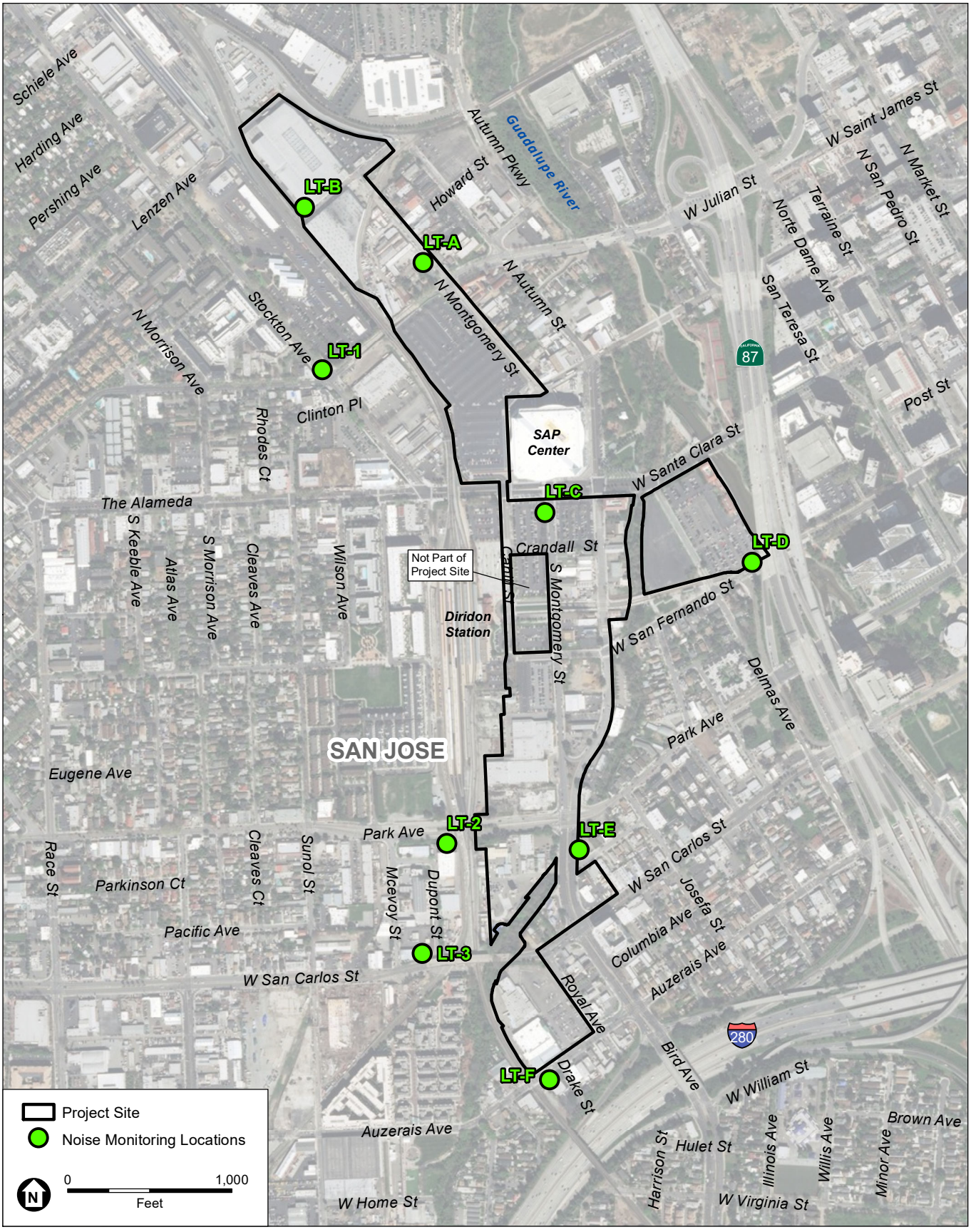
Existing Ambient Noise Levels

The project site is located in the western portion of Downtown San José, mostly in the area that the City designated in 2014 as the Diridon Station Area Plan. **Figure 3.10-2** shows the project site generally bounded by Lenzen Avenue and the Union Pacific railroad tracks to the north; North Montgomery Street, Los Gatos Creek, the Guadalupe River, South Autumn Street, and Royal Avenue to the east; Auzerais Avenue to the south; and Diridon Station and the Caltrain railroad tracks to the west.[8] The site is approximately one mile long from north to south and generally less than 800 feet wide from east to west, although the site reaches nearly 1,500 feet from east to west at its widest point, just south of West Santa Clara Street.

The project site is in an area of Downtown that accommodates manufacturing, light industrial, and business service land uses mixed with residential and limited commercial uses.

The project site is surrounded by a network of regional transportation facilities that influence the local noise environment. San José Diridon Station, a central passenger rail hub just outside and west of the project boundary, is served by Caltrain, ACE, Santa Clara Valley Transportation Authority (VTA) light rail, Amtrak Capitol Corridor, and Amtrak Coast Starlight. Bay Area Rapid Transit (BART) service and the California High-Speed Rail system's San José–Central Valley segment to Diridon Station are future projects that may influence future noise levels around the project site.

6 Federal Transit Administration, *Transit Noise and Vibration Impact Assessment Manual*, September 2018.
7 Federal Transit Administration, *Transit Noise and Vibration Impact Assessment Manual*, September 2018.
8 Caltrain is operated by the Peninsula Corridor Joint Powers Board, consisting of representatives from San Francisco, San Mateo, and Santa Clara Counties. From just north of Santa Clara Station to Diridon Station, Altamont Commuter Express (ACE) and Amtrak Capitol Corridor and Coast Starlight trains also operate on the Caltrain tracks.



SOURCES: Esri, 2020, City of San Jose, 2020, ESA, 2020

Downtown West Mixed-Use Plan

Figure 3.10-2
Noise Monitoring Locations

State and federal highways also contribute to the noise environment around the project site. State Route (SR) 87 is adjacent to the easternmost portion of the project site, Interstate 280 is one block south of the southern project site boundary, and I-880 is just under one mile northwest of the site's northern boundary. The Norman Y. Mineta San José International Airport (Airport) is also located slightly less than one mile north-northwest of the northern site boundary.

The SAP Center sports and entertainment venue, located on West Santa Clara Street close to the center of the project site, can generate substantial traffic and traffic-related noise before and after events.

Long-term noise level measurements were conducted in the project vicinity in October 2019 to establish existing ambient noise conditions. Noise measurements were taken near the residential uses north and south of the project site. The noise surveys were conducted using a Larson Davis Model LxT2 sound level meter that was calibrated before use and operated according to the manufacturer's written specifications. These measurements included the evenings of October 24 and 25, when there were no events at the SAP Center. Concerts or San Jose Sharks hockey games would elevate local noise levels at nearby locations (represented by monitoring locations LT-A and LT-C). Consequently, these data reflect the quieter "typical" noise environment and, as such, are conservative for comparison to future noise generated by the proposed project. **Table 3.10-1** shows the measured average noise level (L_{eq}) during different averaging periods.

Figure 3.10-2 identifies the measurement locations. Note that monitoring locations LT-1, LT-2, and LT-3 were monitored in 2017 and 2018 as part of the Downtown Strategy EIR and are included in the results of the measurements, with the available metric values published. No substantial development occurred in the vicinity of these monitoring locations between 2017 and the time of the Notice of Preparation; therefore, the data reflect the baseline noise environment.

Figure 3.10-3 presents existing noise levels associated with operations at the nearby Airport, specifically the 65 dBA CNEL noise contour for 2019.[9] As shown on the figure, the 65 dBA CNEL contour intersects the easternmost portion of the project site (Blocks E1, E2, and E3) south of West Santa Clara Street and extends north of West Santa Clara Street along the eastern boundary of the project site.

In addition, existing roadside noise levels along roadway segments near the project site were modeled to provide estimates of existing weekday noise levels along the roadway segments near the project site. **Table 3.10-2** presents existing roadside noise levels during the weekday peak commute hour. These modeled noise levels reflect only the noise generated by traffic on the identified roadway segments; they do not include other sources in the area, such as rail and highway noise where these other sources are nearby.

[9] The 2018 CNEL contours noise exposure map was published as part of the *Master Plan for Norman Y. Mineta San José International Airport*.

TABLE 3.10-1
EXISTING NOISE ENVIRONMENTS IN THE PROJECT VICINITY

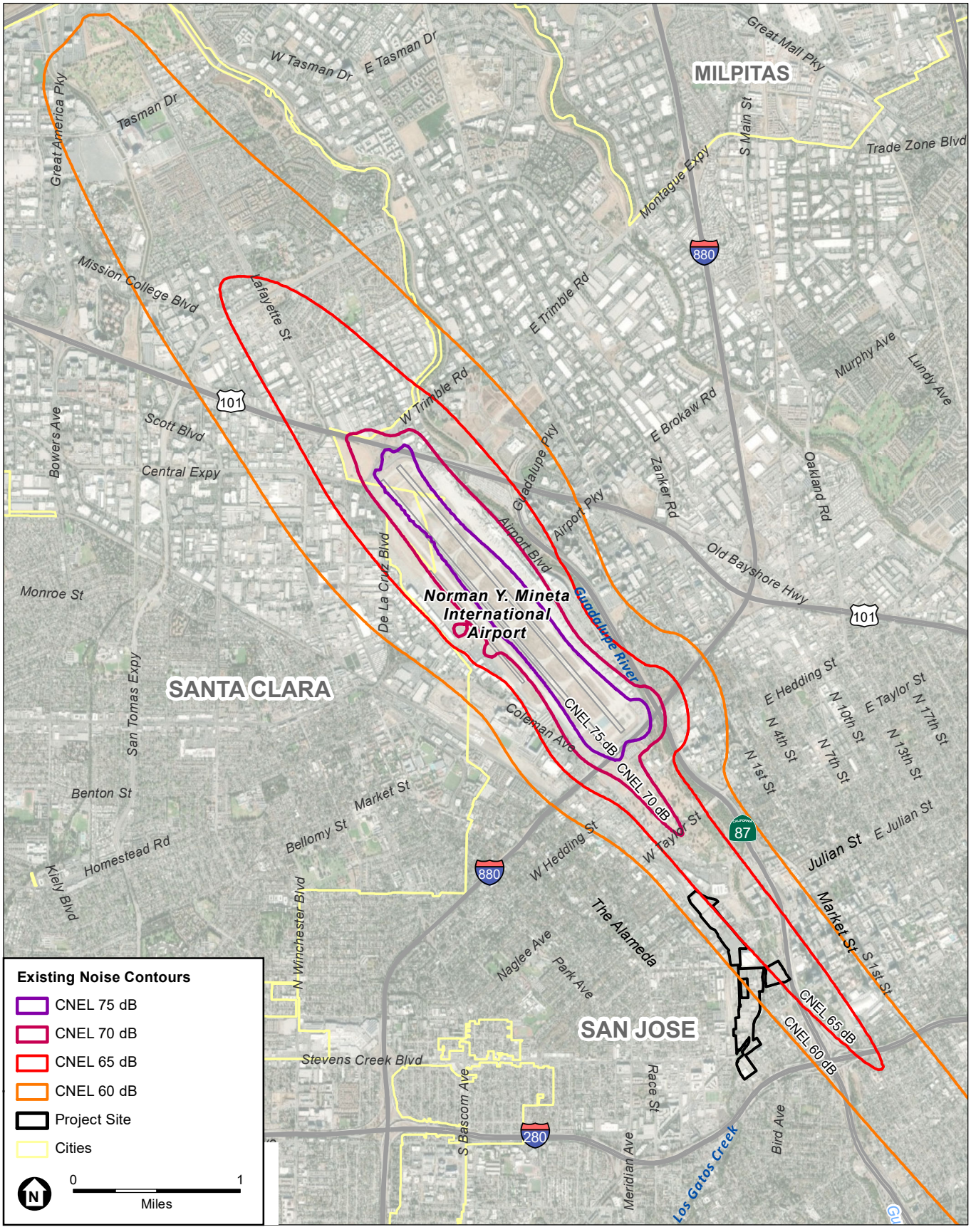
Long-Term (LT) Noise Monitoring Location	Noise Levels (dBA)				Primary Noise Sources
	Day-Night Noise Level	24-Hour L_{eq}	Daytime[a] Hourly Average L_{eq}	Nighttime[b] Hourly Average L_{eq}	
LT-A: 311 North Montgomery Street	66	62	63	59	Traffic on West Julian Street
LT-B: Terminus of Cinnabar Street at Caltrain tracks	76	70	71	68	Rail noise from Caltrain and UPRR
LT-C: South Montgomery Street, 300 feet south of Santa Clara Street	69	65	66	61	Traffic on West Santa Clara Street and rail noise
LT-D: West San Fernando Street, 80 feet west of SR 87	71	67	68	63	Traffic on SR 87
LT-E: 565 Lorraine Avenue	66	62	64	58	Traffic on South Montgomery Street
LT-F: Auzerais Avenue at Drake Street	66	62	64	58	Traffic on Auzerais Avenue
LT-1: 90 feet west from the center of Stockton Avenue, north of West Julian Street	65	NA	NA	NA	Traffic on West Julian Street and Stockton Avenue
LT-2: 50 feet south from the center of Park Avenue	66	NA	NA	NA	Traffic on Park Avenue and rail noise
LT-3: 45 feet north from the center of West San Carlos Street	73	NA	NA	NA	Traffic on West San Carlos Street and rail noise

NOTES:
dBA = A-weighted decibels; L_{eq} = equivalent-continuous sound level; NA = not applicable (these data points were not reported in the *Downtown Strategy 2040 Integrated Final EIR*); SR = State Route; UPRR = Union Pacific Railroad
Noise levels at LT-1, LT-2, and LT-3 were monitored for the Downtown Strategy EIR and were recorded in February 2017, February 2018, and February 2017, respectively.
[a] Daytime hours are considered to be 7 a.m. to 10 p.m.
[b] Nighttime hours are considered to be 10 p.m. to 7 a.m.

SOURCES:
City of San José, *Downtown Strategy 2040 Integrated Final EIR*, December 2018.
Environmental Science Associates noise survey, 2019.

Existing Groundborne Vibration Levels

Sources of vibration in the project vicinity include Caltrain, Amtrak, and ACE railroad operations, portions of which abut blocks proposed for residential and office uses (see Figure 2-3, *Land Use Plan*). FTA has published generalized ground-surface vibration curves for locomotive-powered passenger and freight trains (**Table 3.10-3**). All Caltrain operations stop at Diridon Station; hence, train speeds along the western project boundary are generally in the range of 5–20 miles per hour.



SOURCES: Esri, 2019, City of San Jose, 2019, DJP, 2020; ESA, 2020

Downtown West Mixed-Use Plan

Figure 3.10-3
Existing Noise Contours for
Norman Y. Mineta San José International Airport

TABLE 3.10-2
EXISTING TRAFFIC NOISE ALONG ROADS IN THE PROJECT VICINITY

Roadway Segment	Existing Hourly (dBA)
Weekday Peak-Hour Noise Levels	
W. Julian Street from Stockton Avenue to The Alameda	63.1
W. Julian Street from N. Montgomery Street to Market Street	63.1
N. Autumn Street from W. Julian Street to Cinnabar Street	43.0
N. Autumn Street from W. Julian Street to St. John Street	53.2
N. Montgomery Street from W. Julian Street to Cinnabar Street	42.0
Stockton Avenue from W. Julian Street to Lenzen Avenue	54.3
Stockton Avenue from W. Julian Street to The Alameda	60.6
The Alameda from Stockton Avenue to Sunol Street	60.3
W. Santa Clara Street from Stockton Avenue to Delmas Avenue	63.3
S. Montgomery Street from W. Santa Clara Street to W. San Fernando Street	54.0
Cahill Street from W. Santa Clara Street to W. San Fernando Street	37.4
S. Autumn Street from W. Santa Clara Street to W. San Fernando Street	49.5
W. San Fernando Street from S. Montgomery Street to Delmas Avenue	58.3
Park Avenue from S. Montgomery Street to Sunol Street	58.8
Park Avenue from S. Montgomery Street to S. Delmas Avenue	61.9
W. San Carlos Street from S. Montgomery Street to Sunol Street	58.8
W. San Carlos Street from S. Montgomery Street to S. Delmas Avenue	56.5
Auzerais Avenue from Bird Avenue to Sunol Street	50.7
Auzerais Avenue from Bird Avenue to Delmas Avenue	56.9
Bird Avenue from W. San Carlos Street to Auzerais Avenue	65.8
Bird Avenue from Auzerais Avenue to Virginia Street	67.0

NOTE: dBA = A-weighted decibels

SOURCES: Traffic data compiled by Fehr & Peers in 2019, and noise modeling performed by Environmental Science Associates in 2020.

TABLE 3.10-3
GENERALIZED VIBRATION LEVELS FROM LOCOMOTIVE-POWERED PASSENGER OR FREIGHT TRAINS*
(VIBRATION DECIBELS AND PEAK PARTICLE VELOCITY)

Train Speed	Distance from Tracks				
	30 Feet	50 Feet	100 Feet	150 Feet	200 Feet
10 mph	74 VdB/0.051 PPV	71 VdB/0.040 PPV	62 VdB/0.019 PPV	60 VdB/0.016 PPV	58 VdB/0.013 PPV
20 mph	80 VdB/0.085 PPV	77 VdB/0.066 PPV	68 VdB/0.031 PPV	66 VdB/0.026 PPV	64 VdB/0.022 PPV
30 mph	84 VdB/0.12 PPV	81 VdB/0.092 PPV	72 VdB/0.043 PPV	70 VdB/0.037 PPV	68 VdB/0.03 PPV
50 mph	88 VdB/0.17 PPV	85 VdB/0.13 PPV	76 VdB/0.060 PPV	74 VdB/0.024 PPV	72 VdB/0.043 PPV

NOTES:

mph = miles per hour; PPV = peak particle velocity; VdB = vibration decibels

* These levels reflect generalized diesel locomotive activity and do not reflect potential future reductions from electrification of Caltrain north of Diridon Station and increases from High-Speed Rail operations.

SOURCE: Federal Transit Administration, *Transit Noise and Vibration Impact Assessment Manual*, September 2018.

The only other source of groundborne vibration in the project vicinity is travel by heavy-duty vehicles (e.g., refuse trucks, haul trucks) on local roadways. Trucks traveling typically generate groundborne vibration velocity levels of around 63 VdB (approximately 0.006 in/sec PPV) at a distance of 50 feet; these levels could reach 72 VdB (approximately 0.016 in/sec PPV) where trucks pass over discontinuities in the roadway.[10]

Sensitive Receptors

Some land uses are considered more sensitive to ambient noise levels than others because of the amount of noise exposure (in terms of both the duration of exposure and insulation from noise) and the types of activities typically involved. Residences, motels and hotels, schools, libraries, churches, hospitals, nursing homes, and auditoriums generally are more sensitive to noise than are commercial and industrial land uses. **Figure 3.10-4** presents the locations of the sensitive receptors nearest to the project site (within 500 feet).

Working from north to south along the project area, the northernmost sensitive receptors adjacent to the project site consist of three single-family residences along the north side of West Julian Street (on the project site) and one on North Montgomery Street (east of the project area), also along the north side of West Julian Street. South of West Julian Street, there are several single-family and multifamily residences along the east side of North Montgomery Street south toward the SAP Center. In addition, a condominium tower is under construction along Stockton Avenue, south of West Julian Street and north of The Alameda.

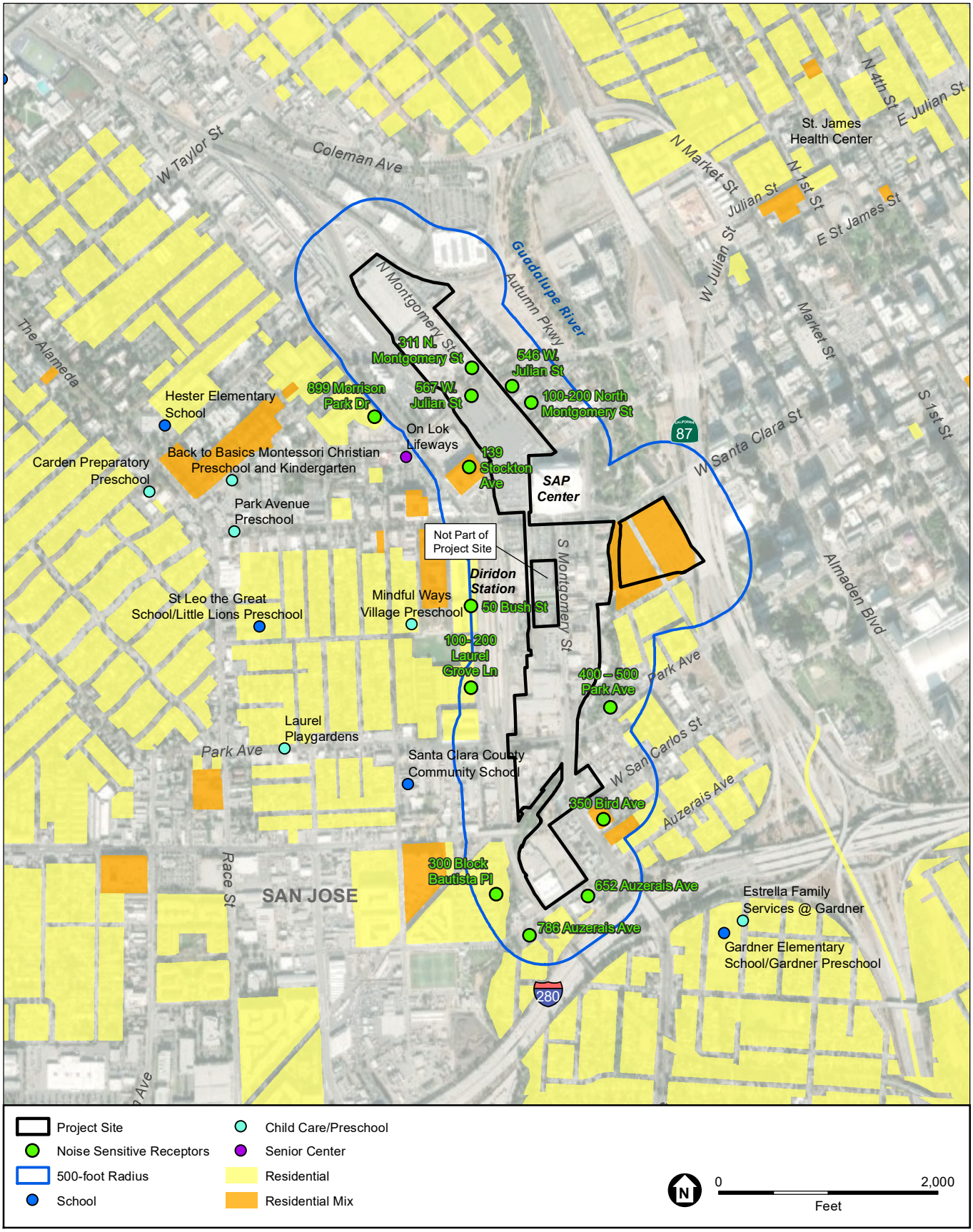
South of West Santa Clara Street is the Templo la Hermosa church at 56 South Montgomery Street. The Lakehouse District is a residential area east of South Autumn Street that includes single-family residences along Gifford Avenue and Park Avenue.

South of Park Avenue, there is a mixture of multifamily and single-family residences along the east side of South Montgomery Street and Bird Avenue, south to the Interstate 280 freeway. There are also single-family residences along the southern boundary of the project site on both sides of Auzerais Avenue.

On the west side of the project area, across the railroad tracks, is the Monte Vista community development northwest of Auzerais Avenue. Also, west of the project area, across the railroad tracks, are multifamily residences on Laurel Grove Lane and Bush Street, south of The Alameda.

Table 3.10-4 identifies these receptors and their approximate distances to the project site boundary. Figure 3.10-4 shows the locations of the receptors and the 500-foot boundary from the project perimeter.

[10] Federal Transit Administration, *Transit Noise and Vibration Impact Assessment Manual*, September 2018.



SOURCES: Esri, 2019, City of San Jose, 2019, Google, 2019; GreenInfo Network, 2019; ESA, 2020

Downtown West Mixed-Use Plan

Figure 3.10-4
Existing Nearby Sensitive Receptors and Planned Sensitive Land Uses

TABLE 3.10-4
EXISTING NOISE-SENSITIVE RECEPTORS WITHIN 500 FEET OF THE PROJECT SITE

Type of Sensitive Receptor	Location	Minimum Distance from Project Site Boundaries	Representative Monitoring Location
West of the Project Site			
Multifamily residential building (under construction)	139 Stockton Avenue	120 feet	LT-1
Multifamily residential complex	50 Bush Street	470 feet	LT-1
Multifamily residential complex	100–200 block of Laurel Grove Lane	480 feet	LT-1
Monte Vista multifamily residential community complex	300 block of Bautista Place	200 feet	LT-3
Multifamily residential complex	899 Morrison Park Drive	500 feet	LT-1
East of the Project Site			
Single-family residences (3)	567 West Julian Street	On project site	LT-A
Single-family residence	311 North Montgomery Street	25 feet[a]	LT-A
Multifamily residential	546 West Julian Street	50 feet	LT-A
Single-family residences	100–200 block of North Montgomery Street	50 feet	LT-A
Templo la Hermosa church	56 South Montgomery Street	On project site	LT-C
Single-family residences in Lakehouse District	400–500 block of Park Avenue	250 feet	LT-E
Multifamily residential Delmas Park	350 Bird Avenue	250 feet	LT-F
South of the Project Site			
Single-family residences	652 and 786 Auzerais Avenue	50 feet	LT-F

NOTES:
[a] Minimum distance is estimated at 25 feet because project setbacks have not yet been determined. Monitoring numbers correspond to the locations shown on Figure 3.10-2.

SOURCES: Data compiled by Environmental Science Associates in 2019; Google Earth (imagery date September 11, 2017) for parcel data (address and distance to the site).

3.10.2 Regulatory Framework

Federal

Federal Noise Standards

The primary federal noise standards that directly regulate noise related to the operation of the proposed project pertain to noise exposure and workers. The U.S. Occupational Safety and Health Administration enforces regulations to safeguard the hearing of workers exposed to occupational noise. The Occupational Safety and Health Administration has established worker noise exposure limits that vary with the duration of the exposure and require that a hearing conservation program be implemented if employees are exposed to noise levels in excess of 85 dBA.

Federal regulations also establish noise limits for medium and heavy trucks (more than 4.5 tons, gross vehicle weight rating) under Code of Federal Regulations Title 40, Part 205, Subpart B. The federal truck pass-by noise standard is 80 dBA at 15 meters from the vehicle pathway centerline. These controls are implemented through regulatory controls on truck manufacturers.

Federal Transit Authority Vibration Standards

FTA has adopted vibration standards that are used to evaluate potential building damage impacts from construction activities. **Table 3.10-5** shows FTA's vibration damage criteria.

TABLE 3.10-5
CONSTRUCTION VIBRATION DAMAGE CRITERIA

Building Category	PPV (in/sec)
I. Reinforced concrete, steel, or timber (no plaster)	0.5
II. Engineered concrete and masonry (no plaster)	0.3
III. Non-engineered timber and masonry buildings	0.2
IV. Buildings extremely susceptible to vibration damage	0.12

NOTES:
in/sec = inches per second; PPV = peak particle velocity
SOURCE: Federal Transit Administration, *Transit Noise and Vibration Impact Assessment Manual*, September 2018.

In addition, FTA has adopted standards related to human annoyance for groundborne vibration impacts for the following three land use categories: Vibration Category 1, High Sensitivity; Vibration Category 2, Residential; and Vibration Category 3, Institutional. FTA defines these categories as follows:

- *Category 1:* Buildings where vibration would interfere with operations within the building, including vibration-sensitive research and manufacturing facilities, hospitals with vibration-sensitive equipment, and university research operations. Vibration-sensitive equipment includes, but is not limited to, electron microscopes, high-resolution lithographic equipment, and normal optical microscopes.
- *Category 2:* All residential land uses and any buildings where people sleep, such as hotels and hospitals.
- *Category 3:* Institutional land uses such as schools, churches, other institutions, and quiet offices that do not have vibration-sensitive equipment, but still have the potential for activity interference.

Under conditions where there is an infrequent number of events per day, FTA has established thresholds of 65 VdB for Category 1 buildings, 80 VdB for Category 2 buildings, and 83 VdB for Category 3 buildings.[11] Under conditions where there is an occasional number of events per day, FTA has established thresholds of 65 VdB for Category 1 buildings, 75 VdB for Category 2 buildings, and 78 VdB for Category 3 buildings.[12] No thresholds have been adopted or recommended for commercial and office uses.

State

California Department of Public Health Noise Standards

The California Department of Public Health has established guidelines for evaluating the compatibility of various land uses as a function of community noise exposure. **Table 3.10-6**

[11] FTA defines "infrequent events" as fewer than 30 vibration events of the same kind per day.
[12] FTA defines "occasional events" as between 30 and 70 vibration events of the same source per day.

shows these guidelines for land use and noise exposure compatibility. In addition, California Government Code Section 65302(f) requires each county and city in the state to prepare and adopt a comprehensive long-range general plan for its physical development. Section 65302(g) requires the general plan to include a noise element. The noise element must:

- Identify and appraise noise problems in the community;
- Recognize Office of Noise Control guidelines; and
- Analyze and quantify current and projected noise levels.

TABLE 3.10-6
COMMUNITY NOISE EXPOSURE (DNL OR CNEL)

Land Use	Normally Acceptable[a]	Conditionally Acceptable[b]	Normally Unacceptable[c]	Clearly Unacceptable[d]
Single-Family Homes, Duplexes, Mobile Homes	50–60	55–70	70–75	above 75
Multifamily Homes	50–65	60–70	70–75	above 75
Schools, Libraries, Churches, Hospitals, Nursing Homes	50–70	60–70	70–80	above 80
Transient Lodging—Motels, Hotels	50–65	60–70	70–80	above 75
Auditoriums, Concert Halls, Amphitheaters	—	50–70	—	above 70
Sports Arenas, Outdoor Spectator Sports	—	50–75	—	above 75
Playgrounds, Neighborhood Parks	50–70	—	67–75	above 75
Golf Courses, Riding Stables, Water Recreation, Cemeteries	50–75	—	70–80	above 80
Office Buildings, Business and Professional, Commercial	50–70	67–77	above 75	—
Industrial, Manufacturing, Utilities, Agriculture	50–75	70–80	above 75	—

NOTES:
CNEL = community noise equivalent level; DNL = day-night average noise level
[a] Normally Acceptable: Specified land use is satisfactory, based upon the assumption that any buildings involved are of normal conventional construction without any special noise insulation requirements.
[b] Conditionally Acceptable: New construction or development should be undertaken only after a detailed analysis of the noise reduction requirements is made and needed noise insulation features included in the design. Conventional construction, but with closed windows and fresh air supply systems or air conditioning will normally suffice.
[c] 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 included in the design.
[d] Clearly Unacceptable: New construction or development should generally not be undertaken.
SOURCE: Governor's Office of Planning and Research, *State of California General Plan Guidelines*, Appendix D, 2017.

The State of California also establishes noise limits for vehicles licensed to operate on public roads. For heavy trucks, the state pass-by standard is consistent with the federal limit of 80 dBA. The state pass-by standard for light trucks and passenger cars (less than 4.5 tons, gross vehicle rating) is also 80 dBA at 15 meters from the centerline. These standards are implemented through controls on vehicle manufacturers and by legal sanction of vehicle operators by state and local law enforcement officials.

California Building Code

The California Building Code requires that walls and floor/ceiling assemblies separating dwelling units from each other, or from public or service areas, have a sound transmission class[13] of 50 dB for all common interior walls and floor/ceiling assemblies between adjacent dwelling units, or between dwelling units and adjacent public areas for multifamily units and transient lodging. The code specifies a maximum interior performance standard of 45 dBA.

The State of California has also established noise insulation standards for new multifamily residential units, hotels, and motels that would be subject to relatively high levels of transportation-related noise. These requirements are collectively known as the California Noise Insulation Standards (California Code of Regulations, Title 24). The noise insulation standards set forth an interior standard of 45 dBA CNEL in any habitable room. They require an acoustical analysis demonstrating how dwelling units have been designed to meet this interior standard where such units are proposed in areas subject to noise levels greater than 60 dBA CNEL. Title 24 standards are typically enforced by local jurisdictions through the building permit application process.

State Vibration Standards

No state vibration standards are applicable to the proposed project. Moreover, according to the California Department of Transportation's (Caltrans's) *Transportation and Construction Vibration Guidance Manual*,[14] there are no official Caltrans standards for vibration. However, this manual provides guidelines for assessing the potential for vibration damage to various types of buildings, ranging from 0.08 to 0.12 in/sec PPV for extremely fragile historic buildings, ruins, and ancient monuments to 0.50 to 2.0 in/sec PPV for modern industrial/commercial buildings.

Regional

Santa Clara County Airport Land Use Commission Comprehensive Land Use Plan

The project site is located within the Airport Influence Area, as defined by the Norman Y. Mineta San José International Airport's Comprehensive Land Use Plan (CLUP),[15] adopted by the Santa Clara County Airport Land Use Commission on May 25, 2011. The Airport Influence Area includes areas around the Airport that are affected by noise, height, and safety considerations. The CLUP includes noise policies and standards for projects in the vicinity of the Airport, as summarized below.

> **Policy N-1:** The CNEL method of representing noise levels shall be used to determine if a specific land use is consistent with the CLUP.
>
> **Policy N-2:** In addition to the other policies herein, the Noise Compatibility Policies presented in Table 4-1 of the CLUP [**Table 3.10-7**] shall be used to determine if a specific land use is consistent with the CLUP, which shows residential uses are generally acceptable

[13] The sound transmission class is used as a measure of a material's ability to reduce sound. The sound transmission class is equal to the number of decibels a sound is reduced as it passes through a material.
[14] California Department of Transportation, *Transportation and Construction Vibration Guidance Manual*, September 2013.
[15] Santa Clara County Airport Land Use Commission, *Norman Y. Mineta San José International Airport: Comprehensive Land Use Plan, Santa Clara County*, prepared by Walter B. Windus, PE, adopted May 25, 2011 (amended November 16, 2016). Available at https://www.sccgov.org/sites/dpd/DocsForms/Documents/ALUC_SJC_CLUP.pdf. Accessed September 12, 2019.

in 55–60 dB CNEL environments, conditionally acceptable in 60–65 dB CNEL environments, generally unacceptable in 65–70 dB CNEL environments and unacceptable in 70+ dB CNEL environments. Transient lodging including motels and hotels are generally acceptable in 55–65 dB CNEL noise environments, conditionally acceptable in 65–70 dB CNEL noise environments, and unacceptable at 70+ dB CNEL noise environments. Commercial uses are generally acceptable in 55–65 dB CNEL noise environments, conditionally acceptable in 65–70 dB CNEL noise environments, generally unacceptable in 70–75 dB noise environments, and unacceptable in 75+ dB CNEL noise environments.

TABLE 3.10-7
NOISE COMPATIBILITY POLICIES OF THE SANTA CLARA COUNTY AIRPORT LAND USE COMMISSION COMPREHENSIVE LAND USE PLAN

	CNEL					
Land Use Category	**55–60**	**60–65**	**65–70**	**70–75**	**75–80**	**80–85**
Residential—low-density single-family, duplex, mobile homes	**GA**	CA	GU	U	U	U
Residential—multifamily, condominiums, townhouses	**GA**	CA	GU	U	U	U
Transient lodging—motels, hotels	**GA**	**GA**	CA	U	U	U
Schools, libraries, indoor religious assemblies, hospitals, nursing homes	**GA**	GU	U	U	U	U
Auditoriums, concert halls, amphitheaters	**GA**	GU	GU	U	U	U
Sports arena, outdoor spectator sports, parking	**GA**	**GA**	**GA**	CA	GU	U
Playgrounds, neighborhood parks	**GA**	**GA**	GU	U	U	U
Golf courses, riding stables, water recreation, cemeteries	**GA**	**GA**	**GA**	CA	GU	U
Office buildings, business commercial and professional, retail	**GA**	**GA**	CA	GU	U	U
Industrial, manufacturing, utilities, agriculture	**GA**	**GA**	**GA**	GU	GU	U

GA	Generally Acceptable	Specified land use is satisfactory, based upon the assumption that any buildings involved are of normal conventional construction, without any special noise insulation requirements. Mobile homes may not be acceptable in these areas. Some outdoor activities might be adversely affected.
CA	Conditionally Acceptable	New construction or development should be undertaken only after a detailed analysis of the noise reduction requirements is made and needed noise insulation features included in the design. Outdoor activities may be adversely affected. Residential: Conventional construction, but with closed windows and fresh air supply systems or air conditioning will normally suffice.
GU	Generally Unacceptable	New construction or development should 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 included in the design. Outdoor activities are likely to be adversely affected.
U	Unacceptable	New construction or development shall not be undertaken.

NOTE:
CNEL = community noise equivalent level

SOURCE: Santa Clara County Airport Land Use Commission, *Norman Y. Mineta San José International Airport: Comprehensive Land Use Plan, Santa Clara County*, prepared by Walter B. Windus, PE, adopted May 25, 2011 (amended November 16, 2016). Available at https://www.sccgov.org/sites/dpd/DocsForms/Documents/ALUC_SJC_CLUP.pdf. Accessed September 12, 2019.

Policy N-3: Noise impacts shall be evaluated according to the Aircraft Noise Contours presented on Figure 5 of the CLUP [refer to the most recent existing noise contours on Figure 3.10-3].

Policy N-4: No residential or transient lodging construction shall be permitted within the 65 dB CNEL contour boundary unless it can be demonstrated that the resulting interior sound levels will be less than 45 dB CNEL and there are no outdoor patios or outdoor activity areas associated with the residential portion of a mixed use residential project or a multi-unit residential project.

Policy N-5: All property owners within the Airport Influence Area who rent or lease their property for residential use shall include in their rental/lease agreement with the tenant, a statement advising that they (the tenants) are living within a high noise area and the exterior noise level is predicted to be greater than 65 dB CNEL in a manner that is consistent with current state law including AB 2776 (2002).

Policy N-6: Noise level compatibility standards for other types of land uses shall be applied in the same manner as the above residential noise level criteria. Table 4-1 of the CLUP [Table 3.10-7] presents acceptable noise levels for other land uses in the vicinity of the Airport (refer to Policy N-2 to land uses proposed by the project).

Policy N-7: Single-event noise levels (SENL) from single aircraft overflights are also to be considered when evaluating the compatibility of highly noise-sensitive land uses such as schools, libraries, outdoor theaters, and mobile homes. Single-event noise levels are especially important in the areas regularly overflown by aircraft, but which may not produce significant CNEL contours, such as the down-wind segment of the traffic pattern, and airport entry and departure flight corridors.

Envision San José 2040 General Plan

The Environmental Considerations/Hazards chapter of the General Plan contains the following policies and actions regarding noise and vibration that are salient to the proposed mixed-use development project:

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. Applicable standards and guidelines for land uses in San José include.

- Interior Noise Levels: The City's standard for interior noise levels in residences, hotels, motels, residential care facilities, and hospitals is 45 dBA DNL. Include appropriate site and building design, building construction and noise attenuation techniques in new development to meet this standard. For sites with exterior noise levels of 60 dBA DNL or more, an acoustical analysis following protocols in the City-adopted California Building Code is required to demonstrate that development projects can meet this standard. The acoustical analysis shall base required noise attenuation techniques on expected 2040 General Plan traffic volumes to ensure land use compatibility and 2040 General Plan consistency over the life of this plan.
- Exterior Noise Levels: The City's acceptable exterior noise level objective is 60 dBA DNL or less for residential and most institutional land uses [**Figure 3.10-5**]. The acceptable exterior noise level objective is established for the City, except in the environs of the Norman Y. Mineta San José International Airport, Downtown (including the project site), and adjacent to elevated roadways. For the remaining areas of the City, the following standards apply:

LAND USE CATEGORY	EXTERIOR NOISE EXPOSURE (DNL IN DECIBELS (DBA)) 55	60	65	70	75	80
1. Residential, Hotels and Motels, Hospitals and Residential Care[1]						
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						

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

Normally Acceptable:

- Specified land use is satisfactory, based upon the assumption that any buildings involved are of normal conventional construction, without any special noise insulation 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 policies.

SOURCE: San José, Envision San Jose 2040 General Plan Update, 2018

Downtown West Mixed-Use Plan

Figure 3.10-5
Land Use Compatibility Guidelines for Community Noise in San José

- For new multifamily residential projects and for the residential component of mixed-use development, use a standard of 60 dBA DNL in usable outdoor activity areas, excluding balconies and residential stoops and porches facing existing roadways. There will be common use areas available to all residents that meet the 60 dBA exterior standard. Use noise attenuation techniques such as shielding by buildings and structures for outdoor common use areas.
- For single-family residential uses, use a standard of 60 dBA DNL for exterior noise in private usable outdoor activity areas, such as backyards.

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 [residential, hotel, hospital, and residential care uses, parks and playgrounds, schools, libraries, museums, meeting halls, houses of worship, auditoriums and similar facilities]) 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 5 dBA DNL or more where the noise levels would remain "Normally Acceptable"; or
- Cause the DNL at noise sensitive receptors to increase by 3 dBA DNL or more where noise levels would equal or exceed the "Normally Acceptable" level.

Policy EC-1.3: Mitigate noise generation of new nonresidential 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-1.4: Include appropriate noise attenuation techniques in the design of all new General Plan streets projected to adversely impact noise sensitive 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-1.7: Require construction operations within San José to use best available noise suppression devices and techniques and limit construction hours near residential uses per the City's Municipal Code. The 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. For such large or complex projects, a construction noise logistics plan that specifies hours of construction, noise and vibration minimization measures, posting or notification of construction schedules, and designation of a noise disturbance coordinator who would respond to neighborhood complaints will be required to be in place prior to the start of construction and implemented during construction to reduce noise impacts on neighboring residents and other uses.

Policy EC-1.8: Commercial drive-through uses will be allowed only when consistency with the City's exterior noise level guidelines and compatibility with adjacent land uses can be demonstrated.

Policy EC-1.9: Noise studies are required for land use proposals where known or suspected loud intermittent noise sources occur which may impact adjacent existing or planned land uses. For new residential development affected by noise from heavy rail, light rail, BART or other single-

event noise sources, mitigation will be implemented so that recurring maximum instantaneous noise levels do not exceed 50 dBA L_{max} in bedrooms and 55 dBA L_{max} in other rooms.

Policy EC-1.11: Require safe and compatible land uses within the Norman Y. Mineta International Airport noise zone (defined by the 65 dB CNEL contour as set forth in State law) and encourage aircraft operating procedures that minimize noise.

Action EC-1.14: Require acoustical analyses for proposed sensitive land uses in areas with exterior noise levels exceeding the City's noise and land use compatibility standards to base noise attenuation techniques on expected Envision General Plan traffic volumes to ensure land use compatibility and General Plan consistency.

Policy EC-2.1: Near light and heavy rail lines or other sources of ground-borne vibration, minimize vibration impacts on people, residences, and businesses through the use of setbacks and/or structural design features that reduce vibration to levels at or below the guidelines of the Federal Transit Administration. Require new development within 100 feet of rail lines to demonstrate prior to project approval that vibration experienced by residents and vibration sensitive uses would not exceed these guidelines.

Policy EC-2.3: Require new development to minimize continuous vibration impacts to adjacent uses during demolition and construction. For sensitive historic structures, including ruins and ancient monuments or building that are documented to be structurally weakened, a continuous vibration limit of 0.08 in/sec PPV (peak particle velocity) will be used to minimize the potential for cosmetic damage to a building. 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. On a project-specific basis, this distance of 300 feet may be reduced where warranted by a technical study by a qualified professional that verifies that there will be virtually no risk of cosmetic damage to sensitive buildings from the new development during demolition and construction. Transient vibration impacts may exceed a vibration limit of 0.08 in/sec PPV only when and where warranted by a technical study by a qualified professional that verifies that there will be virtually no risk of cosmetic damage to sensitive buildings from the new development during demolition and construction.

City of San José Municipal Code

City of San José Municipal Code Section 20.100.450 establishes noise exposure limits for stationary noise sources (non-transportation sources) and specifies hours for project construction. The Municipal Code restricts construction within 500 feet of a residential unit to 7 a.m. to 7 p.m. Monday through Friday, with no construction on weekends; however, overnight and weekend construction is permitted if expressly allowed in a development permit or other planning approval. The Municipal Code does not establish quantitative noise limits for demolition or construction activities occurring in the city.

Municipal Code Sections 20.20.300, 20.30.700, 20.40,600, and 20.50.300 establish performance standards for noise exposure associated with stationary/non-transportation sources at the property line of noise-sensitive uses. Specifically, noise exposure is limited to 55 dBA, 60 dBA, and

70 dBA at the property line of residential, commercial, and industrial receivers, respectively. Although the code is not explicit with respect to the acoustical descriptor assigned to these noise levels, it is a reasonable interpretation that these levels may be applied to an hourly average noise level (hourly L_{eq}). This assumption is consistent with other jurisdictions in the Bay Area and Northern California.

Municipal Code Section 13.44.150 establishes restrictions on amplified sound in San José. Specifically, operation of loudspeakers or sound amplifiers in parks is prohibited unless approved under a lease or contract entered into by the City or authorized through issuance of a special event permit under Municipal Code Chapter 13.14, which may establish additional operational conditions.

City of San José Standard Conditions of Approval

The following City SCAs regarding noise generation are applicable to the proposed project.

SCA NO-1: Construction-Related Noise

The project applicant shall implement noise minimization measures that include, but are not limited to, the following:

- Limit construction hours to between 7 a.m. and 7 p.m., Monday through Friday, unless permission is granted with a development permit or other planning approval. No construction activities are permitted on the weekends at sites within 500 feet of a residence.
- Construct solid plywood fences around ground level construction sites adjacent to operational businesses, residences, or other noise-sensitive land uses.
- Equip all internal combustion–driven equipment with intake and exhaust mufflers that are in good condition and appropriate for the equipment.
- Prohibit unnecessary idling of internal combustion engines.
- Locate stationary noise-generating equipment such as air compressors or portable power generators as far as possible from sensitive receptors. Construct temporary noise barriers to screen stationary noise-generating equipment when located near adjoining noise-sensitive land uses.
- Utilize "quiet" air compressors and other stationary noise sources where technology exists.
- Control noise from construction workers' radios to a point where they are not audible at existing residences bordering the project site.
- Notify all adjacent businesses, residences, and other noise-sensitive land uses of the construction schedule in writing and provide a written schedule of "noisy" construction activities to the adjacent land uses and nearby residences.
- If complaints are received or excessive noise levels cannot be reduced using the measures above, erect a temporary noise control blanket barrier along surrounding building facades that face the construction sites.
- Designate a "disturbance coordinator" who shall be responsible for responding to any complaints about construction noise. The disturbance coordinator shall determine the cause of the noise complaint (e.g., bad muffler, etc.) and shall require that reasonable

measures be implemented to correct the problem. Conspicuously post a telephone number for the disturbance coordinator at the construction site and include it in the notice sent to neighbors regarding the construction schedule.

- Limit construction hours to 7 a.m. to 7 p.m., Monday through Friday for any on-site or off-site work within 500 feet of any residential unit. Construction outside of these hours may be approved through a development permit based on a site-specific "construction noise mitigation plan" and a finding by the Director of Planning, Building and Code Enforcement that the construction noise mitigation plan is adequate to prevent noise disturbance of affected residential uses. Because it is anticipated that certain construction activities (such as continuous pours of concrete foundations) may require work outside normally permitted construction hours (e.g., overnight), the project's Planned Development Permit would allow for such construction activities, subject to conditions of approval, including performance standards, imposed by the City to limit noise impacts.

SCA NO-2: Interior Noise Standard for Residential Development

The project applicant shall prepare final design plans and incorporate building design and acoustical treatments to ensure compliance with state building codes and City noise standards. A project-specific acoustical analysis shall be prepared to ensure that the design incorporates controls to reduce interior noise levels to 45 dBA DNL or lower within the residential units. The project applicant shall conform with any special building construction techniques requested by the City's Building Department, which may include sound-rates windows and doors, sound-rated wall constructions, and acoustical caulking.

3.10.3 Impacts and Mitigation Measures

Significance Criteria

For the purposes of this EIR, a noise and vibration impact would be significant if implementing the proposed project would:

- Generate 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;
- Generate excessive groundborne vibration or groundborne noise levels; or
- 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, expose people residing or working in the project area to excessive noise levels.

Approach to Analysis

The following is a description of the methodology used to evaluate the impacts of project site development relative to each of the significance thresholds cited above.

Criterion 1: Substantial Increase in Noise

The first threshold of significance examines whether project construction and/or operations would generate noise in excess of established noise standards, which are different for stationary, mobile, and construction noise sources.

Evaluation of the proposed project relative to this threshold focuses first on increases in ambient noise levels from stationary sources during project operation (Impact NO-1a) and their relationship to the General Plan policies and Municipal Code noise limits (see Section 3.10.2, *Regulatory Framework*). The contribution of the proposed project to localized increases in traffic-generated noise along roadways (Impact NO-1b) was considered relative to published measures of substantial increase in transportation noise, as discussed below. Finally, construction-related noise generated by the proposed project (Impact NO-1c) was evaluated based on the distance to sensitive receptors established in General Plan Policy EC-1.7 and indicated in Figure 3.10-4.

Each of these approaches is described further below.

Stationary-Source Noise

Office, commercial, retail, event and conference space, on-site utility plants and logistics centers, or other noise-generating uses developed under the proposed project would substantially increase noise levels at noise-sensitive land uses if they would expose sensitive receptors to noise levels exceeding standards established by General Plan Policies EC-1.2, EC-1.3, and EC-1.6. Policy EC-1.6 requires compliance with noise standards in the City's Municipal Code, specifically Sections 20.20.300, 20.30.700, 20.40,600, and 20.50.300.

Operations at proposed noise-producing land uses would be dependent on many variables. The following analysis considers the potential for noise from sources such as mechanical equipment, outdoor maintenance areas, truck loading docks and delivery activities, public address systems, and parking lots by describing reference noise levels that are documented to be associated with these sources. Existing General Plan policies and applicable restrictions in the City's Municipal Code that address such sources are identified. Finally, mitigation measures with performance standards to address the potential impacts are identified.

Project-Generated Traffic Noise

Guidance on the significance of transportation-related changes to ambient noise levels is provided by the 1992 findings of the Federal Interagency Committee on Noise (FICON), which assessed the annoyance effects of changes in ambient noise levels caused by aircraft operations.[16] The recommendations are based on studies that relate aircraft noise levels to the percentage of persons highly annoyed by the noise. Although the FICON recommendations were specifically developed to assess aircraft noise impacts, they apply to all sources of transportation noise described in terms of cumulative noise exposure metrics such as the DNL.

Table 3.10-8 presents criteria based on the FICON findings, which show that as ambient noise levels increase, a smaller increase in decibel levels is sufficient to cause significant annoyance. In other words, the quieter the ambient noise level, the more the noise can increase (in decibels) before it causes significant annoyance. The 5 dBA and 3 dBA noise level increases listed in Table 3.10-8 also correlate directly with noise level increases that Caltrans considers to represent "readily perceivable" and "barely perceivable," respectively, for short-term noise increases, and with the

[16] Federal Interagency Committee on Noise, *Federal Agency Review of Selected Airport Noise Analysis Issues*, August 1992.

standards established in General Plan Policy EC-1.2. Thus, the significance of permanent increases in transportation noise levels is evaluated based on the increases identified in Table 3.10-8.

TABLE 3.10-8
MEASURES OF A SUBSTANTIAL INCREASE IN TRANSPORTATION NOISE EXPOSURE

Ambient Noise Level without Project (DNL)	Significant Impact Assumed to Occur if Project Site Development Increases Ambient Noise Levels by:
<60 dB	+ 5.0 dB or more
60–65 dB	+ 3.0 dB or more
>65 dB	+ 1.5 dB or more[a]

NOTES:
dB = decibels; DNL = day-night average noise level
[a] According to the Federal Interagency Committee on Noise report, the 1.5 A-weighted decibel (dBA) increase in environments that exceed 65 dBA is not necessarily a significant increase but, rather, an increase warranting further investigation.
SOURCE: Federal Interagency Committee on Noise, *Federal Agency Review of Selected Airport Noise Analysis Issues*, August 1992.

Traffic noise levels were modeled using the algorithms of the Federal Highway Administration's Traffic Noise Model for the existing and existing plus project and cumulative plus project scenarios. The resulting noise levels were then compared to existing modeled (Table 3.10-2) or monitored conditions (Table 3.10-4), depending on the contribution of other noise sources in the local environment, to determine significance. Where significant impacts may occur, mitigation addressing sensitive receptors may also consider the City's standard of 45 dBA DNL for interior noise levels for residences, hotels, motels, residential care facilities, and hospitals, as the 45 dBA interior noise standard was used as the basis for development of exterior standards in Table 3.10-6.

Construction Noise

The City of San José Municipal Code does not establish quantitative noise standards for construction noise. However, according to General Plan Policy EC-1.7, the 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) that would continue for more than 12 months.

For such large or complex projects, the policy requires that the project implement a construction-noise logistics plan before the start of construction. The plan must specify hours of construction, identify noise and vibration minimization measures, include the posting or notification of construction schedules, and designate a noise disturbance coordinator who would respond to neighborhood complaints. The construction-noise logistics plan must be implemented during construction to reduce noise impacts on neighboring residents and other uses. Because the project would be constructed in distinct phases, the analysis also considers the construction noise impacts from later phases of construction on proposed sensitive receptors on the project site constructed during earlier phases and assumed to be occupied during construction of later phases.

For the following analysis, construction noise levels were estimated for standard construction equipment and for high-impact construction equipment for informational purposes. However, the

level of significance was determined based on the duration and intensity of construction activities with the application of the Standard Conditions of Approval.

Criterion 2: Groundborne Vibration

Impacts from groundborne vibration during project site construction are assessed in Impact NO-2 using vibration-damage threshold criteria expressed in PPV for architectural damage. Equipment or activities that typically generate continuous vibration include but are not limited to excavation equipment, static compaction equipment, vibratory pile drivers, pile-extraction equipment, and vibratory compaction equipment. General Plan Policy EC-2.3 requires new development to minimize the impacts of continuous vibration on adjacent uses during demolition and construction. For sensitive historic structures, including ruins and ancient monuments or buildings that are documented to be structurally weakened, a continuous vibration limit of 0.08 in/sec PPV is the standard applied to minimize the potential for cosmetic damage to a building. A continuous vibration limit of 0.20 in/sec PPV is applied to minimize the potential for cosmetic damage at buildings of normal conventional construction.

Policy EC-2.3 also discourages the use of impact pile drivers within 125 feet of any buildings, and within 300 feet of historical buildings or buildings in poor condition. On a project-specific basis, this distance of 300 feet may be reduced, where warranted by a technical study by a qualified professional who verifies that there would be virtually no risk of cosmetic damage to sensitive buildings from the new development during demolition and construction.

Transient vibration impacts may exceed a vibration limit of 0.08 in/sec PPV only when and where warranted by a technical study by a qualified professional who verifies that there would be virtually no risk of cosmetic damage to sensitive buildings from the new development during demolition and construction.

Caltrans's measure of the threshold for architectural damage to conventional sensitive structures is 0.5 in/sec PPV for new residential structures and modern commercial buildings and 0.25 in/sec PPV for historic and older buildings.[17] However, because the General Plan's standards are more restrictive, the City's thresholds were applied in the analysis.

Vibration impacts were estimated using reference vibration levels for construction equipment in concert with the vibration propagation equations published by FTA, and estimating the potential for resultant vibration levels in excess of the General Plan standards.

Criterion 3: Exposure of People to Excessive Noise Levels

As indicated on Figure 3.10-3, a portion of the project site is within the 65 dBA CNEL noise contour of Norman Y. Mineta San José International Airport. CEQA requires the analysis of potential adverse effects of a project on the environment; however, the California Supreme Court ruled in *BIA v. BAAQMD*[18] that the potential effects of the environment on the project are legally

[17] California Department of Transportation, *Transportation and Construction Vibration Guidance Manual*, September 2013.
[18] *California Building Industry Association v. Bay Area Air Quality Management District* (2015) 62 Cal.4th 369.

not required to be analyzed or mitigated under CEQA, except where the project's impacts would exacerbate the existing conditions.

However, the ruling provided for several exceptions to the general rule that CEQA does not require an evaluation of the impacts of the environment on the project. These exceptions include if the project would be exposed to potential noise and safety impacts on the project occupants because of the project site's proximity to an airport (Public Resources Code Section 21096). In addition, the subsequently updated CEQA Guidelines Appendix G continues to identify a project's exposure to airport noise as an impact under CEQA. Therefore, this analysis has used the future noise exposure estimates provided in the CLUP for the Airport to assess the potential for the proposed land uses to be adversely affected by aircraft noise.

Non-CEQA Planning Considerations (Impacts NO-4 and NO-5)

Exposure of the proposed development to noise and vibration within the existing environment, such as existing roadway noise, existing noise-generating land uses, existing railway noise, and existing railway vibration, are not considered CEQA impacts. However, as discussed in Section 3.10.2, *Regulatory Framework*, General Plan Policy EC-1.1 establishes interior and exterior noise standards and guidelines for locating new development that address existing conditions affecting a proposed project, and Policy EC-2.1 provides standards for minimizing groundborne vibration impacts near light and heavy rail lines or other sources of groundborne vibration. Therefore, the analysis of noise and vibration exposure of future development allowed by the proposed project is discussed in the context of consistency with relevant policies and regulations. It should be noted that the acceptable exterior noise level objective established for the City in General Plan Policy EC-1.1 exempts the environs of the Norman Y. Mineta San José International Airport and Downtown, including the project site.

Cumulative Traffic Impacts

The significance of cumulative impacts related to traffic noise levels is determined using a two-step process. First, similar to the project-level assessment of traffic impacts, the increase in noise levels between cumulative (2040) conditions with the project and existing baseline (2019) conditions is compared to an incremental 3 dBA or 5 dBA threshold, as applicable based on the existing noise level. If the roadside noise levels would exceed this incremental threshold, a significant cumulative noise impact would be identified.

The second step of the analysis of cumulative roadside noise impacts (if a significant cumulative noise impact is predicted based on the above methodology) is to evaluate whether the contribution of the project to roadside noise levels would be cumulatively considerable. This second step (if necessary) involves assessing whether the project's contribution to roadside noise levels (i.e., the difference between cumulative conditions and cumulative plus project conditions) would exceed a 1.5 dBA incremental contribution; this is a threshold that is considered to be cumulatively considerable. The 1.5 dBA increase used to represent a cumulatively considerable contribution is conservatively based on the minimum increase identified as potentially significant by FICON (see Table 3.10-8). As stated above, except in carefully controlled laboratory experiments, a change of 1 dB cannot be perceived. Consequently, a cumulatively considerable contribution would reasonably be more than 1 dBA.

Impact Analysis

Impact NO-1a: Stationary sources associated with operation of the proposed project could result in generation of a 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 with Mitigation)***

Operation of the proposed project would increase ambient noise levels in the immediate vicinity primarily through the on-site use of stationary equipment, such as heating, ventilation, and air conditioning (HVAC) systems and emergency generators required by the California Building Code for emergency egress from high-rise buildings more than 75 feet tall.[19] Because the mechanical equipment is commonly available with noise-attenuating enclosures designed to meet local noise ordinances, the noise generated by this equipment would not be expected to exceed the established standards in the City's Municipal Code or General Plan policies.

Emergency backup generators, if required, would be tested regularly and operated occasionally. Typically, the Bay Area Air Quality Management District permits emergency backup generators to operate for up to 50 hours per year, or on average about 1 hour per week, to limit emissions of pollutants from diesel-powered generators. The noise generated by generator testing would be akin to that of a diesel-powered truck engine; this occasional testing would not result in a substantial permanent increase in noise levels over ambient conditions.

San José Municipal Code Sections 20.20.300, 20.30.700, 20.40,600, and 20.50.300 establish performance standards for exposure to noise from stationary/non-transportation sources at the property line of noise-sensitive uses. Specifically, noise exposure is limited to 55 dBA, 60 dBA, and 70 dBA at the property lines of residential, commercial, and industrial receivers, respectively.

General Plan Policies EC-1.2, EC-1.3, EC-1.6, and EC-1.9 direct the City to reduce potential impacts of new noise-producing land uses facilitated by the General Plan:

- **Policy EC-1.2** limits noise generation by requiring the use of noise attenuation measures such as acoustical enclosures and sound barriers. The policy states that the City considers a significant noise impact to occur if a project would cause the DNL at noise sensitive receptors to:
  - Increase by 5 dBA DNL or more where the noise levels would remain within the General Plan's "normally acceptable" land use standard (Figure 3.10-5); or
  - Increase by 3 dBA DNL or more where noise levels would equal or exceed the "normally acceptable" level.
- **Policy EC-1.3** indicates that new non-residential land uses are to mitigate noise generation to 55 dBA DNL at the property line when located adjacent to existing or planned noise-sensitive residential and public/quasi-public land uses.

[19] This requirement applies generally to high-rise buildings with occupiable floors more than 75 feet above the ground, in accordance with Section 2702.2.11 of the San José Building Code (2019), adopted from the California Building Code without modification.

- **Policy EC-1.6** regulates operational noise impacts from new industrial and commercial development on adjacent residential, commercial, and industrial uses by requiring compliance with noise standards in the City's Municipal Code.
- **Policy EC-1.9** requires land use proposals that include known or suspected loud intermittent noise sources that may affect adjacent existing or planned land uses to prepare a noise study and provide mitigation such that recurring maximum instantaneous noise levels would not exceed 50 dBA L_{max} in bedrooms and 55 dBA L_{max} in other rooms.

Anticipated development of the proposed project includes generalized land uses designated for each development block. The Downtown West Design Standards and Guidelines (Appendix M) do not depict or require specific building designs for buildings within the project, and thus do not provide exact locations or specifications for mechanical equipment and loading docks at this time. Therefore, it is not possible to provide specific estimates of the noise levels at individual receptor locations that would result from operation of such stationary sources. It may reasonably be expected that mechanical equipment of proposed buildings may be as close as 50 feet from adjacent existing receptors (refer to Table 3.10-4). **Table 3.10-9** presents reference noise levels for many of these sources for informational purposes. Given the data in Table 3.10-9 and the possibility that receptors could be as close as 50 feet away, the potential exists for unobstructed noise levels to be 70 dBA or higher at the nearest receptor locations, which would exceed exterior noise standards. However, it can be reasonably anticipated that building mechanical equipment would be roof-mounted and shielded by screens or parapets, which would generally reduce noise levels for receptors except those in adjacent buildings with a greater number of stories. Nevertheless, notwithstanding the requirements of Municipal Code Sections 20.20.300, 20.30.700, 20.40,600, and 20.50.300, this impact would be **potentially significant**. **Mitigation Measure NO-1a-1, Operational Noise Performance Standard**, has been identified to establish these requirements through a project-specific performance standard.

TABLE 3.10-9
REFERENCE NOISE LEVELS FOR STATIONARY NOISE SOURCES ASSOCIATED WITH THE PROPOSED PROJECT

Stationary Noise Source	Documented Sound Levels (dBA)	Source
HVAC Equipment	72–78 dBA at 30 feet without acoustical treatments	Trane, *Sound Data and Application Guide*, 2002
Standby Diesel Generator	75–90 dBA at 23 feet (size dependent) without acoustical enclosure	Cummins Power Generation, *Sound Attenuated and Weather Protective Enclosures*, 2008
Parking Lot (four stories)	53–58 dBA at 75 feet	Illingworth and Rodkin, *Santana Row Parking Structure Project Noise Assessment, San José, California*, 2014
Loading Dock	77 dBA at 20 feet	Urban Crossroads, *Moreno Valley Walmart Noise Impact Analysis*, 2015
Central Utility Plant	64 dBA at property line	ESA, *Stanford University 2018 General Use Permit Draft Environmental Impact Report*, October 2017

NOTES:
dBA = A-weighted decibels; ESA = Environmental Science Associates; HVAC = heating, ventilation and air conditioning
SOURCE: Data compiled by Environmental Science Associates in 2020. (Additional sources noted above.)

Central Utility Plant Impacts on Existing Receptors

The project proposes up to two central utility plants: one in the Southern Infrastructure Zone and the second in the Northern Infrastructure Zone (refer to Figure 2-9 in Chapter 2, *Project Description*). The Southern Infrastructure Zone, between West San Fernando Street and where Los Gatos Creek passes through the southern area of the project site, would be within about 300 feet of residences to the east and approximately 500 feet from residential uses to the west and south, but would be 150 feet from an unoccupied and boarded-up residence at the corner of South Montgomery Street and Lorraine Avenue. The Northern Infrastructure Zone would be north of West Julian Street between North Montgomery Street and the Caltrain tracks, approximately 150 feet from a transitional housing facility at 546 West Julian Street.

Most operational noise sources of modern central utility plants, such as the one at Stanford University (see Table 3.10-9), are enclosed in buildings that attenuate noise from these sources (e.g., heat recovery systems). However, the exterior blowers of this similar, modern utility plant at Stanford have been demonstrated to generate noise levels of up to 64 dBA at the fence line of the central utility plant, which is approximately 150 feet away.[20] Given the minimum 300-foot distance of the proposed southern facility from existing occupied residential receptors, noise from central utility plant operation in an enclosed building could exceed the 55 dBA standard established by Municipal Code Section 20.30.700. Noise generated from the northern central utility plant could also result in noise levels exceeding the 55 dBA standard, given the proximity to existing sensitive land uses. This impact would be **potentially significant**. Mitigation Measure NO-1a-1 has been identified to mitigate this impact through a project-specific performance standard.

Central Utility Plant Impacts on Proposed Receptors

Because, at a minimum, the southern central utility plant would be constructed in Phase 1, subsequent operations could also affect future occupants of residential development in Phase 1 and later phases of the project. Noise from central utility plant operation could also affect new residential uses proposed by the project, particularly those in Block C1, south of West Julian Street and west of North Montgomery Street, and on Blocks F2 and F4, on South Autumn Street near West San Fernando Street. These proposed residential uses would be directly across West Julian Street from the proposed northern central utility plant. Depending on the location of any outdoor equipment, such as blowers—which have been demonstrated to generate 64 dBA at a utility plant property line—and assuming that proposed Blocks C1, F2, and F4 receptors could be as close as 100 feet from the property line, the potential would exist for noise from central utility plant operations to exceed the 55 dBA standard established by Municipal Code Section 20.30.700 at the locations of future project-sensitive receptors. This impact would be **potentially significant**. Mitigation Measure NO-1a-1 would be implemented to reduce impacts on new receptors in Blocks C1, F2, and F4.

[20] Environmental Science Associates, *Stanford University 2018 General Use Permit Draft Environmental Impact Report*, October 2017.

Noise Impacts of Public Gathering Spaces

The proposed project would include the following public gathering spaces:

- Two indoor event centers largely reserved for the applicant's use accommodating a total of up to 2,000 attendees, on Blocks E1 and F1;
- One or more publically accessible indoor live entertainment venues on Blocks D4, D5, and/or D6 accommodating an aggregate capacity of approximately 500 people;
- An outdoor performance space in St. John Triangle at which live music performances would be expected to occur; and
- Up to five enclosed pavilions providing indoor event space for public use and gatherings.

Event Center & Live Entertainment Venue Noise

Generally, event centers are enclosed structures that cater to business gatherings, or public events (e.g., dog show, circus). While presentations may be aided by public address systems, these gatherings would occur in an interior space that would attenuate noise levels from reaching the exterior of the building. Crowd ingress and egress at the event center may generate exterior noise from multiple human voices. In general, based on capacity, crowd noise from these events would be substantially less than that associated with concerts and events at the SAP Center.

One event center on Block F1 would be more than 500 feet from the nearest existing residences to the south, but may be as close as 50 feet from proposed residential uses on Blocks F2 and F4. Similarly, an event center on Block E1 would be more than 500 feet from the nearest existing residence, but also may be as close as 50 feet from proposed residential uses on Block E2 and/or E3.

One or more indoor live entertainment venues in the project's central area would likely be on Blocks D4, D5, and/or D6. The venue(s), which could include live music, would operate 5 to 6 days per week, with anticipated daytime events (11 a.m.–3 p.m.) held Wednesday through Sunday and nighttime events (7–11 p.m.) held Thursday through Saturday. There could be up to about 15 events per week. The venue(s) would have a maximum aggregate capacity of approximately 500. The venue(s) may be as close as 50 feet from proposed residential uses on Block D1. Live entertainment would occur in an interior space that would attenuate noise levels from reaching the exterior of the building, although crowd ingress and egress may generate exterior noise from multiple human voices.

Given the relatively small attendance size of the event center and performance venues, exterior crowd noise during ingress and egress before and after events would not be expected to result in a prolonged nuisance noise source, particularly in an urbanized area with existing elevated noise levels, and would comply with the noise ordinance; therefore, the impact of crowd noise would be **less than significant**.

Outdoor Performance Space Noise

The proposed outdoor performance space at St. John Triangle, depending on its location in the park, could be as close as 120 feet from the multifamily residences at 139 Stockton Avenue, across the Caltrain tracks. City of San José Municipal Code Section 13.44.150 establishes restrictions on amplified sound in San José and would apply to events at the outdoor performance

space. Operators of events at the outdoor performance space would be required to obtain a special event permit from the City to operate any loudspeaker or sound amplifier. Such a permit may establish additional operational conditions such as hours of operation, direction of speakers, or sound level restrictions. Such events would not be regular occurrences, would be restricted by permit conditions to certain hours, and would occur in an area where rail noise occurs multiple times an hour during daytime periods and approximately once an hour into the late evening. This would limit the noticeable increase in noise generated by occasional events at the outdoor performance space, and the noise impact would be **less than significant**.

Pavilion Event Noise

In addition to the outdoor performance space, up to five enclosed pavilion structures could be located at Los Gatos Creek Park, Creekside Walk at South Autumn Street, Gateway to San José, St. John Triangle, and Northend Park.

The pavilion at Los Gatos Creek Park would be approximately 200 feet from an unoccupied, boarded-up residence at the corner of South Montgomery Street and Lorraine Avenue, and other residences farther east on Lorraine Avenue. The pavilion at the Creekside Walk at South Autumn Street would be adjacent to the VTA crossing at San Fernando Street and approximately 300 feet from residences on West San Fernando Street. The pavilion at Gateway to San José would be approximately 600 feet from the nearest residences on West San Fernando Street. The pavilion at St. John Triangle would be along the northern Cahill Street extension, south of West St. John Street, and more than 400 feet from the nearest residences on North Montgomery Street. The pavilion at Northend Park would be approximately 200 feet from the nearest residences on North Autumn Street.

Like the outdoor performance space, these pavilion structures could accommodate relatively small musical performances. The pavilion structures would be enclosed structures, up to 5,000 square feet for serviced pavilions and up to 2,500 square feet for un-serviced pavilions. The pavilion structures would function as standalone, enclosed structures to be used for indoor gatherings or events. Should the event spill outdoors, operators at the pavilions would be required to obtain a special event permit from the City to operate any loudspeaker or sound amplifier. Such a permit may establish conditions such as hours of operation, direction of speakers, or sound level restrictions. Such events would not be regular occurrences, would be restricted by permit conditions to certain hours to ensure compliance with noise ordinance standards. This would limit the noticeable increase in noise generated by occasional events at these enclosed performance spaces, and the noise impact would be **less than significant**.

Overall Significance Conclusion

With implementation of Mitigation Measure NO-1a impacts from operational noise sources would be **less than significant with mitigation incorporated**.

Mitigation Measures

Mitigation Measure NO-1a: Operational Noise Performance Standard

Prior to the issuance of any building permit, the project applicant shall ensure that all mechanical equipment is selected and designed to reduce impacts on surrounding uses by

meeting the performance standards of Chapters 20.20 through 20.50 of the San José Municipal Code, limiting noise from stationary sources such as mechanical equipment, loading docks, and central utility plants to 55 dBA, 60 dBA, and 70 dBA at the property lines of residential, commercial, and industrial receivers, respectively. If noise levels exceed these standards, the activity causing the noise shall be abated until appropriate noise reduction measures have been installed and compliance has been verified by the City. Methods of achieving these standards include using low-noise-emitting HVAC equipment, locating HVAC and other mechanical equipment within a rooftop mechanical penthouse, and using shields and parapets to reduce noise levels to adjacent land uses. For emergency generators, industrial-grade silencers can reduce exhaust noise by 12 to 18 dBA, and residential-grade silencers can reduce such noise by 18 to 25 dBA.[21] Acoustical screening can also be applied to exterior noise sources of the proposed central utility plants and can achieve up to 15 dBA of noise reduction.[22]

An acoustical study shall be prepared by a qualified acoustical engineer during final building design to evaluate the potential noise generated by building mechanical equipment and to identify the necessary design measures to be incorporated to meet the City's standards. The study shall be submitted to the Director of the City of San José Department of Planning, Building and Code Enforcement or the Director's designee for review and approval before the issuance of any building permit.

Significance after Mitigation: Less than significant.

Impact NO-1b: Project-generated traffic noise would result in permanent increases 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. *(Significant and Unavoidable)*

Vehicle trips generated by the proposed project would generate roadway noise in the project area and surrounding environment. Increases in traffic noise gradually degrade the environment in noise-sensitive areas.

The significance of traffic noise levels is determined by comparing the increase in noise levels (from the traffic contribution only) to increments recognized by General Plan Policy EC-1.2 as significant.

Traffic noise levels were determined based on the transportation analysis,[23] and assessed in this section for the following scenarios:

1. Existing traffic conditions during the weekday peak commute hour,[24] as estimated based on average daily traffic (using data generated for the transportation analysis); and

[21] American Society of Heating, Refrigeration, and Air Conditioning Engineers, Technical Committee on Sound and Vibration, *Generator Noise Control—An Overview*, 2006.
[22] Environmental Noise Control, Product Specification Sheet, ENC STC-32 Sound Control Panel System, 2014.
[23] Fehr & Peers Transportation Consultants, Outputs from the San José Travel Demand Forecasting Model, November 2019 and January 2020.
[24] Events at the SAP Center are not considered in the transportation analysis and, therefore, are also not considered in the traffic noise model. Because event start times at the SAP Center are usually after 7 p.m., they are not expected to have a substantial effect on peak-hour traffic volumes.

2. Existing plus proposed full buildout of project mixed uses during the weekday peak commute hour.

All traffic volumes provided in the transportation analysis (**Appendix J1**) and used in this analysis of roadway noise reflect the proximity of Diridon Station and internal trip reduction resulting from the proposed mix of uses. Modeled estimates of weekday noise levels for the most highly affected roadway segments near the project site are presented in **Table 3.10-10** for full buildout of the project's mixed uses during the weekday peak commute hour. Although some smaller roadway segments may also experience traffic increases, the transportation model's limitations preclude analyzing some of the smaller roadways.

Initial modeling of traffic noise increases along these roadway segments indicated that the following 9 segments of the 20 analyzed could experience roadside noise increases that would be considered potentially significant:

- North Autumn Street from West Julian Street to West St. John Street
- Stockton Avenue from West Julian Street to The Alameda
- West Santa Clara Street from Stockton Avenue to Delmas Avenue
- South Montgomery Street from West Santa Clara Street to West San Fernando Street
- Cahill Street from West Santa Clara Street to West San Fernando Street
- South Autumn Street from West Santa Clara Street to West San Fernando Street
- West San Fernando Street from South Montgomery Street to Delmas Avenue
- Bird Avenue from West San Carlos Street to Auzerais Avenue
- Bird Avenue from Auzerais Avenue to Virginia Street

These segments were then assessed to determine whether the presence of other noise sources, such as rail activity, would render these increases from traffic alone unnoticeable, or whether sensitive receptors are not present along these roadways to be affected by these increases.

Each of these locations was examined to determine whether it includes existing sensitive receptors, or whether there are other factors relevant to identifying whether exceedances would be potential significant impacts.

Currently, no sensitive land uses are located along three of the nine roadway segments identified above that would be affected by predicted noise level increases: along Cahill Street, along West Santa Clara Street from Stockton Avenue to Delmas Avenue, and along Bird Avenue from Auzerais Avenue to Virginia Street (south of the project site). Therefore, these increases would not be considered significant roadway noise impacts. There is one sensitive receptor along South Montgomery Street, Templo La Hermosa, but this receptor is planning to relocate and would not be affected by this predicted increase.[25] There are two sensitive receptors along South Autumn Street from West Santa Clara Street to West San Fernando Street that would be demolished as

[25] The project applicant has purchased the church building, and the congregation plans to relocate its church to North San José.

part of the proposed project. Therefore, noise increases along this roadway segment would not be considered a significant roadway noise impact.

TABLE 3.10-10
TRAFFIC NOISE INCREASES ALONG ROADS IN THE PROJECT VICINITY

Roadway Segment	Existing	Applicable Increase Threshold (dB)	Existing plus Full Buildout of Project	dBA Difference	Significant Increase?
Weekday Peak-Hour Noise Levels					
W. Julian St. from Stockton Ave. to The Alameda	63.1	3	63.8	0.7	No
W. Julian St. from N. Montgomery St. to Market St.	63.1	3	64.8	1.7	No
N. Autumn St. from W. Julian St. to St. John St.	53.2	5	58.8	5.6	**Yes**
N. Montgomery St. from W. Julian St. to St. John St.	NA	5	46.0	NA[e]	No
Stockton Ave. from W. Julian St. to Lenzen Ave.	54.3	5	57.1	2.8	No
Stockton Ave. from W. Julian St. to The Alameda	60.6	3	64.1	3.5	No[b]
The Alameda from Stockton Ave. to Sunol St.	60.3	3	60.6	0.3	No
W. Santa Clara St. from Stockton Ave. to Delmas Ave.	63.3	3	67.5	4.2	No[c]
S. Montgomery St. from W. Santa Clara St. to W. San Fernando St.	54.0	5	62.7	8.7	No[d]
Cahill St. from W. Santa Clara St. to W. San Fernando St.	37.4	5	53.1	15.7	No[c]
S. Autumn St. from W. Santa Clara St. to W. San Fernando St.	49.5	5	56.6	7.1	No[d]
W. San Fernando St. from S. Montgomery St. to Delmas Ave.	58.3	5	66.6	8.3	**Yes**
Park Ave. from S. Montgomery St. to Sunol St.	58.8	5	63.0	4.2	No
Park Ave. from S. Montgomery St. to S. Delmas Ave.	61.9	3	64.3	2.4	No
W. San Carlos St. from S. Montgomery St. to Sunol St.	58.8	3	59.1	0.3	No
W. San Carlos St. from S. Montgomery St. to S. Delmas Ave.	56.5	5	57.9	1.4	No
Auzerais Ave. from Bird Ave. to Sunol St.	50.7	5	50.5	-0.2[a]	No
Auzerais Ave. from Bird Ave. to Delmas Ave.	56.9	5	58.3	1.4	No
Bird Ave. from W. San Carlos St. to Auzerais Ave.	65.8	3	71.3	5.5	**Yes**
Bird Ave. from Auzerais Ave. to Virginia St.	67.0	3	71.9	4.9	No[c]

NOTES:
dB = decibels; dBA = A-weighted decibels; NA = not applicable
[a] Negative values indicate a decrease in roadway noise at these locations that results when traffic distribution changes reduce future traffic volumes compared to the existing conditions, as predicted in the transportation analysis.
[b] The impact along this segment would be less than significant because, as explained below, existing noise from train operations at Diridon Station would reduce the realized increase to less than 1.0 dBA.
[c] There are no existing noise-sensitive land uses along these roadway segments; thus, the impact would be less than significant.
[d] The noise-sensitive land use(s) along this segment would be relocated or demolished.
[e] The traffic model shows no meaningful existing traffic volumes on this segment. Resultant noise levels with the project are well below the normally acceptable exterior noise level for residential uses. Consequently, there is no resultant traffic noise impact along this segment.

SOURCES: Traffic data compiled by Fehr & Peers in 2019 and 2020, and modeling performed by Environmental Science Associates in 2020.

The largest increase in roadway noise would occur along Cahill Street between West Santa Clara Street and West San Fernando Street because existing volumes on Cahill Street are relatively low compared to forecasted volumes. Although the project proposes residential uses on Block C1, west of the northerly extension of Cahill Street (but north of the segment in question), these future receptors would not experience a noise increase relative to existing conditions because the receptors are not currently present. Moreover, Block C1 is also adjacent to the Caltrain tracks, meaning that traffic noise would make a relatively minimal contribution to overall noise levels.

The predicted noise levels presented in Table 3.10-10 reflect the contribution from vehicle traffic on the given roadway only. On two of the nine roadway segments identified above, the substantial contribution of existing non-roadway sources would render the impact of the predicted increase in roadway noise less than significant. Specifically, receptors near the Caltrain tracks and Diridon Station (e.g., on Stockton Avenue) would not experience the predicted noise level increase because existing noise levels are elevated beyond the roadway's contribution, given the railroad operations in that area. Similarly, the northernmost receptors near SR 87 (e.g., existing residences on West San Fernando Street) would also not fully experience the predicted noise increase because existing noise levels are elevated by the presence of freeway traffic.

The only receptor on the segment along Stockton Avenue from West Julian Street to The Alameda is the newly constructed Vespaio apartment and commercial building adjacent to the Caltrain tracks, where the existing 24-hour average noise levels at location LT-B were 70 dBA (Table 3.10-1). In addition, given their recent construction, these residential units were required to conform to Title 24 noise insulation standards. Because the existing noise levels are elevated due to the presence of railroad activity, the increase in traffic noise along Stockton Avenue over the monitored noise levels would be only approximately 0.6 dBA, rather than the 3.3 dBA predicted by the model that considers traffic contributions alone. Consequently, the noise impact along this particular roadway would be less than significant.

Single-family residences along West San Fernando Street from South Montgomery Street to Delmas Avenue would experience a significant impact from roadway noise increases, although those residences east of Delmas Avenue would not experience the increase because of the contribution to existing noise levels from existing traffic on the elevated SR 87.

Despite the considerations described here, the impact of traffic noise level increases along 3 of the 11 preliminarily identified roadway segments—along North Autumn Street, some portions of West San Fernando Street, and Bird Avenue—would be **potentially significant**.

Mitigation Measure AQ-2h, Enhanced Transportation Demand Management Program (refer to Section 3.1, *Air Quality*), is predicted to reduce the project's peak-hour contributions by at least approximately 24 percent.[26] **Table 3.10-11** presents the predicted roadside noise levels for full buildout of the project's mixed uses during the weekday peak commute hour assuming a 24 percent reduction from Mitigation Measure AQ-2h. Taking these reduced contributions into account, the impact of noise level increases along these three roadways would still remain

[26] See Mitigation Measure AQ-2h, Enhanced Transportation Demand Management Program, for the schedule of performance standards associated with the program.

potentially significant. **Mitigation Measure NO-1b, Traffic Noise Impact Reduction**, has been identified to further address this potentially significant noise impact.

TABLE 3.10-11
TRAFFIC NOISE INCREASES ALONG ROADS IN THE PROJECT VICINITY WITH TRANSPORTATION DEMAND MANAGEMENT MITIGATION MEASURES

Roadway Segment	Existing	Applicable Increase Threshold (dB)	Existing plus Full Buildout of Project with TDM	dBA Difference	Significant Increase?
Weekday Peak-Hour Noise Levels					
W. Julian St. from Stockton Ave. to The Alameda	63.1	3	63.6	0.5	No
W. Julian St. from N. Montgomery St. to Market St.	63.1	3	64.9	1.8	No
N. Autumn St. from W. Julian St. to St. John St.	53.2	5	58.8	5.6	**Yes**
N. Montgomery St. from W. Julian St. to St. John St.	NA	5	44.8	NA[e]	No
Stockton Ave. from W. Julian St. to Lenzen Ave.	54.3	5	56.4	2.1	No
Stockton Ave. from W. Julian St. to The Alameda	60.6	3	64.2	3.6	No[b]
The Alameda from Stockton Ave. to Sunol St.	60.3	3	60.4	0.1	No
W. Santa Clara St. from Stockton Ave. to Delmas Ave.	63.3	3	64.6	1.3	No
S. Montgomery St. from W. Santa Clara St. to W. San Fernando St.	54.0	5	61.6	7.6	No[d]
Cahill St. from W. Santa Clara St. to W. San Fernando St.	37.4	5	51.9	14.5	No[c]
S. Autumn St. from W. Santa Clara St. to W. San Fernando St.	49.5	5	55.9	6.4	No[d]
W. San Fernando St. from S. Montgomery St. to Delmas Ave.	58.3	5	65.5	7.2	**Yes**
Park Ave. from S. Montgomery St. to Sunol St.	58.8	5	62.3	3.5	No
Park Ave. from S. Montgomery St. to S. Delmas Ave.	61.9	3	63.7	1.8	No
W. San Carlos St. from S. Montgomery St. to Sunol St.	58.8	3	58.9	0.1	No
W. San Carlos St. from S. Montgomery St. to S. Delmas Ave.	56.5	5	57.6	1.1	No
Auzerais Ave. from Bird Ave. to Sunol St.	50.7	5	50.5	-0.2[a]	No
Auzerais Ave. from Bird Ave. to Delmas Ave.	56.9	5	57.9	1.0	No
Bird Ave. from W. San Carlos St. to Auzerais Ave.	65.8	3	70.4	4.6	**Yes**
Bird Ave. from Auzerais Ave. to Virginia St.	67.0	3	69.0	2.0	No

NOTES:
dB = decibels; dBA = A-weighted decibels; NA = not applicable; TDM = transportation demand management
[a] Negative values indicate a decrease in roadway noise at these locations that results when traffic distribution changes reduce future traffic volumes compared to existing conditions, as predicted in the transportation analysis.
[b] The impact along this segment would be less than significant because, as explained below, existing noise from train operations at Diridon Station would reduce the realized increase to less than 1.0 dBA.
[c] There are no existing noise-sensitive land uses along these roadway segments; thus, the impact would be less than significant.
[d] The noise-sensitive land use(s) along this segment would be relocated or demolished.
[e] The traffic model shows no meaningful existing traffic volumes on this segment. Resultant noise levels with the project are well below the normally acceptable exterior noise level for residential uses. Consequently, there is no resultant traffic noise impact along this segment.
SOURCES: Traffic data compiled by Fehr & Peers in 2019 and 2020, and modeling performed by Environmental Science Associates in 2020.

A number of options are available to reduce noise from project-generated traffic, depending on the specific circumstances. For example, in some situations where private outdoor-use areas, such as rear yards, are located adjacent to the roadway, new or larger noise barriers can be constructed to provide the additional necessary noise attenuation. Typically, increasing the height of an existing barrier results in approximately 1 dBA of attenuation per 1 foot of additional barrier height. However, designing and installing such noise barriers may not be appropriate in an urban setting such as Downtown San José. The barriers would be appropriate only in cases where uses back up to a roadway and egress points do not exist, because barriers are of negligible effectiveness if they require openings for driveway ingress and egress; they would also require the consent and cooperation of off-site property owners.

Existing residences along affected roadways could also be provided with sound insulation treatments where the projected increase in traffic noise would cause interior noise levels inside the affected residential units to exceed 45 dBA DNL. Treatments for the homes may include replacing the existing windows and doors with sound-rated windows and doors and providing a suitable form of forced-air mechanical ventilation to allow the occupants the option of controlling noise by closing their windows.

Mitigation Measure NO-1b identifies measures to reduce traffic noise levels at affected properties along two of the roadway segments where the proposed project would result in significant traffic noise impacts. However, these measures would not be effective on the segment of *North Autumn Street from West Julian Street to St. John Street*, for several reasons:

- Existing residential receptors on Autumn Street would require driveway egress; therefore, barriers would not be feasible mitigation.
- Assuming a 15 dBA reduction from standard building construction with open windows,[27] interior noise levels at these receptors would be below 45 dBA DNL, and sound insulation treatments for these receptors would not be warranted.

In addition, a future realignment of North Autumn Street (the completion of Autumn Parkway), planned by VTA as part of the Valley Transportation Plan 2040, would relocate traffic (both the current volume and future traffic) away from these receptors, potentially obviating the need for mitigation in the long term.

Mitigation Measure NO-1b includes site-specific measures for affected segments of West San Fernando Street and Bird Avenue. On West San Fernando Street from South Montgomery Street to Delmas Avenue, there are several single-family residences, many of which are more than 500 feet from SR 87, at which distance highway traffic would not contribute noise that would mask the predicted noise level increase at these receptors. Assuming a 15 dBA reduction from standard building construction with open windows,[28] interior noise levels at these West San Fernando Street receptors could still exceed 45 dBA DNL. Mitigation Measure NO-1b would require the project

[27] U.S. Environmental Protection Agency, *Information on Levels of Environmental Noise Requisite to Protect Public Health and Welfare with an Adequate Margin of Safety*, March 1974. Available at https://nepis.epa.gov/Exe/ZyPDF.cgi/2000L3LN.PDF?Dockey=2000L3LN.PDF. Accessed March 14, 2019.

[28] U.S. Environmental Protection Agency, *Information on Levels of Environmental Noise Requisite to Protect Public Health and Welfare with an Adequate Margin of Safety*, March 1974. Available at https://nepis.epa.gov/Exe/ZyPDF.cgi/2000L3LN.PDF?Dockey=2000L3LN.PDF. Accessed March 14, 2019.

applicant to contact the property owners to seek the permission and access necessary to implement sound transmission reduction remedies, should access be granted. However, because access cannot be guaranteed, the effectiveness of this measure cannot be assured.

The same measures would reduce impacts on residents of older single-family homes along Auzerais Avenue who would be affected by traffic noise increases along *Bird Avenue from West San Carlos Street to Auzerais Avenue*. The newer condominium complex on Bird Avenue at West San Carlos Street would not require mitigation; the complex has closed windows and no balconies and is of recent construction, and thus was constructed to Title 24 noise insulation standards applicable to multifamily dwellings.

Mitigation Measures

Mitigation Measure NO-1b: Traffic Noise Impact Reduction

Prior to the issuance of any building permits, the project applicant shall implement the following measures to reduce roadside noise impacts at the following roadway segments:

- *West San Fernando Street from South Montgomery Street to Delmas Avenue*. Prior to the issuance of any building permits for Phase 1 construction on this block, the project applicant for the construction work proposed shall prepare and submit to the Director of Planning, Building and Code Enforcement, or the Director's designee, a site-specific acoustical study for review and approval. Upon approval of the site-specific acoustical study, the project applicant shall directly contact property owners of single-family residences to implement, with the owners' consent, reasonable sound insulation treatments, such as replacing the existing windows and doors with sound-rated windows and doors and providing a suitable form of forced-air mechanical ventilation, that could reduce indoor noise levels up to 45 dBA DNL, as warranted by the study.
- *Bird Avenue from West San Carlos Street to Auzerais Avenue*. Prior to the issuance of any building permits for Phase 1 construction on this block, the project applicant for the construction work proposed shall prepare and submit to the Director of Planning, Building and Code Enforcement, or the Director's designee, a site-specific acoustical study for review and approval. Upon approval of the site-specific acoustical study, the project applicant shall directly contact the property owners of single-family homes on Auzerais Avenue, within 200 feet of Bird Avenue, to implement, with the owners' consent, reasonable sound insulation treatments, such as replacing the existing windows and doors with sound-rated windows and doors and providing a suitable form of forced-air mechanical ventilation, that could reduce indoor noise levels up to 45 dBA DNL, as warranted by the study.

Significance after Mitigation: Effective mitigation is not available or reasonable in the short term to reduce traffic noise levels along the affected segment of North Autumn Street, and it may not be feasible to reduce impacts to a less-than-significant level along the affected segments of West San Fernando Street and Bird Avenue. Therefore, even with implementation of Mitigation Measure NO-1b, the traffic noise impact at existing noise-sensitive receptors along all three segments would be **significant and unavoidable**.

Impact NO-1c: Construction of the proposed project could result in temporary increases 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. *(Significant and Unavoidable)*

Construction of the project's proposed buildings, street network changes, and infrastructure would occur in three primary phases. Construction would begin in 2021 and is conservatively assumed to continue through 2031. The duration of each phase would vary, with the end of one phase and the start of the subsequent phase potentially overlapping one another.[29] Actual phased implementation could be constrained by external factors such as construction staging for the BART Downtown extension, and thus would extend over a longer period, as described below. The development schedule could also be affected by market forces. The specific type of construction work would also vary by phase, but would generally consist of the following sequence for each of the three phases:

1. Demolition and site clearance (generalized duration of one to two months for each sub-phase, respectively);
2. Excavation and soils removal and remediation, as needed (generalized duration of 6–14 months, depending the size of the block and extent of soil to be removed and/or remediated);
3. Foundation and/or basement level/garage work; utilities and sub-surface infrastructure (generalized duration of 8–12 months);
4. Vertical construction (generalized duration of 18–24 months);
5. Surface street/right-of-way work (generalized duration of 4–14 months with streetscape work below); and
6. Streetscape and open space improvements.

The construction schedule for the project's three proposed construction phases is described in Section 2.13, *Project Construction and Phasing*, within Chapter 2, *Project Description.*

Construction, though typically temporary, short-term, and/or intermittent, can be a substantial source of noise. Construction noise is of greatest concern where it takes place near noise-sensitive land uses, or if it occurs at night or in the early morning hours; however, it can also affect commercial uses and other receptors. Local governments typically regulate noise from construction equipment and activities by enforcing noise ordinance standards, implementing general plan policies, and/or imposing conditions of approval for building or grading permits. The following analysis addresses potential construction impacts on off-site receptors with respect to standards established in applicable noise ordinances and General Plan policies identified in Section 3.10.2, *Regulatory Framework.* Noise-sensitive land uses proposed by the project and occupied before construction of Phase 2 and Phase 3 are also considered potentially affected uses.

Major noise-generating construction activities associated with the project would include demolition of existing pavement and structures; site grading and excavation; installation of

[29] The phasing assumed in this EIR takes into account reasonable (but slightly conservative) assumptions for development, including practical constraints posed by other projects, such as BART station construction.

utilities; construction of building foundations, cores, and shells; paving; and landscaping. Noise levels would be loudest during demolition of existing structures, which would require the use of impact tools (e.g., jackhammers, hoe rams) and during construction of building foundations, when impact pile driving would be required to support the structures. Site grading and excavation would also generate high noise levels, as these phases often require the simultaneous use of multiple pieces of heavy equipment such as dozers, excavators, scrapers, and loaders. Vertical construction would involve the operation of cranes, man lifts, gradall/forklifts, and pneumatic hand tools. Noise levels are lower when building construction activities move indoors and require less heavy equipment to complete tasks. Construction equipment would typically include but not be limited to earth-moving equipment and trucks; pile driving rigs; mobile cranes; compressors; pumps; generators; paving equipment; and pneumatic, hydraulic, and electric tools.

Table 3.10-12 shows typical noise levels associated with various types of construction equipment, including pile drivers, which may be required to support some structures.

TABLE 3.10-12
TYPICAL MAXIMUM NOISE LEVELS FROM CONSTRUCTION EQUIPMENT

Construction Equipment	Noise Level (dBA, L_{max} at 50 feet)
Backhoe	78
Excavator	81
Compactor	83
Scraper	84
Air Compressor	78
Pneumatic Tools	85
Pumps	77
Dozer	82
Crane	81
Grader	85
Paver	77
Roller	80
Front-End Loader	79
Truck	76
Concrete Crusher	79
Drill Rig	85
Impact and Vibratory Pile Drivers	101

NOTES:
dBA = A-weighted decibels; L_{max} = maximum, instantaneous noise level experienced during a given period of time
These are maximum field measured values at 50 feet as reported from multiple samples.
SOURCE: Federal Highway Administration, *Roadway Construction Noise Model User Guide*, 2006.

The City of San José does not establish quantitative noise limits for demolition or construction activities occurring in the city. According to the San José Municipal Code, the legal hours of construction within 500 feet of a residential unit are limited to 7 a.m. to 7 p.m., Monday through Friday.

The potential for short-term construction noise impacts under the proposed project is addressed by General Plan Policy EC-1.7. The policy states that the City considers a significant construction noise impact 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) that would continue for more than 12 months.

Based on the construction timelines for the three project phases, the proximity of sensitive receptors as indicated in Table 3.10-4, the potential for occupied residences constructed during earlier construction phases to be adjacent or close to later phase construction, and the standard provided by General Plan Policy EC-1, the impact of project construction noise would be **potentially significant**, and would therefore warrant implementing mitigation measures to reduce and restrict construction noise levels.

Implementing the City's **SCA NO-1, *Construction-Related Noise***, would reduce noise levels from construction activity; however, given the potential for pile driving for both tower construction and bridge replacement work, **Mitigation Measure NO-1c, Construction Noise Reduction Plan**, would also be implemented.

In addition, some project elements may require nighttime concrete pours or other nighttime work to achieve satisfactory results or to avoid traffic impacts. If such work were to occur within 500 feet of a residence or 200 feet of a commercial use, the project could conflict with the City ordinance limiting the hours and days allowed for construction work. Such construction activities would be subject to review, permitting, and approval by the Director of Planning, Building and Code Enforcement, or the Director's designee. Therefore, construction of the proposed project would result in a **potentially significant** impact with respect to exposure of persons to, or generation of, noise levels in excess of standards established in the local general plan, specific plan, or other land use plan. Mitigation Measure NO-1c would be implemented to reduce this impact.

Mitigation Measures

Mitigation Measure NO-1c: Master Construction Noise Reduction Plan

Prior to the issuance of the first building permit for new construction within the project site, the project applicant shall prepare a Master Construction Noise Reduction Plan, to be implemented as development occurs throughout the project site to address demolition and construction of buildings within 500 feet of residential uses, or within 200 feet of commercial or office uses. The plan shall be submitted to the Director of Planning, Building and Code Enforcement, or the Director's designee, for review and approval, and implementation of the identified measures shall be required as a condition of each permit. This Master Construction Noise Reduction Plan shall include, at a minimum, the following noise reduction measures:

1. **Noise Monitoring:** The Master Construction Noise Reduction Plan shall include a requirement for noise monitoring of construction activity throughout the duration of project construction, at times and locations determined appropriate by the qualified consultant and approved by the Director of Planning, Building and Code Enforcement, or the Director's designee.

2. **Schedule:** Loud activities such as rock breaking and pile driving shall occur only between 8 a.m. and 4 p.m., every day (with pile driving and rock breaking to start no earlier than 9 a.m. on weekends). Similarly, other activities with the potential to create extreme noise levels exceeding 90 dBA shall be avoided where possible. Where such activities cannot be avoided, they shall also occur only between 8 a.m. and 4 p.m. Any proposed nighttime construction activities, such as nighttime concrete pours or other nighttime work necessary to achieve satisfactory results or to avoid traffic impacts, shall undergo review, permitting, and approval by the Director of Planning, Building and Code Enforcement, or the Director's designee.
3. **Site Perimeter Barrier:** To reduce noise levels for work occurring adjacent to residences, schools, or other noise-sensitive land uses, a noise barrier(s) shall be constructed on the edge of the work site facing the receptor(s). Barriers shall be constructed either with two layers of 0.5-inch-thick plywood (joints staggered) and K-rail or other support, or with a limp mass barrier material weighing 2 pounds per square foot. If commercial barriers are employed, such barriers shall be constructed of materials with a Sound Transmission Class rating of 25 or greater.
4. **Stationary-Source Equipment Placement:** Stationary noise sources, such as generators and air compressors, shall be located as far from adjacent properties as possible. These noise sources shall be muffled and enclosed within temporary sheds, shall incorporate insulation barriers, or shall use other measures as determined by the Director of Planning, Building, and Code Enforcement, or the Director's designee, to provide equivalent noise reduction.
5. **Stationary-Source Equipment Local Barriers:** For stationary equipment, such as generators and air compressors, that will operate for more than one week within 500 feet of a noise-sensitive land use, the project contractor shall provide additional localized barriers around such stationary equipment that break the line of sight[30] to neighboring properties.
6. **Temporary Power:** The project applicant shall use temporary power poles instead of generators, where feasible.
7. **Construction Equipment:** Exhaust mufflers shall be provided on pneumatic tools when in operation for more than one week within 500 feet of a noise-sensitive land use. All equipment shall be properly maintained.
8. **Truck Traffic:** The project applicant shall restrict individual truck idling to no more than two consecutive minutes per trip end. Trucks shall load and unload materials in the construction areas, rather than idling on local streets. If truck staging is required, the staging area shall be located along major roadways with higher traffic noise levels or away from the noise-sensitive receivers, where such locations are available.
9. **Methods:** The construction contractor(s) shall consider means to reduce the use of heavy impact tools, such as pile driving, and shall locate these activities away from the property line, as practicable. Alternative methods of pile installation, including drilling, could be employed if noise levels are found to be excessive.

[30] If a barrier does not block the line of sight between the source and the observer, the barrier will provide little or no attenuation (U.S. Department of Housing and Urban Development, *The Noise Guidebook*, prepared by The Environmental Planning Division, Office of Environment and Energy, March 2009, p. 24).

Piles could be pre-drilled, as practicable, and a wood block placed between the hammer and pile to reduce metal-to-metal contact noise and "ringing" of the pile.

10. **Noise Complaint Liaison:** A noise complaint liaison shall be identified to field complaints regarding construction noise and interface with the project construction team. Contact information shall be distributed to nearby noise-sensitive receivers. Signs that include contact information shall be posted at the construction site.
11. **Notification and Confirmation:** Businesses and residents within 500 feet shall be notified by certified mail at least one month before the start of extreme noise-generating activities (to be defined in the Construction Noise Reduction Plan). The notification shall include, at a minimum, the estimated duration of the activity, construction hours, and contact information.
12. **Nighttime Construction:** If monitoring confirms that nighttime construction activities substantially exceed the ambient noise level (to be defined for receptors near each nighttime construction area in the site-wide Master Construction Noise Reduction Plan) and complaints occur regularly (generally considered to be two or more per week), additional methods shall be implemented, such as installing additional storm windows in specific residences and/or constructing additional local barriers. The specific approach shall be refined as the construction activities and noise levels are refined.
13. **Complaint Protocol:** Protocols shall be implemented for receiving, responding to, and tracking received complaints. A noise complaint liaison shall be designated by the applicant and shall be responsible for responding to any local complaints about construction noise. The community liaison shall determine the cause of the noise complaint and require that measures to correct the problem be implemented. Signage that includes the community liaison's telephone number shall be posted at the construction site and the liaison's contact information shall be included in the notice sent to neighbors regarding the construction schedule.

Significance after Mitigation: Significant and unavoidable. Mitigation Measure NO-1c would implement a construction noise logistics plan, consistent with the requirements of General Plan Policy EC-1.7; however, the 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. The project would entail construction activities that may include substantial noise-generating activities occurring in three separate phases over a period of approximately 11 years, although construction activity within 500 feet of any particular residential uses or 200 feet of commercial or office uses would generally be limited to a particular phase or sub-phase of construction. However, because it is not feasible to ensure that no construction would exceed 12 months within the applicable distances from sensitive receptors, the residual construction noise impact would be **significant and unavoidable**.

Impact NO-2: The proposed project could result in the generation of excessive groundborne vibration or groundborne noise levels. ***(Less than Significant with Mitigation)***

This analysis addresses vibration impacts generated by construction activities at existing off-site buildings and at buildings constructed during the early phases of construction. Equipment or

activities that typically generate continuous vibration include but are not limited to excavation equipment, impact pile drivers, static compaction equipment, vibratory pile drivers, pile-extraction equipment, and vibratory compaction equipment.

General Plan Policy EC-2.3 requires new development to minimize impacts of continuous vibration on adjacent uses during demolition and construction. For sensitive historic structures, including ruins and ancient monuments or buildings that are documented to be structurally weakened, a continuous vibration limit of 0.08 in/sec PPV is the standard applied to minimize the potential for cosmetic damage to a building. A continuous vibration limit of 0.20 in/sec PPV is applied to minimize the potential for cosmetic damage at buildings of normal conventional construction.

Policy EC-2.3 also discourages the use of impact pile drivers within 125 feet of any buildings, and within 300 feet of historical buildings or buildings in poor condition. On a project-specific basis, this distance of 300 feet may be reduced where warranted by a technical study by a qualified professional who verifies that there would be virtually no risk of cosmetic damage to sensitive buildings from the new development during demolition and construction.

Transient vibration impacts may exceed a vibration limit of 0.08 in/sec PPV only when and where warranted by a technical study by a qualified professional who verifies that there would be virtually no risk of cosmetic damage to sensitive buildings from the new development during demolition and construction.

The specific locations of pile driving activities, among other construction activities, are not yet known with certainty; therefore, the analysis was conducted using a matrix of vibration from construction activities with distances to receptors. This matrix, presented in **Table 3.10-13**, uses dark-shaded areas to indicate the distances at which vibration levels would exceed the criterion for conventional structures. The lighter shaded areas indicate the distances at which the criterion for historic structures or buildings that are documented to be structurally weakened would be exceeded. As shown in Table 3.10-13, cosmetic damage could result from pile driving closer to a conventionally constructed building than 75 feet or closer to a historic building than 170 feet.

In addition to the conventional construction methods identified in Table 3.10-13, the proposed project may use a tunnel boring machine to install the proposed utility corridor. If the new tunnel were bored through dense soil and rock, it could transmit vibration, although the vibration would diminish with distance, and would generally not be detectable at more than 160 feet.[31] Many variables affect the generation of vibration, including the size and depth of the tunnel boring machine and the soil types. Based on preliminary designs presented to the VTA board in April 2020, the top of a single-bore, stacked-track tunnel would be about 50 feet below grade. Also, tunnel boring machines typically advance at a rate of about 30 feet per day, which means that the vibration source would not affect any one location for an extended period of time.

[31] BPTunnel, *B&P Tunnel Facts: Understanding Vibration Fact Sheet*, 2016.

TABLE 3.10-13
VIBRATION LEVELS FOR CONSTRUCTION ACTIVITY

Equipment	Estimated Peak Particle Velocity (inches per second)				
	At 25 Feet (reference)	At 50 Feet	At 75 Feet	At 100 Feet	At 170 Feet
Jackhammer	0.035	0.016	0.010	0.008	0.004
Loaded Trucks	0.076	0.035	0.023	0.017	0.009
Caisson Drilling	0.089	0.041	0.027	0.019	0.011
Large Bulldozer	0.089	0.041	0.027	0.019	0.011
Vibratory Roller	0.20	0.100	0.063	0.046	0.025
Impact Pile Driver	0.65	0.303	0.194	0.141	0.079
Vibratory Pile Driver	0.65	0.303	0.194	0.141	0.079

NOTE:
Dark-shaded areas indicate distances where vibration levels would exceed the criterion for conventional structures. Lighter shaded areas indicate the distances at which the criterion for historic structure or buildings that are documented to be structurally weakened would be exceeded.

SOURCES: California Department of Transportation, *Transportation and Construction Vibration Guidance Manual*, September 2013. Federal Transit Administration, *Transit Noise and Vibration Impact Assessment Manual*, 2018.

The potential for damage to historic structures from project-related construction vibration is addressed in Impact CU-4 of Section 3.3, *Cultural Resources and Tribal Cultural Resources*. Specifically, the analysis of Impact CU-4 states that although SCA CR-3, *Vibration Impacts to Adjacent and Nearby Historic Buildings*, would reduce potential impacts, **Mitigation Measure CU-4, Construction Vibration Operation Plan for Historic Structures**, is required to provide site-specific guidance related to the particular soil conditions, construction methodologies, and sensitivities of adjacent historic resources and to reduce potential vibration impacts on historic resources to less than significant.

As shown in Table 3.10-13, proposed construction equipment could also result in damage to nearby non-historic structures if the activities occur within the distances specified. In addition, buildings constructed during earlier phases of the project may be exposed to construction-generated vibration during the later construction phases, which could also result in damage to nearby non-historic structures if the activities occur within the distances specified. This would be a **potentially significant** impact warranting mitigation measures. **Mitigation Measures NO-2a, Master Construction Vibration Avoidance and Reduction Plan**, and **NO-2b, Master Construction Vibration Avoidance from Compaction**, are necessary to address this impact. These measures would complement Mitigation Measure CU-4 (refer to Section 3.3, *Cultural Resources and Tribal Cultural Resources*). Implementing these mitigation measures would reduce impacts related to excessive groundborne vibration or groundborne noise levels to a **less-than-significant** level.

Mitigation Measures

Mitigation Measure NO-2a: Master Construction Vibration Avoidance and Reduction Plan

Prior to the issuance of the first building permit for the project, the project applicant shall prepare a Master Construction Vibration Avoidance and Reduction Plan. The plan shall be

implemented by the applicant as development occurs throughout the project site to address demolition and construction activity that involves impact or vibratory pile driving, or use of a tunnel boring machine within 75 feet of conventionally constructed buildings. The plan shall be submitted to the Director of Planning, Building and Code Enforcement, or the Director's designee, for review and approval before the issuance of the initial grading or building permit. The plan shall include, at a minimum, the following vibration avoidance and reduction measures:

- Neighbors within 500 feet of the construction site shall be notified of the construction schedule and that noticeable vibration levels could result from pile driving.
- Foundation pile holes shall be pre-drilled to minimize the number of impacts required to seat the pile.
- Piles shall be jetted[32] or partially jetted into place to minimize the number of impacts required to seat the piles.
- A construction vibration monitoring plan shall be implemented to document conditions before, during, and after pile driving and use of the tunnel boring machine. All plan tasks shall be undertaken under the direction of a Professional Structural Engineer licensed in the State of California, in accordance with industry-accepted standard methods. The construction vibration monitoring plan shall include the following tasks:
  - Identify the sensitivity of nearby structures to groundborne vibration. A vibration survey (generally described below) would need to be performed.
  - Perform a pre-construction photo survey, elevation survey, and crack monitoring survey for each of these structures. Surveys shall be performed before any pile driving activity, at regular intervals during pile driving, and after completion. The surveys shall include monitoring for internal and external cracks in structures, settlement, and distress, and shall document the condition of foundations, walls, and other structural elements in the interior and exterior of the structures.
  - Develop a vibration monitoring and construction contingency plan. The plan shall identify structures where monitoring is to be conducted, establish a vibration monitoring schedule, define structure-specific vibration limits, and address the need to conduct photo, elevation, and crack surveys to document conditions before and after pile driving.
  - Identify alternative construction methods for when vibration levels approach the limits stated in the General Plan, such as in Policy EC-2.3.
  - If vibration levels approach the limits, suspend construction and implement alternative construction methods to either lower vibration levels or secure the affected structures.
  - Conduct a post-construction survey on structures where either monitoring has indicated high vibration levels or complaints have been received regarding

[32] "Pile jetting" is a technique that is frequently used in conjunction with, or separate from, pile driving equipment for pile placement. Pile jetting uses a carefully directed and pressurized flow of water to assist in pile placement. This greatly decreases the bearing capacity of the soils below the pile tip, causing the pile to descend toward its final tip elevation with much less soil resistance, largely under its own weight.

damage. Where damage has resulted from construction activities, make appropriate repairs or provide compensation.

– Within one month after substantial completion of each phase identified in the project schedule, summarize the results of all vibration monitoring in a report and submit the report for review by the Director of Planning, Building and Code Enforcement or the Director's designee. The report shall describe measurement methods and equipment used, present calibration certificates, and include graphics as required to clearly identify the locations of vibration monitoring. An explanation of all events that exceeded vibration limits shall be included together with proper documentation supporting any such claims.

– Designate a person responsible for registering and investigating claims of excessive vibration. The contact information of such person shall be clearly posted on the construction site.

Mitigation Measure NO-2b: Master Construction Vibration Avoidance from Compaction

The project applicant shall also prepare a Master Construction Vibration Avoidance and Reduction Plan for construction activities that will not involve impact or vibratory pile driving but will employ a vibratory roller as a method of compaction. The plan shall be implemented by the applicant as development occurs throughout the project site to address construction activity occurring within 25 feet of conventionally constructed buildings. The plan shall be submitted to the Director of Planning, Building, and Code Enforcement or the Director's designee for review and approval before the issuance of the initial grading or building permit. The plan shall include, at a minimum, the following vibration avoidance and reduction measures:

- Contractors shall use non-vibratory, excavator-mounted compaction wheels and small smooth drum rollers for final compaction of asphalt base and asphalt concrete, if within 50 feet of a historic structure or 25 feet of a conventionally constructed structure. If needed to meet compaction requirements, smaller vibratory rollers shall be used to minimize vibration levels during repaving activities where needed to meet vibration standards.
- The use of vibratory rollers and clam shovel drops near sensitive areas shall be avoided.
- Construction methods shall be modified, or alternative construction methods shall be identified, and designed to reduce vibration levels below the limits.

Mitigation Measure CU-4: Construction Vibration Operation Plan for Historic Structures (refer to Section 3.3, *Cultural Resources and Tribal Cultural Resources*)

Significance after Mitigation: Less than significant.

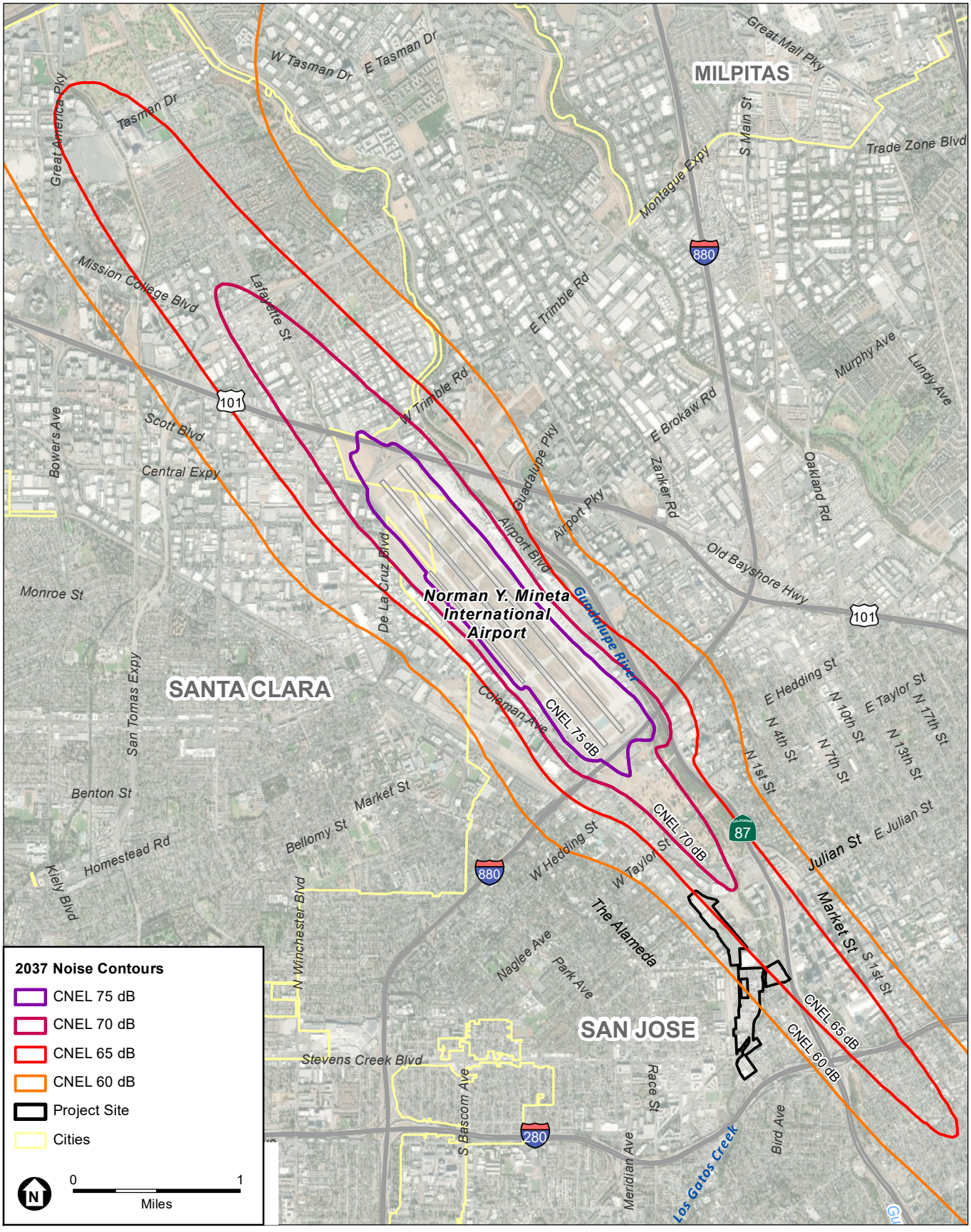
Impact NO-3: For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, the proposed project could expose people residing or working in the project area to excessive noise levels. ***(Significant and Unavoidable)***

As indicated on Figure 3.10-3, a portion of the project site is within the existing 65 dBA CNEL noise contour of Norman Y. Mineta San José International Airport. Future noise levels expected from aircraft in 2027 are indicated by the 2027 CNEL contours noise exposure map in the CLUP and presented on **Figure 3.10-6**.

The Santa Clara County Airport Land Use Commission evaluates the compatibility of new land uses near airports, and establishes 65 dBA CNEL as the maximum allowable noise level considered compatible with residential uses. Policy N-4 in the CLUP for the Airport prohibits residential or transient lodging within the 65 dBA CNEL contour boundary unless it can be demonstrated that the resulting interior sound levels would be less than 45 dBA CNEL and there are no outdoor patios or outdoor activity areas associated with the residential portion of a mixed-use residential project or a multi-unit residential project. In addition, CLUP Policy N-5 requires all property owners within the Airport Influence Area (the 65 dBA CNEL contour boundary) who rent or lease their property for residential use to disclose to the tenants as part of their rental/lease agreement that they are living in a high-noise area.

General Plan Policies EC-1.1, EC-1.9, and EC-1.11 provide guidance for new development proposed for areas susceptible to noise associated with the Airport. Policy EC-1.1 requires that the General Plan's compatibility standards be used to determine where noise levels in the community are acceptable or unacceptable and requires noise attenuation measures to achieve the "normally acceptable" noise level standards. This policy allows for noise levels to exceed the "normally acceptable" noise level standard in the environs of the Airport. General Plan Policy EC-1.9 requires that studies be conducted to mitigate loud intermittent noise sources such as aircraft. Policy EC-1.11 requires that incompatible land uses be located outside of the 65 dBA CNEL noise contour. To be consistent with Policy N-4 of the CLUP and the General Plan, future residential and transient lodging developments within the 65 dBA CNEL noise contour are required to prepare a detailed noise analysis and incorporate noise insulation features into the project design.

The proposed project would construct up to 5,900 residential units and a 300-room hotel in addition to private corporate accommodations. As indicated in Figure 3.10-6, the 2027 65 dBA CNEL noise contour extends into the project site to encompass blocks designated for residential use or hotel use, including most of Block E3 and, potentially, the northeastern most corner of Block E2(between West Santa Clara Street and West San Fernando Street, east of the Guadalupe River), along with the eastern edge of Block C1 and, potentially, the eastern edge of Block C3 (between West Julian and West St. John Streets). Proposed residential development on these blocks would be located between the 65 and 70 dBA CNEL contours. In this portion of the project site, the noise exposure impact from Airport operations would be **potentially significant**. Therefore, in addition to SCA NO-2, *Interior Noise Standard for Residential Development*, the proposed project would implement **Mitigation Measure NO-3, Exposure to Airport Noise**, to address potential aircraft noise exposure impacts on interior noise for residential uses in this portion of the project site. Implementing this mitigation measure would reduce impacts related to interior noise exposure near



SOURCES: Esri, 2019, City of San Jose, 2019, DJP, 2020; ESA, 2020

Downtown West Mixed-Use Plan

Figure 3.10-6
Year 2027 Noise Contours
Norman Y. Mineta San José International Airport

an airport to a less-than-significant level. However, because residential uses within the 65 dBA CNEL noise contour may have outdoor patios and other outdoor spaces, this would result in a land use that is inconsistent with Policy N-4 and a **significant and unavoidable** impact resulting from exposure to excessive noise levels as defined in the CLUP.

It is noted that noise levels are anticipated to increase further in the future, based on the 2037 noise contours in the City's recently approved *Master Plan for Norman Y. Mineta San José International Airport*, and presented in **Figure 3.10-7**. These contours are anticipated to be adopted as part of a subsequent CLUP; however, the analysis relies upon the current CLUP, and the noise contours in Figure 3.10-7 are shown for informational purposes.

The California Building Code requires that walls and floor/ceiling assemblies separating dwelling units from each other, or from public or service areas, have a sound transmission class[33] of 50 dB for all common interior walls and floor/ceiling assemblies between adjacent dwelling units, or between dwelling units and adjacent public areas for multifamily units and transient lodging. These requirements would apply to corporate accommodation uses because they would be considered transient lodging.

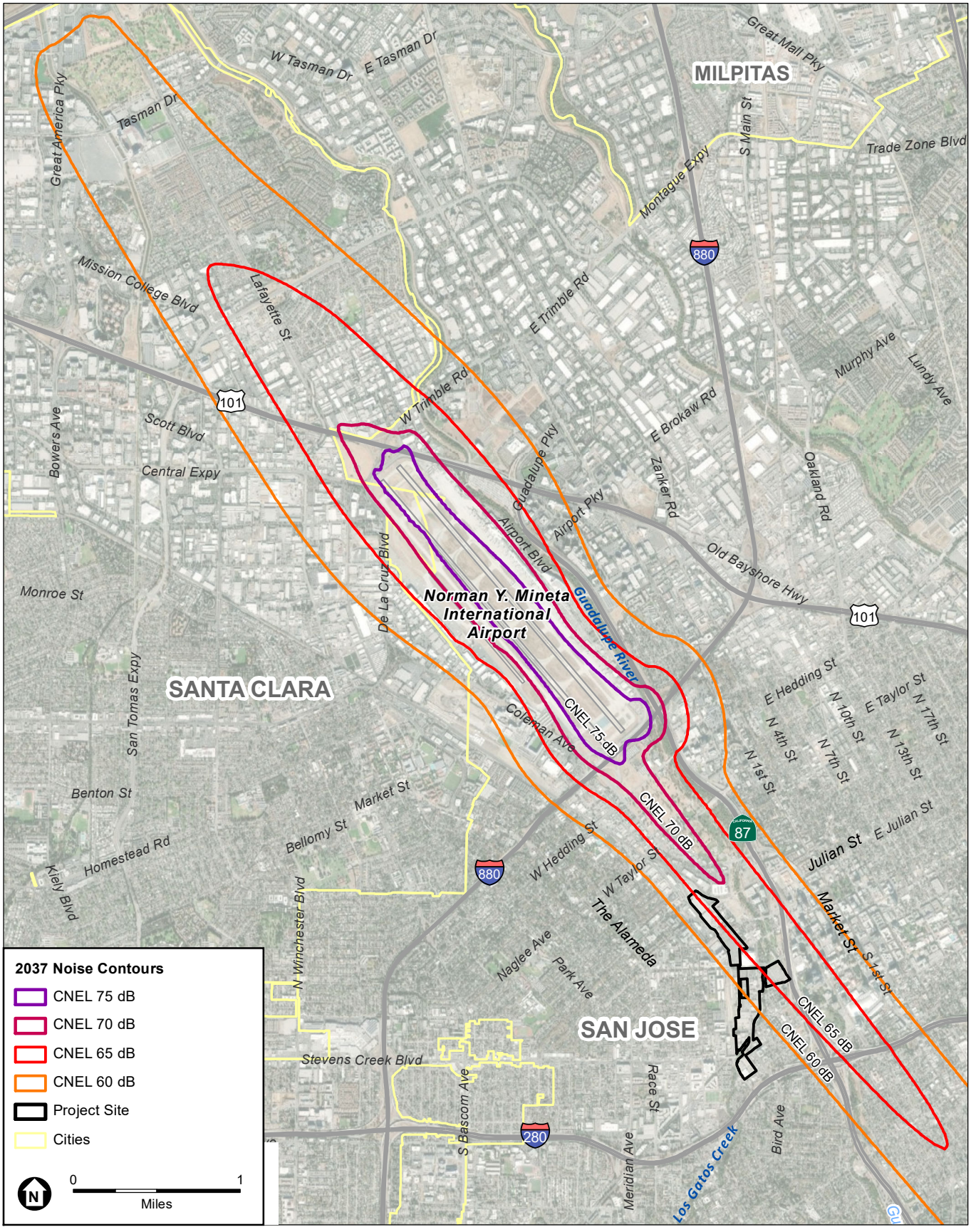
Mitigation Measures

Mitigation Measure NO-3: Exposure to Airport Noise

Prior to approval of construction-related permits for residential and hotel structures on the easternmost blocks of the project site, which are located within the year 2027 65 dBA CNEL noise contour—including Blocks E2, E3, C1, and C3—each project applicant for a residential or hotel structure shall submit a noise reduction plan prepared by a qualified acoustical engineer for review and approval by the Director of Planning, Building and Code Enforcement or the Director's designee. The noise reduction plan shall contain noise reduction measures (e.g., sound-rated window, wall, and door assemblies) to achieve an acceptable interior noise level in accordance with the land use compatibility guidelines of the General Plan's Noise Element for any and all proposed residential land uses within the 65 dBA CNEL noise contour for operations at Norman Y. Mineta San José International Airport. Exterior-to-interior noise reductions of 36 dBA have been demonstrated in modern urban residential uses,[34] while attenuation of up to 45 dBA CNEL has been achieved at Airport hotels. Noise-reduction specifications shall be included on all building plans, and the construction contractor shall implement the approved plans during construction such that interior noise levels shall not exceed 45 dBA CNEL at these residential land uses.

[33] The sound transmission class is used as a measure of a materials ability to reduce sound. The sound transmission class is equal to the number of decibels a sound is reduced as it passes through a material.

[34] Environmental Science Associates, *301 Mission Street, Millennium Tower Perimeter Pile Upgrade Project, Preliminary Mitigated Negative Declaration and Initial Study*, November 2019, p. 102.



SOURCES: Esri, 2019, City of San Jose, 2019, DJP, 2020; ESA, 2020

Downtown West Mixed-Use Plan

Figure 3.10-7
Year 2037 Noise Contours
Norman Y. Mineta San José International Airport

Significance after Mitigation: Significant and unavoidable. Mitigation Measure NO-3 would reduce interior noise levels for residential uses within the 65 dBA CNEL noise contour to 45 dB CNEL or less. However, because the project could include outdoor residential areas located within the airport's 65 dB CNEL contour, it could result in a land use that is not compatible with the CLUP. Consequently, this impact would remain significant and unavoidable.[35]

Impact NO-4 *(Non-CEQA noise impacts of the environment on the project)*: The project would not expose people residing or working within the project area to excessive noise levels.

Development of the proposed project could expose future occupants of the project site to existing sources of noise. However, CEQA does not require that potential effects of the environment on the project be analyzed or mitigated. Nevertheless, an analysis of existing noise effects on the project is included to provide information to the public and decision-makers and to comply with General Plan policies.

The City of San José uses land use compatibility guidelines to determine noise-affected uses (refer to Figure 3.10-6):

- For *residential uses and hotels*, noise environments of 60 dBA DNL or less represent the normally acceptable noise exposure, noise environments between 60 and 75 dBA DNL are considered conditionally acceptable, and noisier than 75 dBA DNL is considered unacceptable.
- For *commercial uses*, noise environments of 70 dBA DNL or less represent the normally acceptable noise exposure, noise environments between 70 and 80 dBA DNL are considered conditionally acceptable, and noise environments greater than 80 dBA DNL are considered unacceptable.
- For *neighborhood parks*, noise environments of 65 dBA DNL or less represent the normally acceptable noise exposure, noise environments between 65 and 80 dBA DNL are considered conditionally acceptable, and noise environments greater than 80 dBA DNL are considered unacceptable.

"Conditionally acceptable" means that development of such uses may be permitted only after detailed analysis of the noise-reduction requirements is conducted and noise insulation features are included in the design to reduce noise to "normally acceptable" levels.

Noise Exposure of Residential, Corporate Accommodation, and Hotel Uses

Noise measurements were conducted at six locations representative of both existing and proposed residential land uses (refer to Table 3.10-4). As shown in Table 3.10-4, existing noise levels for representative locations in the project area vary from 66 to 76 dBA DNL adjacent to the rail line at monitoring location LT-B. Based on monitoring data for monitoring location LT-B, approximately one-half mile north of Diridon Station at the northern extent of the project site,

[35] Notwithstanding the significant impact resulting from the inconsistency with CLUP Policy N-4, exposure to aircraft noise at the levels that exist, and would exist in the future, on the project site would not result in adverse health or safety impacts. This is because, as explained in the analysis, indoor noise levels would be acceptable and the exposure to outdoor noise—if determined to be a nuisance—could be avoided by moving indoors from outdoor open space such as a balcony or patio.

existing noise levels would be within the unacceptable category for residential uses if such uses were to be located within 50 feet of the railroad right-of-way, representing a non-CEQA significant impact. Because train speeds decrease closer to the station, this estimated distance and noise level represents the worst-case noise level for rail operations. The southern extent of the project site is also approximately one-half mile from Diridon Station.

All other locations of proposed residential uses would be within the "conditionally acceptable" exposure category, which is generally common of urban environments close to transportation sources. SCA NO-2, *Interior Noise Standard for Residential Development*, would require the project applicant to prepare final design plans and incorporate building design and acoustical treatments to ensure compliance with state building codes and City noise standards. This would include a project-specific acoustical analysis to ensure that the design incorporates controls to reduce interior noise levels to 45 dBA DNL or lower within the residential units. Such design controls may include sound-rated windows and doors, sound-rated wall constructions, and acoustical caulking.

The California Building Code requires that walls and floor/ceiling assemblies separating dwelling units from each other, or from public or service areas, have a sound transmission class of 50 dB for all common interior walls and floor/ceiling assemblies between adjacent dwelling units, or between dwelling units and adjacent public areas for multifamily units and transient lodging. These requirements would apply to corporate accommodation uses because they would be considered transient lodging. With implementation of the required SCA NO-2, *Interior Noise Standard for Residential Development*, the non-CEQA impact related to noise exposure of proposed residential and hotel uses would not be in excess of General Plan standards.

Impact NO-5 *(Non-CEQA vibration impacts of the environment on the project)*: The project could expose people residing or working within the project area to excessive groundborne vibration levels.

Development of the proposed project could expose future occupants of the project site to perceptible groundborne vibration when located near separate train lines that run northwest/ southeast and are used by Caltrain, ACE, Amtrak Capitol Corridor, and Union Pacific freight trains. However, CEQA does not require that potential effects of the environment on the project be analyzed or mitigated. Nevertheless, an analysis of the vibration-related effects on the project of existing train operations is included to provide information to the public and decision-makers and to comply with General Plan policies.

FTA's *Transit Noise and Vibration Impact Assessment* was specifically developed for determining the significant noise and vibration impacts of transit projects involving rail or bus facilities and includes noise impact criteria. **Table 3.10-14** presents vibration impact criteria.

TABLE 3.10-14
FEDERAL TRANSIT ADMINISTRATION GROUNDBORNE VIBRATION IMPACT CRITERIA

Land Use Category	Frequent Events[a]	Occasional Events[b]	Infrequent Events[c]
Category I: Buildings where vibration would interfere with interior operations	65 VdB[d]	65 VdB[d]	65 VdB[d]
Category II: Residences and buildings where people normally sleep	72 VdB	75 VdB	80 VdB
Category III: Institutional land uses with primarily daytime use	75 VdB	78 VdB	83 VdB

NOTES:
VdB = vibration decibels
[a] More than 70 vibration events of the same source per day.
[b] Between 30 and 70 vibration events of the same source per day.
[c] Fewer than 30 vibration events of the same source per day.
[d] This criterion is based on levels that are acceptable for most moderately sensitive equipment, such as optical microscopes. Vibration-sensitive manufacturing or research should always require a detailed evaluation to define the acceptable vibration levels.

SOURCE: Federal Transit Administration, *Transit Noise and Vibration Impact Assessment Manual*, September 2018.

Because the project site is bounded by railroad tracks that support Caltrain, ACE, and Amtrak trains and freight train activity, project site development would expose people to vibration from rail operations. Currently, Caltrain operates 92 passenger trains every weekday on this track, which alone would fall into the "frequent events" category with respect to the FTA criteria shown in Table 3.10-14.

FTA acknowledges that steel-wheeled/steel-rail vehicles can generate vibration impacts. FTA identifies screening buffer distances in its document *Transit Noise and Vibration Impact Assessment*. Specifically, for commuter rail lines, buffers extending 50–100 feet from the right-of-way are recommended for residences or any land uses where people sleep, such as hotels and hospitals, to avoid vibration impacts. Because the project proposes to develop land uses that could include residences within 100 feet of the Caltrain tracks, non-CEQA vibration exposure impacts could occur. The following condition of approval to address this non-CEQA impact would establish a vibration performance standard for residential developments exposed to vibration levels in excess of 72 VdB from operations of the adjacent Caltrain tracks and would require preparation of detailed project-level vibration analyses to ensure that standard would be met.

Condition of Approval: Vibration Reduction Plan

All residential development with vibration exposure exceeding 72 VdB from operations on the Caltrain tracks shall be designed to reduce vibration exposure from Caltrain and other rail operations to 72 VdB or less for residential uses. Before any building permit is issued for structures intended for human occupancy within 100 feet of the mainline track, a qualified engineer shall complete a detailed vibration design study. The study shall confirm the ground vibration levels and frequency along the Caltrain tracks and determine the appropriate design to limit interior vibration levels to 72 VdB for residences, if necessary. A qualified acoustical engineer shall review the plans and provide documentation to the City of San José Department of Planning, Building and Code Enforcement to ensure that the recommended measures in the acoustical study have been incorporated into the project's design elements.

Specific measures to achieve these performance standards may include one or a combination of the following methods:

- Using vibration isolation techniques such as supporting the new building foundations on elastomer pads similar to bridge bearing pads.
- Installing vibration wave barriers. Wave barriers would consist of control trenches or sheet piles, which are analogous to controlling noise with a sound barrier. The applicability of this technique depends on the characteristics of the vibration waves.

Cumulative Impacts

Impact C-NO-1: Construction activities for the proposed project combined with cumulative construction noise in the project area would result in a substantial temporary or periodic increase in ambient noise levels in excess of standards established in the General Plan or Noise Ordinance. ***(Significant and Unavoidable)***

The geographic scope of analysis for cumulative noise and vibration construction impacts encompasses sensitive receptors within approximately 1,000 feet of the project site.[36] Beyond 1,000 feet, the contributions of noise from other projects would be greatly attenuated by both distance and intervening structures, and their contribution would be expected to be minimal. **Appendix B** presents the list of reasonably foreseeable future projects in the vicinity that could contribute to cumulative construction noise. Fifteen of these projects are currently under construction and anticipated to have completed the noisiest phases of construction[37] before construction of the project, and thus, would not cumulatively combine with project construction, which would begin in 2021. Of the remaining 27 cumulative projects, seven of them would be within the 1,000-foot geographic scope of analysis:

- Montgomery 7, at 565 Lorraine Avenue (54 residential units)—approximately 100 feet east of the project site.
- West San Carlos Supportive Housing, 750 West San Carlos Street (80 residential units)—approximately 400 feet west of the project site.
- McEvoy Residences, 280 McEvoy Street (358 residential units)—approximately 300 feet west of the project site.
- Josefa, 500 West San Carlos Street (19 residential units)—approximately 400 feet east of the project site.

[36] This screening threshold distance was developed based on equations for stationary-source noise attenuation (California Department of Transportation, *Transportation and Construction Vibration Guidance Manual*, September 2013). The analysis also used the combined noise level generated by the typical construction phases for a given project (assuming multiple pieces of equipment) at a distance of 50 feet. Using the attenuation equations, the maximum noise level of 89 dBA for both excavation and finishing would diminish to below 65 dBA at 1,000 feet. A receptor experiencing noise levels of 89 dBA from two adjacent construction sites would experience a cumulative noise level of 91 dBA (the acoustical sum of 89 dBA plus 89 dBA), which would still diminish to below 65 dBA at 1,000 feet. Hence, 1,000 feet is used as the geographic scope.

[37] The earliest phases of a construction project, which may involve demolition, excavation, pile driving, and foundation work, are generally associated with the highest noise levels. Later phases occurring once the building skin is in place are generally not a source of noise complaints.

- Stockton Hotel, 292 Stockton Avenue (19 hotel rooms)—approximately 120 feet west of the project site.
- Montgomery Phase 2, 543 Lorraine Avenue (69 residential units)—approximately 200 feet east of the project site.
- BART and high-speed rail service extension to San José. The Diridon BART station would be located within the project site, underground along the south side of West Santa Clara Street between South Autumn and Cahill Streets across from the SAP Center.

The Stockton Hotel project would be closest to construction at Block C1 of the proposed project, which would occur in Phase 2 (i.e., between 2025 and 2032) at which time construction of the Stockton Hotel is likely to have been completed.

In addition, SAP Center parking changes are described in Section 2.7.6, *Off-Site Transportation Improvements*, and are analyzed as a likely component of development in the Diridon Station Area Plan (DSAP) area. Because the configuration and location of replacement parking is not known at this time, the analysis is provided at a programmatic or qualitative level, and replacement parking is considered a cumulative project. All of the cumulative residential, parking lot, and hotel projects would be subject to the City's SCA NO-1, *Construction-Related Noise*, which would reduce noise levels from construction activity associated with these cumulative projects.

The VTA BART Silicon Valley Phase II Project is a six-mile, four-station extension to bring BART train service through Downtown San José to the city of Santa Clara. The Phase II Project is planned to include an approximately five-mile tunnel that would include three underground stations (Alum Rock/28th Street, Downtown San José, and Diridon), one ground-level station (Santa Clara), and general and maintenance facilities. VTA's BART Diridon Station would be located adjacent to the south side of West Santa Clara Street, between Autumn Street and Diridon Station. The proposed underground station and system facilities would be located beneath Santa Clara Street, between the SAP Center and the current Diridon Station parking lot. Construction is anticipated for 2022 through 2028, and staging for this project would constrain the sequence of construction of the proposed project.

Although it would depend on the sequence of events, funding, and approvals, it is possible that construction activities for the BART extension, particularly the Diridon BART station, would occur simultaneously with the proposed project. As federally funded regional transit projects, BART extension projects are not subject to the ordinances of local jurisdictions, and construction of the BART station would not be subject to the City's SCAs for construction. Station construction would require pile driving and other extreme noise-generating construction activities. The Final Supplemental Environmental Impact Statement and Subsequent Environmental Impact Report for the Phase II Project found that constructing the Diridon BART Station would have the potential to result in adverse construction noise effects. Implementing mitigation measures would reduce the noise impacts but would not guarantee that the noise levels

would be less than the FTA criteria; therefore, construction noise impacts for the Diridon BART Station were identified as an adverse effect despite mitigation.[38]

In addition, the Diridon Integrated Station Concept may result in an expansion and redesign of the existing Diridon Station. Although there are no specifics or timeline for this project, it is proposed within a 2040 horizon year and, as such, may be expected to involve concurrent construction with later phases of the proposed project.

Although the proposed project would implement both the City's SCA NO-1, *Construction-Related Noise*, and Mitigation Measure NO-1c in combination with the identified significant construction noise impact for the BART Phase II Project, the project could contribute considerably to **significant** cumulative construction noise impacts in excess of standards established in the local general plan or noise ordinance—or in this case, the applicable standards of another agency (FTA).

Mitigation Measures

Mitigation Measure NO-1c, Master Construction Noise Reduction Plan (refer to Impact NO-1c)

Significance after Mitigation: Significant and unavoidable.

Impact C-NO-2: Operation of the proposed project when considered with other cumulative development would cause a substantial permanent increase in ambient noise levels in excess of standards established in the General Plan or Noise Ordinance. *(Significant and Unavoidable)*

Caltrain, the California High-Speed Rail Authority, and VTA are currently developing the Diridon Integrated Station Concept Plan, which envisions potential changes to track and platform configurations, station location, and station layout that will accommodate future increases in Caltrain operations resulting from electrification as well as future operation of high-speed rail. At the present time, the specifics of future operations are not known. While electrifying Caltrain would reduce the noise generation of individual pass-by events compared to that of existing diesel locomotives, the increase in headways potentially accommodated by electrification may offset some of the beneficial reductions in noise and vibration generation. At the present time, the cumulative non-CEQA noise and vibration impacts of future rail operations are speculative. The project-level analysis presented in Impact NO-4 and the requirements under SCA NO-2 would provide proposed noise sensitive receptors of the proposed project with measures to reduce noise compatibility impacts.

Operational noise impacts of the proposed project would result primarily from increased traffic on the local roadway network. Cumulative (year 2040) plus project traffic data were used to

[38] Valley Transportation Authority, *VTA's BART Silicon Valley—Phase II Extension Project Final SEIS/SEIR*, February 2018.

estimate cumulative operational noise increases. The 2040 traffic data inherently include City growth projections, including additional development as a result of the DSAP amendments.

The significance of cumulative impacts related to traffic noise levels is determined using a two-step process, as discussed in the *Approach to Analysis* section. If a cumulative impact is identified, the second step is to evaluate whether the contribution of the project to roadside noise levels would be cumulatively considerable.

The roadway segments analyzed and the results of the noise increases resulting from modeling are shown in **Table 3.10-15** for 2040 cumulative plus weekday p.m.[39] full buildout of the project's mixed uses.

As shown in Table 3.10-15, although cumulative traffic noise impacts would occur along 10 of the roadways analyzed, the traffic noise associated with the proposed project would only represent a cumulatively considerable contribution to these cumulative impacts (i.e., there would be an increase of more than 1.5 dBA over the cumulative without project scenario) along four of them:

- West Julian Street from North Montgomery Street to Market Street,
- North Montgomery Street from West Julian Street to St. John Street,
- Stockton Street from West Julian Street to Lenzen Avenue, and
- West San Carlos Street from South Montgomery Street to Sunol Street.

Mitigation Measure AQ-2h, Enhanced Transportation Demand Management Program, is predicted to reduce the cumulative plus project's peak-hour contributions by approximately 27 percent at build-out and following commencement of BART service to the area. **Table 3.10-16** presents the predicted roadside noise levels for full buildout of the project's mixed uses during the weekday peak commute hour assuming a 27 percent reduction from **Mitigation Measure AQ-2h.** Taking these reduced contributions into account, noise level increases along three of the four roadways would still remain significant (the impact along West Julian Street from North Montgomery Street to Market Street would be reduced to less than significant). **Mitigation Measure NO-1b, Traffic Noise Impact Reduction**, was identified at the project level to address this potentially significant noise impact for affected segments of West San Fernando Street and Bird Avenue and would not address these three additional roadways that would be affected in the cumulative scenario.

There are existing, older (pre-1950) single-family residences along North Montgomery Street that appear not to have been retrofitted with acoustical windows. The existing multifamily residences along both Stockton and San Carlos Streets are of recent construction but have usable balconies where mitigating noise increases is not possible. Therefore, the proposed project's cumulative noise impact would be **potentially significant**.

Mitigation Measure C-NO-2, Cumulative Traffic Noise Impact Reduction, is identified to reduce interior noise levels for the affected residences along North Montgomery Street to the

[39] The peak hour was used to represent the maximum period of traffic generation and associated noise generated by the project.

extent feasible. Existing multifamily residences along Stockton Street and San Carlos Street have usable balconies where mitigating noise increases is not possible.

Mitigation Measure C-NO-2: Cumulative Traffic Noise Impact Reduction

Prior to the issuance of any building permits, the project applicant shall implement the following measures to reduce roadside noise impacts at the following roadway segment:

- *North Montgomery Street from West Julian Street to St. John Street.* Prior to the issuance of any building permits for Phase 1 construction on this block, the project applicant shall prepare and submit to the Director of Planning, Building and Code Enforcement, or the Director's designee, a site-specific acoustical study for review and approval. Upon approval of the site-specific acoustical study, the project applicant shall directly contact property owners of single-family homes on this stretch of North Montgomery Street to implement, with the owners' consent, reasonable sound insulation treatments. Treatments may include replacing the existing windows and doors with sound-rated windows and doors and providing a suitable form of forced-air mechanical ventilation, which could reduce indoor noise levels up to 45 dBA DNL, as warranted by the study.

Significance after Mitigation: Significant and unavoidable. While Mitigation Measure C-NO-2, Cumulative Traffic Noise Impact Reduction, would reduce interior noise levels for the affected residences along North Montgomery Street to the extent feasible, existing multifamily residences along Stockton Street and San Carlos Street have usable balconies where mitigating noise increases is not possible and therefore, this impact is significant and unavoidable.

Impact C-NO-3: The proposed project would make a considerable contribution to exposure of people to excessive airport noise levels. *(Significant and Unavoidable)*

As explained in Impact NO-3, CLUP Policy N-4 prohibits residential or transient lodging within the 65 dBA CNEL contour boundary unless it can be demonstrated that the resulting interior sound levels would be less than 45 dBA CNEL and, in a mixed-use or multi-unit residential project, there are no residential-use outdoor patios or outdoor activity areas. Mitigation Measure NO-3 would ensure that interior noise levels comply with this requirement. However, because project residential uses within the 65 dBA CNEL noise contour may have outdoor patios and other outdoor spaces, the land use would be inconsistent with Policy N-4 and a **significant and unavoidable** impact.

TABLE 3.10-15
MODELED TRAFFIC NOISE LEVELS YEAR 2040 WITH WEEKDAY P.M. FULL BUILDOUT OF PROJECT MIXED USES

Roadway Segment	Existing	Applicable Increase Threshold (dB)	2040 plus Full Buildout of Project Mixed Uses	dBA Difference 2040 plus Full Buildout of Project Mixed Uses from Existing	Significant Cumulative Increase?	2040 No Project	dBA Difference 2040 plus Full Buildout of Project Mixed Uses from 2040 No Project	Cumulatively Considerable Project Increase[g]?
Weekday Peak-Hour Noise Levels								
W. Julian Street from Stockton Avenue to The Alameda	63.1	3	65.5	2.4	No	64.3	1.2	N/A
W. Julian Street from N. Montgomery Street to Market Street	63.1	3	67.1	**4.0**	**Yes**	64.7	**2.4**	**Yes**
N. Autumn Street from W. Julian Street to St. John Street	53.2	5	64.9	**11.7**	No[b]	64.1	0.8	N/A
N. Montgomery Street from W. Julian Street to St. John Street	NA[e]	5	63.5	NA	**Yes**	57.3	**6.2**	**Yes**
Stockton Avenue from W. Julian Street to Lenzen Avenue	54.3	5	63.5	**9.2**	**Yes**	61.1	**2.4**	**Yes**
Stockton Avenue from W. Julian Street to The Alameda	60.6	3	67.0	**6.4**	No[d]	65.5	**1.5**	N/A
The Alameda from Stockton Avenue to Sunol Street	60.3	3	67.7	**7.4**	**Yes**	67.2	**0.5**	No
W. Santa Clara Street from Stockton Avenue to Delmas Avenue	63.3	3	70.0	**6.7**	No[c]	68.8	1.2	N/A
S. Montgomery Street from W. Santa Clara Street to W. San Fernando Street	54.0	5	60.5	**6.5**	No[f]	58.1	2.4	N/A
Cahill Street from W. Santa Clara Street to W. San Fernando Street	37.4	5	62.2	**24.8**	No[c]	49.0	13.2	N/A
S. Autumn Street from W. Santa Clara Street to W. San Fernando Street	49.5	5	63.7	**14.2**	No[c]	62.7	1.0	N/A
W. San Fernando Street from S. Montgomery Street to Delmas Avenue	58.3	5	66.6	**8.3**	**Yes**	66.9	-0.3	No
Park Avenue from S. Montgomery Street to Sunol Street	58.8	5	64.3	**5.5**	**Yes**	65.3	-1.0	No

TABLE 3.10-15
MODELED TRAFFIC NOISE LEVELS YEAR 2040 WITH WEEKDAY P.M. FULL BUILDOUT OF PROJECT MIXED USES

Roadway Segment	Existing	Applicable Increase Threshold (dB)	2040 plus Full Buildout of Project Mixed Uses	dBA Difference 2040 plus Full Buildout of Project Mixed Uses from Existing	Significant Cumulative Increase?	2040 No Project	dBA Difference 2040 plus Full Buildout of Project Mixed Uses from 2040 No Project	Cumulatively Considerable Project Increase[g]?
Park Avenue from S. Montgomery Street to S. Delmas Avenue	61.9	3	64.4	2.5	No	64.4	0.0	N/A
W. San Carlos Street from S. Montgomery Street to Sunol Street	58.8	3	68.4	**9.6**	**Yes**	65.7	**2.7**	**Yes**
W. San Carlos Street from S. Montgomery Street to S. Delmas Avenue	56.5	5	66.5	**10.0**	**Yes**	65.7	0.8	No
Auzerais Avenue from Bird Avenue to Sunol Street	50.7	5	58.0	**7.3**	**Yes**	57.9	0.1	No
Auzerais Avenue from Bird Avenue to Delmas Avenue	56.9	5	60.1	3.2	No	59.9	0.2	N/A
Bird Avenue from W. San Carlos Street to Auzerais Avenue	65.8	3	72.1	**6.3**	**Yes**	71.1	1.0	No
Bird Avenue from Auzerais Avenue to Virginia Street	67.0	3	73.0	**6.0**	No[c]	72.0	1.0	N/A

NOTES:

dB = decibels; dBA = A-weighted decibels; N/A = The cumulative contribution test for the project is not applicable because there is no cumulative impact along this roadway.

[a] Negative values indicate a decrease in roadway noise at these locations that result from traffic distribution changes reducing future traffic volumes compared to the existing conditions, as predicted in the transportation analysis.

[b] North Autumn Street would be realigned to a more easterly location, so existing receptors along this roadway would not be affected by this predicted increase.

[c] There are no noise-sensitive land uses along these roadway segments; thus, the impact would be less than significant.

[d] The impact along this segment would be less than significant because, as explained above, existing noise from Caltrain and other rail operations would render the realized increase to less than 1.0 dBA.

[e] The traffic model shows no meaningful existing traffic volumes on this segment. Resultant cumulative noise levels with the project would be greater than the normally acceptable exterior noise level for residential uses. Consequently, there would be a cumulative traffic noise impact along this segment and the contribution of the project would be considerable (greater than 1.5 dBA).

[f] The noise-sensitive land use(s) along this segment would be relocated or demolished.

[g] As discussed in the *Approach to Analysis* section, a 1.5 dB increase is used as an indication of a cumulatively considerable contribution to a significant cumulative roadway noise impact.

SOURCE: Data compiled by Fehr & Peers in 2019 and Environmental Science Associates in 2020.

TABLE 3.10-16
MODELED TRAFFIC NOISE LEVELS YEAR 2040 WITH WEEKDAY P.M. FULL BUILDOUT OF PROJECT MIXED USES AND TRANSPORTATION DEMAND MANAGEMENT

Roadway Segment	Existing	Applicable Increase Threshold (dB)	2040 plus Full Buildout of Project Mixed Uses with TDM	dBA Difference 2040 plus Full Buildout of Project Mixed Uses from Existing	Significant Cumulative Increase?	2040 No Project	dBA Difference 2040 plus Full Buildout of Project Mixed Uses with TDM from 2040 No Project	Cumulatively Considerable Project Increase[g]?
Weekday Peak-Hour Noise Levels								
W. Julian Street from Stockton Avenue to The Alameda	63.1	3	65.3	2.2	No	64.3	1.0	N/A
W. Julian Street from N. Montgomery Street to Market Street	63.1	3	65.9	2.8	No	64.7	1.2	N/A
N. Autumn Street from W. Julian Street to St. John Street	53.2	5	64.6	**11.4**	No[b]	64.1	0.5	N/A
N. Montgomery Street from W. Julian Street to St. John Street	NA[e]	5	63.0	NA	Yes[e]	57.3	**5.7**	**Yes**
Stockton Avenue from W. Julian Street to Lenzen Avenue	54.3	5	63.1	**8.8**	**Yes**	61.1	**2.0**	**Yes**
Stockton Avenue from W. Julian Street to The Alameda	60.6	3	66.9	**6.3**	No[d]	65.5	1.4	N/A
The Alameda from Stockton Avenue to Sunol Street	60.3	3	67.5	**7.2**	**Yes**	67.2	0.3	No
W. Santa Clara Street from Stockton Avenue to Delmas Avenue	63.3	3	69.8	**6.5**	No[c]	68.8	1.0	N/A
S. Montgomery Street from W. Santa Clara Street to W. San Fernando Street	54.0	5	59.7	**5.7**	No[f]	58.1	1.6	N/A
Cahill Street from W. Santa Clara Street to W. San Fernando Street	37.4	5	61.8	**24.4**	No[c]	49.0	12.8	N/A
S. Autumn Street from W. Santa Clara Street to W. San Fernando Street	49.5	5	63.5	**14.0**	No[c]	62.7	0.8	N/A
W. San Fernando Street from S. Montgomery Street to Delmas Avenue	58.3	5	66.3	**8.0**	**Yes**	66.9	-0.6	No

TABLE 3.10-16
MODELED TRAFFIC NOISE LEVELS YEAR 2040 WITH WEEKDAY P.M. FULL BUILDOUT OF PROJECT MIXED USES AND TRANSPORTATION DEMAND MANAGEMENT

Roadway Segment	Existing	Applicable Increase Threshold (dB)	2040 plus Full Buildout of Project Mixed Uses with TDM	dBA Difference 2040 plus Full Buildout of Project Mixed Uses from Existing	Significant Cumulative Increase?	2040 No Project	dBA Difference 2040 plus Full Buildout of Project Mixed Uses with TDM from 2040 No Project	Cumulatively Considerable Project Increase[g]?
Park Avenue from S. Montgomery Street to Sunol Street	58.8	5	64.1	**5.3**	**Yes**	65.3	-1.2	No
Park Avenue from S. Montgomery Street to S. Delmas Avenue	61.9	3	64.3	2.4	No	64.4	-0.1	N/A
W. San Carlos Street from S. Montgomery Street to Sunol Street	58.8	3	67.7	**8.9**	**Yes**	65.7	**2.0**	**Yes**
W. San Carlos Street from S. Montgomery Street to S. Delmas Avenue	56.5	5	66.3	**9.8**	**Yes**	65.7	0.6	No
Auzerais Avenue from Bird Avenue to Sunol Street	50.7	5	57.6	**6.9**	**Yes**	57.9	-0.3	No
Auzerais Avenue from Bird Avenue to Delmas Avenue	56.9	5	60.2	3.3	No	59.9	0.3	N/A
Bird Avenue from W. San Carlos Street to Auzerais Avenue	65.8	3	72.0	**6.2**	**Yes**	71.1	0.9	No
Bird Avenue from Auzerais Avenue to Virginia Street	67.0	3	72.4	**5.4**	No[c]	72.0	0.4	N/A

NOTES:

dB = decibels; dBA = A-weighted decibels; N/A = The cumulative contribution test for the project is not applicable because there is no cumulative impact along this roadway; TDM = transportation demand management

[a] Negative values indicate a decrease in roadway noise at these locations that would result when traffic distribution changes reduce future traffic volumes compared to existing conditions, as predicted in the transportation analysis.

[b] North Autumn Street would be realigned to a more easterly location, so existing receptors along this roadway would not be affected by this predicted increase.

[c] There are no noise-sensitive land uses along these roadway segments; thus, the impact would be less than significant.

[d] The impact along this segment would be less than significant because, as explained above, existing noise from Caltrain and other rail operations would render the realized increase to less than 1.0 dBA.

[e] The traffic model shows no meaningful existing traffic volumes on this segment. Resultant cumulative noise levels with the project would be greater than the normally acceptable exterior noise level for residential uses. Consequently, there would be a cumulative traffic noise impact along this segment and the contribution of the project would be considerable (greater than 1.5 dBA).

[f] The noise-sensitive land use(s) along this segment would be relocated or demolished.

[g] As discussed in the *Approach to Analysis* section, a 1.5 dB increase is used as an indication of a cumulatively considerable contribution to a significant cumulative roadway noise impact.

SOURCE: Data compiled by Fehr & Peers in 2019 and Environmental Science Associates in 2020.

This impact would result from the proposed project, affecting some future residential receptors on the project site. Areas outside of the project site are zoned for residential uses such that additional residential development could occur in the 65 dB CNEL contour, including the Market/Almaden, Washington/Guadalupe, Tamien, and Goodyear/Mastic neighborhoods to the southeast, and the Rosemary Gardens neighborhood as well as portions of the City of Santa Clara, from south of Montague Expressway to Tasman Drive, to the north. These neighborhoods have existing residential uses already within the 65 dB CNEL noise contour and new residential development there, should it occur, would likewise be subject to aircraft noise that could be in conflict with CLUP Policy N-4. Because the proposed project would also conflict with CLUP Policy N-4, the impact of the proposed project in combination with cumulative projects would likewise be **significant and unavoidable**.

Mitigation: Mitigation Measure NO-3, Exposure to Airport Noise.

Significance after Mitigation: Significant and Unavoidable. Because the proposed project alone would result in a conflict with CLUP Policy N-4, and future residential development within the 65 dB CNEL noise contour could likewise conflict with that policy, the proposed project, in combination with cumulative projects, would conflict with the CLUP such that future residential receptors in outdoor areas would be subject to elevated noise levels by being located in the 2027 65 dB CNEL contour. For this reason, the impact would be significant and unavoidable.

3.11 Population and Housing

This section identifies and describes existing trends in population, employment, and housing in the city of San José and Santa Clara County, and analyzes the effects that would be caused by development of the proposed project. The section contains: (1) a description of San José's existing population, employment data, and housing stock; (2) a summary of regulations related to population, employment, and housing; and (3) an analysis of the potential impacts associated with implementation of the proposed project.

The analysis in this section was developed based on project-specific information, along with population, employment, and housing characteristics for the city of San José. Sources of information for population, employment, and housing estimates include the U.S. Census; the Association of Bay Area Governments (ABAG) *Plan Bay Area 2040*[1]; the California Department of Finance; and documents prepared by the City of San José Department of Planning, Building and Code Enforcement, such as the Downtown Strategy 2040 and its Final EIR.[2]

3.11.1 Environmental Setting

Existing Project Site Population, Housing, and Employment

The project site contains approximately 755,000 gross square feet (gsf) of building space. The largest occupied commercial land use is a nearly 200,000 gsf warehouse (587 Cinnabar Street) used for wholesale food distribution. The second largest occupied land use is an approximately 120,000 gsf storage facility (501 Cinnabar Street). Together, these two buildings make up about two-thirds of the occupied building space on the project site.

As shown in **Table 3.11-1**, existing project site employment is calculated based on occupied land uses on the project site. The number of square feet per employee is derived from an employment density table included in a review of the *Envision San José 2040 General Plan* (General Plan).[3] Occupied project site buildings are then classified according to this table and the occupied built gsf are multiplied by the corresponding square foot per employee defined in the review of the General Plan. Table 3.11-1 shows that existing employment at the project site is estimated to be 647. The project site contains 11 residential units, but only one is occupied and the applicant reports that the occupant has agreed to relocate prior to commencement of construction.

1 Metropolitan Transportation Commission and Association of Bay Area Governments, *Plan Bay Area 2040*, final, adopted July 26, 2017. Available at http://2040.planbayarea.org/cdn/ff/buje2Q801oUV3Vpib-FoJ6mkOfWC9S9sgrSgJrwFBgo/1510696833/public/2017-11/Final_Plan_Bay_Area_2040.pdf.
2 City of San José, *Downtown Strategy 2040 Integrated Final EIR*, December 2018.
3 Strategic Economics, *San Jose Market Overview and Employment Lands Analysis*, prepared for the City of San José Four-Year General Plan Review, January 20, 2016.

TABLE 3.11-1
ESTIMATED EXISTING PROJECT SITE POPULATION, HOUSING, AND EMPLOYMENT

Land Use[a]	Occupied Built Area (gsf)[a]	Square Feet per Employee[b]	Occupied Housing Units	Existing Residents	Existing Employees[c]
Institutional/Other	32,892	1,000	—	—	33
Light Manufacturing	98,148	500	—	—	196
Retail (small)	25,695	250	—	—	103
Traditional Industrial	314,800	1,000	—	—	315
Residential	8,208	—	1	5	—
Total	***479,743***	**—**	**—**	***5***	***647***

NOTES:
gsf = gross square feet
[a] Only occupied land uses are included. Other portions of the project site include vacant buildings, surface parking lots, or public rights-of-way. These uses have been omitted from this table because they do not generate residents or permanent employees.
[b] The "Square Feet per Employee" column is from the 2016 San Jose Market Overview and Employment Lands Analysis cited below. A similar analysis is prepared every four years for the review of the General Plan for the City of San José.
[c] The number of existing employees was derived by dividing occupied built area by square feet per employee.

SOURCES:
Data provided by Google LLC in 2019.
Strategic Economics, *San Jose Market Overview and Employment Lands Analysis*, prepared for the City of San José Four-Year General Plan Review, January 20, 2016.

Existing and Projected Downtown, Citywide, and Regional Population, Housing, and Employment

Population

According to federal and state data, the population of the city of San José has increased over the last two decades by less than 1 percent per year, from 894,943 in 2000 to an estimated 1,043,058 in 2019.[4,5] As described in Section 3.11.2, *Regulatory Framework*, ABAG makes projections about housing, job, and population growth for the purposes of regional transportation planning and compliance with state law on housing needs. ABAG's *Plan Bay Area 2040* projects that the population of San José will continue to grow, at a somewhat faster rate than in the past, averaging 1.5 percent per year between 2020 and 2040.[6] ABAG forecasts that the population will reach 1,189,660 people by 2030 and 1,377,145 people by 2040. The General Plan predicts somewhat less growth and a total population of 1,313,811 by 2040. The City's Downtown Strategy 2040 projects the number of people residing in Downtown to grow from 12,548 people in 2015 to 40,926 in 2040 (an average annual growth rate of 9 percent).[7] **Table 3.11-2** summarizes population growth in Downtown San José, the city of San José as a whole, and Santa Clara County, based on these data sources.

4 U.S. Census Bureau, 2000 Census. Available at https://data.census.gov/cedsci/table?q=population&g=1600000US0668000&hidePreview=false&tid=DECENNIALSF12000.P001&vintage=2000&y=2000. Accessed April 28, 2020.
5 California Department of Finance, E-5 Population and Housing Estimates for Cities, Counties, and the State—January 1, 2011–2019, Sacramento, CA, May 2019. Available at www.dof.ca.gov/Forecasting/Demographics/Estimates/e-5/.
6 Association of Bay Area Governments, *Projections 2040*, 2017. Available at projections.planbayarea.org/. Accessed September 24, 2019.
7 City of San José, *Downtown Strategy 2040 Integrated Final EIR*, December 2018.

TABLE 3.11-2
POPULATION GROWTH IN SAN JOSÉ AND SANTA CLARA COUNTY (2000–2040)

	Downtown San José	City of San José				Santa Clara County		
Year	Population	General Plan Population (Citywide)[a]	Population	Population Growth[b]	Average Annual Percent Growth[c]	Population	Population Growth[b]	Average Annual Percent Growth[c]
2000[d]	—	—	894,943	—	—	1,682,585	—	—
2010[d]	—	—	945,942	50,999	0.6%	1,781,642[d]	99,057	0.6%
2015[a]	12,548	—	—	—	—	—	—	—
2019[e]	—	—	1,043,058	97,116	1.1%	1,954,286	172,644	1.1%
2030[f]	—	—	1,189,660	146,602	1.3%	2,217,750	263,464	1.2%
2040	40,926[a]	1,313,811	1,377,145[f]	187,485	1.6%	2,538,320[f]	320,570	1.5%

NOTES:
General Plan = *Envision San José 2040 General Plan*

[a] These data are sourced from the City of San José, *Downtown Strategy 2040 Integrated Final EIR*.
[b] "Population Growth" considers the difference between the population for the listed "Year" row and the population listed in the prior "Year" row.
[c] "Average Annual Percent Growth" is calculated by dividing population growth by the population of the prior comparison year to obtain the overall percent change. The overall percent change is then divided by the number of years this growth represents to present a comparable annual change.
[d] 2000 and 2010 data are provided by the U.S. Census Bureau, 2000 and 2010 Census.
[e] 2019 data are sourced from the California Department of Finance.
[f] 2040 projected data for the Association of Bay Area Governments (ABAG) region are sourced from ABAG's *Plan Bay Area 2040*.

SOURCES:
Association of Bay Area Governments, *Projections 2040*, 2017. Available at projections.planbayarea.org/. Accessed September 24, 2019.
California Department of Finance, E-5 Population and Housing Estimates for Cities, Counties, and the State—January 1, 2011–2019, Sacramento, CA, May 2019. Available at www.dof.ca.gov/Forecasting/Demographics/Estimates/e-5/.
City of San José, *Downtown Strategy 2040 Integrated Final EIR*, December 2018.
U.S. Census Bureau, 2000 and 2010 Census. Available at https://data.census.gov/cedsci/. Accessed September 24, 2019.

Santa Clara County experienced population growth at an average annual rate of 0.6 percent between 2000 and 2010. From 2010 to 2019, the average annual rate of population growth increased to 1.1 percent.[8] According to ABAG, this growth rate is expected to increase to 1.2 percent per year from 2019 to 2030 and eventually to 1.5 percent per year between 2030 and 2040.[9]

Housing

Between 2000 and 2019, the number of housing units in San José grew by 54,046, from 281,841 to 335,887 (**Table 3.11-3**).[10,11] ABAG projects that San José will grow by an additional 122,603 units over the next 20 years, resulting in 458,490 housing units by 2040.[12] The General Plan plans

[8] U.S. Census Bureau, 2000 and 2010 Census. Available at https://data.census.gov/cedsci/. Accessed September 24, 2019.
[9] Association of Bay Area Governments, *Projections 2040*, 2017. Available at projections.planbayarea.org/. Accessed September 24, 2019.
[10] U.S. Census Bureau, 2000 and 2010 Census. Available at https://data.census.gov/cedsci/. Accessed September 24, 2019.
[11] California Department of Finance, E-5 Population and Housing Estimates for Cities, Counties, and the State—January 1, 2011–2019, Sacramento, CA, May 2019. Available at www.dof.ca.gov/Forecasting/Demographics/Estimates/e-5/.
[12] Association of Bay Area Governments, *Projections 2040*, 2017. Available at projections.planbayarea.org/. Accessed September 24, 2019.

for an additional 93,463 units over the 2019 level, for a total of 429,350 units by 2040.[13] The number of housing units in Downtown San José was 7,327 in 2015.[14] By 2019, 10,035 approved housing units were either already constructed or in the housing pipeline.[15] By 2040, the number of housing units in Downtown is anticipated to increase by another 4,325 units, resulting in about 14,360 total housing units in 2040.[16]

The number of housing units in Santa Clara County is estimated to have grown from an estimated 579,329 units in 2000 to 671,439 units in 2019.[17,18] The number of housing units in the county is projected to increase to by 210,226, resulting in about 881,655 units by 2040.[19] In 2000, San José had about 48 percent of the total units in Santa Clara County; this share is projected to increase to 52 percent by 2040, based on ABAG projections.

Jobs

As shown in **Table 3.11-4**, the number of jobs in San José is estimated to have grown from 432,480 in 2000 to 435,218 in 2019; ABAG projects this growth to continue, with a net increase of about 119,657 new jobs by 2040. The General Plan plans for more job growth, providing a total capacity of 751,450 jobs in San José by 2040. However, based on data reviewed at the time, the 2019 General Plan Annual Performance Review projected that the number of jobs in San José would be approximately 660,000 in 2040, or about 91,450 fewer jobs than the 2040 planned capacity.[20] In Downtown specifically, there were 33,608 jobs in 2015 and 43,000 jobs in 2018.[21] Downtown San José is planned to have 4,333 additional jobs in 2040, for a total of about 47,333 total jobs.[22]

Job growth had been strong in Santa Clara County as a whole until the current COVID-19 crisis, increasing from 902,225 in 2010 to an estimated 1,120,420 in 2020. While ABAG expects this growth to continue over the long term, with an additional 169,450 jobs by 2040, the COVID-19 pandemic resulted in the loss of approximately 130,000 jobs between February to May 2020,[23] although approximately 31,000 jobs were added between May and June 2020.[24]

13 City of San José, *Downtown Strategy 2040 Integrated Final EIR*, December 2018.
14 Robert Manford, Deputy Director–Planning, City of San José, email communication, October 3, 2019.
15 Jared Hart, City of San José, email communication regarding the number of housing units in Downtown San José, December 19, 2019.
16 Robert Manford, Deputy Director–Planning, City of San José, email communication, October 3, 2019.
17 U.S. Census Bureau, American FactFinder, 2000 and 2010 Census. Available at factfinder.census.gov/faces/nav/jsf/pages/index.xhtml. Accessed September 24, 2019.
18 California Department of Finance, E-5 Population and Housing Estimates for Cities, Counties, and the State—January 1, 2011–2019, Sacramento, CA, May 2019. Available at www.dof.ca.gov/Forecasting/Demographics/Estimates/e-5/.
19 Association of Bay Area Governments, *Projections 2040*, 2017. Available at projections.planbayarea.org/. Accessed September 24, 2019.
20 City of San José, *Envision San José 2019 General Plan Annual Performance Review*, October 2019.
21 City of San José, *Envision San José 2018 General Plan Annual Performance Review*, October 2018.
22 City of San José, *Downtown Strategy 2040 Integrated Final EIR*, December 2018.
23 California Employment Development Department: Labor Market Information Division. Santa Clara County. Historical Civilian Labor Force. July 17, 2020. Available at https://www.labormarketinfo.edd.ca.gov/file/lfhist/santchlf.xls. Accessed August 14, 2020.
24 California Employment Development Department: Labor Market Information Division. Santa Clara County. Historical Civilian Labor Force. July 17, 2020. Available at https://www.labormarketinfo.edd.ca.gov/file/lfhist/santchlf.xls. Accessed August 14, 2020.

TABLE 3.11-3
HOUSING UNITS AND HOUSING GROWTH IN SAN JOSÉ AND SANTA CLARA COUNTY (2000–2040)

	Downtown San José	City of San José				Santa Clara County		
Year	Housing Units[a]	General Plan Housing Unit Capacity (Citywide)	Housing Units[b]	Housing Unit Growth[c]	Average Annual Percent Growth[d]	Housing Units[b]	Housing Unit Growth[c]	Average Annual Percent Growth[d]
2000[e]	—	—	281,841	—	—	579,329	—	—
2010	—	—	314,038[e]	32,197	1.1%	631,920[e]	52,591	0.9%
2019[f]	7,327[h]	—	335,887	21,849	0.8%	671,439	39,519	0.7%
2030[g]	—	—	390,415	54,528	1.5%	767,750	96,311	1.3%
2040[g]	14,360	429,350[a]	458,490	68,075	1.7%	881,655	113,905	1.5%

NOTES:

General Plan = *Envision San José 2040 General Plan*

[a] These data are sourced from the City of San José, *Downtown Strategy 2040 Integrated Final EIR*.
[b] "Housing Units" is equal to the sum of multi-family and single-family dwelling units expected in *Plan Bay Area 2040*.
[c] "Housing Growth Rate" considers the difference between the number of housing units for the listed "Year" row and the number of housing units listed in the prior "Year" row.
[d] "Average Annual Percent Growth" is calculated by dividing the housing unit growth value by the housing units for the prior comparison year to obtain the overall percent change. The overall percent change is then divided by the number of years this growth represents to present a comparable annual change.
[e] 2000 and 2010 data are sourced from the U.S. Census Bureau, 2000 and 2010 Census.
[f] 2019 data are sourced from the California Department of Finance.
[g] 2040 projected data for the Association of Bay Area Governments (ABAG) region are sourced from ABAG's *Plan Bay Area 2040 Projections 2040*.
[h] These data are sourced from Robert Manford, Deputy Director–Planning, City of San José, email communication, October 3, 2019, and include existing and approved housing units.

SOURCES:
Association of Bay Area Governments, *Projections 2040*, 2017. Available at projections.planbayarea.org/. Accessed September 24, 2019.
California Department of Finance, E-5 Population and Housing Estimates for Cities, Counties, and the State—January 1, 2011–2019, Sacramento, CA, May 2019, Available at www.dof.ca.gov/Forecasting/Demographics/Estimates/e-5/.
City of San José, *Downtown Strategy 2040 Integrated Final EIR*, December 2018.
Robert Manford, Deputy Director–Planning, City of San José, email communication, October 3, 2019.
U.S. Census Bureau, 2000 and 2010 Census. Available at fac https://data.census.gov/cedsci/. Accessed September 24, 2019.

TABLE 3.11-4
JOB GROWTH IN SAN JOSÉ AND SANTA CLARA COUNTY (2010–2040)

	Downtown San José	City of San José		Santa Clara County
Year	Jobs[a]	Job Capacity (General Plan)	Jobs (ABAG)[b]	Jobs[c]
2000			432,480	
2010	—	369,450	381,845	902,225
2015	33,608	359,128	—	—
2019	—	435,218[d]	—	—
2020	—	—	470,625	1,120,420
2030	—	—	493,575	1,198,370
2040	47,333	751,650	554,875	1,289,870

NOTES:
ABAG = Association of Bay Area Governments; General Plan = *Envision San José 2040 General Plan*

[a] These data are sourced from the City of San José, *Downtown Strategy 2040 Integrated Final EIR*.
[b] Jobs data are sourced from ABAG's *Plan Bay Area 2040 Projections 2040*.
[c] 2000 and 2010 data are sourced from the U.S. Census Bureau 2000 and 2010 Census.
[d] 2019 data are sourced from the 2019 General Plan Annual Performance Review.

SOURCES:
Association of Bay Area Governments, *Projections 2040*, 2017. Available at projections.planbayarea.org/. Accessed September 24, 2019.
City of San José, *Downtown Strategy 2040 Integrated Final EIR*, December 2018.
City of San José, *Envision San José 2019 General Plan Annual Performance Review*, October 2019.
U.S. Census Bureau, 2000 and 2010 Census. Available at https://data.census.gov/cedsci/. Accessed September 24, 2019.

Jobs/Housing Balance

San José uses the term "jobs/housing balance" to describe the ratio of employed residents to the number of jobs in the city.[25,26] This ratio is used as one indicator of the potential degree of in- and out-commuting. When there are substantially more employed residents than jobs in a city, more people must drive to another jurisdiction, requiring longer commutes than if they worked locally (and vice versa). A well-balanced ratio (close to one employed resident to one job) is typically desirable for environmental, economic, and quality-of-life reasons, although many other factors influence average commute distance. Travel models provide more detailed data about the extent of commuting in a region than are indicated by the ratio.

San José has historically been "housing-rich/jobs-poor," meaning that it has had significantly more employed residents than local jobs. The General Plan designates sufficient land for non-residential development to attain a jobs/housing balance. As shown in **Table 3.11-5**, the number of employed residents in San José grew by an average of 1 percent per year, from 456,641 in 2000 to 547,600 in 2019.[27,28] The Downtown Strategy 2040 update to the General Plan projects that the number of

[25] The City calculates the jobs/housing balance for General Plan planning purposes by dividing the number of jobs by employed residents. The City uses a jobs-to-employed-residents ratio instead of a jobs-to-housing-units ratio because there can be more than one employed resident per housing unit. The ratio of jobs to employed residents is more accurate for assessing the overall amount of in- and out-commuting.
[26] Employed residents are residents of San José who have jobs, although those jobs may be outside the city, requiring commutes of varying distances.
[27] U.S. Census Bureau, American FactFinder, 2000 and 2010 Census. Available at factfinder.census.gov/faces/nav/jsf/pages/index.xhtml. Accessed September 24, 2019.
[28] California Employment Development Department, Labor Force and Unemployment Rate for Cities and Census Designated Places, September 2019. Available at www.labormarketinfo.edd.ca.gov/data/labor-force-and-unemployment-for-cities-and-census-areas.html. Accessed September 26, 2019.

employed residents in the city will continue growing by 1 percent per year between 2019 and 2040, resulting in approximately 665,493 employed residents in 2040, while job growth will occur at a faster rate, resulting in approximately 751,650 jobs in 2040.[29]

TABLE 3.11-5
JOBS AND HOUSING BALANCE IN SAN JOSÉ (2000–2040)

Year	Population	Households/ Dwelling Units	Employed Residents	Jobs	Jobs-to-Employed-Residents Ratio[a]
2000[b]	894,943	281,841	456,641	432,480[c]	0.9
2010[b]	945,942	314,038	489,305	369,450	0.8
2019[e]	1,043,058	335,887	547,600[f]	435,218[g]	0.8
2040[d]	1,313,811	429,350	665,493	751,650	1.1

NOTES:

[a] The jobs/housing balance is calculated by dividing the number of jobs by employed residents.
[b] 2000 and 2010 data are sourced from the U.S. Census Bureau 2000 and 2010 Census.
[c] These data are sourced from the City of San José, *Envision San José 2040 General Plan Draft Program EIR*.
[d] 2040 projected estimate sourced from the City of San José, *Downtown Strategy 2040 Integrated Final EIR*.
[e] 2019 data are sourced from the California Department of Finance.
[f] 2019 employment data are sourced from the California Employment Development Department.
[g] These data are sourced from the *Envision San José 2019 General Plan Annual Performance Review*.

SOURCES:
California Department of Finance, E-5 Population and Housing Estimates for Cities, Counties, and the State—January 1, 2011–2019. Sacramento, CA, May 2019. Available at www.dof.ca.gov/Forecasting/Demographics/Estimates/e-5/.
California Employment Development Department, Labor Force and Unemployment Rate for Cities and Census Designated Places, September 2019. Available at www.labormarketinfo.edd.ca.gov/data/labor-force-and-unemployment-for-cities-and-census-areas.html. Accessed September 26, 2019.
City of San José, *Downtown Strategy 2040 Integrated Final EIR*, December 2018.
City of San José, *Envision San José 2019 General Plan Annual Performance Review*, October 2019.
U.S. Census Bureau, 2000 and 2010 Census. Available at https://data.census.gov/cedsci/. Accessed September 24, 2019.

With the policies to encourage further job growth discussed in Section 3.11.2, *Regulatory Framework*, General Plan Policy IE-1.4 plans for a jobs/housing balance increase from 0.8 in 2010 to 1.1 in 2040, changing San José from a "housing-rich/jobs-poor" city to a slightly more balanced city. Put differently, the City's General Plan plans for slightly more jobs than employed residents in 2040. According to the General Plan, the purpose of this policy is to "attain fiscal sustainability." At the same time, the General Plan seeks to focus economic growth to attain City goals with respect to "economic growth, fiscal sustainability and environmental stewardship and support the development of new, attractive urban neighborhoods" (Major Strategy #3) and "minimize [the City's] impacts on resource consumption, reduce its contribution to global warming, and to preserve and enhance its natural environment" (Major Strategy #7). Specifically, the General Plan contains a Greenhouse Gas Reduction Strategy, and the General Plan's land use and transportation scenario, which focuses growth in limited areas of the City, is intended to reduce environmental impacts while fostering transit use and walkability, thereby reducing vehicle miles traveled (Chapter 1, "Focused Growth—Planned Growth Areas").

To provide context, many cities in Silicon Valley and throughout the Bay Area have more jobs than employed residents, including the neighboring cities of Santa Clara (2.14 jobs per employed resident), Sunnyvale (1.19 jobs per employed resident), and Mountain View (1.08 jobs per

[29] City of San José, *Downtown Strategy 2040 Integrated Final EIR*, December 2018.

employed resident).[30] According to ABAG, San José is the only jurisdiction in Santa Clara County with a population greater than 50,000 that has more employed residents than jobs. It should be noted that ABAG's job growth projections estimate that San José's ratio of jobs to employed residents would be about 0.83 in 2040, similar to the City's current ratio of 0.82 as stated in the 2019 General Plan Annual Performance Review.[31] As described in Section 3.11.2, *Regulatory Framework*, the City's longstanding goal is to reach a balance of jobs and housing, and the General Plan designates sufficient land to accommodate both desired job growth and projected housing needs.

Socioeconomic Trends

While CEQA does not specifically require an analysis of socioeconomic impacts, socioeconomic trends provide important background information and are generally reflected in regional projections. By capturing these trends in regional projections, regional planning agencies ensure they are inherent in the regional transportation model, with which local models must be consistent.

The City received multiple comments in response to the notice of preparation (NOP) about the region's ongoing housing crisis, including the rate of new housing production compared to the rate of job growth and rising housing costs that can cause residents to look for less expensive housing outside the city and the region.

When looking at residential pricing data since the end of the 2007–2009 recession, both median sales prices and rents have increased in San José. These increases coincide with the strengthening economy region-wide and increasing housing demand resulting from the inability of regional housing supply to keep pace with demand. In 2010, the median home sale prices in Downtown San José and the city as a whole were $374,000 and $450,000, respectively. In November 2019, median home sale prices in Downtown and the city were $824,000 and $918,000, respectively. The same trend can be seen with rental housing prices. In 2012—the earliest year for which data are available from Zillow—the median rent in Downtown was estimated to be $2,000 per month and the median rent in San José was estimated to be $2,593 per month. In November 2019, the median rents in Downtown San José and the city as a whole were estimated to be $3,000 and $3,550 per month, respectively.[32] These economic growth trends were sharply reversed in early 2020 due to the COVID-19 pandemic. As of July 2020, it was too early to determine the overall effect of the COVID-19 pandemic on regional economic shifts, including sales and rent prices. However, Zillow finds that home prices increased 2.6 percent over the previous year, but expects a decline of 0.7 percent between July 2020 to July 2021.[33]

[30] Association of Bay Area Governments, *Projections 2040*, 2018 (last updated in 2019). Available at https://data.bayareametro.gov/Demography/Projections-2040-by-Jurisdiction/grqz-amra. Accessed May 7, 2020.
[31] City of San José, *Envision San José 2019 General Plan Annual Performance Review: Executive Summary*, October 2019.
[32] Zillow, San José Home Prices & Values. Available at https://www.zillow.com/san-jose-ca/home-values/. Accessed August 20, 2020.
[33] Zillow, San José Home Prices & Values. Available at https://www.zillow.com/san-jose-ca/home-values/. Accessed August 20, 2020.

The median household income in the city of San José has increased over the last decade. In 2010, the city's median household income was $79,405.[34] In 2017, the most recent year for which data from the U.S. Census Bureau are available, median household income increased to $96,662.[35] In the project area, the three census tracts that overlap the project site (Census Tracts 5003, 5008, and 5019) had median household incomes of $96,250, $50,980, and $54,083, respectively, in 2010; these median household incomes increased to $116,447, $88,333, and $89,427, respectively, in 2017.[36,37]

3.11.2 Regulatory Framework

No federal regulations related to population, housing, or employment apply to the proposed project. This section discusses applicable state, regional, and local regulations.

State

California Housing Element Requirement

California law (Government Code Section 65580 et seq.) requires cities and counties to include a housing element as part of their general plans to address housing conditions and needs in the community. Housing elements are prepared approximately every seven or eight years, following timetables set forth in the law. (Refer to *Regional Housing Needs Allocation* in the discussion of regional regulations below, and to *City of San José 2014–2023 Housing Element* in the discussion of local regulations, for a description of the regional and local requirements under the state mandate.) The housing element must identify and analyze existing and projected housing needs and "make adequate provision for the existing and projected needs of all economic segments of the community," among other requirements. The City's current Housing Element was adopted in January 2015 and will be updated in the next few years to focus on the period 2023–2030.

Senate Bill 375

Senate Bill 375, enacted in 2008, requires regions to prepare a sustainable communities strategy (or alternative planning strategy) to reduce greenhouse gas (GHG) emissions by linking growth to

[34] U.S. Census Bureau, 2006–2010 American Community Survey 5-Year Estimates, Table S1901. Available at https://data.census.gov/cedsci/table?g=1600000US0668000&hidePreview=false&tid=ACSST5Y2010.S1901&t=Income%20%28Households,%20Families,%20Individuals%29%3AHousehold%20and%20Family&vintage=2018&layer=VT_2018_160_00_PY_D1&cid=S1901_C01_001E. Accessed May 4, 2020.

[35] U.S. Census Bureau, 2013–2017, American Community Survey 5-Year Estimates, Table S1901. Available at https://data.census.gov/cedsci/table?q=san%20jose%20city%20median%20household%20income&g=0100000US_1600000US0668000&tid=ACSST5Y2017.S1901&vintage=2018&t=Income%20%28Households,%20Families,%20Individuals%29%3AHousehold%20and%20Family&hidePreview=false&layer=VT_2018_160_00_PY_D1&cid=S1901_C01_001E. Accessed May 4, 2020.

[36] U.S. Census Bureau, 2006–2010, American Community Survey 5-Year Estimates, Table S1903. Available at https://data.census.gov/cedsci/table?g=1600000US0668000_1400000US06085500300,06085500800,06085501900&t=Income%20%28Households,%20Families,%20Individuals%29&layer=VT_2010_140_00_PY_D1&cid=S1903_C01_001E&text=2010%20median%20income&tid=ACSST5Y2010.S1903&hidePreview=false&vintage=2010&mode=selection. Accessed May 4, 2020.

[37] U.S. Census Bureau, 2013–2017, American Community Survey 5-Year Estimates, Table S1901. Available at https://data.census.gov/cedsci/table?g=0400000US06_1600000US0668000_1400000US06085500300,06085500800,06085501900&layer=VT_2017_140_00_PY_D1&y=2017&cid=S1901_C01_012E&tid=ACSST5Y2017.S1901&hidePreview=false&vintage=2017&t=Income%20%28Households,%20Families,%20Individuals%29. Accessed May 4, 2020.

transit, resulting in a different distribution of jobs and housing growth than under pre-strategy projections. The strategy should result in the co-benefit of addressing congestion, which disproportionately affects lower income residents by burdening them with long commutes on crowded freeways, buses, or trains.

Regional

Plan Bay Area 2040

SB 375 necessitated the adoption of *Plan Bay Area 2040*. This plan serves as the Bay Area's sustainable communities strategy and was prepared by ABAG and the Metropolitan Transportation Commission. Published in July 2017, *Plan Bay Area 2040* provides an update to the region's long-range transportation plan and sustainable communities strategy. *Plan Bay Area* includes ABAG's projections about housing, job, and population growth through 2040 based on historic and current trends, local land use plans, and the vision for housing construction to meet job demand within the region and support the Regional Housing Needs Allocation. The plan provides a road map for accommodating this projected growth and connects it all to a transportation investment strategy that strives to move the Bay Area toward key regional goals for the environment, economy, and social equity. The land use vision in *Plan Bay Area 2040* is advisory; adherence by each local jurisdiction is not compulsory. However, local transportation models must be consistent with the regional transportation model and some funding allocated by the Metropolitan Transportation Commission is based on consistency with *Plan Bay Area*.

Plan Bay Area 2040 estimates that the city of San José will add approximately 113,825 housing units and 84,250 jobs from 2020 to 2040. This housing unit growth in San José would equate to roughly 20 percent of growth in the region (the nine-county Bay Area), while this job growth would equate to roughly 15 percent of the total employment growth anticipated for the region.[38] It should be noted that *Plan Bay Area 2040* estimates that there will be more housing units and fewer jobs in San José in 2040 than assumed by the General Plan and Downtown Strategy 2040. This is because the City's estimates are based on buildout of its land use plan, whereas ABAG projections are based on economic trends and a regional vision.

Plan Bay Area 2040 establishes a plan for most of the region's growth to occur in priority development areas (PDAs), as identified by local governments. The central portion of the project site, between Julian Street on the north and Park Avenue on the south, is located in the "San José: Greater Downtown" PDA, which is classified by ABAG as a "Regional Center." The remaining portions of the project site are located in the Downtown "Frame" PDA, classified by ABAG as a "City Center."

Regional Housing Needs Allocation

The regional housing needs allocation process is mandated by state housing law and is a precursor to the periodic process of updating local housing elements of general plans. The State of California

[38] Metropolitan Transportation Commission and Association of Bay Area Governments, *Plan Bay Area 2040*, final, adopted July 26, 2017. Maps 4.2 and 4.3, p. 47. Available at http://2040.planbayarea.org/cdn/ff/buje2Q801oUV3Vpib-FoJ6mkOfWC9S9sgrSgJrwFBgo/1510696833/public/2017-11/Final_Plan_Bay_Area_2040.pdf.

determines what the region's total housing need will be for the planning period, and ABAG distributes that need among local jurisdictions in the Bay Area, initiating each jurisdiction's housing element update. The City's 2014–2023 Housing Element is discussed under *Local* below.

Local

Envision San José 2040 General Plan

The General Plan is anchored by 12 "Major Strategies." Several of the strategies are relevant to consideration of population and housing effects in the Downtown area:

- **Major Strategy #3: Focused Growth.** This strategy reflects the City's desire to focus growth in identified "Growth Areas," including Downtown, and to provide for additional growth capacity by converting older commercial areas to mixed use.
- **Major Strategy #4: Innovation/Regional Employment Center.** This strategy emphasizes economic development in San José, particularly Downtown, near regional and local transit facilities and on existing employment lands citywide. This strategy reflects the City's desire to achieve a jobs-to-employed-residents ratio of 1.1 to 1 by the year 2040.
- **Major Strategy #9: Destination Downtown.** The City plans to focus growth Downtown to support the General Plan's economic, fiscal, environmental, and urban design/placemaking goals.

To further these Major Strategies, the General Plan contains the following relevant policies related to population and housing:

- **Policy IP-2.4:** Conduct a Major Review of the *Envision General Plan* by the City Council every four years to evaluate the City's achievement of key economic development, fiscal and infrastructure/service goals, greenhouse gas emission reduction goals and targets, water conservation and recycling goals, availability and affordability of housing supply, Healthful Community goals, and to review changes and trends in land use and development. Based on this review, determine the City's readiness to begin the next *Envision General Plan* Horizon or to modify the number of "pool" residential units available for non-specific Urban Village areas within the current Plan Horizon. Amend the Land Use/Transportation Diagram and/or *Envision General Plan* goals, policies, and actions accordingly.
- **Policy IP-3.2:** As part of the General Plan Annual Review, carefully monitor the jobs-to-employed resident ratio and, as a minimum, consider the following current development trends:
  - Vacant land absorption;
  - Amount of residential and economic development;
  - Amount and value of non-residential construction;
  - Number and types of housing units authorized by building permit, including number of affordable units, and development activity level in zonings, development permits, annexations and building permits;

  - Status of current capacity of major infrastructure systems which are addressed in General Plan Level of Service policies (transportation, sanitary sewers, and sewage treatment);
  - Transit-ridership statistics and other measures of peak-hour diversion from single occupant vehicles;
  - Status and implementation of Green Vision, *Envision General Plan* policies, and other greenhouse gas reduction strategy measures, including greenhouse gas emission reductions compared to baseline and/or business-as-usual; and
  - Levels of police, fire, parks and library services being provided by the City.
- **Policy IP-19.1:** Through a Major General Plan Review or, as needed, through the Annual General Plan review process, evaluate the Plan's consistency with housing development goals as determined by the State and regional agencies and take actions as necessary to address their requirements.

The General Plan supports and promotes future growth, development, and the provision of municipal services for the city of San José. In particular, the General Plan supports the development of up to 382,000 new jobs[39] and 120,000 new dwelling units, supporting a population of approximately 1.3 million people by 2040. These projections include adding 37,333 jobs and 10,360 housing units in the Downtown Growth Area. As stated in the *Downtown Strategy 2040* section below, these projections were subsequently increased to 47,333 jobs and 14,360 housing units in the Downtown Growth Area by 2040.

City of San José 2014–2023 Housing Element

Table 3.11-6 shows the 2014–2023 Regional Housing Needs Allocation by income level for the city of San José and the region. Based on its allocation, the City was required to identify sites sufficient to accommodate a total of 35,080 new housing units at the specified levels of affordability. Downtown San José was identified in the City's Housing Element as a growth area with a capacity of more than 10,000 new units. The City will receive its final Regional Housing Needs Allocation for the period 2023–2030 in mid-2021.

TABLE 3.11-6
FINAL REGIONAL HOUSING NEEDS ALLOCATION, 2014–2023

Income Level	San José	Bay Area
Very Low (0–50% AMI)	9,233	46,680
Low (51–80% AMI)	5,428	28,940
Moderate (81–120% AMI)	6,188	33,420
Above Moderate (+120% AMI)	14,231	78,950
Total Housing Units	***35,080***	***187,990***

NOTE: AMI = area median income
SOURCE: Association of Bay Area Governments, *Final Regional Housing Need Plan, San Francisco Bay Area: 2014–2023*, 2013.

[39] When it was adopted in 2011, the *Envision San José 2040 General Plan* provided capacity for 470,000 new jobs. The jobs capacity was amended to 382,000 in 2016 as part of the General Plan Four-Year Review.

As shown in Map V-1 in the City's 2014–2023 Housing Element,[40] the Downtown Growth Area, which includes the project site, is a primary location for planned housing during the current Regional Housing Needs Allocation reporting period.

Downtown Strategy 2040

The Downtown Strategy 2040 was adopted in December 2018, as amendments to the General Plan, and represents the City's most-recent planning vision for the Downtown Growth Area, which encompasses the project site. The strategy focuses on revitalizing Downtown San José by supporting higher density infill development and replacement of underused properties. The Downtown Strategy 2040 extends the horizon year from 2010 to 2040, expands the boundaries of Downtown San José, and increases the allowed number of residential units to 14,360 and office uses to 14.2 million square feet (sf).

Retail-use square footage and the total number of hotel rooms remained the same in the Downtown Strategy 2040 as in the General Plan (1.4 million sf of retail and 3,600 hotel rooms). The Downtown Strategy 2040 did not increase the planned service population (residential plus employment population) in the city of San José. Instead, the Downtown Strategy 2040 planned for growth through transfers:

- 3 million sf of office space were transferred from office development (or jobs) included in the General Plan for North Coyote Valley to the Downtown area.
- 4,000 dwelling units were transferred from outlying (beyond the general vicinity of Downtown) Urban Villages and other Growth Areas identified in the General Plan to areas within Downtown.

Most of the project site is within the Diridon Station Area Plan (DSAP), as described below. The Downtown Strategy 2040 did not include any changes to the land use regulations and policies established in the DSAP. As described in Chapter 2, *Project Description*, the proposed project would require a General Plan amendment, including changes to the site's land use designation, text amendments, and reallocation of growth to Downtown sufficient to accommodate the project.

Diridon Station Area Plan

Most of the project site is within the Diridon Station Area. The DSAP is a subarea of the larger Downtown area evaluated in the Downtown Strategy 2040, with the exception of two triangle-shaped areas that are considered outside the Downtown: one by Stockton Avenue and The Alameda and another south of West San Carlos Street in the DuPont/McEvoy.

The DSAP, approved by the City in 2014, establishes a vision for the Diridon Station Area in response to the planned extension of Bay Area Rapid Transit (BART) and high-speed rail service to San José. The purpose of the plan is to combine past and present plans into one vision, guiding future development that takes full advantage of the high level of connectivity that the Diridon

[40] City of San José, *City of San José 2014–2023 Housing Element*, adopted January 27, 2015. Map V-1, p. Chapter V-4.

Station Area affords. The plan establishes maximum development capacities for residential, commercial, retail, and hotel uses.

As described in Chapter 2, *Project Description*, the proposed project would require amendments to the DSAP as part of the proposed General Plan amendment. The land use amendments to the DSAP would allow residential uses on the project site; currently, almost the entire site is designated for non-residential uses. The amendments to the height limits would allow for taller buildings and increased density near Diridon Station and other transit services. The amendments would also increase the development capacity within Downtown to accommodate the project's development program.

3.11.3 Impacts and Mitigation Measures

Significance Criteria

For the purposes of this EIR, a population and housing impact would be significant if implementing the proposed project would:

- Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure); or
- Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere.

Approach to Analysis

The information in the *Approach to Analysis* subsections in Chapter 3 of this EIR is used as a basis for the analysis of project-level and cumulative impacts in the respective technical sections in this EIR chapter. However, changes in population and housing, in and of themselves, are social and economic effects, and are not physical effects on the environment under CEQA. CEQA provides that economic or social effects are not considered significant effects on the environment unless those effects are connected to physical environmental effects. A social or economic change related to a physical change may serve as a linkage between the proposed project and a physical environmental effect, or may be considered in determining whether the physical change is significant (CEQA Guidelines Section 15382). CEQA Guidelines Section 15131(a) provides the following direction regarding the treatment of economic and social effects:

> *Economic or social effects of a project shall not be treated as significant effects on the environment. An EIR may trace a chain of cause and effect from a proposed decision on a project through anticipated economic or social changes resulting from the project to physical changes caused in turn by the economic or social changes. The intermediate economic or social changes need not be analyzed in any detail greater than necessary to trace the chain of cause and effect. The focus of the analysis shall be on physical changes.*

General Plan Growth Reallocation

As described in Chapter 2, *Project Description*, the City is currently updating the DSAP. As part of this update, the City is considering increasing the number of residential units and commercial/office uses projected in Downtown San José by the year 2040 by reallocating up to 12,619 housing units and 14,144,154 gsf of commercial/office uses from other General Plan growth areas in the city to the Downtown. The additional 12,619 Downtown housing units would likely be transferred from the Horizon 2 and 3 Urban Village growth areas. The commercial/office uses would be shifted primarily from other General Plan–designated employment areas, such as the North Coyote Valley growth area.[41] Because enough retail and hotel capacity remains available Downtown to accommodate the retail and hotel growth identified in the DSAP, no reallocation related to these uses would be required. The final growth allocation, including the precise numbers of dwelling units and jobs transferred from each growth area, will be determined by the San José City Council via adoption of a General Plan amendment following a public planning process and a public hearing.

The General Plan amendment for the proposed project would reallocate a subset of the total residential and office capacity reallocation being considered for the DSAP as a whole to ensure that Downtown has more than enough capacity for the project. Specifically, because the proposed project is anticipated to come before the City Council for approval in advance of the DSAP amendment, the project applicant proposes a project-specific General Plan amendment to reallocate up to 5,575 housing units and 6,306,000 gsf of commercial/office uses from other General Plan growth areas outside of Downtown to the Downtown. This reallocation would be a subset of the overall DSAP. reallocation described in the preceding paragraph, and would not be in addition to that total. This total proposed reallocation is also less than the overall development program for the proposed project because one portion of the project site—the former San Jose Water Company site (Blocks E1, E2, and E3 of the proposed project)—was entitled previously, and because there is sufficient retail and hotel development capacity within Downtown. With this reallocation, the total amount of growth anticipated under the General Plan would not change, but instead would shift to the more transit-rich Downtown area.

Employment Density

Employment calculations for the proposed project, identified under *Impact Analysis* below, are based on a number of factors, including information provided by the project applicant and Table V-9 of the *San Jose Market Overview and Employment Lands Analysis* prepared by Strategic Economics in 2016 as part of the City's Four-Year General Plan Review. The applicant's core objective is to accommodate company growth, and the development of up to 7.3 million sf of office space would largely be for the applicant's own use. Google anticipates that approximately 28,000–30,000 company employees and contractors would work on the site. As the end user of the office buildings, the project applicant would design buildings based on its

[41] In November 2019, the City Council voted to purchase 937 acres of the North Coyote Valley. The transaction, in which the Peninsula Open Space Trust and the Santa Clara Valley Open Space Authority also participated financially, involved most of the land in the North Coyote Valley employment growth area. With the purchase, the North Coyote Valley land will be preserved for open space and conservation purposes, rather than developed.

design criteria and the specific workspace needs of the business units occupying the buildings. Office buildings would be a mix of mid- and high-rise buildings, with a range of floorplate sizes.

Worldwide, Google's existing work spaces have employment densities ranging from 180 to 300 sf per employee. In low-density, suburban environments, Google has historically backfilled generally abundant "spec" office buildings, or buildings otherwise previously built for other occupants, and has designed amenity-rich environments that include a variety of meeting spaces and work area options to make use of excess space. As a result, these types of environments generally have lower employee density. In Google's urban offices, spaces are typically designed with fewer internal amenities and higher efficiencies. As Google's workplace design evolves, it is anticipated that the urban mixed-use plan at Downtown West would accommodate a mix of elements that emphasizes a variety of collaborative spaces, both internal and external to the workplace, and that may serve a variety of user groups that have different needs and uses for the space. Although offices for some groups may be designed with a higher density layout, others may be more similar to traditional office or high-tech research and development.

Based on this information, this EIR assumes an employment density of 250 sf per employee for the office uses proposed as part of the project, which results in an office employment estimate of 29,200. That density is within the range presented in the Strategic Economics Analysis, which identified a range from 175 sf per employee for creative/high-tech offices to 300 sf per employee for traditional offices. The density of 250 sf per employee is also similar to the 243 sf per employee for office uses in the City's Downtown Strategy 2040 EIR, which was based on the assumption that 14.2 million sf of office uses was expected to accommodate roughly 58,500 jobs in the Downtown area. The density of 250 sf per employee is also more dense than the 300 sf per employee assumed in the General Plan EIR. In addition, the City's recently completed *Commercial Linkage Fee Analysis* assumed 300 sf per employee for "High-Tech Office" employment.[42] This figure was increased 30 percent from 225 sf per employee to account for a potential long-term trend toward lower density workplaces in light of COVID-19.[43] This EIR's estimate of 250 sf per employee is denser (i.e., more conservative) than this most recent analysis.

To calculate employment generation for other (non-office) commercial uses proposed as part of the project, the development program (square feet for each land use) was multiplied by the employment density assumptions in Table V-9 of the Strategic Economics report. Given the wide variety of employment-generating land uses proposed, calculating employment by land use type was determined to portray non-office commercial employment more accurately than simply applying an average employment density for all non-office commercial uses. Calculations are shown in **Table 3.11-7**. While the development program allows for flexibility so uses may vary from those shown in the table, these calculations provide a reasonable estimate and give a sense of the overall non-office commercial employment.

42 Keyser Marston Associates Inc., *Commercial Linkage Fee Nexus Analysis*, July 2020.
43 Keyser Marston Associates Inc., *Commercial Linkage Fee Nexus Analysis*, July 2020.

TABLE 3.11-7
PROPOSED PROJECT NON-OFFICE COMMERCIAL EMPLOYMENT

Non-Office Commercial Development Program	Employment Density (gsf per Employee)	Employees
350,000 gsf of retail/restaurant/large retail	250-650	1,038
20,000 gsf of co-working/small neighborhood office/non-profit	250	80
130,000 gsf of arts and culture/theater/education/fitness	1,000	130
200,000 gsf of hotels	2,000	100
640,000 gsf of limited-term corporate accommodations	2,000	320
100,000 gsf of event center	1,000	100
130,000 gsf of utilities	1,000	130
100,000 gsf of logistics/warehouse	1,000	100
Total Employees		***1,998***

NOTES:
gsf = gross square feet
Employment densities shown here are based on Table V-9 of the *San Jose Market Overview and Employment Lands Analysis* prepared by Strategic Economics.

SOURCES:
Data provided by Google LLC in 2020.
Strategic Economics, *San Jose Market Overview and Employment Lands Analysis*, prepared for the City of San José Four-Year General Plan Review, January 20, 2016.

Household Size

The analysis below assumes an average of 2.2 persons per dwelling unit in the project area, based on the following considerations:

- Both the General Plan and the Downtown Strategy 2040 assume that there will be 34,104 residents and 15,890 households within the Downtown Growth Area boundaries in 2040, which would equal 2.15 persons per household.
- Three census tracts cover the project site: Census Tracts 5003, 5008, and 5019. The most-current U.S. Census Bureau data estimate 3.2 persons per household in the city of San José and an average of 2.2 persons per household in the three Downtown census tracts.[44]

Impact Analysis

Impact PH-1: The proposed project would not induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure). *(Less than Significant)*

Construction Impacts

The proposed project would generate temporary employment opportunities during its three construction phases. On average, project construction would generate approximately 1,100 construction jobs per year. Construction jobs generated by the proposed project would likely be filled by employees in the construction industry in San José and greater Santa Clara County.

[44] U.S. Census Bureau, 2013–2017 American Community Survey 5-Year Estimates, Table DP04. Available at https://factfinder.census.gov/faces/nav/jsf/pages/index.xhtml. Accessed September 13, 2019.

Construction industry jobs generally have no regular place of business and many construction workers are highly specialized (e.g., crane operators, steel workers, masons). Thus, construction workers commute to job sites throughout the region that may change several times a year, as dictated by demand for their specific skills. The work requirements of most construction projects are also highly specialized, and workers are employed on a job site only as long as their skills are needed to complete a particular construction phase. Because there could be a lag between the end of one construction phase and the start of another, it is highly unlikely that construction workers would relocate to the vicinity for construction of the proposed project.

In 2017, approximately 31,501 residents were employed in the construction industry, out of 517,250 employed residents citywide (6 percent).[45] Thus, many of the 1,100 construction jobs per year could be filled by existing San José residents. However, even if all 1,100 jobs were filled by construction employees relocating to the region (an unlikely scenario), ABAG projects that the number of Information, Government, and Construction jobs in San José will increase by 16,455 jobs by 2040. Therefore, the approximately 1,100 construction jobs per year induced by the proposed project would be within the total amount of construction jobs anticipated by ABAG by 2040, and would not result in unplanned population growth. This impact would be **less than significant**.

Operational Impacts—Direct Population, Housing, and Employment Growth

As shown in Table 3.11-1, the project site contains 11 residential units, but only one occupied unit. The proposed project would demolish these units and create 3,000–5,900 dwelling units, which, based on an average of 2.2 persons per household,[46] would yield up to 12,980 permanent residents at the project site (**Table 3.11-8**). In addition, construction and operation of the proposed project would eliminate the current uses at the project site, which provide an estimated 647 jobs. The proposed project would generate approximately 31,198 jobs, or a net increase of approximately 30,551 jobs.[47]

Table 3.11-8 shows the project's projected increase in jobs and housing in the context of the total development capacity of the Downtown Strategy 2040 and the General Plan. The development capacity of the Downtown Strategy 2040 is shown both with and without the growth reallocation proposed as part of the project's General Plan amendment.

---

45 U.S. Census Bureau, American Community Survey (ACS), Table S2405: Industry by Occupation for the Civilian Employed Population 16 Years and Over, 2017 American Community Survey 5-Year Estimates. Available at https://data.census.gov/cedsci/table?q=San%20Jose%20City%20Industry%20by%20Occupation%20S2405&g=1600000US0668000&tid=ACSST5Y2017.S2405&t=Occupation%3AIndustry&layer=VT_2018_160_00_PY_D1&vintage=2018. Accessed May 4, 2020.

46 Population data from the three Downtown San José census tracts that overlap the project site (Census Tracts 5003, 5008, and 5019) were used to calculate 2.2 persons per household. Census data for these census tracts were retrieved from the U.S. Census Bureau, 2013–2017 American Community Survey 5-Year Estimates, Table DP04. Available at factfinder.census.gov/faces/nav/jsf/pages/index.xhtml. Accessed September 13, 2019.

47 To calculate the number of employees for all proposed land use types except office space, square footage from the proposed project's development program summarized in Table 2-1 in Chapter 2, *Project Description*, are multiplied by the employment density by land use type included in Table V-9 of the *San Jose Market Overview and Employment Lands Analysis* prepared by Strategic Economics in 2016. Employment density for office uses is 250 sf per employee and is based on a variety of factors, including information from the project applicant and a memorandum from Environmental Science Associates to David Keyon, City of San José, titled *Downtown West Mixed-Use Plan Draft EIR—Employment Density and Persons per Household Assumptions*, dated September 16, 2019.

TABLE 3.11-8
PROPOSED PROJECT, DOWNTOWN, AND CITYWIDE PLANNED GROWTH BY 2040

	Dwelling Units	Residential Population	Commercial/ Office (sf)	Retail (sf)	Hotel (rooms)	Jobs
General Plan Growth by 2040 (Citywide)[a]	120,000	342,000[b]	N/A	N/A	N/A	382,000
Remaining Capacity Citywide	83,274[c]	237,331[b]	N/A	N/A	N/A	306,000[d]
Planned Growth in Downtown San José by 2040[a,e,f]	14,360	40,926[e]	14,200,000	1,400,000	3,600	N/A
Proposed Project (maximum)	5,900	12,980[g]	7,300,000	500,000	1,100	31,198
Previous Project Site Entitled Growth (San Jose Water Company Site—Project #PDC15-051)	325	N/A	994,000	31,000	0	N/A
Planned Growth in Downtown San José + Project-Specific General Plan Amendment by 2040[h]	19,935	N/A	20,506,000	1,869,000	4,700[i]	N/A

NOTES:
General Plan = *Envision San José 2040 General Plan*; N/A = not applicable; sf = square feet

[a] Numbers in these rows do not include built, entitled, or pending projects.
[b] This was calculated by multiplying dwelling units by 2.85, the number of persons per household used in the Downtown Strategy 2040 Environmental Impact Report.
[c] Based on a November 2019 memorandum to the Planning Commission, 36,726 dwelling units have been entitled since adoption of the General Plan. The total number of planned dwelling units in the General Plan was 120,000.
[d] Based on the 2019 General Plan Annual Performance Review, 76,000 jobs were added after the General Plan was adopted. The General Plan had planned for a total of 382,000 jobs.
[e] While the Downtown Strategy 2040 estimated that the Downtown population would be 40,926 at buildout, the City is considering reallocating growth to Downtown, which would increase the Downtown capacity to 26,979 dwelling units, resulting in a buildout population of 76,890 (26,979 X 2.2 = 59,354). This growth reallocation is described under *Approach to Analysis* and its impacts are analyzed under *Cumulative Impacts* below (refer to Impact C-PH-1).
[f] Data for the number of dwelling units, commercial, and retail square footage is from the Downtown Strategy 2040 Integrated Final EIR.
[g] The residential population per household is estimated to be 2.2, based on the average persons per household in the three census tracts that overlap the project site (Census Tracts 5003, 5008, and 5019).
[h] Data in this row is the sum of planned growth in Downtown San José by 2040 as identified in the Downtown Strategy 2040 Integrated Final EIR plus the proposed project less previously entitled development on the project site.
[i] Neither the proposed project's general plan amendment or the City-initiated DSAP amendment would shift additional retail and hotel capacity to downtown because there is sufficient remaining retail and hotel capacity available to accommodate the proposed project and planned growth.

SOURCES:
City of San José, *Downtown Strategy 2040 Integrated Final EIR*, December 2018.
City of San José, *Envision San José 2019 General Plan Annual Performance Review*, October 2019.
City of San José, *DSAP Amendment—Maximum Capacity for CEQA Analysis*, April 17, 2020.
City of San José, Director of Planning, Building and Code Enforcement, Memorandum to Planning Commission regarding General Plan amendments, November 6, 2019.
Robert Manford, Deputy Director–Planning, City of San José, email communication, October 3, 2019.

The proposed increase in dwelling units, residents, and jobs would not be considered a substantial adverse impact in and of itself because the project site is:

- Located near a major transit hub (San José Diridon Station) and highways (Interstate 280 and State Route 87), and served by existing transportation infrastructure such as streets, local and express bus service, and light and heavy rail (Caltrain, Altamont Corridor Express, Santa Clara Valley Transportation Authority light rail, and Amtrak);
- Located near major employment centers (e.g., the project site itself, the adjacent SAP Center, and Downtown San José); and
- An infill development in an area served by existing and planned utilities infrastructure.

These locational characteristics make the project site desirable for planned growth from an environmental perspective. The physical effects of the proposed development are analyzed in detail elsewhere in this chapter, in Section 3.1, *Air Quality*; Section 3.6, *Greenhouse Gas Emissions*; Section 3.9, *Land Use*; Section 3.13, *Transportation* (refer to the analysis related to vehicle miles traveled [VMT]); and Section 3.14, *Utilities and Service Systems*.

The projected increase in housing resulting from the project represents 41 percent of the planned capacity for residential uses in the Downtown Strategy 2040. In addition, the proposed project's employment-generating land uses (commercial/office, retail, hotel) would not exceed the amount of planned employment-generating land uses under the Downtown Strategy 2040.

The proposed project, including the General Plan amendment to shift growth allocations to Downtown from other parts of San José, would be consistent with overall planned growth in the city and region. Specifically, the project would represent up to 7.1 percent of the remaining citywide housing capacity[48] and up to 10.5 percent of remaining citywide job capacity under the General Plan.[49] The project would represent approximately 4.8 percent of the housing unit growth that ABAG projects will occur in San José between 2019 and 2040, and approximately 3.9 percent of the population growth during the same time frame in San José. Net job growth from the proposed project would represent up to 37 percent of the job growth that ABAG projects to occur in San José between 2019 and 2040.

Moreover, the proposed project would be consistent with the City's Housing Element and General Plan policies related to the regulation of planned growth. For example, the project would shift planned growth from Tier 2 and Tier 3 growth areas to a Tier 1 growth area (Downtown), which is a primary location for planned housing during the current Regional Housing Needs Allocation reporting period and is a priority for new residential growth under General Plan Policy IP-2.10.

The project would also conform with *Plan Bay Area*, as the project site is within two PDAs served by existing and planned transit and infrastructure. The "San José: Greater Downtown" and Downtown "Frame" PDAs are intended to accommodate a substantial proportion of future growth in San José and is one of the city's most strategic locations for advancing regional environmental goals. For example, focusing job growth within walking distance of the city's most significant transit hub would best support non-car commuting, compared to job growth in other parts of the region.

In summary, although operation of the proposed project would cause the population of the project vicinity to increase, this growth would be consistent with City and regional plans for growth and would not represent substantial unplanned growth. Furthermore, the proposed project would help the City meet its regional housing needs goal and would advance the City's long-term vision for

[48] These data are from a memorandum to the Planning Commission regarding General Plan amendments dated November 6, 2019. Based on this memorandum, 36,726 dwelling units have been entitled since adoption of the General Plan. The total number of planned dwelling units in the General Plan was 120,000.

[49] These data are from the City of San José, *Envision San José 2019 General Plan Annual Performance Review*, October 2019. As stated in this report, as of December 2018, 76,000 jobs had been created since the adoption of the General Plan, and the overall job capacity planned for in the General Plan was 382,000 jobs.

Downtown San José as a priority area for accommodating planned growth. Therefore, the direct growth impact induced by the proposed project would be **less than significant**.

Induced Unplanned Population Growth

Indirect or *secondary unplanned growth* generally refers to the population associated with development that could occur as infrastructure is expanded to previously unserved or underserved areas. The term can also refer to unplanned growth resulting from unmet housing demand associated with new job growth, which may include new job growth induced by the project, often thought of in terms of an economic multiplier of new jobs or housing in an area.[50] Secondary growth associated with utility/infrastructure investments typically occurs in suburban and rural areas adjacent to or near undeveloped lands and is not applicable to the project site, which is in a built-up urban environment that is already largely served by existing infrastructure. The discussion below thus considers whether the proposed project would result in induced unplanned growth as a result of unmet housing demand.

The proposed project would develop commercial space to accommodate up to approximately 31,198 jobs and would develop up to 5,900 dwelling units. While many of the employees on-site would already be existing Bay Area residents and would not seek new housing, some of the employees could create new demand for housing, some of which could be met on-site through the proposed project's market rate and affordable housing components. Any new housing demand that is not met on-site would likely be met in other parts of the city and the region, particularly given the project site's transit accessibility, which would allow new employees to access transit-served areas throughout (and in the case of Altamont Corridor Express service, outside) the region.

The number of new jobs and amount of housing demand induced by the injection of project-related spending into the economy can be estimated using a model that combines economic factors, multipliers, and demographic statistics to predict economic outcomes. Although any such estimate, particularly in the context of economic effects caused by the 2020 COVID-19 pandemic, are simply that—an estimate—an analysis of the proposed project by Economic & Planning Systems (**Appendix N1**) indicates that project employment would result in labor income and spending increases such that more than 80,000 new jobs could be indirectly created or induced.[51] This is largely consistent with similar data that was released in advance of the MOU date of December 4, 2018.[52] Many of these jobs could be undertaken by residents of the San Jose population, but any of these new jobs that are filled by employees who are new to the region would result in new housing demand. However, it would be speculative to determine with any specificity how much

[50] This refers to the potential for a project to cause increased activity in the local or regional economy. Economic effects can include such effects as the multiplier effect. A "multiplier" is an economic term used to describe inter-relationships among various sectors of the economy. The multiplier effect recognizes that the on-site employment and population growth of each project may not be the complete picture of growth caused by the project.

[51] Economic & Planning Systems, Inc., Economic Impact of Operations at Downtown West, EPS #201019, Memorandum to Lendlease, July 14, 2020.

[52] Applied Development Economics, Preliminary Fiscal/Economic Impact Analysis of Development Capacity on Google and City Lands, Memorandum to Kim Walesh, Deputy City Manager, November 21, 2018.

demand for new housing the new jobs would create,[53] where that demand would be met, and whether local jurisdictions have planned for such demand, because they could occur at locations throughout the region.

Depending on its location and design, potential effects of induced growth in the region could include: increased traffic congestion; increased air pollutant emissions; loss of open space; loss of habitat and associated flora and fauna; increased demand on public utilities and services, such as fire and police protection (potentially leading to a need to develop additional public service facilities), water, recycled water, wastewater, solid waste, electricity, and natural gas; and increased demand for housing. In turn, an increase in housing demand could cause significant environmental effects from new residential development and required governmental services, such as schools, libraries, and parks. Induced employment and population growth could further contribute to the loss of open space because it could encourage conversion to urban uses for housing, commercial space, and infrastructure.

The physical effects of reasonably foreseeable cumulative development are analyzed in detail elsewhere in this chapter, in Section 3.1, *Air Quality*; Section 3.4, *Energy*; Section 3.6, *Greenhouse Gas Emissions*; Section 3.9, *Land Use*; Section 3.11, *Biological Resources*; Section 3.12, *Public Services*; Section 3.13, *Transportation* (refer to the analysis related to VMT); and Section 3.14, *Utilities and Service Systems*.

Plan Bay Area projects growth based on regional economic trends and accounts for induced job growth resulting from new development. In addition, local governments throughout the region are planning for additional residential and employment-generating land uses, some of which could meet the demands created indirectly by the proposed project. Through their planning and decision making processes, the future actions of those local agencies would be subject to environmental review under CEQA, and would be required to be consistent with state and regional plans and regulations. The General Plan also accounts for induced job growth and allows for significant housing construction through 2040.

As described above, the proposed project would be consistent with the General Plan and *Plan Bay Area 2040*, including the associated growth projections and visions to concentrate new growth around transit. For these reasons, the impact of induced population growth associated with the project would be **less than significant**.

Mitigation: None required.

---

[53] While it would be speculative to estimate how many of these new jobs would be filled by existing residents, it should be noted that the region's unemployment rate rose dramatically due to the 2020 COVID-19 pandemic and a substantial portion of the lost jobs are in the service industries that make up a significant portion of the estimated 80,000 new jobs. Although the project will build out over a long time period and any economic recovery cannot be predicted, the metropolitan region currently has significantly more unemployed residents than the number of new jobs that will be induced. Source: https://www.labormarketinfo.edd.ca.gov/file/lfmonth/sjos$pds.pdf.

Impact PH-2: The proposed project would not displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere. ***(Less than Significant)***

Direct Displacement

The project site currently contains 11 dwelling units, one of which is occupied. The proposed project would demolish this residential dwelling unit, and the applicant reports that its residents have agreed to relocate before construction begins. However, as described in Impact PH-1, the proposed project would construct up to 5,900 dwelling units at various affordability levels to be defined via a Development Agreement that is consistent with the Memorandum of Understanding the applicant entered into with the City in December 2018. The proposed project's new dwelling units would substantially exceed the number of displaced housing units, eliminating the need to construct replacement housing elsewhere. Therefore, displacement caused by the proposed project would not necessitate the construction of replacement units beyond the units proposed as part of the development.

Several existing businesses would be displaced. The existing businesses' up to approximately 647 employees are reasonably assumed to have housing in San José or the region. Based on the availability of retail, office, and warehouse space suitable for relocation, these businesses should be able to relocate to existing buildings elsewhere in the city or the region. For this reason, there is no evidence that the proposed project would directly displace substantial numbers of existing people or housing units, necessitating the construction of replacement housing elsewhere. This impact would be **less than significant**.

Indirect Displacement

Several comments on the NOP requested that the City consider the potential for the proposed project to indirectly cause involuntary displacement of housing and residents resulting from increased housing costs in San José. One commenter, the Law Foundation of Silicon Valley (Law Foundation), referred to a study completed by Beacon Economics that was commissioned by Working Partnerships, which purported to quantify the proposed project's effects on the rental housing market and the amount of housing needed to offset the rent increases.[54] The report concludes that Google, in partnership with the City of San José, should address housing needed to achieve a ratio of 1.35 jobs per housing unit, compared with an existing countywide ratio of 1.5 jobs per housing unit.

In general, CEQA does not require an analysis of socioeconomic issues such as gentrification, cost of living, or effects on "community character." The CEQA Guidelines state, however, that while the economic or social effects of a project are not appropriately treated as significant effects on the environment, it is proper for an EIR to examine potential links from a project to physical effects as a result of anticipated economic or social changes.

This section discusses the challenges of attributing indirect displacement impacts and mitigation to a specific project, based on a memo prepared by HR&A Advisors (**Appendix N2**). The HR&A

[54] Working Partnerships USA, *The Google Rent Hike: What Google's San José Mega-Campus Could Cost Renting Families—and What Google Can Do About It,* June 2019.

Advisors memo assesses the validity of the Beacon Economics study, the conclusions made by Working Partnerships, and claims made in the Law Foundation's NOP comment letter.

For the purposes of this EIR, *indirect displacement* is defined as the process that occurs "when any household is forced to move from its residence by conditions that affect the dwelling or immediate surroundings, and which:

1. Are beyond the household's reasonable ability to control or prevent;
2. Occur despite the household's having met all previously imposed conditions of occupancy; and
3. Make continued occupancy by that household impossible, hazardous or unaffordable."[55]

Certain indirect displacement of residents is occurring as a result of regional housing and economic trends, and could result from additional real estate and infrastructure investments. However, predicting the extent to which displacement may occur as a result of planned growth is extremely difficult. Also, according to the University of California, Berkeley Displacement Project, there is not currently a credible methodology for attributing displacement to specific projects.[56] It would be speculative to determine with any specificity the amount of a housing price increase or indirect displacement that could be attributed to any single project aligned with planned growth, particularly as the region as a whole experiences the challenges discussed as socioeconomic trends earlier in this section.[57]

The HR&A Advisors memo found that the Beacon Economics analysis and the Law Foundation's interpretation of the study are not credible for identifying the environmental impacts of and mitigation measures for the proposed Google project, for several reasons. First, it is not possible to establish a specific causational relationship between a single project on the one hand, and regional displacement and rent increases on the other.[58] In addition, the Beacon Economics analysis makes several erroneous analytical assumptions that greatly overestimate the housing price increases that would result from the project, resulting in unreliable conclusions. For example, the Beacon Economics analysis assumes labor market growth that is more aggressive than employment projections developed by the ABAG without providing an explanation for why. It also assumes all Google employees would be new residents in Santa Clara County when in fact many Google employees are already residents of the county. Finally, the Law Foundation's letter misquotes and misinterprets the findings of the Beacon Economics analysis to further overstate the potential impacts attributable to the proposed project.

---

55 Zuk, M., A. H. Bierbaum, K. Chapple, K. Gorska, and A. Loukaitou-Sideris. Gentrification, Displacement, and the Role of Public Investment. *Journal of Planning Literature*, 33(I), 2018. Available at https://journals.sagepub.com/doi/abs/10.1177/0885412217716439.

56 Chapple, K., and M. Zuk, Miriam. Forewarned: The Use of Neighborhood Early Warning Systems for Gentrification and Displacement. *Cityscape: A Journal of Policy Development and Research* 18(3), 2016. Available at https://www.huduser.gov/portal/periodicals/cityscpe/vol18num3/ch5.pdf.

57 HR&A Advisors, Inc., Response to Law Foundation Letter regarding Displacement and the Google Project, Memorandum to Environmental Science Associates, June 26, 2020.

58 Email from Dr. Karen Chapple, "Methodology to Attribute Market Effects," March 1, 2020. As cited in HR&A Advisors, Inc., Response to Law Foundation Letter regarding Displacement and the Google Project, Memorandum to Environmental Science Associates, June 26, 2020.

The Bay Area has undergone and continues to undergo significant socioeconomic shifts. As described in Section 3.11.1, *Environmental Setting*, under the heading *Socioeconomic Trends*, both median sales prices and rents have increased in San José since the end of the 2007–2009 recession. These increases coincided with the strengthening economy region-wide, and with increasing housing demand that resulted from the inability of regional housing supply to keep pace with demand. These changes were not caused by a single project; rather, they were associated with the country's macroeconomic recovery since the end of the 2007–2009 recession.

These economic growth trends were sharply reversed in early 2020. In March 2020, the Santa Clara County Health Officer issued a "shelter-in-place" order to slow the spread of the novel coronavirus 2019 disease (aka COVID-19) to the maximum extent possible. The COVID-19 pandemic reversed the trend of economic growth, resulting in lower sales tax revenue for the City. As of May 10, 2020, the City projected a $45 million budget shortfall in the 2020 fiscal year, and a $65 million shortfall in the 2021 fiscal year compared to an annual budget of $4.5 billion.[59]

As of July 2020, it was too early to determine the overall effect of the COVID-19 pandemic on regional economic shifts, including sales and rent prices. However, Zillow finds that home prices increased 2.6 percent over the previous year, but expects a decline of 0.7 percent between July 2020 to July 2021.[60] The effects of the COVID-19 pandemic on job losses are more apparent. The unemployment rate in the San Jose–Sunnyvale–Santa Clara metropolitan area increased from 2.7 percent in February 2020 to 11.2 percent in May 2020.[61] Although unemployment dropped to 10.8 percent in June 2020, the unemployment rate is expected to stay high for an extended period of time. The reversal of nearly a decade of economic growth despite the announcement of the proposed project demonstrates that regional socioeconomic trends cannot be attributed to a single project.

In contrast to the Working Partnerships report's approach and conclusion, it is more appropriate to plan for new jobs and housing and address potential displacement at the citywide and regional levels, which enable consideration of induced housing demand and regional economic trends. As described above, the proposed project would be consistent with planned growth under *Plan Bay Area* and the General Plan. The project would also support the General Plan policies for balanced jobs/housing growth and for focusing new development in transit-rich areas such as Downtown San José.

To address displacement concerns, Mayor Liccardo's housing plan aims to build 10,000 affordable housing units by 2022;[62] and the City has designated land to accommodate more than 95,000 new housing units, prepared housing work plans to encourage residential development, and adopted regulatory changes to encourage affordable housing and increase renter protections. It is currently preparing a citywide anti-displacement strategy, building upon a report prepared by the San José

59 Fracassa, D., and R. Swan. Bay Area Cities Face Grim Financial Outlook amid Budget Slashing. Here's What They Are Planning to Cut. *San Francisco Chronicle*, May 10, 2020. Available at https://www.sfchronicle.com/bayarea/article/Bay-Area-cities-face-grim-financial-outlook-amid-15259394.php.

60 Zillow, San José Home Prices & Values. Available at https://www.zillow.com/san-jose-ca/home-values/. Accessed August 20, 2020.

61 California Employment Development Department: Labor Market Information Division. San Jose–Sunnyvale–Santa Clara Metropolitan Statistical Area (MSA) (San Benito and Santa Clara Counties). Construction Reported the best job improvement. Available at https://www.labormarketinfo.edd.ca.gov/file/lfmonth/sjos$pds.pdf.

62 City of San José. Housing. Available at https://www.sanjoseca.gov/your-government/departments-offices/city-council/members/mayor-s-office/our-work/housing. Accessed August 14, 2020.

Anti-Displacement Policy Network team; exploring additional funding sources for affordable housing and programs; and working at the regional level, such as through the Committee to House the Bay Area. The City's anti-displacement activities are related to social and economic effects and under CEQA are not physical effects on the environment. CEQA provides that economic or social effects are not considered significant effects on the environment unless the social and/or economic effects are connected to physical environmental effects. Thus, the City's anti-displacement activities are not discussed further in this EIR.

From a CEQA perspective, the relevant inquiry is whether there are reasonably foreseeable secondary, physical effects of indirect displacement, such as additional VMT, GHG emissions, and air pollutant emissions as displaced residents are forced to locate replacement housing elsewhere and have longer commutes. However, as discussed above, attributing a certain amount of indirect displacement to a specific project, and then attributing secondary impacts of increased VMT, GHG, and air pollutant emissions, would be speculative and thus is beyond the requirements of CEQA. The project's impacts on these resource areas are analyzed in Section 3.1, *Air Quality*; Section 3.6, *Greenhouse Gas Emissions*; and Section 3.13, *Transportation.* (Refer to the VMT analysis based on the City's travel demand model, which incorporates growth projections as the context for analyzing direct growth [i.e., land uses] as part of the proposed project.)

Also, as stated above, the proposed project would develop the Diridon Station Area in a way that is consistent with City expectations and desires for growth and new development. It would provide a mix of housing and employment, and is intended to take full advantage of the high level of transit connectivity that the Diridon Station Area affords, responding to plans like *Plan Bay Area 2040* and the General Plan, which call for transit-oriented development. Secondary environmental effects associated with cumulative citywide and regional growth are addressed in Impact C-PH-1 below. For these reasons, the environmental impacts of indirect displacement are speculative and not discussed further.

For these reasons, the impact related to potential indirect displacement would be **less than significant**.

Mitigation: None required.

Cumulative Impacts

The geographic scope of the analysis of cumulative impacts related to population, employment, and housing includes the city of San José and the region. Cumulative planned growth in the city is reflected in City projections, which are based on planned population, employment, and housing growth in San José as a whole, including Downtown. In this context, the growth reallocations currently being considered by the City as part of the ongoing DSAP amendment planning process and described under *Approach to Analysis* above are considered a reasonably foreseeable future project. Cumulative planned growth in the region is reflected in ABAG's *Plan Bay Area 2040*.

Impact C-PH-1: The proposed project would result in a cumulatively considerable contribution to the citywide significant and unavoidable cumulative impact related to the jobs/housing imbalance identified in the 2040 General Plan EIR. ***(Significant and Unavoidable)***

The 2040 General Plan (as amended in 2016) establishes as one of its "major strategies" to "support San José's growth as a center of innovation and regional employment." A "core objective" of that strategy is to achieve a jobs-to-employed-residents ratio of 1.1 to 1 by the year 2040 if the land use plan was fully built out.[63] As of 2019, San José is a "housing rich" city with a jobs-to-employed-residents ratio of 0.82.[64] The relatively low ratio produces a lower tax base compared to the city's neighbors, and the city's services to its residents have historically been strained as a result. It should be noted that it is unlikely that San José will reach the goal articulated in the General Plan by 2040, given that ABAG projects the City to have a jobs-to-employed-residents ratio of 0.88 in 2040. However, to achieve its stated goal, the General Plan plans for clustered growth in a series of "urban villages." The most ambitious growth, particularly job growth, is planned for Downtown, including the Diridon Station area. Strengthening San José as a regional employment center that is "jobs rich" necessarily requires more job growth than housing growth, and the General Plan anticipates 120,000 net new dwelling units and 382,00 new jobs in San José from 2010 to 2040. According to the 2040 General Plan EIR, this new development would not induce growth beyond what is included in the regional projections included in *Plan Bay Area 2040* and would thus represent planned population growth.

However, if achieved, the desired jobs/housing ratio citywide included in the General Plan could have the secondary effect of inducing population growth outside of San José by creating demand for new housing to serve the new workers in San José. In addition, the shift in jobs/housing would result in a substantial new quantity of employment-intensive land uses that may generate more jobs than can be met by the San José workforce, causing out-of-area workers to commute to Downtown San José. If the General Plan were fully built out, insufficient housing opportunities would be available in San José for future San José workers.[65] As described in the DSAP, Downtown Strategy 2040, and General Plan EIRs, this cumulative growth would increase VMT per service population in the Bay Area, resulting in significant cumulative environmental impacts, including air pollution, noise, GHG emissions, and impacts on biological resources (e.g., nitrogen deposition). For this reason, the prior EIRs concluded that the General Plan policy to move to a jobs-to-employed-residents ratio of 1.1 is considered a significant and unavoidable cumulative impact.

The ongoing DSAP planning process and the proposed project would shift some of the growth projected in the General Plan from other areas of the city to Downtown. Given that Downtown generally and the DSAP area specifically is significantly better served by transit than other areas, this shift would tend to reduce VMT and other impacts resulting from automobile traffic, but would not change the General Plan goal of achieving a jobs-to-employment ratio, and would therefore not eliminate the previously identified significant and unavoidable cumulative impact.

63 When originally adopted in 2011, the *Envision San José 2040 General Plan* provided capacity for 839,450 jobs and assumed 665,493 employed residents, which would result in 1.3 jobs per employed resident.

64 City of San José, *Envision San José 2040, 2019 Annual General Plan Performance Review, Executive Summary*, 2019.

65 City of San José, *Envision San José 2040 General Plan Draft Program EIR*, June 2011, p. 772.

The proposed project would make a cumulatively considerable contribution to this citywide cumulative impact if it would contribute to the jobs/housing ratio (expressed as a ratio of jobs to employed residents) of 1.1 and the resulting significant cumulative environmental impacts. In terms of the jobs/housing balance, the proposed project would develop 3,000 to 5,900 dwelling units, which would result in up to approximately 12,980 permanent residents at the project site. If the maximum potential of 5,900 dwelling units are produced, the project would yield approximately 8,850 employed residents,[66] who would have jobs in the city or the region. The proposed project would also generate 31,198 jobs at the project site, or a net increase in employment of up to 30,551 new jobs. Because the proposed project would produce more jobs than employed residents, it would assist the City in implementing its major strategy of growing as a regional job center and help to achieve the jobs-to-employed-residents ratio of 1.1 citywide.

The proposed project itself would have less-than-significant VMT impacts and would represent planned growth in the Downtown area consistent with the City's vision for the project site. Moreover, as stated in the proposed project's Environmental Leadership Development Project Application pursuant to Assembly Bill 900, the project meets the requirement for no "net additional emission of GHGs" because the project applicant has committed to measures to offset the increase in GHG emissions from construction and operation of the proposed project from 2021 to 2062. The proposed project would, however, result in significant air pollutant emissions, associated in part with commute-related trips. In addition, the DSAP, Downtown Strategy 2040, and General Plan EIRs concluded that in light of the statewide and region-wide jobs/housing balance issues and associated potential for unplanned growth in certain locations, the potential exists for significant and unavoidable impacts associated with implementation of the City's General Plan, Downtown Strategy 2040, and DSAP policies.

Therefore, despite the absence of project-specific VMT and GHG emissions impacts, the proposed project would result in a cumulatively considerable contribution to the previously identified citywide **significant and unavoidable impact**.

> **Mitigation:** As described in the EIRs for the General Plan and Downtown Strategy 2040, no feasible mitigation is available.

---

[66] This calculation and the ratios presented below use the ratio of approximately 1.5 employed residents per dwelling unit for four Downtown census tracts (5008, 5009.1, 5009.2, and 5010), including the tract that includes the project site (5008).

3.12 Public Services and Recreation

This section addresses potential impacts of the proposed project on public services (fire protection and emergency services [i.e., local emergency medical response services], police protection services, public schools, and libraries) and parks and recreation. The section describes existing local conditions, summarizes pertinent regulations, and analyzes the potential impacts of project construction and operation related to public services and recreation. Where appropriate, mitigation measures are provided to address potential impacts. The discussion below is organized by topic (fire protection and emergency services; police protection; public schools; libraries; parks and recreation) and addresses the environmental setting, regulatory framework, impacts, and mitigation measures relevant to each respective topic before turning to the next.

Fire Protection and Emergency Services

3.12.1 Environmental Setting

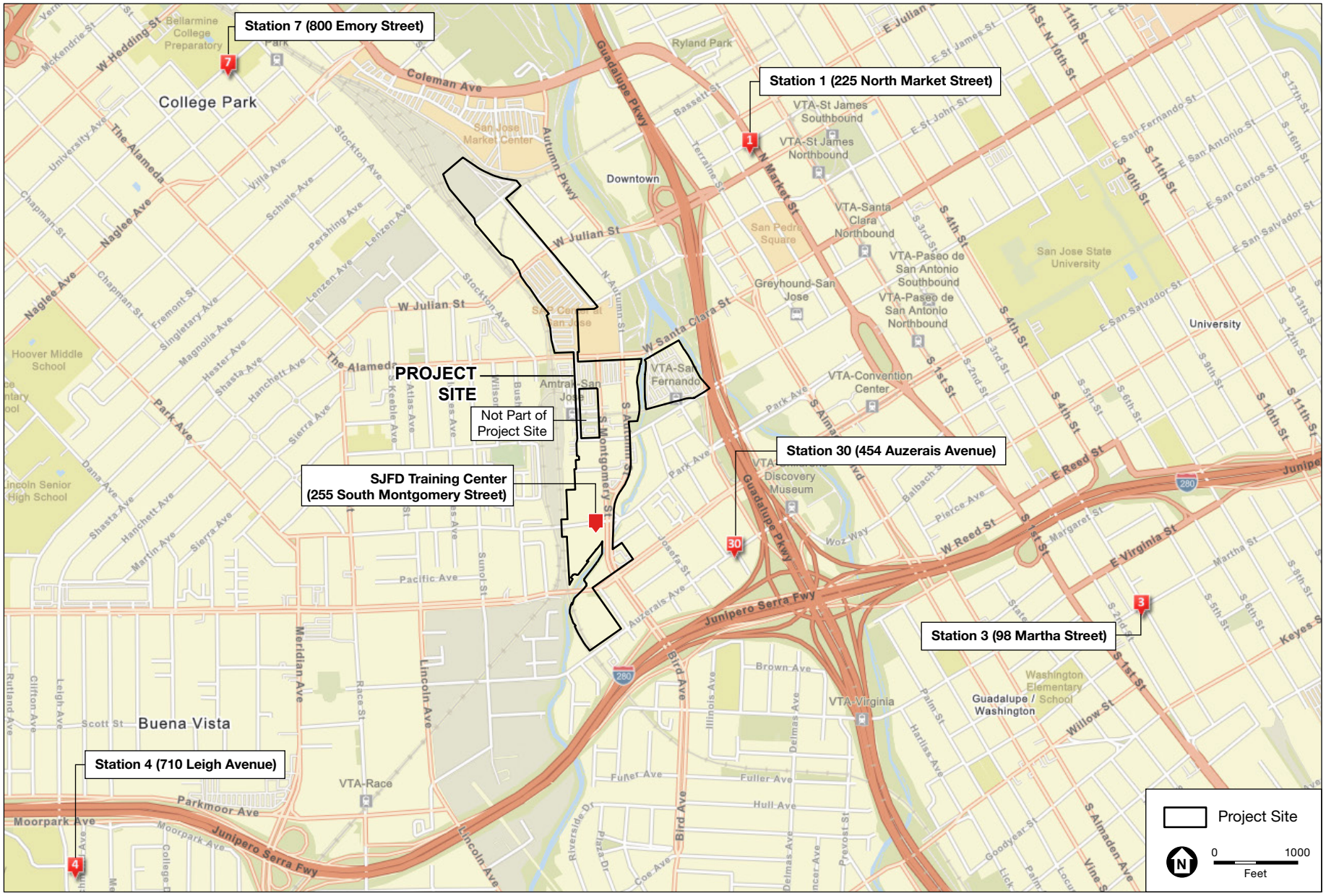
The San José Fire Department (SJFD) provides fire protection and emergency services—fire suppression, emergency medical services (EMS), emergency management, and fire prevention—to the city of San José. Santa Clara County (County) currently contracts with a private company to provide emergency ambulance transportation services to all areas of the county except Palo Alto. SJFD provides Advanced Life Support (paramedic) first-response services primarily within the incorporated San José city limits through a direct agreement with the Santa Clara County Emergency Medical Services Agency (County EMS).[1]

Five SJFD bureaus are responsible for operations and support: Field Operations, Administrative Services, Fire Prevention, Emergency Medical Services and Training, and Support Services. The Office of Emergency Services is within the Office of the City Manager and provides emergency management services to residents and businesses within the City's jurisdiction in coordination with the County and the State of California. The Office of Emergency Services provides support across all phases of the emergency management life cycle: from preparedness, hazard mitigation (long-term risk reduction), and prevention activities before an emergency to response and recovery operations during and after a multi-agency and/or multijurisdictional emergency.[2]

San José Fire Department Facilities and Staffing

SJFD operates 33 fire stations throughout San José. Three fire stations are within 1 mile of the project site: Station 30 (454 Auzerais Avenue), approximately 0.25 miles to the southeast; Station 1 (225 North Market Street) approximately 0.5 miles east; and Station 7 (800 Emory Street), approximately 0.5 miles northwest of the project site (refer to **Figure 3.12-1**).[3] SJFD has

1 City of San José, *City of San José Annual Report on City Services 2018–19*, December 2019. Available at https://www.sanjoseca.gov/home/showdocument?id=49148. Accessed January 16, 2020.
2 San José Fire Department, *San José Fire Department Strategic Business Plan, "20/20 Vision Plan,"* April 16, 2015.
3 San José Fire Department, Stations, 2020. Available at https://www.sanjoseca.gov/your-government/departments-offices/fire/stations/-npage-2. Accessed January 17, 2020.



SOURCES: City of San Jose, 2020; ESA, 2020

Downtown West Mixed-Use Plan

Figure 3.12-1
Fire Stations in the Project Vicinity

five battalions geographically located throughout the city in north, south, east, west, and central San José. Each battalion contains a subset of fire stations that provide response in a smaller geographical area. The project site is located in the SJFD response area designated as Battalion 1, located in the central portion of the city, which includes Stations 1, 3, 7, 8, 26, 30, and 33.[4,5]

The SJFD Training Center (255 South Montgomery Street) is located on the project site. The training center includes fire and emergency response training facilities and a burn tower. The City has a rental agreement for the training facility that expires in June 2022, after which fire training activities will be relocated elsewhere in the city.[6] Current plans for redevelopment of the training facility are to relocate it to the City's Central Service Yard adjacent to the SJFD Administration Building (1661 Senter Road); however, if there are unforeseen delays in construction of the new training facility, a lease extension at the current location may be necessary.[7]

On November 6, 2018, City of San José voters passed Measure T, the Disaster Preparedness, Public Safety and Infrastructure Bond, which authorized the City to issue up to $650 million in general obligation bonds to fund emergency and disaster response, infrastructure, and roads. Based on this bond measure, SJFD immediately moved forward with construction of a new Station 37 (anticipated to be completed in January 2022), and evaluated available information and performance data toward establishing a prioritization of locations for rebuilding and/or relocating Stations 8 and 23, and building at least two new fire stations (Stations 32 and 36).[8,9]

Equipment and station placement is based on several factors such as travel distance, population density, call volume, types of hazards, and overall performance. SJFD has established a Fire Station Prioritization List that will help strengthen response capabilities throughout the city. The five Measure T station improvements are priorities 1–5, and the relocation of Station 9 in the Cambrian area of southwest San José is priority 6. Priorities 1–6 are centered around serving the city's existing population. A new station for the Diridon Station Area is listed as priority 7, lower than other priorities, because of the timing of future development. Development in the Diridon Station Area is driving the need for a new fire station. Other higher priority projects are based on providing enhanced protection to the city's existing population.[10]

SJFD has approximately 711 sworn personnel supporting fire and emergency response, for a sworn personnel per thousand residents ratio of approximately 0.68.[11] SJFD's per capita staffing level is considerably lower than the average firefighter per thousand residents ratios for fire

4 Fire Station 33 is currently closed; however, the response area remains in the computer-aided dispatch system. The closest appropriate resources are dispatched to incidents in Station 33's response area.
5 San José Fire Department, *Fire Information Response,* April 10, 2020.
6 *The Mercury News*, "Google Buys Downtown San Jose Fire Training Site Needed for Transit Village," June 12, 2019. Available at https://www.mercurynews.com/2019/06/12/google-buys-downtown-san-jose-fire-training-site-needed-for-transit-village/. Accessed October 1, 2019.
7 San José Fire Department, *Fire Information Response, Downtown West Mixed Use Plan EIR*, December 26, 2019.
8 City of San José, *Measure T – New Fire Station Placement Prioritization*, June 6, 2019.
9 City of San José, *Status Report On Measure T - The Disaster Preparedness, Public Safety and Infrastructure General Obligation Bond and Related Appropriation Ordinance Amendments*, November 27, 2019.
10 San José Fire Department, *Fire Information Response, Downtown West Mixed Use Plan EIR*, December 26, 2019.
11 Based on a population of 1,043,058 in the city of San José in 2019 (refer to Section 3.11, *Population and Housing*) (711 sworn personnel/1,043 thousand residents = 0.68).

departments across all regions of the United States, which range from 0.93 in the West to 1.96 in the Northeast for protected populations greater than 250,000.[12]

San José Fire Department Response Times

Generally, SJFD requests for service are received as 911 calls and answered by a communications call taker, then prioritized using a nationally standardized fire or medical priority dispatching system questionnaire. Requests are divided into Priority 1 emergencies, Priority 2 emergencies, and non-emergencies:

- *Priority 1:* A time-critical emergency involving an immediate threat to life and/or property.
- *Priority 2:* A request in which critical intervention is required, but the situation has stabilized and is unlikely to worsen in the short term.
- *Non-emergency:* A general request for assistance in which there is no immediate threat to life or property. Currently, such non-emergencies either are not handled by SJFD resources or are handled without creating a formal incident that dedicates a firefighting vehicle to the incident (usually, walk-in requests at stations).[13]

In 2018, SJFD responded to 91,223 total Priority 1 and 2 incidents, including 73,880 medical incidents and 17,343 fire and other incidents.[14] SJFD Battalion 1, which serves the project site, is the busiest of SJFD's five battalions, having responded to 26,416 requests for service in the 2018–2019 fiscal year. **Table 3.12-1** lists the locations served by and stations operated within each battalion and the SJFD incidents by battalion for the 2018–2019 fiscal year. **Table 3.12-2** lists SJFD average response times in 2018 for the Battalion 1 stations and citywide, which include both Priority 1 and 2 incidents.

TABLE 3.12-1
INCIDENTS BY BATTALION, 2018–2019 FISCAL YEAR

Battalion	Location	Stations	Number of Incidents
Battalion 1	Central	1, 3, 7, 8, 26, 30, 33	26,416
Battalion 2	East	2, 11, 16, 19, 21, 24, 31	20,668
Battalion 5	North	5, 20, 23, 25, 29, 34	11,573
Battalion 10	West	4, 6, 9, 10, 14, 15	17,072
Battalion 13	South	12, 13, 17, 18, 22, 27, 28, 35	18,357

SOURCES:
San José Fire Department. *Fire Department Call Volume Report*, March 4, 2020.
San José Fire Department. *Fire Information Response*, April 10, 2020.

[12] San José Fire Department, *Fire Information Response*, April 10, 2020.
[13] San José Fire Department, *San José Fire Department Strategic Business Plan, "20/20 Vision Plan,"* April 16, 2015.
[14] San José Fire Department, Statistics, 2019. Available at https://www.sanjoseca.gov/your-government/departments/fire-department/statistics. Accessed September 13, 2019.

TABLE 3.12-2
SAN JOSÉ FIRE DEPARTMENT 2018 RESPONSE TIMES

	Number of Incidents	Average Call Processing Time[a] (min:sec)	Average Turnout Time[b] (min:sec)	Average Travel Time[c] (min:sec)
Fire and Other				
Citywide	17,343	2:17	1:59	14:39
Station 1	849	2:11	1:35	13:57
Station 3	1,020	2:27	1:20	7:55
Station 7	444	1:58	1:27	7:39
Station 8	830	2:03	3:34	23:30
Station 26	1,098	2:06	1:19	12:24
Station 30	627	2:13	1:22	4:59
Station 33[d]	96	2:10	1:23	6:51
Medical				
Citywide	73,880	0:56	1:33	9:01
Station 1	3,491	0:56	1:20	10:29
Station 3	3,373	1:02	1:21	9:55
Station 7	2,044	0:50	2:57	6:54
Station 8	3,350	0:56	1:14	8:07
Station 26	5,347	0:58	1:51	12:06
Station 30	2,325	0:58	1:11	6:15
Station 33[d]	322	0:57	1:14	5:59

NOTES:
min = minutes, sec = seconds

[a] Call processing time refers to the time interval from when a call is acknowledged at the communications center up until when emergency response units are notified that they have been assigned an emergency incident.

[b] Turnout time refers to the time interval between when an emergency response unit has been notified they are assigned an emergency incident until they begin to respond to the emergency incident scene.

[c] Travel time refers to the time between when the emergency unit is notified and when it arrives at the emergency incident scene.

[d] Fire Station 33 is currently closed; however, the response area remains in the computer-aided dispatch system. The closest appropriate resources are dispatched to incidents in Station 33's response area.

SOURCE: San José Fire Department, Statistics, 2019. Available at https://www.sanjoseca.gov/your-government/departments/fire-department/statistics. Accessed September 13, 2019.

There are national standards, City-adopted performance standards, and contractual requirements regarding how quickly SJFD responds to emergencies. According to the National Fire Protection Association (NFPA) Performance Standards, departments should (1) respond in less than 6 minutes with appropriate personnel and equipment to all Priority 1 emergencies, for 90 percent of incidents; and (2) deliver, in less than 12 minutes, at least one truck and at least one engine to all working structure fires, for 90 percent of such incidents.

The response-time performance standard set by the City of San José applies to all types of incidents (e.g., EMS, fire, hazardous materials, rescue) and to all incidents handled within the city limits. The City standard is to arrive within 8 minutes for Priority 1 emergencies and within 13 minutes for Priority 2 emergencies, measured from the time that a relevant emergency is

reported. This standard is to be achieved on 80 percent of incidents.[15] In 2018–2019,[16] SJFD responded to 74 percent of Priority 1 incidents within the City's time standard of 8 minutes, not meeting the 80 percent target. SJFD also did not meet the 80 percent target in 2016–2017 and 2017–2018. However, SJFD responded to 92 percent of Priority 2 incidents within 13 minutes, which meets the 80 percent target. Two stations near the project site (1 and 30) were among the fastest seven stations in the city responding to Priority 1 calls. Stations 1 and 30 met the Priority 1 response time target in 2018–2019, and Station 7 was slightly below the target.[17]

SJFD is contracted by the County to provide EMS. The response-time performance standard for the contract with County EMS is specific only to EMS incidents, defined by the County to include incidents such as major vehicle accidents. The County's contractual standard is to arrive within 8 minutes for Priority 1 EMS incidents and within 13 minutes for Priority 2 EMS incidents. These times are measured from the time that a fire department resource is recommended for response by the computer-aided dispatch system. SJFD is to achieve this standard on 95 percent of incidents to avoid reductions in its funding stipend from the County, and on 90 percent of incidents to minimally comply with the County contract.[18] In 2018, SJFD's compliance rate with County EMS response standards averaged 90.63 percent, and the department did not meet the 90 percent compliance target during the first three months of the year.[19] Thus, SJFD is currently meeting some local performance standards (City Priority 2), but not others (City Priority 1 and County EMS response standards).

SJFD's operational performance is a function of three considerations: resource availability/reliability, department capability, and overall operational effectiveness. Resource availability continues to be a challenge for SJFD because of increasing call volumes citywide. This challenge occurs when a fire station's responders are unavailable because of service demands, and another request for service is received for their jurisdiction. With this second request, personnel from the next closest station are dispatched to the emergency, often resulting in a delayed response. Fire stations in the Diridon Station Area (Stations 1, 3, 8, and 30) are among the busiest stations in San José and are less reliable as a resource because of their high call volumes. Fire Station 4 is west of the central area and responded to 4,356 service calls in the 2018–2019 fiscal year. However, the ability of Station 4 to support the central area is poor and unreliable, given the station's own call volume.[20]

15 City of San José, SJFD Response Time Measurements, 2019.
16 The most recent period for which data are available.
17 City of San José, *City of San José Annual Report on City Services 2018–19*, December 2019. Available at https://www.sanjoseca.gov/home/showdocument?id=49148. Accessed January 16, 2020.
18 City of San José, SJFD Response Time Measurements, 2019.
19 San José Fire Department, Statistics, 2019. Available at https://www.sanjoseca.gov/your-government/departments/fire-department/statistics. Accessed September 13, 2019.
20 San José Fire Department, *Fire Information Response*, April 10, 2020.

3.12.2 Regulatory Framework

State

California Fire Code

The California Fire Code (Title 24, Part 9) is based on the 2019 International Fire Code and includes amendments from the State of California fully integrated into the code. The California Fire Code contains fire safety–related building standards referenced in other parts of California Code of Regulations Title 24, also known as the California Building Standards Code.

Local

Envision San José 2040 General Plan

The Envision San José 2040 General Plan (General Plan)[21] contains the following relevant policies related to fire protection and emergency services:

Policy ES-3.1: Provide rapid and timely Level of Service response time to all emergencies:

- For police protection, achieve a response time of six minutes or less for 60 percent of all Priority 1 calls, and eleven minutes or less for 60 percent of all Priority 2 calls.
- For fire protection, achieve a total response time (reflex) of eight minutes and a total travel time of four minutes for 80 percent of emergency incidents.
- Enhance service delivery through the adoption and effective use of innovative, emerging techniques, technologies and operating models.
- Measure service delivery to identify the degree to which services are meeting the needs of San José's community.
- Ensure that development of police and fire service facilities and delivery of services keeps pace with development and growth in the city.

Policy ES-3.3: Locate police and fire service facilities so that essential services can most efficiently be provided and level of service goals met. Ensure that the development of police and fire facilities and delivery of services keeps pace with development and growth of the city.

Policy ES-3.4: Construct and maintain architecturally attractive, durable, resource-efficient, environmentally sustainable and healthful police and fire facilities to minimize operating costs, foster community engagement, and express the significant civic functions that these facilities provide for the San José community in their built form. Maintain City programs that encourage civic leadership in green building standards for all municipal facilities.

Policy ES-3.5: Co-locate public safety facilities with other public or private uses to promote efficient use of space and provision of police and fire protection services within dense, urban portions of the city.

[21] City of San José, *Envision San José 2040 General Plan*, adopted November 1, 2011 (amended March 16, 2020). Available at https://www.sanjoseca.gov/home/showdocument?id=22359. Accessed January 16, 2020.

Policy ES-3.6: Work with local, State, and Federal public safety agencies to promote regional cooperation in the delivery of services. Maintain mutual aid agreements with surrounding jurisdictions for emergency response.

Policy ES-3.13: Maintain emergency traffic preemption controls for traffic signals.

San José Municipal Code

The following chapters of the San José Municipal Code contain relevant provisions pertaining to fire protection and emergency services:

- **Chapter 17.12 (City of San José Fire Code)** adopts the 2019 California Fire Code, with local amendments related to fire flow; sprinkler and fire alarm systems and standards; lithium batteries; 3D printing additive manufacturing; mobile fueling; plant production extraction processing systems; and highly toxic, toxic, and moderately toxic gases; and maintenance of existing fire protection and regulatory authority.
- **Chapter 17.68 (Hazardous Materials Storage Permit)** describes the requirements for storage of hazardous materials, including flammable and combustible liquids classified by the NFPA. These requirements include acquiring a storage permit, developing and submitting a hazardous materials management plan (HMMP), and complying with requirements for storage, transportation, monitoring and inspection, and secondary containment. The HMMP must include an emergency response plan that describes emergency equipment availability, testing, and maintenance.
- **Chapter 17.82 (Fire Safety during Construction)** is intended to minimize the potential for the occurrence and spread of fires, and to facilitate firefighting efforts, during construction of wood frame buildings. Chapter 17.82 requires that a construction fire protection plan be prepared before issuance of a building permit for any building involving wood frame construction. The plan must be approved by the fire chief and must specify how off-hours security will be addressed, and how construction sequencing—including the installation of mitigating fire protection barriers—will be used to minimize the potential for the occurrence and spread of fire.

3.12.3 Impacts and Mitigation Measures

Significance Criteria

For the purposes of this EIR, a fire protection and emergency services impact would be significant if implementing the proposed project would:

- Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, or the need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives.

Approach to Analysis

This section discusses potential direct impacts on fire protection and emergency services relative to potential substantial adverse physical impacts associated with the provision of new or

physically altered governmental facilities, or the need for new or physically altered governmental facilities. The proposed project could have a significant impact on fire protection and emergency services if:

1. The proposed project would require the construction of new or physically altered governmental facilities in order to maintain acceptable levels of public services; and
2. The construction or alteration of such facilities would result in a significant environmental impact.

The project population figures used in this section are based on those estimated in Section 3.11, *Population and Housing*. Where applicable, the maximum residential scenario was used to conservatively analyze impacts.

Impact Analysis—Fire Protection and Emergency Services

Impact PS-1: The proposed project would not result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, or the need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for fire protection and emergency services. *(Less than Significant)*

Construction

As described in Chapter 2, *Project Description*, construction would begin in 2021 and may continue through 2031. The presence of construction workers on-site and construction activities could result in an incremental, temporary increase in demand for fire protection and emergency services. As discussed in Section 3.11, *Population and Housing*, construction-related jobs generated by the proposed project would likely be filled by employees within the construction industry in the city of San José and greater Santa Clara County, many of whom are currently being served by SJFD fire protection and emergency services, and therefore would not represent an increase in demand for services.

Further, this incremental, temporary increase in demand for services during construction could be accommodated by existing SJFD fire protection and emergency services and would not require the construction of new or physically altered facilities to maintain services. Chapter 17.82 of the San José Municipal Code requires that a construction fire protection plan be prepared before the issuance of a building permit for any building involving wood frame construction. The plan must be approved by the fire chief and must specify how off-hours security will be addressed, and how construction sequencing—including the installation of mitigating fire protection barriers—will be used to minimize the potential for the occurrence and spread of fire. In addition, the Fire Code requires adequate vehicle access for firefighting at construction and demolition sites.

Therefore, acceptable fire protection and emergency services would be maintained during construction of the proposed project, and impacts would be **less than significant**.

Mitigation: None required.

Operation

The population increase caused by the proposed project would increase demand for fire protection and emergency services, which could affect SJFD service ratios and response times. According to the General Plan EIR, growth resulting from the General Plan would create a need for additional fire personnel and equipment to serve the high density development envisioned under the General Plan.[22] Development of the proposed project would result in up to approximately 12,980 new residents, an increase that is within the citywide growth projections in the General Plan; however, such development would slightly decrease SJFD's current, citywide sworn personnel/resident ratio from approximately 0.68 to 0.67, adding to the existing deficiency in SJFD's desired per capita staffing levels.[23] Additional sworn personnel would be allocated over time, through the City's annual budget process.

As discussed in Section 3.12.1, *Environmental Setting*, SJFD is meeting some but not all of the national standards, City-adopted performance standards, and contractual requirements regarding SJFD response times to emergencies. Battalion 1 fire stations, which serve the project site and central San José, are among the busiest stations in the city and are less reliable as a resource because of their existing high call volumes. However, two fire stations near the project site (1 and 30) were among the fastest seven stations in the city (out of 34) to respond to Priority 1 calls. With increased call volume to these stations without additional resources, response times would increase and availability to assist neighboring stations will be reduced for larger events (e.g., alarms, fire, and rescue). Furthermore, the ability of neighboring stations to support the central area is already poor and unreliable, given their own call volumes.

SJFD has developed a response-time work plan that includes strategies to further improve its response-time performance, which is challenged by increasing call volumes, increased traffic, and increased population density throughout the city. In 2018–2019, SJFD deployed a feature using automatic vehicle location to provide more accurate data regarding when an emergency vehicle has arrived at the location of an emergency. SJFD is also expanding emergency vehicle preemption of traffic signals, which equips traffic signals to give green lights to oncoming emergency vehicles (consistent with General Plan Policy ES-3.13), and is upgrading fire station alerting systems, which will automate various dispatching steps to reduce call processing times.[24] Emergency-vehicle preemption of traffic signals can also reduce the need for siren use during responses to service calls. SJFD has indicated that it would monitor occupancy levels during development of the proposed project to maintain adequate response levels.[25]

According to the General Plan EIR, development allowed under the General Plan is not anticipated to require the construction of new fire stations other than those currently planned. However, none of these planned facilities are located near the project site.[26] Because development of the proposed project may exceed Downtown growth anticipated in the General Plan and the

[22] City of San José, *Envision San José 2040 General Plan Draft Program EIR*, June 2011.
[23] Based on a population of 1,043,058 in the city of San José in 2019 (refer to Section 3.11, *Population and Housing*) (711 sworn personnel/1,056.038 thousand residents = 0.67).
[24] City of San José, *City of San José Annual Report on City Services 2018–19*, December 2019. Available at https://www.sanjoseca.gov/home/showdocument?id=49148. Accessed January 16, 2020.
[25] San José Fire Department, *Fire Information Response, Downtown West Mixed Use Plan EIR*, December 26, 2019.
[26] City of San José, *Envision San José 2040 General Plan Draft Program EIR*, June 2011.

Downtown Strategy 2040 (refer to Section 3.11, *Population and Housing*), Battalion 1 service levels would be affected, and new or expanded fire facilities may be required.

SJFD has indicated that the fire stations closest to the project site (Stations 1, 7, and 30) do not have existing capacity for additional personnel or equipment. However, Station 3 (98 Martha Street), located approximately 1.21 miles southeast of the project site, and Station 4 (710 Leigh Avenue), located 1.3 miles southwest of the project site, do have existing capacity for additional personnel and equipment.[27] Thus, while the project is being developed, Stations 3 and 4 could be used to meet increasing demand from the project.

However, existing facilities may need to be expanded to accommodate additional equipment and employees. Expansion of existing facilities could entail adding another bay to an existing station with an additional engine company. Modifications at stations in the project area would likely require acquiring adjacent properties to facilitate expansion. Because the need for new or expanded facilities is unclear, no potential locations for facilities have been identified, and no specific improvements are currently contemplated, any potential environmental impacts associated with construction or expansion of those facilities would be speculative. However, it is reasonable to conclude that an addition to an existing fire station would result in relatively minimal construction and would be unlikely to result in significant physical effects on the environment, assuming no historic architectural resources are adversely affected and compliance with General Plan Policy ES-3.4.

In addition, SJFD has indicated that a new fire station in the Diridon Station Area is priority 7 on its Fire Station Prioritization List, which identifies projects needed in response to increased development in the Diridon Station Area. The priority level is based on the timing of development for the area; however, the necessary construction schedule and location of a potential new station in the Diridon Station Area is speculative at this time. New fire facilities in the Diridon Station Area would, by definition, be developed on an infill parcel. Therefore, construction of a new fire station would not result in significant physical impacts, given their urban location and relatively small size (0.5 to 1.25 acres[28]), and through adherence to General Plan policies such as Policies ES-3.3 and ES-3.4. In addition, if necessary, a new fire station could be sited within the project site, potentially using ground-floor space in a building in the project's development program. Given the scale of the proposed project relative to development of a ground-floor use on an infill parcel for a new fire station, the construction of a new fire station on the project site would not result in significant environmental impacts.

The existing SJFD Training Center is located on the project site. Following lease expiration, the facility will be relocated, and the site would be redeveloped as part of the project. The City has a rental agreement for the training facility that expires in June 2022, after which fire training activities will be relocated elsewhere in the city.[29] SJFD has indicated that current plans for redevelopment of the training facility are to relocate it to the City's Central Service Yard, an infill

27 San José Fire Department, *Fire Information Response, Downtown West Mixed Use Plan EIR*, December 26, 2019.
28 Based on lot sizes for fire stations near the project site (Stations 1, 7, and 30).
29 *The Mercury News*, "Google Buys Downtown San Jose Fire Training Site Needed for Transit Village," June 12, 2019. Available at https://www.mercurynews.com/2019/06/12/google-buys-downtown-san-jose-fire-training-site-needed-for-transit-village/. Accessed October 1, 2019.

parcel adjacent to the SJFD Administration Building. Because no specific improvements are currently under consideration, any potential environmental impacts associated with construction of those facilities would be speculative and are not proposed as a part of the project or included in this analysis. However, construction of a new training facility would not result in significant environmental impacts, given its urban location and adherence to General Plan policies such as Policies ES-3.3, ES-3.4, and ES-3.13.

In addition, development of the proposed project would result in the generation of new property taxes and other revenues that go into the City's General Fund, and thus would provide more resources to cover the increased budget for fire services.[30] The proposed project would also be designed to comply with the most up-to-date building and fire codes and would include fire safety measures and equipment, including fire retardant building materials, emergency water infrastructure (fire hydrants and sprinkler systems), smoke detectors and fire extinguishers, emergency response notification systems, and adequate access ways within the project site for emergency vehicles. Project fire safety plans would be subject to review and approval by SJFD.

Therefore, despite the increased demand for fire protection and emergency services that would result from the proposed project, service from Stations 3 and 4 to support Battalion 1 and Stations 1, 7, and 30, along with the future construction of a new station in the Diridon Station Area, would be able to handle the increased demand. Although speculative, as described above, it is not anticipated that construction of potential new or expanded fire facilities would not result in significant physical impacts. Impacts related to fire protection and emergency services would be **less than significant**.

Mitigation: None required.

Cumulative Impacts—Fire Protection and Emergency Services

Impact C-PS-1: The proposed project, combined with cumulative development in the project vicinity and citywide, would contribute to a cumulative increase in demand for fire protection and emergency services but would not result in significant environmental impacts due to the construction of new facilities. *(Less than Significant)*

The geographic scope of potential cumulative impacts related to fire protection and emergency services encompasses the project site and all areas of San José, as fire protection and emergency services and facilities are provided citywide. This analysis considers two conditions:

1. Whether there would be a significant, adverse cumulative impact associated with the proposed project in combination with past, present, existing, approved, pending, and reasonably foreseeable future projects in the geographic area; and
2. If so, whether the project's incremental contribution to the cumulative impact would be considerable.

Both conditions must apply for a project's cumulative effects to rise to the level of significance.

[30] City of San José, 2019–2020 Adopted Operating Budget. Available at https://www.sanjoseca.gov/home/showdocument?id=45411. Accessed May 6, 2020.

Cumulative Impact and Project Contribution—Fire Protection and Emergency Services

The proposed project, in combination with cumulative development in the project vicinity and citywide, would generate a need for additional fire protection and emergency services, which would add to the existing deficiency in SJFD's response times and performance levels, resulting in the need for additional fire protection services. The proposed project's employment and population growth would be within the City's overall growth projections identified in the General Plan. According to the General Plan EIR, development allowed under the General Plan is not anticipated to require the construction of new fire stations, other than those currently planned.[31] In addition, the Diridon Station Area Plan (DSAP) and Downtown Strategy EIRs found that development under the plans would not result in the need for construction of fire stations in excess of those currently planned. However, the proposed project would concentrate growth in the Downtown portion of San José, which would result in increased demand for services from Battalion 1 stations in the central portion of the city.

Also, since publication of the DSAP and Downtown Strategy EIRs, a new fire station in the Diridon Station Area has been identified as priority 7 on SJFD's Fire Station Prioritization List. The projects on SJFD's Fire Station Prioritization List are intended to strengthen response capabilities throughout the city. In addition, amendments to the DSAP are proposed that would increase the density of development in the Diridon Station Area (refer to *Growth Projections* in the introduction to Chapter 3, *Environmental Setting, Impacts, and Mitigation*). SJFD has also indicated that based on cumulative growth in the city and the Diridon Station Area, a new fire station would be required in the Diridon Station Area.[32,33]

The need for additional fire facilities to cover a greater population concentration as projects are proposed will require further analysis, along with the ability of emergency services to access all areas within established response time standards. The new fire station would require project-level CEQA review when a suitable site is identified and the project moves forward, because the necessary construction schedule and location of a potential new station in the Diridon Station Area are speculative at this time.

As discussed under Impact PS-1, the proposed project would not result in any significant impacts related to the construction of expanded or additional fire facilities. New fire facilities in the Diridon Station Area would, by definition, be developed on an infill parcel. Based on SJFD's prototypical model and average fire stations, a fire station typically occupies around 8,000 square feet on a 0.6-acre lot.[34] Therefore, construction of a new fire station would not result in significant environmental impacts, given its urban location and relatively small size, and through adherence to General Plan policies such as Policies ES-3.3, ES-3.4, and ES-3.13. If necessary, a new fire station could be incorporated into the ground floor of a building in the project's development program, and would not result in significant environmental impacts not otherwise analyzed in this EIR.

31 City of San José, *Envision San José 2040 General Plan Draft Program EIR*, June 2011.
32 San José Fire Department, *Fire Information Response, Downtown West Mixed Use Plan EIR*, December 26, 2019.
33 San José Fire Department, *Fire Information Response*, April 10, 2020.
34 San José Fire Department, *Fire Information Response*, April 10, 2020.

Therefore, while the project would contribute to a cumulative increase in demand for fire protection and emergency services, the increase would not result in significant environmental impacts due to the construction of new facilities. This impact would be **less than significant**.

Mitigation: None required.

Police Protection

3.12.4 Environmental Setting

The San José Police Department (SJPD) provides police services throughout the city. SJPD is divided into four bureaus—Field Operations, Investigations, Administration, and Technical Services—and the office of the Executive Officer.[35] SJPD refers to its Patrol Division as the Bureau of Field Operations. The Bureau of Field Operations is the primary provider of police services in San José, deploying more than 980 sworn officers throughout the city.

Bureau of Field Operations personnel are prepared to respond to both emergency and non-emergency calls for service in each of the city's 16 patrol districts, which are further broken down into police beats. The 16 patrol districts comprise four divisions, each containing four districts. Each division is commanded by a police captain.[36]

The project site is located primarily within the Central Division, District E, Beat E1. The southern-most portion of the project site is located within the Western Division, District F, Beat F5.[37]

San José Police Department Facilities and Staffing

SJPD has one police station open to the public, at 201 West Mission Street, approximately 0.75 miles northeast of the project site. SJPD also has four community policing centers and one police substation that are currently closed to the public due to staffing issues. One community policing center is located approximately 0.55 miles east of the project site in Downtown San José (30 East Santa Clara Street).[38] The police substation is being used as a training center for the SJPD Police Academy.[39] The City is also currently planning to build a new police training and academy facility; however, a site has not yet been identified.[40] SJPD has indicated that existing police facilities have capacity for additional staff.[41]

Positions are added through the City's annual budget process.[42] In 2018–2019, SJPD had 1,691 authorized positions, including 640 civilian authorized positions. SJPD has faced high vacancies and decreasing numbers of street-ready officers. Of the 1,151 authorized sworn positions,

35 San José Police Department, Inside SJPD—Department Information, 2019. Available at http://www.sjpd.org/insidesjpd/. Accessed October 3, 2019.
36 San José Police Department, Bureau of Field Operations. Available at http://www.sjpd.org/bfo/. Accessed October 2, 2019.
37 San José Police Department, San José Police Department Use of Force Analysis, Interactive Dashboard. Available at http://www.sjpd.org/crimestats/forceanalysis.asp. Accessed October 4, 2019.
38 San José Police Department, *Police Information Response, Downtown West Mixed Use Plan EIR*, December 20, 2019.
39 San José Police Department, Coffee with the Chief Q&A, Hosted by Councilmember Sergio Jimenez, Saturday, February 10, 2018.
40 City of San José, *Status Report On Measure T – The Disaster Preparedness, Public Safety and Infrastructure General Obligation Bond and Related Appropriation Ordinance Amendments*, November 27, 2019.
41 San José Police Department, *Police Information Response, Downtown West Mixed Use Plan EIR*, December 20, 2019.
42 San José Police Department, *Police Information Response, Downtown West Mixed Use Plan EIR*, December 20, 2019.

908 were actual full-duty, street-ready as of June 2019. SJPD has been experiencing vacancies of sworn police positions for the past 10 years.[43]

San José Police Department Calls for Service and Response Times

The SJPD Communications Center receives all 911 emergency calls for police, fire, and ambulance services in the city, as well as non-emergency calls. Once a telephone call is received, the call taker quickly determines the type of complaint and jurisdiction of the call, and handles it accordingly. The call may involve a transfer, a referral, or that an event be created for dispatch.[44] In 2018–2019, SJPD handled about 1.2 million total calls for service. The number of emergency calls increased slightly from 2017–2018 (totaling about 601,144 or about half of all calls). The number of non-emergency calls totaled about 431,000. Field events (e.g., car and pedestrian stops, other officer-initiated calls) accounted for the remaining calls. The percentage of emergency calls answered within 10 seconds was 88 percent, which did not meet the target of 90 percent, but was an improvement from the previous year's 86 percent. The City is exploring moving non-emergency calls out of the Communications Center to improve emergency call answering times.[45]

There are four levels of service calls for SJPD response:

- *Priority 1:* An event with immediate potential for imminent danger to life or property.
- *Priority 2:* An event that has occurred, for which the suspect may be near but is no longer at the scene and/or no imminent threat exists to life or property.
- *Priority 3:* A non-emergency involving property damage or the potential for property to be damaged (a police report may be requested or required).
- *Priority 4:* A non-emergency without present or potential damage to property, in which the suspect is gone.[46]

In 2018–2019, SJPD responded to about 196,000 Priority 1–4 incidents: 8,200 Priority 1 responses (4 percent), 83,300 Priority 2 responses (42 percent), 76,500 Priority 3 responses (39 percent), and 28,200 Priority 4 responses (14 percent). Approximately 11,000 responses were made by officers in District E and approximately 12,500 by officers in District F, which is about 11 percent of Priority 1–4 incidents.[47]

In 2018–2019, the citywide average response time for Priority 1 calls was 7.1 minutes, which did not meet the target of 6 minutes. The citywide average 19.9-minute response time for Priority 2 calls was well above the target of 11 minutes. As staffing reductions have affected SJPD, the

43 City of San José, *City of San José Annual Report on City Services 2018–19*, December 2019. Available at https://www.sanjoseca.gov/home/showdocument?id=49148. Accessed January 16, 2020.
44 San José Police Department, *Police Information Response, Downtown West Mixed Use Plan EIR*, December 20, 2019.
45 City of San José, *City of San José Annual Report on City Services 2018–19*, December 2019. Available at https://www.sanjoseca.gov/home/showdocument?id=49148. Accessed January 16, 2020.
46 San José Police Department, Answers to Frequently Asked Questions. Available at http://www.sjpd.org/faq.html. Accessed October 4, 2019.
47 City of San José, *City of San José Annual Report on City Services 2018–19*, December 2019. Available at https://www.sanjoseca.gov/home/showdocument?id=49148. Accessed January 16, 2020.

department has focused on maintaining the Priority 1 response times, as these calls involve present or imminent danger to life or major property loss. Average response times in District E were just below the 6-minute target, and were the fastest citywide. Average response times in District F were approximately 7 minutes, the seventh fastest among the city's 16 districts.[48]

3.12.5 Regulatory Framework

Local

Envision San José 2040 General Plan

The General Plan contains the following relevant policies related to police protection:

Policy ES-3.1: Provide rapid and timely Level of Service response time to all emergencies:

- For police protection, achieve a response time of six minutes or less for 60 percent of all Priority 1 calls, and of eleven minutes or less for 60 percent of all Priority 2 calls.
- For fire protection, achieve a total response time (reflex) of eight minutes and a total travel time of four minutes for 80 percent of emergency incidents.
- Enhance service delivery through the adoption and effective use of innovative, emerging techniques, technologies and operating models.
- Measure service delivery to identify the degree to which services are meeting the needs of San José's community.
- Ensure that development of police and fire service facilities and delivery of services keeps pace with development and growth in the city.

Policy ES-3.3: Locate police and fire service facilities so that essential services can most efficiently be provided and level of service goals met. Ensure that the development of police and fire facilities and delivery of services keeps pace with development and growth of the city.

Policy ES-3.4: Construct and maintain architecturally attractive, durable, resource-efficient, environmentally sustainable and healthful police and fire facilities to minimize operating costs, foster community engagement, and express the significant civic functions that these facilities provide for the San José community in their built form. Maintain City programs that encourage civic leadership in green building standards for all municipal facilities.

Policy ES-3.5: Co-locate public safety facilities with other public or private uses to promote efficient use of space and provision of police and fire protection services within dense, urban portions of the city.

Policy ES-3.6: Work with local, State, and Federal public safety agencies to promote regional cooperation in the delivery of services. Maintain mutual aid agreements with surrounding jurisdictions for emergency response.

Policy ES-3.13: Maintain emergency traffic preemption controls for traffic signals.

[48] City of San José, *City of San José Annual Report on City Services 2018–19*, December 2019. Available at https://www.sanjoseca.gov/home/showdocument?id=49148. Accessed January 16, 2020.

3.12.6 Impacts and Mitigation Measures

Significance Criteria

For the purposes of this EIR, a police protection impact would be significant if implementing the proposed project would:

- Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, or the need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives.

Approach to Analysis

This section discusses potential direct impacts on police protection relative to potential substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, or the need for new or physically altered governmental facilities. The proposed project could have a significant impact on police protection if:

1. The project would require the construction of new or physically altered governmental facilities in order to maintain acceptable levels of public services; and
2. The construction or alteration of such facilities would result in a significant environmental impact.

The project population figures used in this section are based on those estimated in Section 3.11, *Population and Housing*. Where applicable, the maximum residential scenario was used to conservatively analyze impacts.

Impact Analysis—Police Protection

Impact PS-2: The proposed project would not result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, or the need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for police protection. *(Less than Significant)*

Construction

As described in Chapter 2, *Project Description*, construction would begin in 2021 and may continue through 2031. Construction activities and the presence of construction workers on-site could result in an incremental, temporary increase in demand for police protection. As discussed in Section 3.11, *Population and Housing*, construction-related jobs generated by the project would likely be filled by employees within the construction industry in the city of San José and greater Santa Clara County, many of whom are currently being served by SJPD police protection services, and therefore would not represent an increase in demand for services. In addition, as discussed in the impact analysis for fire protection and EMS (Section 3.12.3), the project would

be required to prepare a construction fire protection plan describing how off-hours security would be addressed on the project site. Further, this incremental, temporary increase in demand for services during construction could be accommodated by existing SJPD police protection services and would not require the construction of new or physically altered facilities to maintain services. Acceptable police protection would be maintained during construction of the project, and impacts would be **less than significant**.

Mitigation: None required.

Operation

The proposed project's mixed-use development would increase the project site's daily population because increased numbers of employees and visitors would be present at the proposed office uses, hotel, event and conference space, and active uses. The project would also generate a new permanent residential population at the proposed on-site residential uses. The population increase caused by the proposed project would cause reported crime and calls for service from SJPD to increase. As discussed in Section 3.12.4, *Environmental Setting*, SJPD is currently not meeting its response-time targets. However, in 2018–2019, the average response times in District E, in which most of the project site is located, were just below the 6-minute target and were the fastest in the city. Average response times in District F, which includes the southernmost parcel of the project site, were approximately 7 minutes, the seventh fastest among the city's 16 districts.[49]

According to the General Plan EIR, growth resulting from the General Plan would create a need for additional police officers and equipment.[50] Development of the proposed project would result in up to approximately 12,980 new residents, an increase that is within citywide growth projections under the General Plan and would not change the current officer-to-resident ratio of 1.1 per 1,000 residents citywide.[51] As discussed above, SJPD has been experiencing sworn police vacancies for the past 10 years; however, 2017–2018 was the second consecutive year since 2011–2012 in which vacancies decreased.[52] SJPD estimates that based on its goal of 1.5 officers per 1,000 residents, approximately 20 additional officers may be needed to serve the project at full buildout. Additional officers would be allocated over time, through the City's annual budget process.[53]

According to the General Plan EIR, development allowed under the General Plan is not anticipated to require the construction of new police facilities. Police services would continue to be dispatched from police headquarters, which is located 0.75 miles from the project site, and no additional stand-alone police facilities would be required. However, SJPD may increase the number of community policing centers located in existing commercial buildings, or within new private development.[54] SJPD has indicated that existing police facilities have capacity for

49 City of San José, *City of San José Annual Report on City Services 2018–19*, December 2019. Available at https://www.sanjoseca.gov/home/showdocument?id=49148. Accessed January 16, 2020.
50 City of San José, *Envision San José 2040 General Plan Draft Program EIR*, June 2011.
51 Based on a population of 1,043,058 in the City of San José in 2019 (refer to Section 3.11, *Population and Housing*) (1,109 approved sworn officers/1,056.038 thousand residents = 1.1).
52 City of San José, *City of San José Annual Report on City Services 2018–19*, December 2019. Available at https://www.sanjoseca.gov/home/showdocument?id=49148. Accessed January 16, 2020.
53 San José Police Department, *Police Information Response, Downtown West Mixed Use Plan EIR*, December 20, 2019.
54 City of San José, *Envision San José 2040 General Plan Draft Program EIR*, June 2011.

additional staffing, and no additional facilities are anticipated to be required for the proposed project.[55] As described above, SJPD's four community policing centers and police substation are currently closed to the public because of staffing issues.[56] One of these community policing centers is located 0.55 miles from the project site and could be reopened to address project needs if required. As SJPD employs new officers, these facilities may reopen, or a new community policing center could be developed on the project site. Should SJPD determine that a community policing center is necessary on the project site, the facility would be incorporated into an otherwise-planned structure, and would generate no further impacts beyond those identified in this draft EIR for the proposed project.

In addition, the proposed project would have a private security force typical of office campuses and urban residential developments, which would be on-site to respond to security issues and emergencies as they arise. As discussed in Chapter 2, *Project Description*, the project would include an on-site security plan to provide campus security 24 hours a day. Campus security would consist of security patrols on foot and by vehicle, alarm and incident response, escorts by request, and first aid emergency response. On-site security would reduce some of the demand for police services on the project site caused by increases in the number of employees during the daytime hours. Project plans would also be subject to Crime Prevention through Environmental Design (CPTED) review by SJPD as part of the City's standard review process. CPTED recommendations can be used to discourage criminal activity by combining security hardware, psychology, and physical site design. Although the proposed project would increase the demand for police protection, the construction of potential expanded or new police facilities would not result in significant physical impacts. Impacts related to police protection would be **less than significant**.

Mitigation: None required.

Cumulative Impacts—Police Protection

Impact C-PS-2: The proposed project, combined with cumulative development in the project vicinity and citywide, would not result in an adverse cumulative increase in demand for police protection. *(Less than Significant)*

The geographic scope of potential cumulative impacts related to police protection encompasses the project site and all areas of San José, as police services are provided citywide. This analysis considers two conditions:

1. Whether there would be a significant, adverse cumulative impact associated with the proposed project in combination with past, present, existing, approved, pending, and reasonably foreseeable future projects in the geographic area; and
2. If so, whether the project's incremental contribution to the cumulative impact would be considerable.

[55] San José Police Department, *Police Information Response, Downtown West Mixed Use Plan EIR*, December 20, 2019.
[56] San José Police Department, *Police Information Response, Downtown West Mixed Use Plan EIR*, December 20, 2019.

Both conditions must apply for a project's cumulative effects to rise to the level of significance.

Cumulative Impact and Project Contribution—Police Protection

Cumulative development in the project vicinity and citywide would generate a need for additional police protection, based on an increase in the citywide population, which would add to existing deficiencies in police response times. As discussed in Section 3.11, *Population and Housing*, the General Plan planned for approximately 367,869 additional residents by 2040. In addition, amendments to the DSAP are proposed that would increase the density of development in the Diridon Station Area (refer to *Growth Projections* in the introduction to Chapter 3, *Environmental Setting, Impacts, and Mitigation*). The ongoing DSAP planning process and the proposed project would shift some of the growth projected in the General Plan from other areas of the city to the Downtown area. SJPD's cumulative goal is to reach and maintain a 1.5 sworn officer average per 1,000 residents, which would result in the need for approximately 552 officers by 2040.

As discussed under Impact PS-2, additional officers would be allocated over time, through the City's annual budget process.[57] According to the General Plan EIR, development allowed under the General Plan is not anticipated to require the construction of new police facilities; police services would continue to be dispatched from police headquarters, and no additional stand-alone police facilities would be required.[58] As discussed under Impact PS-2, the proposed project would not result in any significant impacts related to the construction of expanded or additional police facilities. Therefore, the project's contribution **would not be cumulatively considerable** and is **less than significant**.

Mitigation: None required.

---

[57] San José Police Department, *Police Information Response, Downtown West Mixed Use Plan EIR*, December 20, 2019.
[58] San José Police Department, *Police Information Response, Downtown West Mixed Use Plan EIR*, December 20, 2019.

Public Schools

3.12.7 Environmental Setting

The project site is served by San José Unified School District (SJUSD). SJUSD operates 41 schools: 26 elementary schools, 1 K–8 school, 6 middle schools, 6 high schools, and 2 alternative education programs.[59] The project site is located within the enrollment area for Grant, Horace Mann, and Gardner Elementary Schools; Hoover Middle School; and Lincoln High School.[60]

During the 2018–2019 academic year, 31,114 students were enrolled in SJUSD schools.[61] **Table 3.12-3** shows enrollment for the schools in the project site's enrollment area and the school sites' capacity. Of the schools with enrollment areas that overlap with the project site, all have excess capacity except one: Lincoln High School, which, based on 2018–2019 academic year enrollment, was at 100.4 percent of capacity.[62]

TABLE 3.12-3
SAN JOSÉ UNIFIED SCHOOL DISTRICT 2018–2019 ENROLLMENT

Schools	Students	School Capacity
Elementary		
Grant Elementary	473	870
Horace Mann Elementary	402	870
Gardner Elementary	387	783
Middle		
Hoover	1,082	1,363
High		
Lincoln High	**1,805**	1,798

NOTES:

Bold indicates a value that is over student capacity for the school site.

SOURCES:
California Department of Education, *2018–19 Enrollment by Grade*, San José Unified Report (43-69666). Available at https://dq.cde.ca.gov/dataquest/dqcensus/EnrGrdLevels.aspx?cds=4369666andagglevel=districtandyear=2018-19. Accessed October 8, 2019.
San José Unified School District, *7-Year Student Population Projections by Residence, Fall 2017–2023*, June 5, 2017.

Enrollment in SJUSD schools has declined each year during the past five academic years for which data are available, from 32,938 students in the 2014–2015 academic year to 31,114 during the 2018–2019 academic year.[63] SJUSD is also projecting continued enrollment decline through 2023, the current horizon for district projections.

59 San José Unified School District, Information Guide. Available at https://www.sjusd.org/docs/district_information/2018_Info_Guide_ENG.pdf. Accessed October 4, 2019.
60 San José Unified School District, School Site Locator. Available at http://apps.schoolsitelocator.com/?districtcode=25499. Accessed October 8, 2019.
61 California Department of Education, *2018–19 Enrollment by Grade*, San Jose Unified Report (43-69666). Available at http://dq.cde.ca.gov/dataquest/dqcensus/EnrGrdLevels.aspx?cds=4369666andagglevel=districtandyear=2018-19. Accessed October 8, 2019.
62 San José Unified School District, *7-Year Student Population Projections by Residence, Fall 2017–2023*, June 5, 2017.
63 California Department of Education, *Enrollment Multi-Year Summary by Grade*, San Jose Unified Report (43-69666). Available at http://dq.cde.ca.gov/dataquest/dqcensus/EnrGrdYears.aspx?cds=4369666andagglevel=districtandyear=2018-19. Accessed October 8, 2019.

SJUSD's trend of declining enrollment is occurring largely because incoming elementary classes are smaller than the graduating high school classes they are due to replace. SJUSD's districtwide birth data indicate that there could be stable incoming kindergarten classes over the projected time frame; however, students are leaving the district as class cohorts graduate from grade to grade. The student population is dropping as students move from grade to grade, at rates ranging from 1 percent to 28 percent, depending on grades and region within the district.

In addition, typical residential unit cycles, in which younger families with young children move into residential units as older parents with college-age children move out, may not be occurring in many parts of SJUSD's neighborhoods. For example, homes that were once affordable to younger families may no longer be affordable, and are being occupied by a different demographic that may not include children. Further, although thousands of residential units are scheduled for construction, most are high-rise apartments, condominiums, and townhomes where fewer school-age children live.[64]

SJUSD is also dealing with enrollment imbalances districtwide, in both elementary and secondary schools[65]; some schools are close to capacity, and others are under-enrolled and offer fewer programs to students as a result.[66] Other than facilities available for high school students, future use of SJUSD facilities is being reviewed by the SJUSD Board of Education based on current enrollment and enrollment projections.[67]

SJUSD imposes development fees on new residential or remodeling projects, and on commercial and industrial construction. These fees are intended to fund the construction or reconstruction of school facilities to accommodate increasing enrollment within SJUSD boundaries that results from new development. Fees for multi-unit residential developments are calculated by SJUSD and provided to developers.[68]

3.12.8 Regulatory Framework

State

Senate Bill 50

The Leroy F. Greene School Facilities Act of 1998, or Senate Bill (SB) 50, authorizes school districts to levy developer fees under Section 17620 of the California Education Code to finance the construction or reconstruction of school facilities. SB 50 amended California Government Code Section 65996, which describes methods for considering and mitigating impacts on school facilities that could result from any state or local agency action, including development of real

64 San José Unified School District, *7-Year Student Population Projections by Residence, Fall 2017–2023*, June 5, 2017.
65 San José Unified School District, Recommendation to the Board of Education RE: current enrollment, enrollment projections, and utilization of District facilities, October 10, 2017.
66 San José Unified School District, *Looking Toward the Future: San José Unified's Employee Housing Initiative*. Available at https://www.sjusd.org/who-we-are/employee-housing/. Accessed October 8, 2019.
67 San José Unified School District, Recommendation to the Board of Education RE: current enrollment, enrollment projections, and utilization of District facilities, October 10, 2017.
68 San José Unified School District, Community Resources, Pay Development Fees. Available at https://www.sjusd.org/your-resources/community-resources/#pay-development-fees. Accessed October 8, 2019.

property. SB 50 also restricts the ability of local agencies to deny project approvals on the basis that public school facilities (e.g., classrooms, auditoriums) are inadequate.

School impact fees are collected when building permits are issued. Payment of school fees is required by SB 50, for all new development projects and is considered full and complete mitigation of any school impacts. School impact fees are payments to offset capital cost impacts associated with new developments, which result primarily from the costs of additional school facilities, related furnishings and equipment, and projected capital maintenance requirements. As such, agencies cannot require additional mitigation for impacts on or inadequacy of school facilities.

Envision San José 2040 General Plan

The General Plan contains the following relevant policy related to schools:

> **Policy ES-1.9:** Provide all pertinent information on 2040 General Plan amendments, rezonings and other development proposals to all affected school districts in a timely manner.

3.12.9 Impacts and Mitigation Measures

Significance Criteria

For the purposes of this EIR, a public schools impact would be significant if implementing the proposed project would:

- Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, or the need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios or other performance objectives.

Approach to Analysis

This section discusses potential direct impacts on public schools relative to potential substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, or the need for new or physically altered governmental facilities. The proposed project could have a significant impact on public schools if:

1. The project would require the construction of new or physically altered governmental facilities in order to maintain acceptable levels of public services; and
2. The construction or alteration of such facilities would result in a significant environmental impact.

The project population figures used in this section are based on those estimated in Section 3.11, *Population and Housing*. Where applicable, the maximum residential scenario was used to conservatively analyze impacts.

Impact Analysis—Public Schools

Impact PS-3: The proposed project would not result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, or the need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios or other performance objectives for schools. *(Less than Significant)*

The proposed project includes the development of up to 5,900 residential units on the project site. Phases 1, 2, and 3 of the project would include up to 3,130 units, up to 1,410 units, and up to 1,360 units, respectively. New residential development on the project site would cause an increase in the number of school-age children who could be enrolled in SJUSD schools. Conservatively taking into account the upper range of proposed residential units and SJUSD student generation rates based on those identified in the *Envision San José 2040 General Plan Draft Program EIR*,[69] the proposed project would result in up to approximately 1,570 new school-age children at full buildout (**Table 3.12-4**). The new students would be added to districtwide enrollment incrementally over time during development of the project, over approximately 11 years.

TABLE 3.12-4
ESTIMATED PROJECT STUDENT GENERATION

Grade Group	Students per Residential Housing Unit[a]	Project School-Age Children—Full Buildout[b]
Kindergarten–5th Grade	0.133	785
6th–8th Grade	0.071	419
9th–12th Grade	0.062	366
Total	**—**	***1,570***

NOTES:

Rows may not total due to rounding.

[a] Student generation rates for San José Unified School District are based on those contained in the *Envision San José 2040 General Plan Draft Program EIR*.

[b] Based on 5,900 housing units developed by the project at full buildout.

SOURCE: City of San José, *Envision San José 2040 General Plan EIR*, June 2011.

As shown in **Table 3.12-5**, according to SJUSD school capacity data and school surplus projections for 2023, schools in the project site's enrollment area would be able to absorb the project's student demand. These school surplus projections do not include out-of-district students or students who choose to attend schools outside of their assigned enrollment areas; however, the proposed project's student generation rate is conservative, and enrollment priority goes to students who reside within the school attendance boundaries. SJUSD has a choice enrollment program for middle and high school students, which allows students to rank their preferred schools to attend in the district. However, enrollment priority still goes to students who reside

[69] The student generation rates used in the *Envision San José 2040 General Plan Draft Program EIR* include higher student generating residential uses (e.g., single-family detached). As noted in SJUSD's *7-Year Student Population Projections by Residence, Fall 2017–2023*, multifamily residential uses generate fewer school-age children. Therefore, this estimate is conservative.

within the school attendance boundaries. SJUSD has indicated that there have been enrollment decreases specifically in the Downtown area due in part to the nature of high-rise, multifamily development coming online, and the district does not have any current plans to develop new school facilities.[70]

TABLE 3.12-5
ESTIMATED STUDENT CAPACITY AT SAN JOSÉ UNIFIED SCHOOL DISTRICT SCHOOLS IN THE PROJECT VICINITY

School	Number of Seats	Projected Surplus Capacity in 2023[a]	Projected Surplus Capacity including Estimated Project Students—Full Buildout[b]
Elementary Schools near the project site[c]	2,523	1,452	667
Middle School			
Hoover Middle School	1,363	710	291
High School			
Lincoln High School	1,798	691	325

NOTES:

[a] As projected by the San José Unified School District by residence. Note this does not include out-of-district students or students who choose to attend schools out of their assigned enrollment areas.

[b] Per Table 3.12-4, at full buildout, the project would generate approximately 785 elementary school students, 419 middle school students, and 366 high school students.

[c] Elementary schools near the project site include Grant, Horace Mann, and Gardner Elementary Schools.

SOURCE: San José Unified School District, *7-Year Student Population Projections by Residence, Fall 2017–2023*, June 5, 2017.

As described in Section 3.12.8, *Regulatory Framework*, the proposed project would be required to comply with SB 50 and California Government Code Section 65996, which would fully mitigate the potential effect on public school facilities from the new student population that may be generated by the project. California Government Code Section 65996 and Education Code Section 17620 authorize school districts to levy a development fee on new residential and commercial projects to offset the costs associated with new students present in the districts as a result of new development. Section 65996 states that the payment of school impact fees that may be required by a state or local agency constitutes full and complete mitigation of school impacts from development.

Because of the excess capacity at schools serving the project site, the trends of declining enrollment in Downtown San José, and the project's required contribution to school impact fees, and because SJUSD does not currently plan to construct additional school facilities, the proposed project would not result in an increase in new students for SJUSD schools at a level that would require new or physically altered school facilities. This impact would be **less than significant**.

Mitigation: None required.

---

[70] San José Unified School District, Response to Downtown West Mixed Use Plan Draft EIR: Request for School Enrollment Information, email communication, March 13, 2020.

Cumulative Impacts—Public Schools

Impact C-PS-3: The proposed project, combined with cumulative development in the project vicinity and citywide, would not result in an adverse cumulative increase in demand for schools. *(Less than Significant)*

The geographic scope of potential cumulative impacts related to schools encompasses the project site and all areas of San José, as public school facilities are provided citywide. This analysis considers two conditions:

1. Whether there would be a significant, adverse cumulative impact associated with the proposed project in combination with past, present, existing, approved, pending, and reasonably foreseeable future projects in the geographic area; and
2. If so, whether the project's incremental contribution to the cumulative impact would be considerable.

Both conditions must apply for a project's cumulative effects to rise to the level of significance.

Cumulative Impact and Project Contribution—Public Schools

The proposed project, in combination with cumulative development, would cause additional students to attend public schools in San José. The General Plan EIR, which includes planned growth for the Diridon Station and Downtown areas, found that planned growth under the General Plan is estimated to generate an additional 11,079 students in SJUSD, which would require an estimated 11 new schools (seven elementary, two middle, and two high schools).[71]

The DSAP EIR and Downtown Strategy EIR acknowledged that although adding this many students would exceed the available capacity of operating schools, SJUSD has school facilities that are currently leased or closed that may be reopened to serve a portion of the projected increase in enrollment.[72,73] However, as noted above in Section 3.12.7, *Environmental Setting*, since environmental review of these plans was conducted, SJUSD has experienced continued declining enrollment, and the district is projecting continued enrollment declines through at least 2023. The future use of SJUSD facilities is being reviewed by the SJUSD Board of Education. SJUSD has indicated that there are no current plans to construct new school facilities.[74]

In addition, amendments to the DSAP are proposed that would increase the density of development in the Diridon Station Area (refer to *Growth Projections* in the introduction to Chapter 3, *Environmental Setting, Impacts, and Mitigation*). As currently envisioned in the amendments, approximately 1,543 residential units could be added to the plan area in addition to the proposed project's residential units. Using the student generation rates shown in Table 3.12-4 above, the DSAP amendments would add an additional 412 students to the plan area: 206 elementary, 110 middle, and 96 high school students. Based on the projected capacity of schools serving the project site (refer to Table 3.12-5 above), surplus capacity would remain available at

71 City of San José, *Envision San José 2040 General Plan Draft Program EIR*, June 2011.
72 City of San José, *Diridon Station Area Plan Draft PEIR*, December 2013.
73 City of San José, *Downtown Strategy 2040 Integrated Final EIR*, December 2018.
74 San José Unified School District, Response to Downtown West Mixed Use Plan Draft EIR: Request for School Enrollment Information, email communication on March 13, 2020.

schools serving the project site with the addition of the students projected under the proposed DSAP amendments.

As discussed under Impact PS-3, the proposed project would not increase the number of new students for public schools at a level that would require new or physically altered school facilities. In compliance with SB 50, cumulative development projects would be required to pay school impact fees established to mitigate potential impacts of new development on school facilities. These fees are considered complete mitigation under CEQA. While the proposed project, in combination with past, present, and reasonably foreseeable future projects, could result in a need for new or physically altered school facilities, the impact would be entirely mitigated by payment of SB 50 school impact fees. Therefore, the project's contribution **would not be cumulatively considerable** and would be **less than significant**.

Mitigation: None required.

Libraries

3.12.10 Environmental Setting

The San José Public Library (SJPL) consists of 25 libraries, including the main Dr. Martin Luther King Jr. Library located Downtown and branches in neighborhoods across the city.[75] The SJPL currently has approximately 950,000 square feet of library space,[76] after the completion of the projects as part of the 2000 Branch Library Bond.[77] SJPL offers materials in various formats including books, CDs, DVDs, eBooks, online learning tools, and online database services. In 2018–2019, staffing totaled 367 full-time equivalent authorized positions. Almost 580 full-time and part-time staff members filled these positions.[78]

The project site is approximately 0.7 miles west of the main Dr. Martin Luther King Jr. Library (150 East San Fernando Street), 1.1 miles northwest of the Biblioteca Latinoamericana Branch Library (921 South First Street), and 1.25 miles east of the Rose Garden Branch Library (1580 Naglee Avenue).[79]

In 2018–2019, SJPL libraries had 6.2 million visitors, or approximately 119,231 weekly visitors, and 553,065 registered borrowers. About 37 percent (2.3 million) of all visitors went to the main library (Dr. Martin Luther King Jr.). Based on the results of a resident survey completed in August 2019 rating the quality of City services, 78 percent of respondents rated the quality of public library services as "excellent" or "good."[80]

On June 3, 2014, San José voters approved a 25-year extension of the Library Parcel Tax that contributes directly to the Library's budget. The revenue provides funding to acquire new books, magazines, computers, and other materials; to improve educational programs and other services for children, adults, and seniors; and to repair and upgrade libraries.[81]

3.12.11 Regulatory Framework

Envision San José 2040 General Plan

The General Plan contains the following relevant policy related to libraries:

> **Policy ES-2.2:** Construct and maintain architecturally attractive, durable, resource-efficient, and environmentally healthful library facilities to minimize operating costs, foster learning,

[75] City of San José, *City of San José Annual Report on City Services 2018–19*, December 2019. Available at https://www.sanjoseca.gov/home/showdocument?id=49148. Accessed January 16, 2020.
[76] City of San José, *Envision San José 2040 General Plan Draft Program EIR*, June 2011.
[77] City of San José, *City of San José Branch Library Bond Projects Fund (A Fund of the City of San José), Reports of Independent Certified Public Accountants, Financial Statements and Other Supplementary Information, for the Year Ended June 30, 2017*.
[78] City of San José, *City of San José Annual Report on City Services 2018–19*, December 2019. Available at https://www.sanjoseca.gov/home/showdocument?id=49148. Accessed January 16, 2020.
[79] San José Public Library, Locations and Hours. Available at https://www.sjpl.org/locations-map-search. Accessed October 3, 2019.
[80] City of San José, *City of San José Annual Report on City Services 2018–19*, December 2019. Available at https://www.sanjoseca.gov/home/showdocument?id=49148. Accessed January 16, 2020.
[81] San José Public Library, Library Parcel Tax website. Available at https://www.sjpl.org/parcel-tax. Accessed January 13, 2020.

and express in built form the significant civic functions and spaces that libraries provide for the San José community. Library design should anticipate and build in flexibility to accommodate evolving community needs and evolving methods for providing the community with access to information sources. Provide at least 0.59 square feet of space per capita in library facilities.

Policy ES-2.3: Prioritize Neighborhood Business Districts, Urban Villages, and other commercial areas as preferred locations for branch libraries to encourage social activity and economic development in San José's neighborhoods.

Policy ES-2.6: Be a leader to enhance library service delivery through the effective adoption and use of innovative, emerging techniques and technologies.

Policy ES-2.7: Measure Library service delivery to identify the degree to which library activities are meeting the needs of San José's community.

Policy ES-2.8: Measure Library service delivery to identify the degree to which library activities are meeting the needs of San José's community.

Policy ES-2.9: Foster a high-performing, collaborative library system responsive to changing customer and community needs.

3.12.12 Impacts and Mitigation Measures

Significance Criteria

For the purposes of this EIR, a libraries impact would be significant if implementing the proposed project would:

- Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, or the need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios or other performance objectives.

Approach to Analysis

This section discusses potential direct impacts on libraries relative to potential substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, or the need for new or physically altered governmental facilities. The proposed project could have a significant impact on libraries if:

1. The project would require the construction of new or physically altered governmental facilities in order to maintain acceptable levels of public services; and
2. The construction or alteration of such facilities would result in a significant environmental impact.

The project population figures used in this section are based on those estimated in Section 3.11, *Population and Housing*. Where applicable, the maximum residential scenario was used to conservatively analyze impacts.

Impact Analysis—Libraries

Impact PS-4: The proposed project would not result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, or the need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios or other performance objectives for libraries. ***(Less than Significant)***

The population increase caused by the proposed project would result in an increase in demand for SJPL libraries. As discussed in Section 3.12.10, *Environmental Setting*, SJPL currently has approximately 950,000 square feet of library space, which amounts to approximately 0.91 square feet of library space per capita. General Plan Policy ES-2.2 states that at least 0.59 square feet of library space per capita should be provided in the city.

Development of the proposed project would result in a population increase of up to 12,980 (refer to Section 3.11, *Population and Housing*), which would result in approximately 0.90 square feet of library space per capita, maintaining the City's current service ratio. In addition, SJPL offers access to digital content such as eBooks, online learning tools, and online database services, which allow remote access to SJPL materials.

Development of the proposed project would result in the generation of new property taxes and other revenues that go into the City's General Fund, as well as a contribution to the Library Parcel Tax, and thus would provide more resources to cover the increased budget for library services. Further, the project would not reduce the City's current per capita service ratio. Therefore, the proposed project's demand would not result in the need for new or expanded libraries, and impacts related to libraries would be **less than significant**.

Mitigation: None required.

Cumulative Impacts—Libraries

Impact C-PS-4: The proposed project, combined with cumulative development in the project vicinity and citywide, would not result in an adverse cumulative increase in demand for library services. ***(Less than Significant)***

The geographic scope of potential cumulative impacts related to libraries encompasses the project site and all areas of San José, as library facilities are provided citywide. This analysis considers two conditions:

1. Whether there would be a significant, adverse cumulative impact associated with the proposed project in combination with past, present, existing, approved, pending, and reasonably foreseeable future projects in the geographic area; and
2. If so, whether the project's incremental contribution to the cumulative impact would be considerable.

Both conditions must apply for a project's cumulative effects to rise to the level of significance.

Cumulative Impact and Project Contribution—Libraries

As discussed under Impact PS-4, the new population generated by the proposed project would not result in the need for additional new or expanded library facilities. According to the General Plan EIR, development and redevelopment allowed under the General Plan would be served by adequate existing and planned library facilities.[82] Amendments to the DSAP are proposed that would increase the density of development in the Diridon Station Area (refer to *Growth Projections* in the introduction to Chapter 3, *Environmental Setting, Impacts, and Mitigation*). The ongoing DSAP planning process and the proposed project would shift some of the growth projected in the General Plan from other areas of the city to the Downtown area. Thus, based on the population expected in 2040 under General Plan buildout (refer to Section 3.11, *Population and Housing*), there would be approximately 0.72 square feet of library space per capita, maintaining the City's current policy. The proposed project is within citywide growth projections listed in the General Plan. Therefore, cumulative impacts on libraries would be **less than significant**.

Mitigation: None required.

---

[82] City of San José, *Envision San José 2040 General Plan Draft Program EIR*, June 2011.

Parks and Recreation

3.12.13 Environmental Setting

The San José Parks, Recreation, and Neighborhood Services Department (PRNS) operates the City's regional and neighborhood parks, as well as facilities such as Happy Hollow Park and Zoo. PRNS also operates community and recreation centers and provides various recreation, community service, and other programs for children, youth, teens, adults, seniors, and people with disabilities.[83]

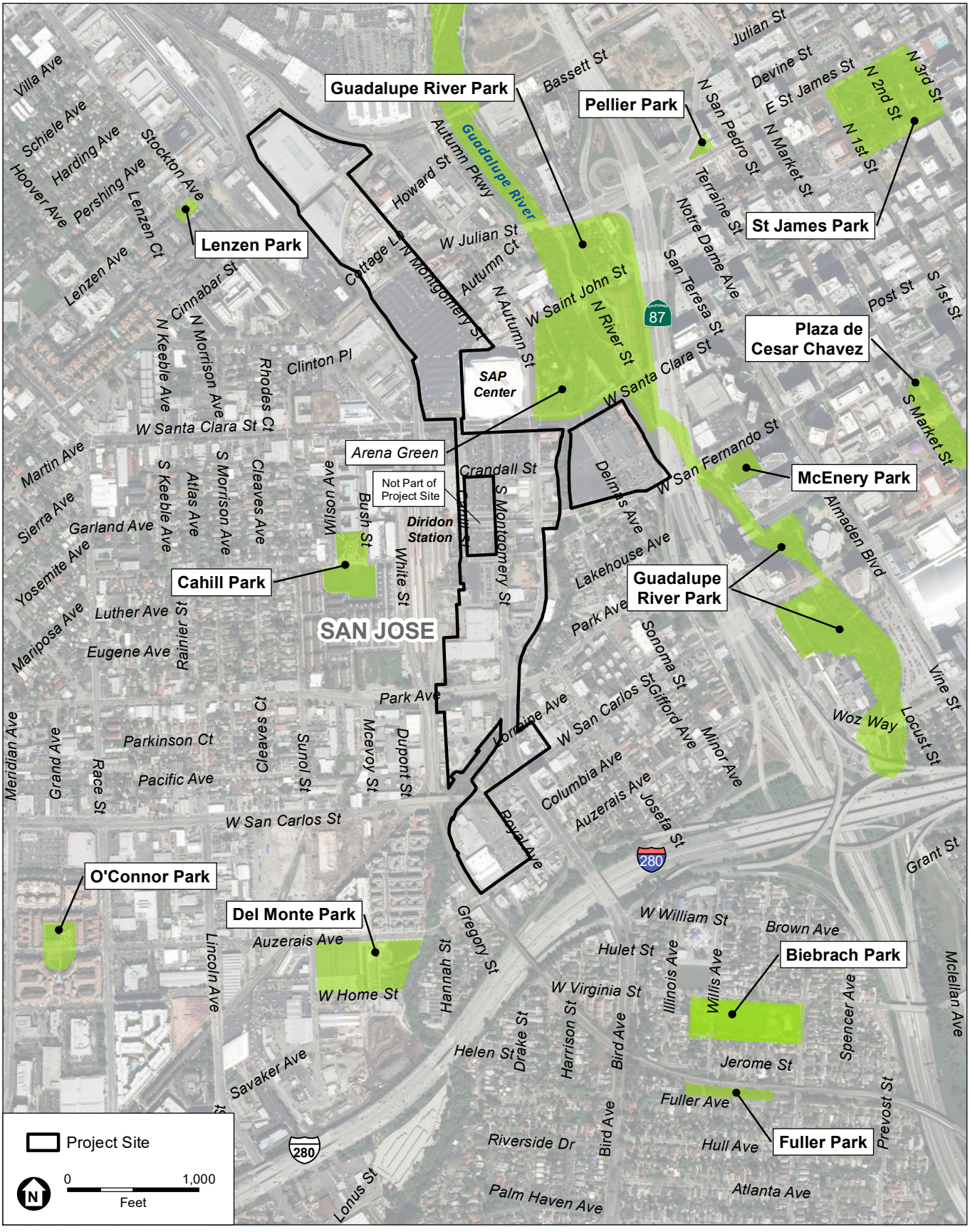
Parks and Recreational Facilities

San José has more than 3,537 acres of parkland, consisting of 1,225 acres of neighborhood/community parkland, 548 acres of regional parkland, 321 acres of land on three public golf courses, and 1,443 acres of open space and undeveloped land. PRNS operates 206 parks throughout the city: 197 neighborhood parks and 9 regional serving parks.[84] The City also works with partners regionally to provide access to parks and open space surrounding San José.

The following parks are located within approximately 0.75 miles of the project site (refer to **Figure 3.12-2**):[85]

- *Guadalupe River Park*, adjacent to the project site to the north and east (438 Coleman Avenue), is a regional serving park that runs 2.6 linear miles along the west side of Downtown San José, and includes trails and open space.[86] The park also includes neighborhood-serving spaces such as the Arena Green by the SAP Center, and Discovery Meadow and the Discovery Dog Park by the Children's Discovery Museum of San José. The downtown portion of the Guadalupe River Trail, discussed further below, is located within the Guadalupe River Park.
- *Cahill Park*, approximately 0.1 mile west of the project site (West San Fernando Street and Wilson Avenue), is a 3.7-acre neighborhood park that contains a playground, a half-sized basketball court, and lawns.
- *Del Monte Park*, approximately 0.14 miles southwest of the project site (806 West Home Street), is a 6.1-acre neighborhood park that contains a dog park, turf youth soccer fields, a playground, table tennis facilities, picnic areas, and lawns.
- *Theodore Lenzen Park*, approximately 0.14 miles west of the project site (Stockton Avenue and Lenzen Street), is a 0.5-acre neighborhood park containing two playgrounds.

83 City of San José, *City of San José Annual Report on City Services 2018–19*, December 2019. Available at https://www.sanjoseca.gov/home/showdocument?id=49148. Accessed January 16, 2020.
84 City of San José, *San José Parks, Recreation & Neighborhood Services, Fast Facts*, October 8, 2019.
85 San José Parks, Recreation and Neighborhood Services Department, Parks and Trails. Available at https://www.sanjoseca.gov/your-government/departments/parks-recreation-neighborhood-services/outdoor-activities. Accessed January 17, 2020.
86 San Francisco Bay Area Planning and Urban Research Association, *White Paper: Re-envisioning the Guadalupe River Park, How San Jose Can Transform Its Greatest Natural Resource into a Community Gathering Place for All*, April 2019. Available at https://www.spur.org/sites/default/files/publications_pdfs/SPUR_Re-envisioning_the_Guadalupe_River_Park.pdf. Accessed October 4, 2019.



SOURCES: Esri, 2019, ESA, 2020

Downtown West Mixed-Use Plan

Figure 3.12-2
Parks in the Project Vicinity

- *Guadalupe Gardens*, approximately 0.3 miles north of the project site (Walnut Street and Taylor Street), is a 14.5-acre neighborhood park containing a courtyard garden, rock garden, historic rose garden, historic orchard, paths, and lawns. Plans are underway to program uses on additional land to the north, including a potential dog park.[87]
- *John P. McEnery Park*, approximately 0.32 miles east of the project site (San Fernando Street and Almaden Boulevard), is a 1.3-acre neighborhood park with a playground, two children's water play features, and picnic areas.
- *Columbus Park*, approximately 0.4 miles north of the project site (Ashbury Street and Irene Street), is a 9.9-acre neighborhood park containing picnic areas two basketball courts, two sand volleyball courts, and two lighted softball fields. Columbus Park is surrounded by Guadalupe Gardens.
- *Pellier Park*, approximately 0.41 miles east of the project site (Julian Street and James Street), is a 0.2-acre neighborhood park. Pellier Park is undergoing construction to expand to a 1-acre neighborhood park with a lawn, seating, and historical elements, with an expected completion in 2021.[88]
- *Biebrach Park*, approximately 0.42 miles southeast of the project site (Delmas Street and Virginia Street), is a 5-acre neighborhood park with a playground, basketball courts, a handball court, swimming pool, and picnic areas.
- *Fuller Park*, approximately 0.45 miles southeast of the project site (Fuller Avenue and Park Avenue), is a 1.14-acre linear park along Fuller Avenue with lawns, game tables, a bocce ball court, and a horseshoe pit.
- *Ryland Park*, approximately 0.57 miles northeast of the project site (First Street and Fox Avenue), is a 3.2-acre neighborhood park with a dog park, playground, basketball courts, picnic areas, an exercise course, and a swimming pool.
- *Plaza de Cesar Chavez*, approximately 0.57 miles east of the project site (194 South Market Street), is a 2.3-acre regional serving park with plazas, water features, lawns, paths, and picnic areas.
- *O'Connor Park*, approximately 0.6 miles southwest of the project site (Race Street and Auzerias Avenue), is a 1.7-acre neighborhood park with a playground, exercise course, lawns, and game tables.
- *St. James Park*, approximately 0.63 miles east of the project site (2nd Street and St. James Street), is a 6.8-acre neighborhood park with a playground, picnic areas, lawns, and an exercise course.

Trails

The city's trail network is composed of 40 unique trail systems that will be interconnected as further development occurs.[89] The current network includes approximately 62 miles of trails

87 Friends of Guadalupe River Park and Gardens and City of San José, *Guadalupe Gardens Design Guidelines and Implementation Strategy*, June 2008. Available at http://www.grpg.org/Files/GuadalupeGardensDesignGuidelines.pdf. Accessed October 5, 2019.

88 City of San José, *Parks and Community Facilities Development, 2020–2024 Adopted Capital Improvement Program Overview*. Available at https://www.sanjoseca.gov/home/showdocument?id=44958. Accessed January 13, 2020.

89 City of San José, *City of San José Annual Report on City Services 2018–19*, December 2019. Available at https://www.sanjoseca.gov/home/showdocument?id=49148. Accessed January 16, 2020.

(86 percent paved).[90] An additional 82 miles have been identified or are being studied for further development, or are in the planning or construction phases of development.[91] The closest trails to the project site are the Los Gatos Creek Trail (which intersects the project site), the Guadalupe River Trail (adjacent to the southeast), and Ryland Parkway (approximately 0.32 miles northeast of the project site). Core trails in the city like the Guadalupe River Trail and Los Gatos Creek Trail both extend long distances—approximately 11.4 miles and 11.2 miles, respectively[92]—and provide opportunities for both recreation and active transportation.[93] The Guadalupe River Trail eventually connects to the San Francisco Bay Trail at Gold Street near Alviso Marina County Park and the Don Edwards San Francisco Bay National Wildlife Refuge.[94]

Community Centers

PRNS also manages approximately 50 community centers in San José, with approximately 548,208 square feet of space.[95] In 2018–2019, the City operated 11 hub community centers, three of which were combination community centers and libraries. PRNS also has reuse facilities that are operated by non-profit organizations, neighborhood associations, school districts, and other government agencies or community service providers. Gardner Community Center, a neighborhood community center, is approximately 0.4 miles southeast of the project site, next to Biebrach Park. Neighborhood centers can house multiple service providers, which are often larger organizations with multiple branches.[96]

3.12.14 Regulatory Framework

State

Quimby Act

The Quimby Act (California Government Code Section 66477) was enacted by the California Legislature in 1975 to ensure that parks and parkland would be provided for new and growing communities in California. As part of the Subdivision Map Act, the Quimby Act authorizes local governments to require the dedication of land or to impose in-lieu fees for parkland, open space, and/or recreational facilities and improvements, through the approval of a tentative or parcel subdivision map. The Quimby Act requires that 3 acres of park area be provided for every 1,000 persons residing within a subdivision, unless the amount of existing neighborhood and community park area exceeds that limit. As described under *Local* below, the City has adopted a Parkland Dedication Ordinance and a Park Impact Ordinance consistent with the Quimby Act.

90 City of San José, *San José Parks, Recreation & Neighborhood Services, Fast Facts*, October 8, 2019.
91 City of San José, *City of San José Annual Report on City Services 2018–19*, December 2019. Available at https://www.sanjoseca.gov/home/showdocument?id=49148. Accessed January 16, 2020.
92 City of San José, Trail Systems. Available at https://www.sanjoseca.gov/your-government/departments/parks-recreation-neighborhood-services/outdoor-activities/trail-network/trail-systems. Accessed October 17, 2019.
93 City of San José, San José Trail Network. Available at https://www.sanjoseca.gov/your-government/departments/parks-recreation-neighborhood-services/outdoor-activities/trail-network. Accessed March 6, 2020.
94 San Francisco Bay Trail, Alviso to Newark. Available at https://baytrail.org/get-on-the-trail/map-by-number/alviso-to-newark/. Accessed January 13, 2020.
95 City of San José, *San José Parks, Recreation & Neighborhood Services, Fast Facts*, October 8, 2019.
96 City of San José, *City of San José Annual Report on City Services 2018–19*, December 2019. Available at https://www.sanjoseca.gov/home/showdocument?id=49148. Accessed January 16, 2020.

Mitigation Fee Act

The Mitigation Fee Act (California Government Code Section 66000), enacted through Assembly Bill 1600 in 1987, provides the requirements for development impact fee programs. These programs include fees charged by local agencies to applicants in connection with approval of development projects to defray all or a portion of the cost of public facilities related to the projects. The City's Park Impact Ordinance is authorized under the Mitigation Fee Act.

Regional

The Santa Clara County Trails Master Plan Update establishes a vision for a contiguous trail network that connects regional open spaces and urban areas of Santa Clara County. The master plan update identifies potential trail routes that support the County's recreation, transportation, health and welfare, and science education goals. The plan also includes design, use, and management guidelines for the implementation of new trails. The guidelines address trails and land use compatibility, environmental protection, emergency access, easements, trail design, visual screening, fire protection, signage, and maintenance. The Santa Clara County Trails Master Plan Update identifies the Guadalupe River Trail and Los Gatos Creek Trail as subregional trail routes.[97]

Local

Envision San José 2040 General Plan

The General Plan contains the following relevant policies related to parks and recreation:

Policy PR-1.1: Provide 3.5 acres per 1,000 population of neighborhood/community serving parkland through a combination of 1.5 acres of public park and 2.0 acres of recreational school grounds open to the public per 1,000 San José residents.

Policy PR-1.2: Provide 7.5 acres per 1,000 population of citywide/regional park and open space lands through a combination of facilities provided by the City of San José and other public land agencies.

Policy PR-1.3: Provide 500 square feet per 1,000 population of community center space.

Policy PR-1.9: As Village and Corridor areas redevelop, incorporate urban open space and parkland recreation areas through a combination of high-quality, publicly accessible outdoor spaces provided as part of new development projects; privately, or in limited instances publicly, owned and maintained pocket parks; neighborhood parks where possible; as well as through access to trails and other park and recreation amenities.

Policy PR-1.12: Regularly update and utilize San José's Parkland Dedication Ordinance/Parkland Impact Ordinance (PDO/PIO) to implement quality facilities.

[97] Santa Clara County, *Santa Clara County Trails Master Plan Update*, adopted November 14, 1995. Available at https://www.sccgov.org/sites/parks/PlansProjects/Documents/TrailsMasterPlan/Entire_Countywide_Trails_Master_Plan_Searchable.pdf. Accessed October 9, 2019.

Policy PR-1.13: Maintain and periodically update a strategic plan (the Greenprint) establishing criteria and standards for the provision of parks and recreation services.

Policy PR-1.15: Develop community sports parks to serve existing and future residents, workers, and visitors in San José.

Policy PR-2.4: To ensure that residents of a new project and existing residents in the area benefit from new amenities, spend Park Dedication Ordinance (PDO) and Park Impact Ordinance (PIO) fees for neighborhood serving elements (such as playgrounds/tot-lots, basketball courts, etc.) within a 0.75-mile radius of the project site that generates the funds.

Policy PR-2.5: Spend, as appropriate, PDO/PIO fees for community serving elements (such as soccer fields, dog parks, sport fields, community gardens, community centers, etc.) within a 3-mile radius of the residential development that generates the PDO/PIO funds.

Policy PR-2.6: Locate all new residential developments over 200 units in size within 0.33 miles walking distance of an existing or new park, trail, open space or recreational school grounds open to the public after normal school hours or include one or more of these elements in its project design.

Policy PR-3.2: Provide access to an existing or future neighborhood park, a community park, recreational school grounds, a regional park, open space lands, and/or a major City trail within a 0.33-mile radius of all San José residents by either acquiring lands within 0.33 miles or providing safe connections to existing recreation facilities outside of the 0.33-mile radius. This is consistent with the United Nation's Urban Environmental Accords, as adopted by the City for recreation open space.

Policy PR-5.5: Connect the Guadalupe River Park & Gardens to other assets in the City via a network of trails and bike paths to encourage connectivity and community and to maximize the park's use and accessibility.

Policy PR-6.2: Develop trails, parks and recreation facilities in an environmentally sensitive and fiscally sustainable manner.

Policy PR-6.5: Design and maintain park and recreation facilities to minimize water, energy and chemical (e.g., pesticides and fertilizer) use. Incorporate native and/or drought-resistant vegetation and ground cover where appropriate.

Policy PR-6.9: Obtain applicable Leadership in Energy and Environmental Design (LEED) Certification (or its equivalent) for new and existing parks and recreation facilities, as dictated by applicable City policies.

Policy PR-7.2: Condition land development and/or purchase property along designated Trails and Pathways Corridors in order to provide sufficient trail right-of-way and to ensure that new development adjacent to the trail and pathways corridors does not compromise safe trail access nor detract from the scenic and aesthetic qualities of the corridor. Locate trail right-of-ways 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).

Policy PR-8.2: Encourage privately owned and maintained and publicly accessible recreation spaces that encourage community interaction; compliment [sic] the private property uses;

and, when adjacent to existing and planned parks, trails, recreation facilities, or open spaces, connect them to these facilities. This policy is particularly important in dense, urban areas.

Policy PR-8.4: Consider open space land dedications when public ownership will preserve the natural and scenic beauty, protect natural and man-made landmarks, or provide a land supply to meet future recreation needs.

Policy PR-8.5: Encourage all developers to install and maintain trails when new development occurs adjacent to a designated trail location. Use the City's Parkland Dedication Ordinance and Park Impact Ordinance to have residential developers build trails when new residential development occurs adjacent to a designated trail location, consistent with other parkland priorities. Encourage developers or property owners to enter into formal agreements with the City to maintain trails adjacent to their properties.

Policy PR-8.7: Actively collaborate with school districts, utilities, and other public agencies to provide for appropriate recreation uses of their respective properties and rights-of-ways. Consideration should be given to cooperative efforts between these entities and the City to develop parks, pedestrian and bicycle trails, sports fields and recreation facilities.

Policy PR-8.10: Encourage the development of private/commercial recreation facilities that are open to the public to help meet existing and future demands (i.e., plazas, swimming pools, fitness centers and gardens).

Policy PR-8.16: Explore creative funding options for the design, development, and maintenance of recreation facilities and programs, including grants, special assessment districts and partnerships with public, private, and non-profit organizations.

Policy PR-8.19: Pursue joint use projects with schools and colleges, Santa Clara Valley Water District, other public agencies, and private foundations. Whenever feasible, obtain permanent joint-use agreements when partnering with other organizations or agencies in providing parks or recreation facilities in order to ensure the amenities' availability in perpetuity.

Policy TN-1.2: Minimize environmental disturbance in the design, construction and management of trails.

Policy TN-1.3: Design trail system alignments to minimize impacts and enhance the environment within sensitive riparian and other natural areas. Follow Riparian Corridor Goals, Policies, and Actions regarding trail design and development in proximity to riparian areas.

Policy TN-2.7: Encourage all developers to install and maintain trails when new development occurs adjacent to a designated trail location, in accordance with Policy PR-8.5.

Policy TN-2.13: Provide all residents with access to trails within 3 miles of their homes.

Policy TN-3.4: Design new and retrofit existing public and private developments to provide significant visibility of and access to existing and planned trails to promote safety and trail use.

Activate San José Strategic Plan

Activate San José (ActivateSJ) is the 20-year strategic plan established by PRNS to maintain, improve, and expand facilities, programs, and services in San José. Goals of the plan include:

- Focus efforts on improving the condition of parks and trails.
- Develop and effectively manage a 100-mile paved off-street trail network.
- Seek sustainable funding mechanisms for the parks and recreation system.
- Ensure that all San José residents can walk to a neighborhood park in 10 minutes.
- Continue to pursue the General Plan goal of 3.5 acres of parkland per 1,000 people.[98]

City of San José Municipal Code

The City's Parkland Dedication Ordinance (Municipal Code Chapter 19.38) and Park Impact Ordinance (Municipal Code Chapter 14.25) require new residential development to dedicate land to serve new residents, develop parkland improvements to new or existing facilities, construct trail improvements and/or community centers, pay fees[99] to offset the increased costs of providing new park facilities for new development, or fulfill the obligation through a combination of these methods. Under the Parkland Dedication Ordinance and Park Impact Ordinance, a project can satisfy half of its total parkland obligation by providing private recreational facilities or other qualifying amenities on-site.

For projects larger than 50 units or 50 parcels, the City may require land dedication; the City may consult with the project applicant regarding the desirability of requiring dedication rather than fees, and the nature of any such dedication. The City decides whether the project will dedicate land for a new public park site or accept a fee in lieu of dedicating land. Affordable housing units—low-income, very-low-income, and extremely-low-income units—are subject to the Parkland Dedication Ordinance and Park Impact Ordinance at a rate of 50 percent of the applicable parkland obligation. The acreage of parkland required is based on the minimum acreage dedication formula outlined in the Parkland Dedication Ordinance (3 acres per 1,000 project residents), which is consistent with the Quimby Act. The estimated residential population is determined based on the type of dwelling unit allowed and the average household size for the dwelling unit, as indicated in the most recent available U.S. Census data.

Requiring residential builders to dedicate land, pay park impact fees, or both, for development (including acquisition) or renovation of park facilities and recreational facilities (Municipal Code Chapters 19.38 and 14.25) is in accordance with the provisions of the General Plan. This requirement advances the General Plan's parks and recreation goals and policies.

---

98 City of San José, *ActivateSJ Strategic Plan (2020–2040)*, August 20, 2019. Available at https://www.sanjoseca.gov//home/showdocument?id=43503. Accessed October 9, 2019.

99 Rates effective March 1, 2018, are $22,600 per unit (Multifamily 5+ Units) and $11,300 per unit (Downtown Core Area Incentive High-Rise 12+ Stories) in Zone 9 (Downtown), in which the project site is located. (Source: City of San José, Resolution No. 78474, December 15, 2017. Available at https://records.sanjoseca.gov/Resolutions/78474.pdf. Accessed October 7, 2019.)

3.12.15 Impacts and Mitigation Measures

Significance Criteria

For the purposes of this EIR, a parks and recreation impact would be significant if implementing the proposed project would:

- Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, or the need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios or other performance objectives;
- Increase the use of existing neighborhood and regional serving parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated; or
- Include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment.

Approach to Analysis

This section discusses potential direct impacts on parks and recreation services, addressing potential substantial adverse physical impacts from the increased use of existing neighborhood and regional parks or other recreational facilities; the inclusion of parks and recreational facilities as part of the project; or the need for construction or expansion of parks and recreational facilities. The proposed project could have a significant impact on public services related to parks and recreation if:

1. The project would require the construction of new or physically altered governmental facilities in order to maintain acceptable levels of public services; and
2. The construction or alteration of such facilities would result in a significant environmental impact.

The project population figures used in this section are based on those estimated in Section 3.11, *Population and Housing*. Where applicable, the maximum residential estimate was used to conservatively analyze impacts.

Impact Analysis—Parks and Recreation

Parks

Impact PS-5: The proposed project would not result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, or the need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios or other performance objectives for parks and community centers. *(Less than Significant)*

Development of the proposed project would result in new residents, employees, and visitors at the project site, which would generate demand for parks and recreation facilities. As discussed in Section 3.12.14, *Regulatory Framework*, the City has service-level objectives for parkland and a

separate goal to provide public parkland or recreational open space within 0.33 miles of all residents. In addition, ActivateSJ has a goal of providing a neighborhood park within 10 minutes' walking distance, or approximately 0.5 miles, for all residents. The project site is currently well-served by existing parks, with six neighborhood and regional parks located within 0.33 miles and eight neighborhood parks within 0.5 miles. **Table 3.12-6** shows parkland service levels under existing and existing plus project conditions.

TABLE 3.12-6
CITYWIDE PARKLAND SERVICE LEVELS

General Plan Service Level Objectives	General Plan Service Level Goal[a]	Existing (2018) Service Level[a,b]	Existing plus Project Service Level[a,c]
Neighborhood- and community-serving recreational lands per 1,000 residents	3.5	**2.9**	**2.9**
Regional/citywide parklands per 1,000 residents	7.5	14.9	14.7

NOTES:

Bold indicates a value not meeting the goal listed in the *Envision San José 2040 General Plan*.

[a] Acres per 1,000 residents.

[b] Based on a 2016 U.S. Census population estimate of 1,030,359 used in the preparation of the *Parks and Community Facilities Development, 2020–2024 Adopted Capital Improvement Program Overview*.

[c] Conservatively assumes the upper range of proposed project residential units and a population of 12,980 (refer to Section 3.11, *Population and Housing*) added to the existing (2018) population, and compared to existing (2018) park and recreational lands. Does not include open space proposed as part of the project.

SOURCE: City of San José, *Parks and Community Facilities Development, 2020–2024 Adopted Capital Improvement Program Overview*. Available at https://www.sanjoseca.gov/home/showdocument?id=44958. Accessed January 13, 2020; U.S. Census 2016.

As shown in Table 3.12-6, although there is an existing deficiency in the General Plan service level of neighborhood- and community-serving recreational lands, the proposed project would not result in a substantial impact by worsening this existing deficiency, because the service level would remain the same under existing plus project conditions. In addition, the service level of regional/citywide parklands would remain above the General Plan service level goal under existing plus project conditions. Based on the City's desired General Plan service levels, the addition of up to 12,980 project residents would generate a demand for up to approximately 45.43 acres of neighborhood- and community-serving recreational lands.[100]

As discussed in Chapter 2, *Project Description*, the proposed project would provide approximately 15 acres of parks, and open spaces in parks and plazas, including areas for outdoor seating and commercial activity (such as retail, cafes, and restaurants), green spaces, landscaping, mid-block passages, riparian setbacks, and trails. As shown on Figure 2-7, parks and recreational open spaces would be located to provide open space connections both within the project area and between the project site and the rest of the city. A variety of uses and activities such as outdoor dining, spaces for arts and arts activities, commercial kiosks, pavilion structures, mobility hubs, operation and management services, and restroom facilities would be permitted in parks and open

[100] This estimate is generated based on the upper range of proposed project residential units and a population of 12,980 (refer to Section 3.11, *Population and Housing*) and the City's desired service levels contained in the General Plan. The estimate does not reflect the proposed project's obligation under the City's Parkland Dedication Ordinance and Park Impact Ordinance, which is calculated based on specific housing types and housing type density in the U.S. Census.

space to complement and enhance public recreation. The project also includes a new public access trail and improvements that would extend for 1 mile along the project area's north-south axis. Some portions of the trail would be aligned along Los Gatos Creek, consistent with the City's goal of providing all residents with access to trails within 3 miles of their homes (General Plan Policy TN-2.13).[101] Additionally, the proposed off-site transportation improvements, which include trail connections, would improve pedestrian and bicycle access through and in the vicinity of the project site. The project would develop open space in phases, in tandem with the phasing of the overall development program. Approximately 10 acres are assumed to be developed in Phase 1 (2021 through 2027), 3 acres would be developed in Phase 2 (2025 through 2031), and 2 acres would be developed in Phase 3 (2029 through 2031).

The project would be subject to the City's Parkland Dedication Ordinance and Park Impact Ordinance (Municipal Code Chapters 19.38 and 14.25), which require either dedicating land to serve new residents, constructing new park or trail amenities, or paying fees to offset the increased costs of providing new park facilities for new development. The land dedication or in-lieu fee required to meet the City's parkland obligation is based on the location of the housing and the type of housing proposed. For example, high-rise developments require different Parkland Dedication Ordinance and Park Impact Ordinance dedications and requirements than single-family homes.

At this time, the mix of housing types is not known. For informational purposes, a preliminary estimate of potential parkland dedication requirements has been developed conservatively using the proposed project's maximum residential unit population of 12,980 as calculated in the Draft EIR (refer to Section 3.11, *Population and Housing*), which would be up to 38.94 acres.[102] This may be met by dedicating land for parks and/or trails, and also through receipt of credits from improvements to parks, trails, or community center space in the development area. On-site parks, open space, and/or trails could be dedicated and improved as needed based on project phasing through a parkland agreement with the City. The City's Parkland Dedication Ordinance and a Park Impact Ordinance are consistent with the Quimby Act and provide a minimum of 3 acres of parkland per 1,000 residents added by the project, and advance the parks and recreation goals and policies of the General Plan. The park projects developed as a result of these ordinances (in addition to the approximately 15 acres of open spaces reviewed under this document) would undergo environmental review as they are identified. Appropriate measures would be identified and implemented as applicable to reduce any construction-related or operational effects of those facilities. Physical impacts of construction of on-site parks and open space are discussed under Impact PS-4.

[101] As noted in Chapter 2, *Project Description*, the City's approved master plan for the Los Gatos Creek Trail–Reach 5, which would extend from the south side of Auzerais Avenue to the north side of West Santa Clara Street to link existing trail segments, does not contemplate a trail on the east side of the creek, as is proposed by the project applicant. In addition, the master plan, evaluated in a 2008 mitigated negative declaration, includes a grade-separated crossing of West San Carlos Street (beneath the elevated roadway and the at-grade Caltrain tracks just north of a Caltrain bridge over Los Gatos Creek). The City has also expressed support for grade-separated crossings at West San Fernando and West Santa Clara Streets; these latter crossings were not included in the master plan. The project does not propose grade-separated crossings; if undertaken in the future, these and other improvements not evaluated herein would be considered a separate project that would be subject to its own environmental review.

[102] Final Parkland Dedication Ordinance and Park Impact Ordinance dedications and requirements have not been determined. Dedications and requirements will be calculated using the estimated residential population of the proposed project, based on the types of dwelling units allowed and the average household size for the dwelling units, as indicated in the most recent available U.S. Census data.

The proposed project would not result in a substantial impact by worsening existing parkland deficiencies because it would maintain a General Plan service level of neighborhood- and community-serving recreational lands of 2.9 acres per 1,000 residents; would provide approximately 15 acres of parks and open spaces, in parks and plazas, including areas for outdoor seating and commercial activity (such as retail, cafes, and restaurants), green spaces, landscaping, mid-block passages, riparian setbacks, and trails; and would be subject to the City's Parkland Dedication Ordinance and Park Impact Ordinance. Therefore, parkland impacts would be **less than significant**.

The City also has service-level objectives for community centers in San José. Based on the city's population of 1,043,058 in 2019 (refer to Section 3.11, *Population and Housing*), the City is providing approximately 526 square feet of community center space per 1,000 residents, meeting the goal of General Plan Policy PR-1.3. Based on the addition of up to 12,980 residents (refer to Section 3.11, *Population and Housing*), development of the proposed project would generate additional population to result in approximately 519 square feet of community center space per 1,000 residents, maintaining the City's current policy. Community center space is not currently proposed as part of the project. If needed, the proposed project could include community center space in the development area, potentially on the ground floor of a project building or other existing building, as part of the obligation under the City's Parkland Dedication Ordinance and Park Impact Ordinance and/or the Development Agreement and community benefits package. Therefore, the proposed project would not result in the need for new or expanded community centers. This impact would be **less than significant**.

Mitigation: None required.

Recreation

Impact PS-6: The proposed project would not increase the use of existing neighborhood- and regional serving parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated. *(Less than Significant)*

As discussed under Impact PS-5, development of the proposed project would result in new residents, employees, and visitors at the project site, which would generate demand for parks and recreation facilities. As described in Section 3.12.13, *Environmental Setting*, approximately 14 existing parks, both neighborhood- and regional serving, are located within 0.75 miles of the project site, and offer a mix of passive and active uses. Some of the parks in the project vicinity, including Guadalupe Gardens and Pellier Park, are also planned for improvement or expansion.

In total, the proposed project would provide approximately 15 acres of recreational open space, or approximately 19 percent of the project site's acreage. The proposed parks and recreational open spaces would be for use by both area residents and visitors and would accommodate an array of potential active and passive recreational uses. The 15 acres of parks, open space, riparian setbacks, mid-block passages, landscaping, and trails would be designated throughout the project site in the Planned Development zoning for the project. In addition to parks, the proposed project would construct a new public access trail/on-street bicycle facilities extending approximately 1 mile through the project site, with accessibility to Los Gatos Creek. Therefore, the proposed

parks and open spaces would absorb a substantial part of the demand for parks and recreational facilities by new residents, employees, and visitors, as well as that of nearby residents and users.

While the project would also increase the use of existing parks in the project vicinity, many different parks are located within 0.75 miles of the project site, some of which, including Guadalupe Gardens and Pellier Park, are being expanded or improved. Because the proposed project would absorb a substantial amount of parks and recreation demand on the project site, the increased demand on existing parks would not substantially increase or accelerate the physical deterioration or degradation of existing parks and recreation facilities. In addition, as described in Impact PS-5, the proposed project would dedicate land, pay impact fees, and/or seek credits to comply with the City's Parkland Dedication Ordinance and Park Impact Ordinance. Therefore, project impacts from the accelerated physical deterioration of parks and recreation resources would be **less than significant**.

Mitigation: None required.

Impact PS-7: The proposed project would not include recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment. ***(Less than Significant with Mitigation)***

As described under Impact PS-5, the proposed project would involve construction of parks, on- and off-site trail connections, and recreational open space. The extent to which construction of new parks, trail connections, and open space would have the potential to result in significant adverse environmental effects is analyzed throughout this EIR. Mitigation measures and City of San José Standard Conditions of Approval (SCAs) are included to reduce construction-related impacts (including impacts on recreational facilities) related to air quality, biological resources, cultural and tribal cultural resources, paleontological resources, hydrology and water quality, hazards and hazardous materials, and noise and vibration to the extent feasible.

The proposed project would implement SCAs (including those described in Section 3.2, *Biological Resources*, and Section 3.8, *Hydrology and Water Quality*) and the mitigation measures included in Section 3.1, *Air Quality*; Section 3.2, *Biological Resources*; Section 3.3, *Cultural Resources and Tribal Cultural Resources*; Section 3.5, *Geology, Soils, and Paleontological Resources*; Section 3.6, *Greenhouse Gas Emissions*; Section 3.7, *Hazards and Hazardous Materials*; Section 3.8, *Hydrology and Water Quality*; Section 3.10, *Noise and Vibration*; and Section 3.13, *Transportation*. Implementing these SCAs and mitigation measures would reduce project impacts related to the construction of parks and open space.

Mitigation Measures

Refer to Section 3.1, *Air Quality*, for the following mitigation measures:

Mitigation Measure AQ-2a: Construction Emissions Minimization Plan

Mitigation Measure AQ-2b: Construction Equipment Maintenance and Tuning

Mitigation Measure AQ-2c: Heavy-Duty Truck Model Year Requirement

Refer to Section 3.2, *Biological Resources*, for the following mitigation measures:

Mitigation Measure BI-1a: General Avoidance and Protection Measures

Mitigation Measure BI-1b: In-Water Construction Schedule

Mitigation Measure BI-1c: Native Fish Capture and Relocation

Mitigation Measure BI-1d: Western Pond Turtle Protection Measures

Mitigation Measure BI-1e: Avoidance of Impacts on Nesting Birds

Mitigation Measure BI-1f: Roosting Bat Surveys

Mitigation Measure BI-2a: Avoidance of Impacts on Riparian Habitat

Mitigation Measure BI-2b: Frac-Out Contingency Plan

Mitigation Measure BI-2d: Avoidance and Protection of Creeping Wild Rye Habitat

Mitigation Measure BI-3: Avoidance of Impacts on Wetlands and Waters

Refer to Section 3.3, *Cultural Resources and Tribal Cultural Resources*, for the following mitigation measures:

Mitigation Measure CU-8a: Cultural Resources Awareness Training

Mitigation Measure CU-8b: Archaeological Testing Plan

Mitigation Measure CU-8c: Archaeological Evaluation

Mitigation Measure CU-8d: Archaeological Resources Treatment Plan

Refer to Section 3.5, *Geology, Soils, and Paleontological Resources*, for the following mitigation measures:

Mitigation Measure GE-5a: Project Paleontologist

Mitigation Measure GE-5b: Worker Training

Mitigation Measure GE-5c: Paleontological Monitoring

Mitigation Measure GE-5d: Significant Fossil Treatment

Refer to Section 3.6, *Greenhouse Gas Emissions*, for the following mitigation measure:

Mitigation Measure GR-2: Compliance with AB 900

Refer to Section 3.7, *Hazards and Hazardous Materials*, for the following mitigation measures:

Mitigation Measure HA-3a: Land Use Limitations

Mitigation Measure HA-3b: Health and Safety Plan

Mitigation Measure HA-3c: Site Management Plan

Refer to Section 3.8, *Hydrology and Water Quality*, for the following mitigation measures:

Mitigation Measure HY-1: Water Quality Best Management Practices during Construction Activities in and near Waterways

Mitigation Measure HY-3a: Flood Risk Analysis and Modeling

Refer to Section 3.10, *Noise and Vibration*, for the following mitigation measures:

Mitigation Measure NO-1c: Master Construction Noise Reduction Plan

Mitigation Measure NO-2a: Master Construction Vibration Avoidance and Reduction Plan

Mitigation Measure NO-2b: Master Construction Vibration Avoidance from Compaction

Significance after Mitigation: Less than significant. Although the proposed project as a whole would result in significant and unavoidable construction air quality and construction noise impacts, construction work involving parks and recreational open space is included within the overall construction analysis. The construction work for parks and recreational open space would be relatively minimal and would not, in itself, exceed any significance thresholds for air quality or noise. Therefore, with respect to construction of parks and recreational open space, the impact would be less than significant with mitigation incorporated.

Cumulative Impacts—Parks and Recreation

Impact C-PS-5: The proposed project, combined with cumulative development in the project vicinity and citywide, would not result in an adverse cumulative increase in demand for parks and recreation services. *(Less than Significant)*

The geographic scope of potential cumulative impacts related to parks and recreation encompasses the project site and all areas of San José, as parks and recreational facilities are provided citywide. This analysis considers two conditions:

1. Whether there would be a significant, adverse cumulative impact associated with the proposed project in combination with past, present, existing, approved, pending, and reasonably foreseeable future projects in the geographic area; and
2. If so, whether the project's incremental contribution to the cumulative impact would be considerable.

Both conditions must apply for a project's cumulative effects to rise to the level of significance.

Cumulative Impact and Project Contribution—Parks and Recreation

Parks

As discussed under Impact PS-5, the City is not currently meeting its service level goal for neighborhood and community parkland. The General Plan EIR found that there would be a deficit of approximately 1,677 acres of neighborhood and community parkland (City-owned and

recreational school grounds) and 72,000 square feet of community center space as a result of development under the General Plan. However, it was found that consistency with General Plan policies and the City's Parkland Dedication Ordinance and Park Impact Ordinance would not exacerbate existing deficiencies.[103] Amendments to the DSAP are proposed that would increase the density of development in the Diridon Station Area (refer to *Growth Projections* in the introduction to Chapter 3, *Environmental Setting, Impacts, and Mitigation*). The ongoing DSAP planning process and the proposed project would shift some of the growth projected in the General Plan from other areas of the city to the Downtown area.

The General Plan and DSAP identified the site of the existing SJFD Training Center (located within the project boundary) as a potential site for a new, approximately 5-acre community park as well as a 1-acre plaza partially within the project site. The DSAP noted that the new community park could be expanded to approximately 8 acres in the future if the City were able to acquire additional properties.[104] As discussed in Chapter 2, the City initiated amendments to the DSAP in 2019, to account for several changes in planning assumptions. The City will update the plan's existing sections pertaining to land use and public space.

The proposed project would introduce a new population, which would contribute to the existing deficiency of parkland in San José and the identified deficiencies of parkland and community center space in the General Plan EIR. However, the project would include the development of approximately 15 acres of parks and recreational open space to help serve project demand, as well as visitors and the surrounding community. The acreage for potential park use would thus be captured in the proposed project's development program. In addition, to offset demand for parkland, community centers, and other recreational facilities, the proposed project and cumulative residential developers would be subject to the City's Parkland Dedication Ordinance and Park Impact Ordinance. These ordinances would require either dedicating land to serve new residents, providing recreational improvements, or paying fees to offset the increased costs of providing new park facilities for new development.

Park projects developed as a result of these ordinances would undergo environmental review as they are identified. Appropriate measures would be identified and implemented as applicable to reduce any construction-related or operational effects of those facilities. Therefore, the project's contribution would not be cumulatively considerable. This impact would be **less than significant**.

Recreation

The General Plan EIR, which included development in the Diridon Station and Downtown areas, found that consistency with General Plan policies and the City's Parkland Dedication Ordinance and Park Impact Ordinance would reduce impacts related to parkland and community recreational facilities in San José to a less-than-significant level.[105] The DSAP and Downtown Strategy EIRs found that the combination of existing, planned, and proposed recreational facilities in and adjacent to the plan area would meet community needs, and that planned development under

[103] City of San José, *Envision San José 2040 General Plan Draft Program EIR*, June 2011.
[104] City of San José, *Diridon Station Area Plan Draft PEIR*, December 2013.
[105] City of San José, *Envision San José 2040 General Plan Draft Program EIR*, June 2011.

these plans would not increase the use of existing parks or other recreational facilities such that substantial physical deterioration would occur or be accelerated due to overuse.[106,107] In addition, amendments to the DSAP are proposed that would increase the density of development in the Diridon Station Area (refer to *Growth Projections* in the introduction to Chapter 3, *Environmental Setting, Impacts, and Mitigation*). The ongoing DSAP planning process and the proposed project would shift some of the growth projected in the General Plan from other areas of the city to the Downtown area.

As discussed above, the planned parks and informal recreational open spaces within the project boundary would be captured in the proposed project's development program. As discussed under Impact PS-6, the proposed project would not substantially increase or accelerate the physical deterioration or degradation of existing parks and recreation facilities. To offset demand for parkland, community centers, and other recreational facilities, the proposed project and cumulative residential developers would be subject to the City's Parkland Dedication Ordinance and Park Impact Ordinance. These ordinances would require either dedicating land to serve new residents, paying fees to offset the increased costs of providing new park facilities for new development, or seeking recreation credits. Park projects developed as a result of these ordinances would undergo environmental review as they are identified. Appropriate measures would be identified and implemented as applicable to reduce any construction-related or operational effects of those facilities. Therefore, cumulative impacts related to recreation would be **less than significant**.

Conclusion

The proposed project, combined with cumulative development in the project vicinity and citywide, would not make a considerable contribution to a significant cumulative impact with regard to parks. In addition, the proposed project would result in a less-than-significant cumulative impact on recreation. Therefore, the cumulative impact related to parks and recreation would be **less than significant**.

Mitigation: None required.

---

[106] City of San José, *Diridon Station Area Plan Draft PEIR*, December 2013.
[107] City of San José, *Downtown Strategy 2040 Integrated Final EIR*, December 2018.

This page intentionally left blank

3.13 Transportation

3.13.1 Environmental Setting

This section addresses potential impacts of the proposed project on transportation. CEQA issues evaluated include the following: consistency with plans, ordinances, and policies governing the circulation system; vehicle miles traveled (VMT); hazards from geometric design features; and emergency access. The section first describes the existing environmental setting for transportation facilities and the applicable regulatory framework, then describes the approach to the analysis and evaluates the potential transportation impacts of project construction and operation. Feasible mitigation measures are identified to avoid or reduce potentially significant impacts.

The information in this section is based primarily on the Transportation Analysis for the proposed project conducted by Fehr & Peers in September 2020, provided in **Appendix J1** of this EIR. A separate document, the Local Transportation Analysis (LTA), analyzes non-CEQA transportation issues and is provided in **Appendix J2**. Non-CEQA transportation issues evaluated for informational purposes only in accordance with San José Council Policy 5-1 include local transportation operations; intersection level of service (LOS); site access and circulation; and neighborhood transportation issues such as pedestrian and bicycle access, construction period access/circulation, and recommended transportation improvements. Intersection and freeway locations analyzed in the LTA are listed at the end of this section.

Existing Conditions

The study area for the transportation analysis consists of a multimodal network that includes freeways, other major roadways, bus and light-rail transit (LRT) services, bicycle facilities, and pedestrian facilities. The area in the core of the project site, especially around Diridon Station and the SAP Center, is composed primarily of surface parking lots. In all, approximately 40 percent of the project site is devoted to parking lots, a portion of which includes the SAP Center's Lots A, B, and C, which provide 1,422 stalls. The site also includes the City-owned Lot D, south of West Santa Clara Street between South Montgomery and South Autumn Streets, which provides 228 spaces for use by the SAP Center and for daytime public parking; Santa Clara Valley Transportation Authority (VTA)–owned parking lots west of South Montgomery Street; two large parking lots south of West Santa Clara Street on both sides of Delmas Avenue; and several other smaller parking lots, some publicly available and some dedicated to specific retail, restaurant, and other uses.

The study area for pedestrians, bicycles, and transit includes facilities located within a 0.5-mile radius of the project site.[1] For the evaluation of VMT, the study area consists of trips across the entire nine-county Bay Area that have an origin or destination within the project site. The study area was selected to capture the transportation facilities that would most likely be affected by implementation of the proposed project. Transportation facilities outside of the study area may also experience increases in pedestrian and bicycle volumes, transit ridership, and VMT;

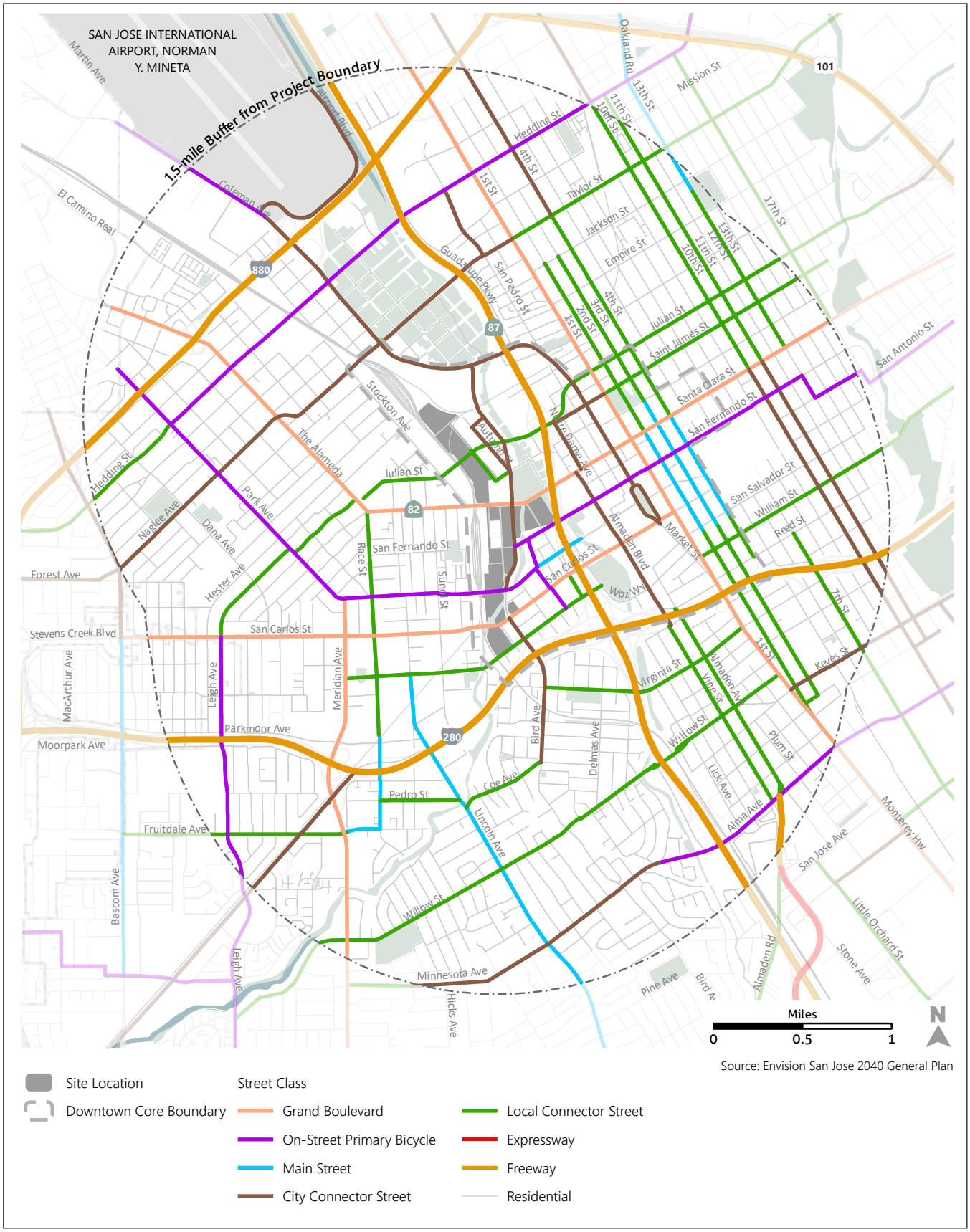
[1] The transit corridor travel speed analysis, conducted as part of the General Plan Amendment analysis, considers transit corridors throughout the city beyond the 0.5-mile radius.

however, those increases would be minimal because as the distance from the project site grows, the increasing number of possible travel routes for people traveling to and from the project site would result in a dispersion of trips.

Existing Roadway Network

The existing network of roadways in the study area and their classifications, as defined in Chapter 5 of the *Envision San José 2040 General Plan* (General Plan) and/or in the Diridon Station Area Plan (DSAP), are shown on **Figure 3.13-1** and described below.

- **State Route (SR) 87** is a north–south State Highway extending from the U.S. Highway (U.S.) 101 interchange north of Norman Y. Mineta San José International Airport south to the SR 85 interchange. It is located directly east of the project site. This state highway has two general-purpose lanes and one high-occupancy vehicle (HOV) lane in each direction. Access to SR 87 from the project site is via West Julian Street, Park Avenue, or Delmas Avenue.
- **Interstate 280 (I-280)** is a north–south Interstate Highway extending north from the Interstate 680 (I-680)/U.S. 101 interchange in San José to San Francisco. It is located directly south of the project site. This interstate highway has four general-purpose lanes and one HOV lane in each direction. Access to I-280 from the project site is via SR 87 or Bird Avenue.
- **Interstate 880 (I-880)** is a north–south Interstate Highway extending north from the I-280/I-880/SR 17 interchange in San José to Oakland. The interstate has three general-purpose lanes and one HOV lane in each direction. Access to I-880 from the project site is via Coleman Avenue or The Alameda.
- **The Alameda** is an east–west Grand Boulevard that is a continuation of Santa Clara Street. It is a four-lane roadway and extends northwest from Stockton Avenue to Santa Clara University.
- **Auzerais Avenue** is an east–west Local Connector street that runs along the southern border of the project site. It is a two-lane roadway that extends from SR 87 to Meridian Avenue.
- **Autumn Street** is a north–south City Connector street that runs through the project site. It operates as a one-way couplet with Montgomery Street between Park Avenue and Santa Clara Street, and operates as a two-way street north of Santa Clara Street.
- **Cahill Street** is a north–south local street (not classified in the General Plan). It is a two-lane roadway that extends from West Santa Clara Street to San Fernando Street and provides access to Diridon Station.
- **Cinnabar Street** is an east–west local street (not classified in the General Plan). It is an approximately 500-foot-long two-lane roadway. To the west it terminates at the railroad tracks and to the east at a cul-de-sac. The section of Cinnabar Street within the project site is only accessible via North Montgomery Street.
- **Crandall Street** is a one-lane, one-way eastbound Local Street that extends between Cahill Street and South Montgomery Street and provides access to Diridon Station. It is part of the Stover Street–Crandall Street one-way couplet.
- **Delmas Avenue** is a north–south Local Connector street south of San Carlos Street and a Main Street north of San Carlos Street. It is a two-lane roadway that extends from Santa Clara Street to Auzerais Avenue and runs through the western edge of the project site.



SOURCE: Fehr & Peers, 2020

Downtown West Mixed-Use Plan

Figure 3.13-1
Roadway Network

- **Julian Street** is an east–west Local Connector street that runs through the northern portion of the project site. It is a four-lane roadway from the SR 87 interchange to Montgomery Street, where it becomes a two-lane roadway. It extends east toward Downtown San José and west toward The Alameda.
- **Montgomery Street** is a disconnected north–south roadway that travels between Cinnabar Street and St. John Street (North Montgomery Street) and between Santa Clara Street and San Carlos Street (South Montgomery Street). North Montgomery Street is defined as a two-lane, two-way Local Connector street between Julian Street and St. John Street, while South Montgomery Street is defined as a two-lane, one-way Grand Boulevard between Santa Clara Street and Park Avenue; and a two-way City Connector street between Park Avenue and San Carlos Avenue. South of San Carlos Avenue, the roadway continues as Bird Avenue, which is defined as a City Connector street.
- **Otterson Street** is a short (approximately 300 feet) east–west, two-lane Local Street that travels west of South Montgomery Street and provides access to light industrial uses along its frontage.
- **Park Avenue** is an east–west On-Street Primary Bike Facility that runs through the center of the project site. It is a two-lane roadway extending west from Market Street in Downtown San José past Diridon Station.
- **Royal Avenue** is a north–south local street (not classified in the General Plan). It is a two-lane roadway that provides a connection between West San Carlos Street and Auzerais Avenue.
- **St. John Street** is an east–west two-lane roadway that extends from Montgomery Street through Downtown San José to Roosevelt Park. It is a Local Connector street between North Montgomery Street and North Autumn Street and a local street (not classified in the General Plan) east of North Autumn Street. It can be accessed from the project site via Montgomery Street.
- **San Carlos Street** is an east–west Grand Boulevard that runs through the southern portion of the project site. It is a four-lane roadway that extends west from San José State University to become Stevens Creek Boulevard.
- **San Fernando Street** is an east–west On-Street Primary Bike Facility that turns into Cahill Street near Diridon Station. It is a two-lane roadway that extends from Diridon Station east through Downtown San José.
- **Santa Clara Street** is an east–west Grand Boulevard that continues as The Alameda through the middle of the project site. It is a four-lane roadway that extends east from Stockton Avenue through Downtown San José and toward Alum Rock Avenue.
- **Stockton Avenue** is a north–south local street (not classified in the General Plan) that runs along the western border of the project site. It is a two-lane roadway that extends from Santa Clara Street to Taylor Street. It can be accessed from the project site via Julian Street.
- **Stover Street** is a one-lane, one-way westbound local street (not classified in the General Plan) that extends between South Montgomery Street and Cahill Street and provides direct access to Diridon Station. It is part of the Stover Street–Crandall Street one-way couplet.

Existing Public Transit Service

The project site is well served by transit services, including local bus and LRT services, commuter rail services, and inter-city rail services. The existing transit services in the study area are shown on **Figure 3.13-2** and described below.[2]

Bus and Light-Rail Transit

Bus and LRT service in Santa Clara County is operated by VTA. In December 2019, VTA implemented its New Transit Plan, which aims to maximize ridership and enhance geographic coverage. The 2019 New Transit Service Plan is an enhanced version of the Next Network Plan, which targets design changes to the existing transit network.

The project site is served by VTA local bus route 64B; VTA frequent bus routes 22, 23, 64A, 66, 68, 72/73, 500 (Rapid), and 522; VTA express bus routes 103, 168, 181, and 182; and the VTA Green and Blue Lines (light rail). The project site is also served by Santa Cruz Metro Highway 17 Express and Monterey-Salinas Transit routes 55 and 86. Diridon Station acts as the central hub for bus and light rail service in the study area. Route details (origin/destination, operating hours, and service frequency) for the routes listed above are provided in Appendix J1.

Commuter and Intercity Rail

Diridon Station serves as the central passenger rail station for Santa Clara County and Silicon Valley. Currently, Caltrain, Altamont Corridor Express (ACE), Amtrak (Amtrak Capitol Corridor and Amtrak Coast Starlight) operate trains serving Diridon Station.

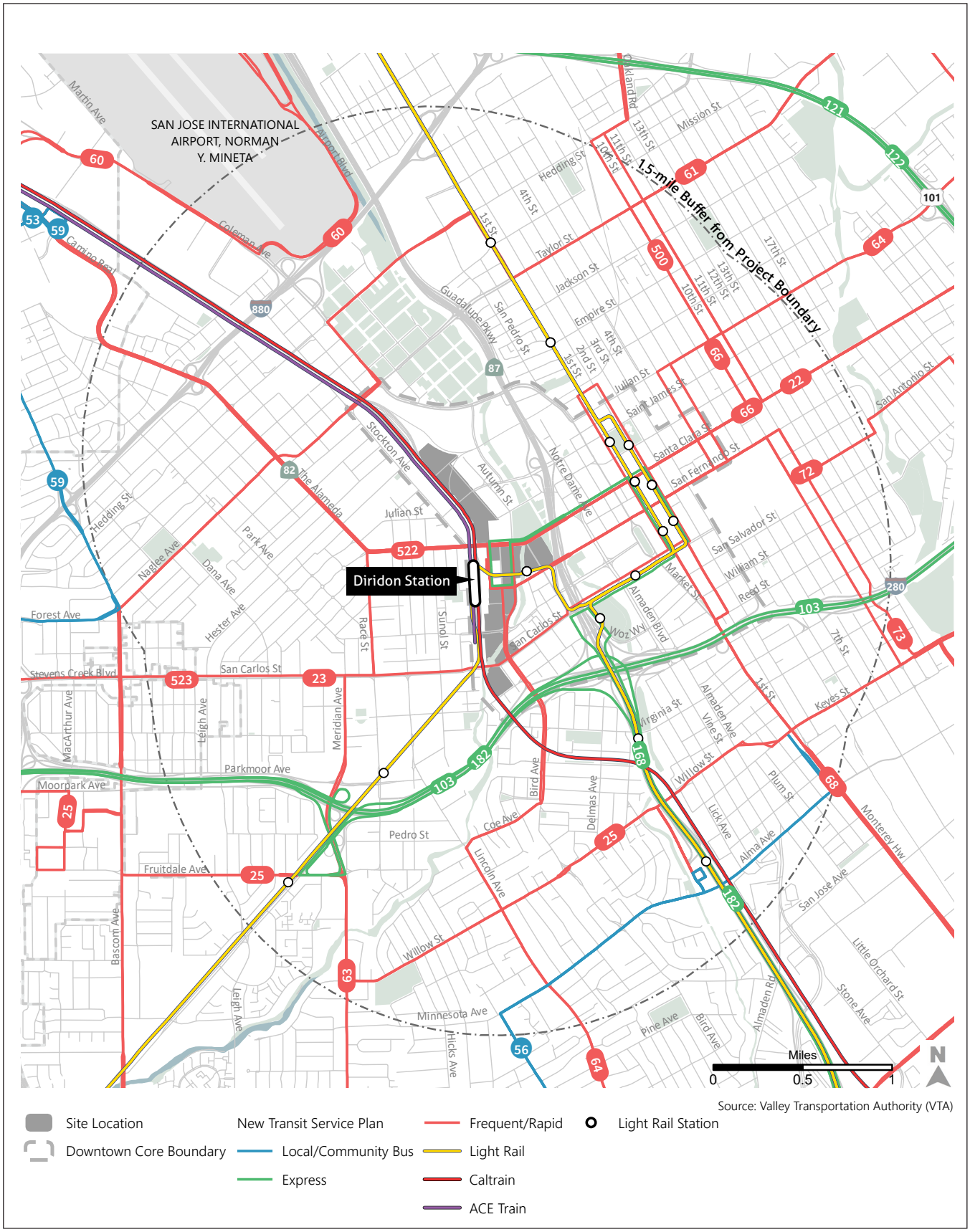
Caltrain

Caltrain operates commuter rail service between San Francisco and Gilroy seven days a week, with 92 trains on weekdays and 68 trains on weekends. The average mid-weekday ridership at Diridon Station in 2019 was approximately 4,800, with systemwide ridership at roughly 64,000. Local, limited-stop, and Baby Bullet Caltrain service all stop at Diridon Station. Trains depart frequently during the weekday a.m. and p.m. peak hours, with hourly service during non-peak hours and weekends.

Altamont Corridor Express

ACE trains provide commuter rail service between Stockton, Tracy, Pleasanton, and San José during commute hours on weekdays. Four westbound trains arrive at Diridon Station between 6:32 a.m. and 9:17 p.m., and four eastbound trains depart Diridon Station between 3:35 p.m. and 6:38 p.m. on weekdays.

[2] Existing transit service and ridership as described in this EIR have been temporarily disrupted as a result of the COVID-19 pandemic, resulting in reduced service by all transit operators and fewer transit riders. Nevertheless, the existing transit service and ridership described in this EIR reflect those at the time the Notice of Preparation was issued and are indicative of the typical service that would otherwise be available under normal circumstances.



SOURCE: Fehr & Peers, 2020

Downtown West Mixed-Use Plan

Figure 3.13-2
Existing Transit Routes/Facilities

Amtrak

Amtrak Capitol Corridor and Amtrak Coast Starlight trains stop at Diridon Station. The Capitol Corridor provides service between San José and the Sacramento region, with seven trains arriving at and seven trains departing from Diridon Station each day. The Coast Starlight provides service along the West Coast with stops in Seattle, Portland, San José, California's Central Coast, and Los Angeles, with one northbound train and one southbound train departing from the station each day. Connecting bus service to the Amtrak San Joaquin service is also provided at Diridon Station.

Future Rail and Bus Service and Improvements

Planned rail service to Diridon Station includes the VTA Bay Area Rapid Transit (BART) Silicon Valley Phase II extension and the proposed California High-Speed Rail (HSR). In addition, the electrification of the Caltrain corridor will enable faster and more frequent service.[3]

Santa Clara Valley Transportation Authority BART Silicon Valley Extension

The VTA BART Silicon Valley Phase II project will extend BART service from its current terminus at Berryessa Station through Downtown San José, with a stop at Diridon Station, and terminate at the Santa Clara Caltrain Station. As of spring 2020, service is expected to begin in 2030 and is projected to serve 9,600 daily passengers at Diridon Station by 2035.

Caltrain Electrification

As part of the Caltrain Modernization Program, the Caltrain corridor will be electrified between the 4th and King and Tamien Stations, is currently under construction and is expected to be completed in 2022. Caltrain electrification will improve train performance because electric trains can accelerate and decelerate more quickly than the currently used diesel-powered trains. This will enable more frequent and faster train service for riders. The number of peak-hour trains in each direction will increase from five to six, increasing combined seating and standing capacity by more than 30 percent.[4] Furthermore, Caltrain electrification will lay the groundwork to provide additional capacity improvements in the new Caltrain Business Plan.

Caltrain Business Plan

Caltrain is creating a business plan to shape the future of the agency. The Caltrain Business Plan addresses four major focus areas: service, business case, community interface, and organization. The Long-Range Service Vision in the Caltrain Business Plan will provide the following peak-hour capacity improvements:

- Eight trains per hour per direction between Tamien Station in San José and San Francisco, extended to the Salesforce Transit Center when the Downtown Extension is completed;
- Four trains per hour per direction between the Blossom Hill and Tamien Stations, subject to securing the necessary operating rights from Union Pacific Railroad (UPRR); and

[3] Temporarily reduced public agency revenues because of the COVID-19 pandemic may affect the funding and/or timelines of the planned future rail and bus service improvements identified in this EIR.

[4] Caltrain, CalMod: Project Benefits, Rider Benefits. Available at https://calmod.org/project-benefits/rider-benefits/. Accessed February 22, 2020.

- Two trains per hour per direction between the Gilroy and Blossom Hill Stations, subject to securing the necessary operating rights from UPRR.

Diridon Integrated Station Concept

The Diridon Integrated Station Concept (DISC) Plan is being prepared in a joint effort by the City of San José, Caltrain, VTA, the California High-Speed Rail Authority, and the Metropolitan Transportation Commission (MTC). The DISC Plan will evaluate how to expand and redesign Diridon Station as a world-class transit center that provides intermodal connections and integration with the surrounding neighborhoods. The DISC Plan will not propose any land use changes, but will focus on station design, including a spatial configuration determining how the various track and station elements will fit together and relate to the surrounding neighborhood. In spring 2020, the City Council, Caltrain Board, VTA Board, and the California High-Speed Rail Authority each endorsed a Concept Layout for the DISC Plan.[5] The DISC Plan is described in more detail in Chapter 2, *Project Description*.

California High-Speed Rail

The California HSR Project plans to connect the Los Angeles metropolitan area, the Central Valley, and the San Francisco Bay Area, and is currently under construction in the Central Valley between Merced and Bakersfield. California HSR plans to serve Diridon Station before continuing north to San Francisco. The Draft Environmental Impact Statement (EIS)/EIR for that project's San José to Merced Project Section was published in April 2020. The California High-Speed Rail Authority's Preferred Alternative, Alternative 4, envisions at-grade tracks through the Diridon Station area and an at-grade station.[6] The Draft EIS/EIR for the project does not currently identify a date for the beginning of operations at Diridon Station, but does indicate that service on the Central Valley segment is planned for 2028–2029. The Draft EIS/EIR for the San Francisco to San José Project Section was published in July 2020. The California High-Speed Rail Authority's Preferred Alternative, Alternative A, also envisions at-grade tracks through the Diridon Station area and an at-grade station.[7]

Bus Rapid Transit

A Bus Rapid Transit (BRT) line currently operates between the Eastridge Transit Center and Downtown San Jose. The BRT line includes limited-stop, frequent service in exclusive center-running bus lanes with boarding platforms on Alum Rock Avenue between the Eastridge Transit Center and U.S. 101. VTA and the City of San José plan to implement enhancements to the BRT line along Santa Clara Street and The Alameda from 17th Street to I-880. The implementation timeline for the BRT enhancements in this corridor is unknown at this time.

---

5 City of San José, City Council Meeting Minutes, February 4, 2020. Available at https://sanjose.legistar.com/MeetingDetail.aspx?ID=712175&GUID=42B7D295-2384-4896-AA46-B400D3F914C6&Options=info&Search=. Accessed March 20, 2020.

6 California High-Speed Rail Authority, *California High-Speed Rail Project, San Jose to Merced Project Section, Draft Environmental Impact Report/Environmental Impact Statement*, April 2020. Available at https://hsr.ca.gov/programs/environmental/eis_eir/draft_san_jose_merced.aspx.

7 California High-Speed Rail Authority, *California High-Speed Rail Project, San Francisco to San José Project Section, Draft Environmental Impact Report/Environmental Impact Statement*, July 2020. Available at https://hsr.ca.gov/programs/environmental/eis_eir/draft_san_francisco_san_jose.aspx.

Existing Freight Rail

As shown in Chapter 2, *Project Description*, Figure 2-1, UPRR owns the railroad tracks along the northern boundary of the project site near Lenzen Avenue and Cinnabar Street and one of the three railroad tracks that run along the western boundary of the project site. Caltrain owns the other two railroad tracks that run along the western boundary of the project site. Freight trains operate westbound up the San Francisco Peninsula in the Caltrain corridor, and eastbound on dedicated freight tracks parallel to I-880 through the East Bay and points farther north and east. UPRR also owns the short (approximately 1,000 feet) connector track that bisects the project site between Cinnabar Street and West Julian Street, allowing freight trains traveling northbound in the Caltrain corridor to transition to the eastbound UPRR tracks, and freight trains traveling westbound on the UPRR tracks to transition to the southbound Caltrain corridor tracks.

Existing Pedestrian Facilities

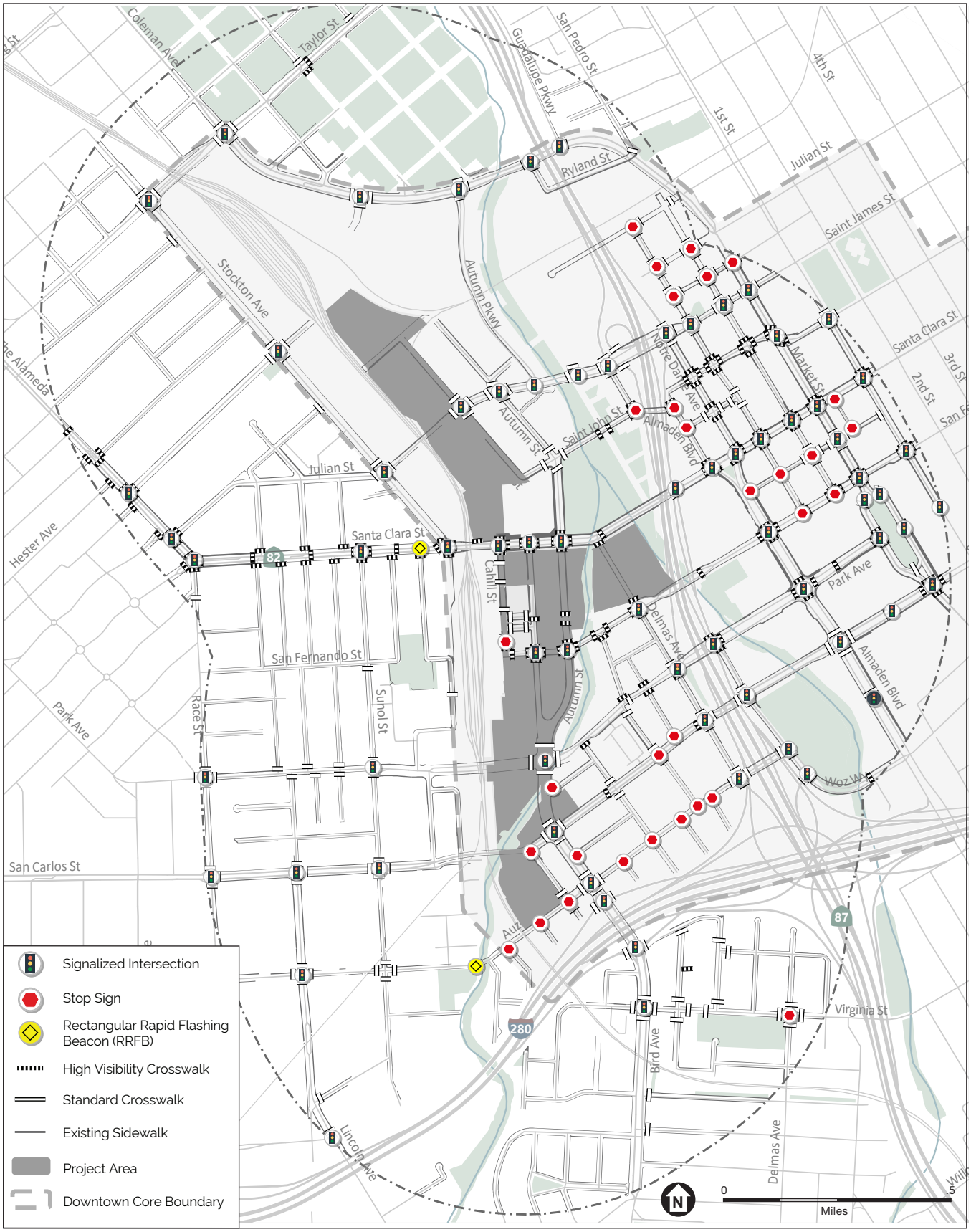
Pedestrian facilities such as sidewalks, crosswalks, curb ramps, and pedestrian signals are provided throughout the study area. Sidewalks are generally provided along all surface roadways within the boundaries of the project site. A notable gap in the sidewalk network is along the south side of West Julian Street between Stockton Avenue and North Montgomery Street. Pedestrian signals and crosswalks are provided at all signalized intersections on the project site. Curb ramps are also generally provided at all intersections on the site. **Figure 3.13-3** shows existing pedestrian facilities in the study area.

Existing Bicycle Facilities

The City's existing bicycle facilities are illustrated on **Figure 3.13-4** and summarized below. The San José Bike Plan 2020 defines three distinct types of bikeway facilities: Class I bikeway (trail or path), Class II bikeway (bicycle lane), and Class III bikeway (bicycle route). In addition, the California Department of Transportation (Caltrans) defines one additional type of bikeway facility: Class IV bikeway (Cycle Track/Separated Bikeway).

Class I Bikeways

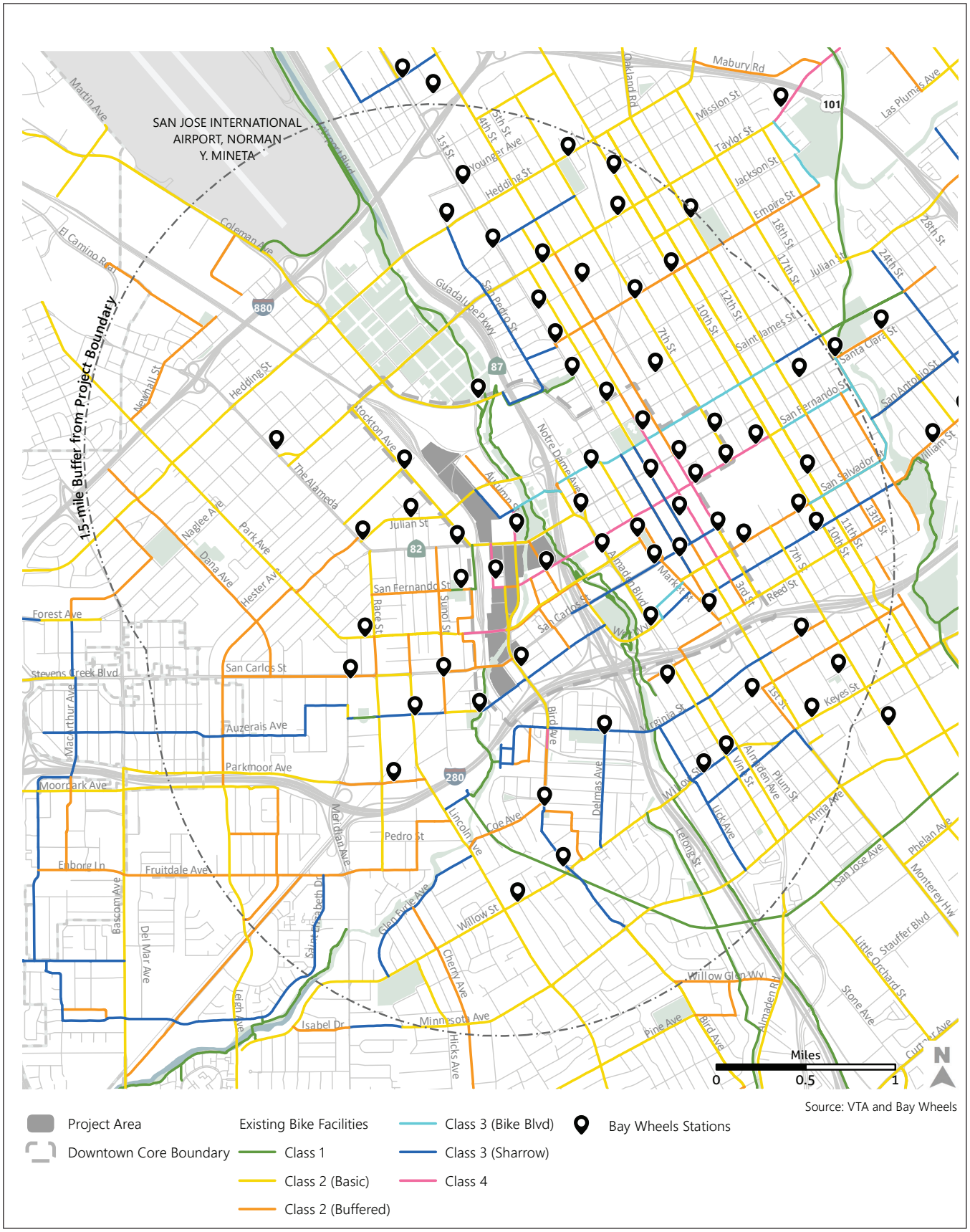
Class I bikeways are characterized by a completely separate right-of-way for the exclusive use of bicycles and pedestrians. The Guadalupe River Trail is located directly east of the project site, and the Los Gatos Creek Trail is located directly south of the site. The Guadalupe River Trail is a 9-mile north–south trail that stretches from Virginia Street south of Downtown San José to Gold Street in the Alviso neighborhood. This trail can be accessed from the project site via bike facilities on Julian Street, West St. John Street, Santa Clara Street, San Fernando Street, and/or Park Avenue. The Los Gatos Creek Trail is a 1.9-mile north–south trail that stretches from San Carlos Street to Lonus Street on the south side of I-280. The trail can be accessed from the project site via either a staircase located on the elevated portion of eastbound San Carlos Street that crosses the railroad tracks, or at the dead end of Dupont Street, which can be accessed via Park Avenue and McEvoy Street. Both trails are part of the major trail system along creeks and rivers in San José that supports recreational and commuting trips by bike or foot.



SOURCE: Fehr & Peers, 2020

Downtown West Mixed-Use Plan

Figure 3.13-3
Existing Pedestrian Facilities



SOURCE: Fehr & Peers, 2020

Downtown West Mixed-Use Plan

Figure 3.13-4
Existing Bicycle and Shared Mobility Facilities

Class II Bikeways

Class II bikeways are characterized by on-street striped lanes for one-way bike travel, and are found on Julian Street, Santa Clara Street, Park Avenue, Autumn Street, and Stockton Avenue. The network of Class II bikeways in the study area provides north–south and east–west bicycle access to the surrounding areas.

Class III Bikeways

Class III bikeways are characterized by shared on-street operations with vehicles, and are found on Laurel Grove Lane west of Diridon Station, parts of West San Carlos Street, Dupont Street, and West St. John Street. Class III bikeways, along with Class I and Class II bikeway facilities, complete the bikeway network in the study area.

Class IV Bikeways

Class IV bikeways are characterized by physically separated bike lanes. There are currently Class IV bikeways in the study area on Cahill Street between Santa Clara Street and San Fernando Street, and on San Fernando Street between Cahill Street and 10th Street.

Bike/Scooter Share

There are several bike/scooter share options in the study area that provide first-mile/last-mile transportation solutions. Bike share services are provided by Bay Wheels, a regional bike sharing system that operates in the Bay Area and is managed by the Metropolitan Transportation Commission (MTC). Bay Wheels operates as a system of fixed stations where users can rent and return Bay Wheels bicycles and hybrid dockless/dockable electric bikes. Figure 3.13-4 shows the locations of Bay Wheels stations.

Numerous companies, including Lyft and CLEVR, currently provide scooter rental services. Scooter rental services are free-floating, which allows users to be flexible in where they can rent and park scooters in appropriate locations in the public right-of-way.

Existing Vehicle Miles Traveled

VMT is a useful metric for understanding the overall effects of a project on the transportation system. As stated in San José Council Policy 5-1 (refer to Section 3.13.2, *Regulatory Framework*), VMT is measured by multiplying total vehicle trips by the average distance of those trips, adjusted for the number of people in the vehicles. For residential and employment land uses, VMT is measured for each person who will occupy or use a project. For large retail and transportation projects, the net amount of VMT is measured.

Senate Bill (SB) 743 is California's law to replace LOS with VMT in environmental review. This shift toward VMT aligns with San José's long-term General Plan goal of reducing drive-alone trips and increasing the use of walking, bicycling, and transit modes. As stated in the General Plan, the benefits of reducing drive-alone trips and increasing the use of other modes include

reduced energy consumption, reduced greenhouse gas (GHG) emissions, and support of healthier communities. General Plan policies addressing VMT include:

- **Policy TR-9.1**, which calls for enhancing and expanding walking and bicycle facilities to facilitate non-automobile trips.
- **Policies TR-8.3 through TR-8.10**, which call for supporting parking strategies such as parking supply limits, pricing, car share programs, and unbundled private off-street parking to encourage the use of non-automobile modes.
- **Policy TR-7.1** calls for requiring large employers to develop and maintain Transportation Demand Management (TDM) programs to reduce vehicle trips.
- **Policy TR-3.5** calls for increasing transit frequency and service along major corridors and to major destinations.

The City's Travel Demand Forecasting Model was used to determine existing VMT, with 2015 used as the model's base year. This is the best tool available and the most recent available information. **Table 3.13-1** summarizes existing VMT for the project site. Please note that this information is provided for informational purposes only, and is not used as the basis for the VMT impact analysis. The VMT impact analysis compares averages of citywide or regional VMT with and without the proposed project, rather than VMT for the project site (refer to Section 3.13.3, *Impacts and Mitigation Measures*, for additional detail on the VMT impact analysis methodology).

TABLE 3.13-1
EXISTING (2015) VEHICLE MILES TRAVELED*

Land Use	VMT
Residential	7.04 per capita
Office (General Employment)	12.25 per employee
Retail/Hotel	N/A

NOTES:
N/A = not available; VMT = vehicle miles traveled
* Existing VMT is provided for informational purposes only, and is not used as the basis for the impact analysis.
SOURCE: Data compiled by Fehr & Peers in 2020.

3.13.2 Regulatory Framework

State

California Department of Transportation

Caltrans has authority over the state highway system, including freeways, interchanges, and certain arterial routes. Caltrans operates and maintains state and interstate highways in San José. The *Guide for the Preparation of Traffic Impact Studies*[8] provides information that Caltrans uses to review impacts on state highway facilities, including freeway segments. However, as the

[8] California Department of Transportation, *Guide for the Preparation of Traffic Impact Studies*, 2002. Available at https://nacto.org/docs/usdg/guide_preparation_traffic_impact_studies_caltrans.pdf. Accessed July 15, 2019.

Congestion Management Agency, VTA is responsible for monitoring operations on Caltrans facilities in Santa Clara County, and VTA's *Transportation Impact Analysis Guidelines*[9] are applied to the evaluation of freeway facilities in Santa Clara County.

Regional

Metropolitan Transportation Commission

The MTC is the Bay Area's regional transportation planning agency and federally designated Metropolitan Planning Organization. The MTC is responsible for preparing the Regional Transportation Plan (RTP), a comprehensive blueprint for the development of mass transit, highway, airport, seaport, railroad, bicycle, and pedestrian facilities. The RTP is a 20-year plan that is updated every three years to reflect new planning priorities and changing projections of future growth and travel demand. The long-range plan must be based on a realistic forecast of future revenues, and the transportation projects taken must also help improve regional air quality. The MTC also screens requests from local agencies for federal and state grants for transportation projects to determine compatibility with the RTP.

Plan Bay Area 2040

Plan Bay Area is overseen by the MTC and the Association of Bay Area Governments (ABAG). It serves as the region's Sustainable Communities Strategy (SCS) pursuant to SB 375 and the 2040 RTP (preceded by *Transportation 2035*), integrating transportation and land use strategies to manage GHG emissions and plan for future population growth. The RTP and SCS include policies that call for shifting more travel demand to transit and accommodating growth along transit corridors in "Priority Development Areas." ABAG and the MTC adopted *Plan Bay Area 2040* in July 2013. The update to *Plan Bay Area*, known as *Plan Bay Area 2040*,[10] was subsequently developed by the MTC and adopted in July 2017.

Major transit projects included in *Plan Bay Area 2040* include the BART extension to San José/ Santa Clara, Caltrain electrification, enhanced service along the Amtrak Capitol Corridor, and improvements to local and express bus services.

Santa Clara Valley Transportation Authority

VTA serves two roles in Santa Clara County: as the primary transit service operator and as the congestion management agency. In its role as a transit service operator, VTA is responsible for development, operation, and maintenance of the bus and light rail system in the county. VTA operates more than 70 bus lines and 3 light rail lines, in addition to shuttle and paratransit service. It also provides transit service to major regional destinations and transfer centers in adjoining counties.

---

9 Santa Clara Valley Transportation Authority, *Transportation Impact Analysis Guidelines*, adopted October 2014. Available at https://www.vta.org/sites/default/files/documents/VTA_TIA_Guidelines_2014_Full_FINAL.pdf. Accessed July 15, 2019.

10 Metropolitan Transportation Commission and Association of Bay Area Governments, *Plan Bay Area 2040,* Final, adopted July 26, 2017. Available at http://2040.planbayarea.org/cdn/ff/buje2Q801oUV3Vpib-FoJ6mkOfWC9S9sgrSgJrwFBgo/1510696833/public/2017-11/Final_Plan_Bay_Area_2040.pdf. Accessed September 22, 2019.

As Santa Clara County's (County's) congestion management agency, VTA is responsible for developing the County's comprehensive transportation improvement program among local jurisdictions that will improve the performance of the multimodal transportation system, land use decision-making, and air quality. VTA is authorized to set federal and state funding priorities for transportation improvements that affect the Santa Clara Congestion Management Program (CMP)[11] transportation system. The CMP roadway network includes all freeways and expressways in Santa Clara County, in addition to 252 intersections throughout the county. As a result, VTA is responsible for monitoring operations on most Caltrans freeway facilities and County expressways in the county.

Guidelines for Analysis of Transportation Impacts

VTA requires local jurisdictions to analyze the impacts of new developments, or land use policy changes, on CMP facilities if they are expected to generate 100 or more new peak-hour trips. The CMP requires each jurisdiction to identify existing and future transportation facilities that will operate at an acceptable service level and provide mitigation where future growth degrades that service level.

VTA developed the *Transportation Impact Analysis Guidelines* (March 2009), which were adopted by the County and all cities in Santa Clara County, to provide local jurisdictions with a uniform program for evaluating the transportation impacts of land use decisions on the designated CMP system. The guidelines establish data needs and methodologies that should be used to assess the transportation impacts of land development projects and to assist in identifying improvements to minimize a development project's impacts. VTA updated the guidelines in 2014. Because these guidelines are LOS-based, they are relevant only to CMP compliance and not to CEQA compliance. (Refer to *City of San José Transportation Analysis Policy* below.)

Valley Transportation Plan 2040

As the congestion management agency for Santa Clara County, VTA is responsible for developing a long-range countywide transportation plan, called Valley Transportation Plan (VTP) 2040.[12] The projects included in the VTP serve as VTA's recommendations for inclusion in *Plan Bay Area,* and are updated on a four-year cycle coinciding with updates to that plan (refer to *Plan Bay Area 2040,* above). VTP 2040 provides programs, projects, and policies for roadways, transit, Intelligent Transportation Systems and Systems Operations Management, bicycle facilities, pedestrian facilities, and the integration of land use and transportation. The VTA Board of Directors adopted VTP 2040 in September 2014.

[11] Santa Clara Valley Transportation Authority, *Santa Clara Congestion Management Program (CMP) Document*, December 2017. Available at http://vtaorgcontent.s3-us-west-1.amazonaws.com/Site_Content/2017_CMP_Document.pdf.

[12] Santa Clara Valley Transportation Authority, *VTP2040: The Long-Range Transportation Plan for Santa Clara County*, Available at http://vtaorgcontent.s3-us-west-1.amazonaws.com/Site_Content/VTP2040_final_hi%20res_030315.pdf. Accessed September 23, 2019.

Transportation projects relevant to the proposed project include the following:

- **Caltrain/HSR Station Improvements at Diridon Station:** Provide future station improvements needed to accommodate and support the subsequent introduction of HSR service.
- **I-880 Express Lanes between U.S. 101 and I-280:** Build a new express lane on I-880.
- **I-280 Express Lanes from Magdalena Avenue to U.S. 101:** Convert the existing HOV lanes to express lanes on I-280 between Leland Avenue and Magdalena Avenue (Los Altos Hills); and convert one general-purpose lane in each direction on I-280 between U.S. 101 and Leland Avenue.
- **SR 87 Express Lanes from SR 85 to U.S. 101:** Convert the existing HOV lanes to express lanes.
- **Autumn Parkway Improvement from UPRR to San Carlos Street:** Extend a new four-lane multimodal street from the UPRR crossing to Julian Street (completed in 2017) and improve the existing Autumn Street from Julian Street to San Carlos Street. This project improves multimodal access and circulation to support the planned transit-oriented development near Diridon Station.
- **San Carlos Street Bridge Replacement and Widening at Caltrain/Vasona Light Rail:** Replace the structurally deficient bridge with improved facilities for biking and walking.
- **Santa Clara Alum Rock BRT:** Add new BRT route between Downtown San José and the Eastridge Transit Center, including two miles of dedicated lanes on the eastern half of the corridor and mixed-flow operations in the western segments (completed in 2017).
- **Los Gatos Creek Trail:** Complete the Los Gatos Creek Trail between Auzerais Avenue (south of West San Carlos Avenue) and Santa Clara Street including design, land acquisition, and environmental review.
- **Auzerais Avenue Bicycle and Pedestrian Improvements from Sunol Street to Race Street:** Construct Class II bikeways, sidewalk improvements, crossing improvements, and bicycle parking.

Complete Streets Program

VTA, in a collaborative effort with Caltrans, the MTC, and others, has developed a Complete Streets Program for Santa Clara County. The objective of this program is to develop a process for instituting incremental "complete street" improvements in Santa Clara County. VTA, in collaboration with the Cities of Campbell, Milpitas, San José, Santa Clara, and Sunnyvale, recently completed or is nearing completion of Complete Street Corridor Studies along the following corridors: Story Road–Keyes Avenue (February 2018[13]), Tasman Drive (estimated 2020), and Bascom Avenue (estimated 2020). These corridor studies developed conceptual designs of improvements to accommodate bicyclists, pedestrians, transit passengers, and vehicles. No corridors near the project site have been identified for evaluation as part of the Complete Streets Program.

[13] Santa Clara Valley Transportation Authority and City of San José, *Story–Keyes Corridor Complete Streets Study*, February 2018. Available at https://www.vta.org/sites/default/files/documents/Story%2520Keyes%2520Attachment%2520B.pdf.

Safe Routes to Transit

In 2017, VTA adopted a Pedestrian Access to Transit Plan,[14] the first countywide pedestrian plan for Santa Clara County. VTA worked with community members and stakeholders to identify projects, such as pedestrian bridge, streetscape improvement, bicycle and pedestrian path, street crossing, and sidewalk projects, that will improve rider safety and comfort on VTA trains and buses. The plan includes a list of projects that can be funded through federal, state, or local funding. Portions of the project site fall within Focus Area H–Downtown San José/Diridon Station. Several intersection, crossing, and streetscape improvements were identified both within and in the immediate vicinity of the project site:

- **Pathway and Uncontrolled Crossing to San Fernando VTA LRT Station:** Add a striped ladder-style crossing of South Montgomery Street at Crandall Street, and designate a pedestrian corridor to the San Fernando Station with new paving, landscaping, and/or paint on existing walkways.
- **Curb Cuts and Crosswalk Improvements at Diridon Station:** Add curb cuts and replace the existing crosswalks with ladder crosswalks for higher visibility at pedestrian crossings of Cahill Street (completed 2018).
- **San Fernando Street/Delmas Avenue VTA Improvement Alternatives:** (1) Restrict and formalize access at Delmas Avenue/San Fernando Street by adding public art landscaping, planters, and/or improved fence treatment; add a striped ladder crosswalk on the west side of the pedestrian crossing of the tracks on Delmas Avenue (completed 2018); and replace the bollards with swing gates. (2) Add traffic calming treatments to slow all traffic on San Fernando Street between Autumn Street and the SR 87 undercrossing.
- **San Fernando Street Signalized Pedestrian Crossing West of SR 87 Underpass:** Add a signalized pedestrian crossing immediately east of the signal at the rail crossing on San Fernando Street, including a striped ladder crosswalk, pedestrian signal heads, curb cuts, and removal of a portion of the raised median.
- **Santa Clara Street/Cahill Street Intersection Improvements:** Add a striped ladder crosswalk and add a pedestrian signal head to the west leg; consider adding pedestrian actuation and reducing signal lengths to reduce pedestrian wait times.
- **Santa Clara Street/Montgomery Street Pedestrian Scramble:** Restripe the existing crosswalks to provide a pedestrian scramble, with an opportunity for public art/place-making similar to the midblock crosswalks at Paseo de San Antonio; consider a signalized pedestrian scramble phase.
- **Santa Clara Street/Delmas Avenue Uncontrolled Crossing Improvements:** Relocate the uncontrolled ladder crosswalk to the west side of the intersection; add advance yield lines ("shark's teeth") for advance stop lines; add curb extensions to reduce pedestrian crossing distance; consider adding a Rectangular Rapid Flash Beacon or Pedestrian Hybrid Beacon to improve driver yield rates; consider adding a median refuge for pedestrians crossing Santa Clara Street.

[14] Santa Clara Valley Transportation Authority, *Pedestrian Access to Transit Plan*, Draft Final Plan, 2017. Available at http://vtaorgcontent.s3-us-west-1.amazonaws.com/Site_Content/PedestrianPlan-07-17-2017FINALDRAFT.pdf. Accessed September 23, 2019.

- **West Julian Street Railway Undercrossing:** Add pedestrian-scale lighting, a mural, and/or other public art to the existing pedestrian undercrossing of the railway tracks; evaluate the possibility of adding a pedestrian crossing on the south side of West Julian Street.

These improvements were identified for implementation by the City of San José in partnership with VTA, as funding becomes available.

Santa Clara Countywide Bicycle Plan

VTA adopted the updated Santa Clara Countywide Bicycle Plan[15] in May 2018, which includes a vision of 10 bicycle superhighways and 57 identified cross-county bicycle corridors. The Santa Clara Countywide Bicycle Plan synthesizes other local and County plans into a comprehensive 20-year, cross-county bicycle corridor network and expenditure plan. Near the project site, the updated plan currently identifies the Guadalupe River Trail, the Los Gatos Creek Trail, San Fernando Street (South 17th Street to Gifford Avenue), Gifford Avenue (West San Fernando Street to Park Avenue), Park Avenue (Gifford Avenue to West Hedding Street), and Coleman Avenue (West St. John Street to De La Cruz Boulevard) as priority cross-county bicycle corridors. Prioritization for funding of countywide bicycle facilities is documented in VTP 2040.

Local

City of San José Transportation Analysis Policy

Historically, transportation analyses prepared under CEQA have used delay and congestion on the roadway system as the primary metrics for identifying traffic impacts and potential roadway improvements to relieve traffic congestion that may result from a project. However, the State of California has recognized the limitations of measuring and mitigating only vehicle delay at intersections. Therefore, in 2013, SB 743 was enacted, stating that upon certification of guidelines by the Natural Resources Agency, jurisdictions must stop using congestion and delay metrics such as LOS as the measurement for CEQA impacts in transportation analyses. On December 28, 2018, the Natural Resources Agency certified CEQA Guidelines Section 15064.3(b), which required, among other things, that by July 2020, all public agencies must base the determination of transportation impacts under CEQA on VMT rather than LOS.[16] Jurisdictions were also allowed to use VMT before that date.

In February 2018, pursuant to SB 743, the City of San José adopted its new Transportation Analysis Policy, Council Policy 5-1. The policy replaced its predecessor (Policy 5-3) and established thresholds for transportation impacts under CEQA based on VMT instead of LOS. The intent of this change was to shift the focus of transportation analysis under CEQA from vehicle delay and roadway auto capacity to the reduction of vehicular emissions and creation of robust multimodal networks supporting integrated land uses. VMT is measured by multiplying the total vehicle trips by the average distance of those trips, adjusted for the number of people in the vehicles. For residential and employment land uses, VMT is measured for each person who

[15] Santa Clara Valley Transportation Authority, *Santa Clara Countywide Bicycle Plan*, Final Draft, May 2018. Available at https://www.vta.org/sites/default/files/2019-05/SCCBP_Final%20Plan%20_05.23.2018.pdf.

[16] VMT measures the amount and distance people drive by personal vehicle to a destination. VMT is measured by multiplying the total vehicle trips by the average distance of those trips.

will occupy or use a project site. For large retail and transportation projects, the net amount of VMT is measured. All new development and transportation projects are required to analyze transportation impacts using VMT and conform to Council Policy 5-1. The evaluation of the project's impact on LOS at intersections under the jurisdiction of the City of San José is no longer allowed under CEQA.

Transportation Analysis Policy 5-1 and its accompanying *Transportation Analysis Handbook*[17] provide screening criteria that determine whether a CEQA transportation analysis is required for both new development and transportation projects. The criteria are based on the type of project and its resulting changes to the transportation system. If a project meets the City's screening criteria, the project is presumed to result in less-than-significant VMT impacts and a detailed VMT analysis is not required under CEQA.

Council Policy 5-1 also requires that an LTA be prepared to analyze non-CEQA transportation issues, including local transportation operations, intersection LOS, site access and circulation, and neighborhood transportation issues such as pedestrian and bicycle access, and to recommend needed transportation improvements.

Envision San José 2040 General Plan

The General Plan includes goals, policies, and strategies regarding land use and community design, transportation, housing, environmental resources, and provision of municipal services to the year 2040. The General Plan was approved in November 2011 and amended in December 2016 as part of a four-year review cycle. The Land Use and Transportation Element establishes the link between land use and transportation, with an emphasis on encouraging growth in compact mixed-use developments and a balanced transportation system. Other key themes in the General Plan are: (1) constructing a comprehensive, safe, direct, and well-maintained citywide bikeway network; (2) supporting the development of amenities and land uses that contribute to increased transit ridership; and (3) reducing the number of VMT. It also recognizes that under SB 743, automobile LOS will be replaced with VMT as the City's metric for CEQA transportation analysis. **Table 3.13-2** lists the goals and policies that are applicable to the proposed project.

TABLE 3.13-2
LAND USE AND TRANSPORTATION GOALS AND POLICIES IN THE ENVISION SAN JOSÉ 2040 GENERAL PLAN

Land Use	
Goal LU-1	**Establish a land use pattern that fosters a more fiscally and environmentally sustainable, safe, and livable city.**
LU-1.1	Foster development patterns that will achieve a complete community in San José, particularly with respect to increasing jobs and economic development and increasing the City's jobs-to-employed resident ratio while recognizing the importance of housing and a resident workforce.
LU-1.2	Encourage Walking. Create safe, attractive, and accessible pedestrian connections between developments and to adjacent public streets to minimize vehicular miles traveled.
LU-1.3	Create safe, attractive, and accessible pedestrian connections between developments and to adjacent public streets to minimize vehicular miles traveled.

[17] City of San José, *Transportation Analysis Handbook*, April 2018. Available at https://www.sanjoseca.gov/home/showdocument?id=28461. Accessed July 15, 2019.

TABLE 3.13-2
LAND USE AND TRANSPORTATION GOALS AND POLICIES IN THE ENVISION SAN JOSÉ 2040 GENERAL PLAN

LU-1.7	Locate employee-intensive commercial and industrial uses within walking distance of transit stops. Encourage public transit providers to provide or increase services to areas with high concentrations of residents, workers, or visitors.
Goal LU-3	**Strengthen Downtown as a regional job, entertainment, and cultural destination and as the symbolic heart of San José.**
LU-3.1	Provide maximum flexibility in mixing uses throughout the Downtown area. Support intensive employment, entertainment, cultural, public/quasi-public, and residential uses in compact, intensive forms to maximize social interaction; to serve as a focal point for residents, businesses, and visitors; and to further the Vision of the Envision General Plan.
LU-3.2	Support Downtown as a primary employment center in the region, especially for financial institutions, insurance companies, government offices, professional services, information and communication technology companies, and businesses related to conventions.
LU-3.3	Support the development of Downtown as an art, cultural, and entertainment center for San José and the region. Promote special events, parades, celebrations, performances, concerts, and festivals.
LU-3.4	Facilitate development of retail and service establishments in Downtown and support regional- and local-serving businesses to further primary objectives of this Plan.
LU-3.5	Balance the need for parking to support a thriving Downtown with the need to minimize the impacts of parking upon a vibrant pedestrian and transit oriented urban environment. Provide for the needs of bicyclists and pedestrians, including adequate bicycle parking areas and design measures to promote bicyclist and pedestrian safety.
LU-3.8	Leverage Downtown's urban nature and promote projects that will help achieve economic, fiscal, environmental, cultural, transportation, social, or other objectives of this plan.
Goal LU-5	**Locate viable neighborhood-serving commercial uses throughout the City in order to stimulate economic development, create complete neighborhoods, and minimize VMT.**
LU-5.1	In order to create complete communities, promote new commercial uses and revitalize existing commercial areas in locations that provide safe and convenient multimodal access to a full range of goods and services.
LU-5.7	Encourage retail, restaurant, and other active uses as ground-floor occupants in identified growth areas and other locations with high concentrations of development.
Goal LU-9	**Provide high quality living environments for San José's residents.**
LU-9.1	Create a pedestrian-friendly environment by connecting new residential development with safe, convenient, accessible, and pleasant pedestrian facilities. Provide such connections between new development, its adjoining neighborhood, transit access points, schools, parks, and nearby commercial areas. Consistent with Transportation Policy TR-2.11, prohibit the development of new cul-de-sacs, unless it is the only feasible means of providing access to a property or properties, or gated communities, that do not provide through- and publicly accessible bicycle and pedestrian connections.
LU-9.2	Facilitate the development of complete neighborhoods by allowing appropriate commercial uses within or adjacent to residential and mixed-use neighborhoods.
LU-9.3	Integrate housing development with our City's transportation system, including transit, roads, and bicycle and pedestrian facilities.
LU-9.6	Require residential developments to include adequate open spaces in either private or common areas to partially provide for residents' open space and recreation needs.
Goal LU-10	**Meet the housing needs of existing and future residents by fully and efficiently utilizing lands planned for residential and mixed-use and by maximizing housing opportunities in locations within a half mile of transit, with good access to employment areas, neighborhood services, and public facilities.**
LU-10.3	Develop residentially- and mixed-use-designated lands adjacent to major transit facilities at high densities to reduce motor vehicle travel by encouraging the use of public transit.
LU-10.4	Within identified growth areas, develop residential projects at densities sufficient to support neighborhood retail in walkable, main street type development.
LU-10.5	Facilitate the development of housing close to jobs to provide residents with the opportunity to live and work in the same community.

TABLE 3.13-2
LAND USE AND TRANSPORTATION GOALS AND POLICIES IN THE ENVISION SAN JOSÉ 2040 GENERAL PLAN

LU-10.7	Encourage consolidation of parcels to promote mixed-use and high-density development at locations identified in the Land Use/Transportation Diagram.
LU-10.8	Encourage the location of schools, private community gathering facilities, and other public/quasi-public uses within or adjacent to Urban Villages and other growth areas and encourage these uses to be developed in an urban form and in a mixed-use configuration.
Transportation	
Goal TR-1	**Complete and maintain a multimodal transportation system that gives priority to the mobility needs of bicyclists, pedestrians, and public transit users while also providing for the safe and efficient movement of automobiles, buses, and trucks.**
TR-1.1	Accommodate and encourage use of non-automobile transportation modes to achieve San José's mobility goals and reduce vehicle trip generation and VMT.
TR-1.2	Consider impacts on overall mobility and all travel modes when evaluating transportation impacts of new developments or infrastructure projects.
TR-1.3	Increase substantially the proportion of commute travel using modes other than the single-occupant vehicle. The 2040 commute mode split targets for San José residents and workers are presented in the following table.
TR-1.6	Require that public street improvements provide safe access for motorists and pedestrians along development frontages per current City design standards.
Goal TR-2	**Improve walking and bicycling facilities to be more convenient, comfortable, and safe, so that they become primary transportation modes in San José.**
TR-2.11	Prohibit the development of new cul-de-sacs, unless it is the only feasible means of providing access to a property or properties, or gated communities that do not provide through and publicly accessible bicycle and pedestrian connections. Pursue the development of new through bicycle and pedestrian connections in existing cul-de-sac areas where feasible.
Goal TR-4	**Provide maximum opportunities for upgrading passenger rail service for faster and more frequent trains, while making this improved service a positive asset to San José that is attractive, accessible, and safe.**
TR-4.1	Support the development of amenities and land use and development types and intensities that increase daily ridership on the VTA, BART, Caltrain, ACE and Amtrak California systems and provide positive fiscal, economic, and environmental benefits to the community.
TR-4.3	Support the development of amenities and land use and development types and intensities that contribute to increased ridership on the potential high-speed rail system, and also provide positive benefits to the community.
Goal TR-8	**Parking Strategies**
TR-8.1	Promote transit-oriented development with reduced parking requirements and promote amenities around appropriate transit hubs and stations to facilitate the use of available transit services.
TR-8.11	Establish a program and provide incentives for private property owners to share their underutilized parking with the general public and/or other adjacent private developments.
Goal TR-9	**Reduce VMT by 10 percent per service population, from 2009 levels, as an interim goal.**
TR-9.1	Enhance, expand and maintain facilities for walking and bicycling, particularly to connect with and ensure access to transit and to provide a safe and complete alternative transportation network that facilitates non-automobile trips.
Trail Network	
Goal TN-1	**Develop the nation's largest urban network of trails. Become a national model for trail development and use. Remain a national leader in terms of the scale and quality of trails.**
TN-1.2	Minimize environmental disturbance in the design, construction and management of trails.
TN-1.3	Design trail system alignments to minimize impacts and enhance the environment within sensitive riparian and other natural areas. Follow Riparian Corridor Goals, Policies, and Actions regarding trail design and development in proximity to riparian areas.
TN-1.4	Provide gateway elements, interpretive signage, public art, and other amenities along trails to promote use and enhance the user experience.

TABLE 3.13-2
LAND USE AND TRANSPORTATION GOALS AND POLICIES IN THE ENVISION SAN JOSÉ 2040 GENERAL PLAN

Goal TN-2	**Develop a safe and accessible Trail Network to serve as a primary means of active transportation and recreation within an integrated multimodal transportation system.**
TN-2.1	Support off-street travel by interconnecting individual trail systems to each other and to regional trail systems.
TN-2.2	Provide direct, safe and convenient bicycle and pedestrian connections between the trail system and adjacent neighborhoods, schools, employment areas and shopping areas.
TN-2.7	Encourage all developers to install and maintain trails when new development occurs adjacent to a designated trail location, in accordance with Policy PR-8.5.
TN-2.8	Coordinate and connect the trail system with the on-street bikeway system, and consider policies from the Circulation and the Parks, Trails, Open Space, and Recreation Amenities/Programs sections of this Plan to create a complete BikeWeb to serve the needs of San José's diverse community.
Goal TN-3	**Design an accessible, safe, and well-functioning trail network that attracts diverse users of varying abilities.**
TN-3.4	Design new and retrofit existing public and private developments to provide significant visibility of and access to existing and planned trails to promote safety and trail use.

NOTES: ACE = Altamont Corridor Express; BART = Bay Area Rapid Transit; VMT = vehicle miles traveled; VTA = Santa Clara Valley Transportation Authority

SOURCE: City of San José, *Envision San José 2040 General Plan*, November 2011 (amended March 16, 2020). Available at https://www.sanjoseca.gov/home/showdocument?id=22359. Accessed January 16, 2020.

Downtown Strategy 2040

The Downtown Strategy 2040[18] is an integrated strategic design plan focused on revitalizing Downtown San José by developing underused land and increasing the density of infill developments within the Downtown boundary. The Downtown Strategy 2040 updated the 2000 Downtown Strategy in December 2018, increasing the number of residential units in Downtown San José by 4,000 units compared to what was planned in the General Plan and Downtown Strategy 2000, and shifting 3,000,000 square feet of office development from Coyote Valley to Downtown. The project site is located wholly within the Downtown boundary.

Diridon Station Area Plan

The DSAP[19] was approved by the San José City Council on June 17, 2014, and incorporated into the General Plan. The DSAP establishes a vision for Diridon Station and the surrounding area in response to the planned extension of BART and HSR service to San José. The City initiated amendments to the DSAP in 2019, in light of the following changes in planning assumptions:

- New uses contemplated for a site (located within the boundary of the project site analyzed in this EIR) previously identified for a proposed Major League Baseball ballpark.
- The City policy, adopted in March 2019, to allow greater building height limits in the station area.
- The City's focus on environmental sustainability through *Climate Smart San José*, adopted in 2018.

[18] City of San José, *Downtown Strategy 2040, Integrated Final EIR*, December 2018. Available at https://www.sanjoseca.gov/Home/ShowDocument?id=44054.
[19] City of San José, *Diridon Station Area Plan*, Final Plan Report, June 2014. Available at https://www.sanjoseca.gov/Home/ShowDocument?id=15739. Accessed September 23, 2019.

- The adopted Downtown Design Guidelines and proposed Downtown Transportation Plan.
- The City's participation, along with Caltrain, the California High-Speed Rail Authority, and VTA, in the DISC Plan process, which will evaluate how to expand and redesign Diridon Station as a world-class center of transit and public life that provides for intermodal connections and integration with the surrounding neighborhoods.[20]

The DSAP amendments are intended to adapt the DSAP to updated circumstances; align with and complement other adopted and ongoing plans, including the DISC Plan; and support and facilitate implementation of the DSAP relative to both private development and public investment. The City does not expect to make major changes to the primary objectives of the DSAP. Anticipated changes include reallocating development capacity from elsewhere in the City's development capacity and updating the plan sections addressing land use, design, transportation, and public spaces. The City will also prepare area-wide implementation strategies for shared parking, infrastructure financing, and affordable housing.

Specific goals of the DSAP that relate to transportation include:

- **Connectivity:** Establish and strengthen connections to surrounding districts and within the planning area for pedestrians, bicyclists, and motorists, with emphasis on east–west connectivity across SR 87 and the rail corridor.
- **Transportation:** Prioritize pedestrian circulation and transit. Improve pedestrian and bicycle connections to the Guadalupe River from the area.
- **Parking:** Disperse parking in different locations in the planning area and beyond to ensure easy walking access to destinations.

San José Bike Plan 2020

The City of San José Bike Plan 2020[21] was adopted in November 2009 and recommends policies, projects, and programs to achieve a vision where bicycling is an integral part of life in San José. The bike plan defines 500 miles of bikeways—400 miles on-street plus a 100-mile trail network—and emphasizes connection between the on-street and off-street bikeway networks. The San José Better Bike Plan 2025 will update the existing bike plan and is expected to be finalized in the fall of 2020.

Projects listed in the current bike plan that are near the project site include implementing a Class II bikeway (bike lanes) on Park Avenue between Sunol Street and Market Street and a Class II bikeway on Santa Clara Street between Montgomery Street and Almaden Boulevard. Both of these projects have been completed.

Complete Streets Design Standards and Guidelines

The San José Complete Streets Design Standards and Guidelines[22] were developed as a comprehensive set of street design standards and guidelines to inform how the City builds and

[20] The DISC Plan is not a land use plan. Instead, the plan will include a physical layout showing how the various track and station elements will fit together and relate to the surrounding neighborhood and a governing structure to implement the vision for the station and operate the station in the long term.

[21] City of San José, *San José Bike Plan 2020*, November 17, 2009. Available at http://www3.sanjoseca.gov/clerk/Agenda/20091117/20091117_0602att.pdf. Accessed September 23, 2019.

[22] City of San José, *San Jose Complete Streets Design Standards & Guidelines*, May 2018. Available at https://www.sanjoseca.gov/home/showdocument?id=33113.

retrofits streets. The guidelines in the document present standards for the design and implementation of streets that are comfortable and welcoming for all modes of travel in accordance with the City's Vision Zero initiative.

The guidance provided in the Complete Streets Design Standards and Guidelines varies depending on roadway typology and the context of the built environment. For example, Downtown Areas are characterized by intensive office, retail, service, residential, and entertainment land uses. Transit usage and pedestrian activity are given primary emphasis over automobile activity in this context. The design standards and guidelines refer to the 2003 Downtown Streetscape Master Plan[23] for identified pedestrian networks in the Downtown area for public streets lacking a typology designation in the 2040 General Plan.

Downtown Transportation Plan

In late 2019, the City initiated the Downtown Transportation Plan, which will identify a comprehensive circulation network and advance the big transportation moves that will help shape the desired future of Downtown San José. The Plan will provide clear, well-vetted direction to improve access, mobility, circulation, navigability, streetscapes, and public life throughout the Downtown area. Comprehensive community engagement will be used to identify and establish network-level transportation plans designed to complement adjacent land uses and accommodate all travel modes. In addition, the plan will develop methods for ranking transportation projects and programs and producing conceptual designs and implementation strategies for high-priority improvements. Development of the Downtown Transportation Plan is expected to be completed in 2021.

3.13.3 Impacts and Mitigation Measures

Significance Criteria

For the purposes of this EIR, based on the questions in Appendix G of the CEQA Guidelines, an impact related to transportation would be significant if implementing the proposed project would:

- Conflict with a program plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities;
- Conflict or be inconsistent with CEQA Guidelines Section 15064.3(b);
- Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment); or
- Result in inadequate emergency access.

San José Policy 5-1 Significance Criteria

As discussed in Section 3.13.2, *Regulatory Framework*, the City adopted its new Transportation Analysis Policy, Council Policy 5-1, in February 2018. The policy replaced its predecessor (Policy 5-3) and established thresholds for transportation impacts under CEQA based on VMT

[23] City of San José, *San José Downtown Streetscape Master Plan*, October 2003. Prepared for the Redevelopment Agency of the City of San José [now defunct].

instead of LOS. The VMT analysis is conducted to evaluate the proposed project's VMT against the appropriate thresholds of significance. The City designates VMT threshold by land use as summarized in **Table 3.13-3**.

TABLE 3.13-3
THRESHOLDS OF SIGNIFICANCE FOR VEHICLE MILES TRAVELED

Project Type	Significance Criteria	Current Level	Threshold
Residential Uses	Project VMT per capita exceeds existing Citywide average VMT per capita minus 15 percent **OR** existing regional average VMT per capita minus 15 percent, whichever is lower.	11.91 VMT per capita (citywide average)	10.12 VMT per capita
General Employment Uses	Project VMT per employee exceeds existing regional average VMT per employee minus 15 percent.	14.37 VMT per employee (regional average)	12.21 VMT per employee
Industrial Employment Uses	Project VMT per employee exceeds existing regional VMT per employee.	14.37 VMT per employee (regional average)	14.37 VMT per employee
Retail/Hotel/School Uses	Net increase in existing regional total VMT.	Regional total VMT	Net increase
Public/Quasi-Public Uses	In accordance with the most appropriate type(s) as determined by Public Works Director.	Appropriate levels listed above	Appropriate thresholds listed above
Mixed Uses	Evaluate each land use component of a mixed-use project independently, and apply the threshold of significance for each land use type included.	Appropriate levels listed above	Appropriate thresholds listed above
Change of Use/ Additions to Existing Development	Evaluate the full site with the change of use or additions to existing development, and apply the threshold of significance for each project type included.	Appropriate levels listed above	Appropriate thresholds listed above
Area Plans	Evaluate each land use component of the area plan independently, and apply the threshold of significance for each land uses type included.	Appropriate levels listed above	Appropriate thresholds listed above

NOTES:

VMT = vehicle miles traveled

The regional average for residential uses in the Bay Area was 17.33 VMT per capita and 13.08 for Santa Clara County, according to the latest data available (2015) from the 2015 Santa Clara Valley Transportation Authority Travel Model.[24]

SOURCES: Data compiled by Fehr & Peers in 2020; City of San José, *Transportation Analysis Handbook*, April 2018. Available at https://www.sanjoseca.gov/home/showdocument?id=28461. Accessed July 15, 2019.

If a project is found to have a significant impact on VMT, the EIR must identify potentially feasible mitigation measures such as modifying the project to reduce its VMT to an acceptable level (i.e., below the established thresholds of significance) and/or mitigating the impact through multimodal transportation improvements or establishing a TDM program and associated monitoring requirements.

General Plan Amendment Significance Criteria

In addition to the criteria listed above, the City requires that the following criteria be evaluated because the proposed project would require a General Plan Amendment. Guidelines and

[24] Fehr & Peers, *Stanford 2018 General Use Permit: SB 743 VMT Analysis*, August 2017. Available at https://www.sccgov.org/sites/dpd/DocsForms/Documents/SU_2018GUP_App_Tab8_VMT.pdf.

thresholds set by the General Plan were used to evaluate the potential impacts of the proposed project. Based on those guidelines and thresholds, an impact related to transportation would be significant if the proposed project would:

- Cause an increase in VMT per service population over Year 2040 General Plan/Cumulative No Project conditions;[25]
- Cause an increase in journey-to-work drive-alone mode share over Year 2040 General Plan/Cumulative No Project conditions;
- Cause a decrease in average travel speed on a transit corridor below Year 2040 General Plan/Cumulative No Project conditions in the a.m. peak 1-hour period when:
  - The average speed drops below 15 miles per hour (mph) or decreases by 25 percent or more; OR
  - The average speed drops by 1 mph or more for a transit corridor with average speed below 15 mph under Year 2040 General Plan/Cumulative No Project conditions.

One additional General Plan Amendment significance criterion was evaluated for the proposed project. However, that evaluation is based on the measures of delay/LOS, which are no longer allowed under CEQA. Therefore, a non-CEQA analysis of the following significance criterion is provided only in Appendix J1:

- Result in deficient operations on adjacent jurisdiction roadway segments when 25 percent or more of total deficient-lane miles are attributable to the city during the a.m. 4-hour peak period such that:
  - Total deficient-lane miles are total lane-miles of street segments with volume-to-capacity (V/C) ratios of 1.0 or greater; and
  - A deficient roadway segment is attributed to the city when trips from the city are 10 percent or more on the deficient segment.

Approach to Analysis

As part of the Assembly Bill (AB) 900 application prepared for the proposed project, which the Governor certified on December 30, 2019, trip reduction measures were quantified to demonstrate that the project could achieve a 15 percent improvement in transportation efficiency compared to a comparable project, as required by the law. The application demonstrated that through a combination of high-quality walkable urbanism, and investment in a comprehensive TDM program, the proposed project would reduce vehicle trips between 17.7 and 24.4 percent as compared to a project with the same size, mix of land uses, and location, but without the proposed project's trip reduction features. Although AB 900 requires the City to ensure that the proposed project would achieve the 15 percent transportation efficiency improvement, the impact analysis/evaluation provided below does not re-evaluate whether that goal would be met or include the trip reduction measures quantified in the AB 900 analysis. The purpose of doing a separate analysis using the City's transportation model, as described in this section, is to provide a conservative analysis consistent with those prepared for other EIRs, with results that can be compared to other analyses

[25] The VMT per service population General Plan Amendment significance criterion is different than the VMT metrics analyzed pursuant to CEQA Guidelines Section 15064.3(b), as discussed in the Impact Analysis.

conducted by the City. Accordingly, although Chapter 2, *Project Description*, describes the project applicant's trip reduction features analyzed under AB 900, this EIR excludes those features from "project" conditions for the purposes of this transportation analysis.

The proposed project is required to complete a VMT analysis for the purposes of CEQA (i.e., consistency with CEQA Guidelines Section 15064.3(b) and Council Policy 5-1), not the AB 900 application.

Potential transportation impacts were evaluated for the following four scenarios:

- **Scenario 1: Year 2015 Existing Conditions.** The City's Travel Demand Forecasting Model was used to determine baseline VMT and traffic volumes. The year 2015 is the base year for the City of San José Travel Demand Forecasting Model, and the City's model is the best tool available for identifying project VMT impacts. Year 2015 conditions are reasonably representative of current conditions, and they are used in Scenarios 1 and 2 to isolate changes in VMT attributable to the project.
- **Scenario 2: Year 2015 Existing Plus Project Conditions.** Project impacts were evaluated using the City's model to develop VMT projections with development of the proposed project. The use of the City's model represents a conservative estimate, as the model does not account for project-specific features (such as TDM elements) that would reduce the trips and associated VMT generated by the proposed project. The scenario also assumes the base year 2015 transportation network and does not account for any anticipated enhancements to transit service, such as BART Phase II and Caltrain electrification, that would also reduce the trips and associated VMT generated by the proposed project.
- **Scenario 3: Year 2040 Cumulative Conditions (No Project).** The City's model was used to develop VMT per capita/per service population projections for the year 2040 and forecast traffic volumes, using the land use and transportation assumptions consistent with the General Plan. Those assumptions include land use reallocations currently contemplated as part of the City-initiated DSAP amendments (described in Section 2.4.4, *Proposed Changes to the General Plan Growth Allocations by Area*, in Chapter 2, *Project Description*) and those proposed as part of the project's General Plan Amendment. Land uses associated with buildout of the project were then "backed out" of the model to determine 2040 cumulative conditions without the project. This scenario assumes future transit service enhancements associated with BART Phase II and Caltrain electrification.
- **Scenario 4: Year 2040 Cumulative Conditions (With Project).** This scenario includes Scenario 3 volumes without subtracting project land uses and includes street network modifications proposed as part of the project.

The City's Travel Demand Forecasting Model was developed based on 2015 travel data and land use inputs. Since that time, the prevalence of for-hire vehicles has increased in the Bay Area, including San José, mostly as a result of growth in the number of and demand for transportation network company (TNC) services, such as Lyft and Uber. The model estimates the probability of driving based on auto ownership, household income, and other variables, however, available travel data do not directly account for the increased availability of TNCs. To the extent that people previously would have traveled in another personal or for-hire vehicle (e.g., taxi) but now travel using a TNC service, this is accounted for in the previous travel data.

Several recent studies have evaluated the impact of TNCs on VMT and overall trip generation. A study published in 2019 found that approximately 3 percent of all roadway VMT in the nine-county San Francisco Bay Area was attributable to TNCs.[26] A study of TNC use in major metro areas in California suggests that 25 to 55 percent of trips made via TNCs would have otherwise been made via walking, transit, or bicycle, and that up to 20 percent of all TNC trips would not have occurred without the presence of TNCs.[27]

Although the City's Travel Demand Forecasting Model does not specifically include trips made by TNCs because of a lack of available travel survey data during development of the model itself, trips made using TNCs are likely shorter than average vehicle trips that currently occur in the area; have higher average vehicle occupancy; and are generally not associated with travel for work purposes.[28]

Project Construction

The potential for construction of the proposed project to result in impacts on transportation services and facilities in the study area is addressed in the LTA, which is provided in Appendix J2 of this EIR and summarized in the impact analysis below.

Impact Analysis

Impact TR-1: The proposed project would not conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities. *(Less than Significant)*

Project Construction

Construction of the proposed project could result in conflicts with applicable plans or policies, especially those that relate to transit, pedestrian, and bicycle facilities/operations. The LTA (refer to Appendix J2 of this EIR) discusses specific steps that would be required to minimize those effects as much as possible during construction to provide for the safe and efficient movement of all transportation modes including walking, bicycling, vehicles, and transit. These steps would be part of a required comprehensive traffic control plan, which would include City best practices and any additional best practices relevant to the proposed project.

The City has a Recommended Temporary Traffic Control Plan (RTTCP) that was developed in accordance with California Vehicle Code Section 21400.[29] The plan provides high-level guidance on construction management and approves various devices that can be used on a construction site. The project applicant would be required to prepare and submit a project-specific RTTCP to the San

[26] Fehr & Peers, *Estimated TNC Share of VMT in Six US Metropolitan Regions*, August 2019. Available at https://www.fehrandpeers.com/what-are-tncs-share-of-vmt/
[27] Travel Behaviour and Society, *What Influences Travelers to Use Uber? Exploring the Factors Affecting the Adoption of On-Demand Ride Services in California*, October 2018.
[28] Fehr & Peers, *Use of the City of San José Model and Ridehail Services*, May 2020.
[29] City of San José, *City of San José Recommended Temporary Traffic Control Plans*, undated. Available at https://www.sanjoseca.gov/home/showdocument?id=19947.

José Department of Public Works for approval before beginning project construction. The components of the RTTCP and the potential effects that they would address are summarized below:

- **Temporary Traffic Control Plan Elements:** The RTTCP specifies that work area planning should be done any time a roadway's normal function is suspended. Temporary traffic control planning must provide continuity of movement for traffic, pedestrians, bicyclists, transit operations, and access to property/utilities. To reduce potential conflicts between construction activities and pedestrians, bicyclists, transit, and autos, the project applicant must require the construction contractor(s) to prepare a traffic control plan for major construction phases (e.g., demolition and grading, construction, or renovation of individual buildings). The project applicant and their construction contractor(s) must meet with relevant City agencies to coordinate feasible measures for reducing traffic congestion. The Plan shall include consideration of SAP Center ingress and egress for event days and allow for efficient movement and safe conditions for patrons of the arena.

  Construction of the proposed project may overlap with the construction of BART Phase II, the new Diridon Station, and other nearby developments. If the construction time frames of the major phases and other development projects adjacent to the project site overlap, the project applicant must coordinate with City agencies through the adjacent developers to minimize the severity of any disruption to adjacent land uses and transportation facilities from the overlapping construction transportation effects. The project applicant, in conjunction with the adjacent developer(s), must propose a construction traffic control plan that includes measures to reduce potential construction traffic conflicts, such as coordinated material drop-offs, collective worker parking, SAP Center ingress/egress, and transit to the job site.

- **Traffic Construction Management:** Construction of the proposed project would have an adverse effect if it would cause traffic hazards, delays, or disruptions. According to the RTTCP, vehicular circulation should be maintained to the greatest extent possible, depending on the work area. Care should be taken to ensure that drivers are made aware of any traffic pattern changes well in advance of the deviation, using signs, flaggers, barricades, flags, flashers, or traffic cones. A combination of treatments may be necessary, depending on the circumstances and visibility.

- **Transit Construction Management:** Construction of the proposed project would cause direct effects on the operation of VTA bus and light rail in the project study area, as identified in Section 3.13.1, *Environmental Setting*. Specifically, construction activities would affect the Green Line (light rail) and bus routes 17, 64A, 22, and Rapid 522. According to the City's RTTCP, VTA should be notified of the proposed project and a plan should be developed to accommodate the affected stations and stops in the construction area.

- **Pedestrian Construction Management:** Construction of the proposed project would cause direct effects on the sidewalks and walking paths throughout the project study area. According to the City's RTTCP, adequate protection for the safety of pedestrians must be provided when the work area encroaches on a sidewalk, walkway, or crosswalk area.

- **Bicycle Construction Management:** Construction of the proposed project would cause direct effects on bike routes throughout the project study area. The bike routes most likely to be affected are those on Cahill Street, Montgomery Street, Crandall Street, Autumn Street, Santa Clara Street, and San Fernando Street, although there could be others. There is also a Bay Wheels bike sharing station on Crandall Street. The City's RTTCP states that whenever possible, bicycle lanes should be maintained throughout a construction area. The project applicant must coordinate with the City to develop a component of the Temporary

Traffic Control Plan that addresses bicycle routes. If a bicycle route is disrupted during project construction, the project applicant must provide a reasonable and accessible alternative and create clear wayfinding to the alternative route.

- **Freight/Delivery Truck Loading Construction Management:** Construction of the proposed project would cause direct effects on loading throughout the project study area. The City's RTTCP suggests that freight and delivery truck loading be accommodated in a construction area by providing alternative routes, if necessary because of possible constraints (i.e., bridge, weight, clearance, or geometric restriction). The project applicant must develop an inventory of merchants in the project study area to assess freight needs, schedules, and locations.
- **Parking Construction Management:** Construction of the proposed project would cause direct effects on on-street parking availability and off-street parking lots—specifically, parking on Autumn Street and in the Diridon Station off-street lots directly east of the station. The City does not have guidance on accommodating parking in construction zones. The project applicant must include a plan for accommodating parking during construction, both for the construction workers and for people wishing to access the area's amenities including the SAP Center and transit.
- **Emergency Access Construction Management:** Construction of the proposed project would cause direct effects on emergency vehicles moving into, out of, and throughout the construction area. An essential part of fire, rescue, spill cleanup, highway agency, and enforcement activity involves properly controlling road users through the traffic incident management area to protect responders, victims, and other personnel at the site. The project applicant must include a plan for maintaining emergency vehicle access during construction, which would include coordination with police and other emergency service providers.

In summary, the project applicant would be required to develop a robust Traffic Control Plan that addresses each major phase and is coordinated with adjacent construction activities, as appropriate, and that holistically addresses vehicular, bicycle, pedestrian, transit, parking, loading, and emergency vehicle access and circulation. Therefore, construction of the proposed project would not conflict with any applicable plan, policy, or ordinance addressing the circulation system, and this impact would be **less than significant**.

Project Operation

Conflicts with the Envision San José 2040 General Plan

Plans and Policies

As detailed in Table 3.13-2, the General Plan includes several policies pertaining to the City's transportation network. The determination of consistency with the General Plan involves assessing the project's density, design, and conformance to the goals and policies set forth in the General Plan.

The General Plan's goals for residential, commercial, and mixed-use projects include providing a high-quality living environment for San José residents; strengthening Downtown as a regional job, entertainment, and cultural destination; maximizing housing opportunities in locations within 0.5 miles of transit with good access to employment areas; and leveraging neighborhood-serving commercial uses to reduce VMT. The proposed project is consistent with the General Plan's land use goals in that it proposes developing underused land in the Downtown area near major transit facilities including Diridon Station; integrating housing, retail, and office land uses;

encouraging walking through attractive and accessible pedestrian connections, both within the development and within the surrounding area; and supporting cultural events.

The General Plan's transportation goals aim to complete and maintain a multimodal transportation system, with an emphasis on improving pedestrian and bicycle facilities, maximizing the efficiency of the existing street system, and reducing VMT. The project site is located within a 0.5-mile radius of major VTA bus and light rail stops; Diridon Station, with existing Caltrain, ACE, and Amtrak service; and future HSR, BART, and proposed enhanced BRT service along Santa Clara Street and both the Guadalupe River and Los Gatos Creek Trails. The proposed project would leverage transit synergy from its location near Diridon Station and through pedestrian and bicycling improvements. The project's pedestrian and bicycle improvements would include enhancing local pedestrian circulation, improving bicycling linkages to Downtown for residents and visitors, and enhancing access to the nearby trail network. In addition, a new districtwide parking program throughout the project site would accommodate site-specific parking demands while also managing public parking.

The proposed project would be consistent with the General Plan's land use and transportation goals described above and, on balance, would conform to the policies of the General Plan, including those identified in Table 3.13-2. If the City identifies proposed project features that could directly or indirectly conflict with one or more individual policies (e.g., by locating more jobs and/or residents in the project area than contemplated by the General Plan, which could indirectly affect transportation facilities), these conflicts either would not preclude a determination of General Plan conformity or would be resolved with the General Plan Amendment proposed as part of the project. For these reasons, the impact of the proposed project related to the potential for conflicts with the General Plan's Land Use and Transportation Elements would be **less than significant**. (The transit, bicycle, and pedestrian policies in the DSAP, Bike Plan, and Downtown Strategy are analyzed further below.)

Transportation Network Diagram

Portions of many streets in the project area are currently assigned various typologies in the General Plan Transportation Network Diagram: Grand Boulevards, On-Street Primary Bicycle Facilities, Main Streets, City Connector Streets, and Local Connector Streets. Under the proposed project, South Montgomery Street would be re-designated from a Grand Boulevard to a Main Street from West Santa Clara Street to West San Fernando Street. In addition, the following streets would be vacated under the proposed project, necessitating removal from the General Plan Transportation Network Diagram: a portion of North Montgomery Street just north of the SAP Center; Delmas Avenue between West Santa Clara Street and West San Fernando Street; and South Montgomery Street between West San Fernando and Park Avenue.

According to the General Plan, street typologies are intended to reflect a roadway's adjacent land uses, appropriate travel speeds, and the need to accommodate multiple travel modes. Because street typologies are assigned assuming a theoretical buildout of General Plan land uses, they can be modified as actual development occurs to more accurately reflect the circulation patterns of the development.

Any roadway extensions and new streets included in the final design would need to comply, subject to allowances pursuant to Title 13 and Title 19 of the Municipal Code, with the City's Complete Streets Design Standards and Guidelines[30] (May 2018) and the proposed Planned Development Permit (including the Downtown West Design Standards and Guidelines), both of which include design specifications to ensure the safe and efficient travel of vehicles, bicycles, pedestrians, and transit vehicles.[31]

The proposed project's changes to the General Plan Transportation Network Diagram would not, on their own, represent a conflict with the General Plan. Potential conflicts relative to the use, function, or safety of the roadways are discussed below under Impacts TR-3 and TR-4.

Conflicts with the Congestion Management Program

As described previously, the City's new Transportation Impact Policy (Council Policy 5-1) replaces the former Council Policy 5-3, which used intersection LOS, or vehicle delay or congestion, as the primary measure of development traffic impacts. Evaluating the project's impact on LOS at intersections under the jurisdiction of the City of San José is no longer allowed under CEQA.

However, apart from CEQA, the City is still required to conform to the requirements of VTA's Congestion Management Program. VTA has yet to adopt and implement guidelines and standards for evaluating the CMP roadway system, using VMT under SB 743. Therefore, the LTA, which includes all the non-CEQA analyses conducted for the proposed project in accordance with San José Council Policy 5-1, analyzes the effects of the proposed project on CMP-designated intersections and freeway segments near the project site, following the LOS standards and methodologies outlined in the VTA *Transportation Impact Analysis Guidelines* for informational purposes only. This analysis, provided in Appendix J2 of this EIR, is included to determine project consistency with the CMP, not to identify the project's impacts on the transportation system under CEQA, which are based on VMT metrics as discussed above.

The LTA analysis finds that traffic generated by the proposed project may cause CMP-established LOS thresholds to be exceeded at some CMP intersections and on some CMP freeway segments under 2040 Cumulative Plus Project conditions. Improvement projects to address these findings are provided in Appendix J2 of this EIR and where possible, aim to support the Project's and City's multimodal and TDM goals.

Conflicts with Other Plans and Policies

As stated in *Plan Bay Area 2040*, the Regional Transportation Plan and Sustainable Communities Strategy include policies to shift more travel demand to transit and to accommodate growth along transit corridors in Priority Development Areas. The proposed project is consistent with these policies because the project site is located in a Priority Development Area, and would construct

[30] City of San José, *San Jose Complete Streets Design Standards & Guidelines*, May 2018. Available at https://www.sanjoseca.gov/home/showdocument?id=33113.

[31] The Downtown West Design Standards and Guidelines also propose to supersede certain Complete Streets Design Standards and Guidelines, as applied to the proposed project. Refer to the draft document in Appendix M.

high-density mixed uses in a currently underused area of Downtown adjacent to high-quality, high-frequency transit that would generate future transit ridership.

For these same reasons, the proposed project would also be consistent with the VTP 2040, which focuses on transportation infrastructure improvements that would help to close transportation gaps, provide vital connections to jobs and housing, help to balance the overall system, and contribute to an efficient and sustainable multimodal transportation system that serves all socioeconomic groups.

Furthermore, by locating a new job center at a transit-rich location, the proposed project would create more efficient transportation linkages between the on-site jobs and employees' homes. The project would also provide housing at a range of affordability levels.

For these reasons, the proposed project would be consistent with the RTP and SCS. Thus, the impact of the project with respect to conflicts with other regional plans would be **less than significant**.

The proposed project's consistency with plans, policies, or ordinances related to transit, bicycle, and pedestrian facilities is described below. This CEQA analysis differs from the LTA analysis (provided in Appendix J2), which focuses on access and capacity constraints, and on connectivity (i.e., gaps in the network) in accordance with San José Council Policy 5-1.

Transit Facilities

The proposed project would conflict with a transit-related program plan or policy if it would conflict with existing or planned transit services, or would decrease the performance or safety of such services. The project would enhance transit access and ridership by leveraging the project site's proximity to Diridon Station, which is currently served by multiple transit agencies, and where existing and new transit providers are planning new or enhanced services in the future. Furthermore, as part of the proposed project, the project applicant would construct off-site improvements to the pedestrian and bicycle circulation network that would improve access to transit services in the project vicinity (refer to discussion of *Bicycle and Pedestrian Facilities*, below). The project does not propose infrastructure changes to existing transit facilities inside or outside of the project site, and thus, would not interfere with the ability of transit agencies to provide, modify, or expand service on those existing facilities. Potential changes to transit corridor travel speeds are addressed separately in Impact TR-7 below.

As described previously, several major transit plans would increase transit service in the area in the future. These include Caltrain electrification, Caltrain Business Plan, BART Phase II extension to Diridon Station and Santa Clara, California HSR, and enhanced BRT service along Santa Clara Street and The Alameda (refer to Appendix J1). The design of Diridon Station to accommodate increases in transit service is being addressed in the DISC Plan process.

The DISC Plan, currently underway, will develop a spatial configuration and layout for the Diridon multimodal transit station: the alignment of the heavy and light rail tracks entering and exiting the station, the location of rail platforms, access considerations for bicycle and pedestrian traffic and for private vehicle access and flow, and the station's integration with the urban fabric

and city context. The DISC Plan, and its relationship to the proposed project, is described in detail in Chapter 2, *Project Description*. Although the DISC Plan is not sufficiently developed at this stage to analyze as part of the project's transportation analysis, the project applicant would work with the City and the DISC partner agencies to address the final concept layout, while still meeting the objectives of the proposed project.

The Downtown West Design Standards and Guidelines provides a framework for such coordination efforts. Any such modifications would be subject to review by the Director of Planning, Building and Code Enforcement or the Director's designee pursuant to the applicable DISC-related standards in the Downtown West Design Standards and Guidelines.

An analysis of transit demand generated by the proposed project is provided in Appendix J2. The analysis found that demand for Caltrain services would not cause crowding at levels that would exceed Caltrain's comfortable-crowding level during the peak hour and peak direction (p.m. peak hour, southbound). The proposed project's effect on VTA service would be most pronounced on bus service closest to the project, and on Green Line light rail service. When compared to existing service levels, the proposed project could use up to 80 percent of the Green Line's current capacity, assuming that service includes four trains per hour, and that each train can accommodate 120 seated passengers. If total ridership, including transit riders generated by the proposed project, were to exceed the peak passenger load guidelines identified in VTA's *Transit Service Guidelines*[32] (i.e., 120 percent of seated capacity for all transit modes except Express Bus, which is 100 percent of seated capacity), mild to moderate crowding on VTA services may occur during peak hours. Although the proposed project would add transit riders to local and regional transit operators (e.g., VTA, Caltrain) serving the project site, increased transit ridership would be positive from a policy perspective (i.e., added uses and services accessible by transit, improved accessibility, fewer passenger vehicles added to roadways).

Furthermore, supporting increased transit ridership is consistent with regional and local policies that encourage the use of transit in an effort to reduce VMT and GHG emissions attributable to the use of single-occupancy vehicles. Specifically, VTA's *Transit Service Guidelines* provide a framework for designing and operating transit service, which relies on high transit ridership generated by attractive transit service, dense and transit-supportive land uses, and pedestrian-oriented street design. The latter two components are consistent with the proposed project's land use and circulation patterns.

None of the plans for future transit service in the area call for new dedicated parking facilities. However, developing existing privately operated surface parking facilities into other uses as part of the proposed project or future projects may reduce the availability of parking for transit users who currently use such facilities, potentially increasing dependence on first-mile and last-mile transit connections and the use of pedestrian and bicycle facilities. As stated in Chapter 2, *Project Description*, the project site is located in a Transit Priority Area, as defined in CEQA Section 21099, meaning that the site is within 0.5 miles of a major transit stop. The proposed project would be a mixed-use residential and employment center project on an infill site within

[32] Santa Clara Valley Transportation Authority, *Transit Service Guidelines*, April 2018. Available at https://www.vta.org/sites/default/files/2019-06/Transit%20Service%20Guidelines%202018%20FINAL.pdf.

this Transit Priority Area. For this reason, the proposed project is exempt from the requirement to analyze parking impacts pursuant to Section 21099, and no further analysis of parking is required. Additional information on the City's parking requirements and the proposed project's compliance with such requirements is provided in Appendix J2.

Based on the above discussion, the proposed project would not conflict with a plan, policy, or ordinance related to transit facilities, and this impact would be **less than significant**.

The LTA for the proposed project, provided in Appendix J2 of this EIR, includes an additional transit evaluation that focuses on the proposed project's ability to support transit ridership. It includes an assessment of transit facilities and services, access to transit, and transit operations.

Bicycle and Pedestrian Facilities

The proposed project would conflict with a bicycle- or pedestrian-related program plan or policy if it would create a hazardous condition that currently does not exist for pedestrians or bicyclists, or if it conflicts with planned facilities or local agency policies regarding bicycle and pedestrian facilities.

The proposed project would include several proposed bicycle network changes to provide bicycle connectivity within the project site and to the surrounding neighborhoods and regional destinations. Proposed improvements include:

- A multi-use path parallel to the light rail tracks between South Montgomery Street and West San Fernando Street.
- Off-street path connections along Los Gatos Creek within the project site to fill in gaps in the existing trail, with an off-street path connection (Class I) running along the western edge of Los Gatos Creek between Auzerais Avenue and Park Avenue, as well as along the eastern edge of the Creek from West San Fernando Street to West Santa Clara Street. These trail segments would be connected by on-street protected bikeways (Class IV) along Autumn Street between Park Avenue and the VTA tracks.
- On-street bicycle facilities (Class IV or Class II) along Park Avenue, West San Fernando Street, West St. John Street, West Julian Street, South Autumn Street, North Montgomery Street, and Cahill Street.
- Shared public streets that would have traffic calming, low speeds, and potential restrictions to auto travel along South Montgomery Street between West San Fernando Street and West Santa Clara Street and Post Street between Cahill Street and South Autumn Street.
- An additional network of private streets, most of which would be generally accessible to the public and some of which would predominantly provide service and loading access. Generally accessible private streets would include a new street extending west and north from North Montgomery Street to the rear (west) of the northern most parcel (Block A1) connecting to Lenzen Avenue; a dead-end street extending west from North Montgomery Street between West Julian and West St. John Streets (within Block C1); an L-shaped street along the alignment of Delmas Avenue north of the light rail tracks and turning east to reach the Guadalupe River; and an L-shaped street linking Royal Avenue and Auzerais Street (between Blocks H3 and H4). Limited-access private streets would include a service street that would run north of West San Fernando Street and parallel to Delmas

Avenue at the eastern border of the project site and a service connection between Cahill Street and South Autumn Street north of Park Avenue (through Block F1).

In addition, as part of the proposed project, the project applicant would construct a series of off-site improvements, identified in the project's LTA, to the bicycle and pedestrian network to enhance pedestrian and bicycle circulation and access to transit in the project vicinity. These improvements, which are part of the project analyzed in this EIR, include the following:

- A new footbridge over Los Gatos Creek between West Santa Clara Street and the VTA light-rail tracks.[33]
- Controlled at-grade crossing (crosswalk and curb improvements) for the Los Gatos Creek Trail across West Santa Clara Street at or near Delmas Avenue. This crossing would connect the existing segment of the Los Gatos Creek Trail within Arena Green, along the west side of the creek, with a new portion of the trail to be developed as part of the project on the east side of Los Gatos Creek between the VTA tracks and West Santa Clara Street.
- Improved bicycle facilities on Auzerais Avenue between the existing Los Gatos Creek Trail and Bird Avenue.
- Widening of the Auzerais Avenue north sidewalk beneath the SR 87 freeway, beginning from the existing Auzerais Avenue/Delmas Avenue intersection, and alignment of the curb line at the northeast corner of this intersection with the curb line at the northwest corner. A signal modification would also be made at this intersection.
- Improvements at the Coleman Avenue/West Taylor Street intersection to enhance bicycle connectivity along West Taylor Street from Walnut Street to Stockton Avenue. Improvements to the pedestrian walkway, removal of corner islands, and widening within the existing rail undercrossing would also be included.

In addition, the project applicant may provide funding, or partial funding, to the City to implement other off-site transportation improvements. Such improvements are not part of the proposed project. Environmental review of other off-site transportation improvements beyond those set forth above would be conducted separately by the City, as required.

These proposed improvements would be designed in accordance with state and City standards and would complement and in some cases, implement, the City's current bike network and the planned facilities drafted in the City's Better Bike Plan 2025, which is expected to be finalized in 2020. The proposed improvements also would not prevent the implementation of any facilities described in the San José Bike Plan 2020 or the Santa Clara Countywide Bicycle Plan.

The project applicant proposes to construct mid-block passages at several locations to facilitate pedestrian and bicycle access through the project site and break up the scale of larger blocks. The project would enhance sidewalks and implement "road diets" (removal and reconfiguration of lanes) along Park Avenue, and South Montgomery Street south of Park Avenue. Implementing the road diets would also entail changing South Autumn and South Montgomery Streets from one-way to two-way operation and removing vehicular access from South Montgomery Street

[33] Although this footbridge would begin and end within the project site, it would cross Los Gatos Creek, which is not part of the site, and is therefore included on this list of off-site transportation improvements.

south of San Fernando Street, and from Delmas Avenue between West Santa Clara and West San Fernando Streets.

The project would also enhance streetscape and intersection design and implement new and improved bike facilities throughout the study area to prioritize pedestrian and cyclist safety and improve linkages to Downtown San José. These project elements are described in the Downtown West Design Standards and Guidelines and are generally consistent with VTA's Complete Streets Program, which seeks to improve certain corridors to accommodate bicyclists, pedestrians, transit passengers, and vehicles. However, no corridors near the project site have been identified for evaluation as part of the Complete Streets Program.

The City's Complete Streets Design Standards and Guidelines vary depending on the context of the built environment and roadway typology. The project site falls under the "Downtown" context type because the project site and the surrounding areas are characterized by intensive office, retail, service, residential, and entertainment. The Downtown context prioritizes transit usage and pedestrian activity over automobile activity.

The Complete Streets Design Standards and Guidelines outline specific design features for each roadway typology and for the Downtown context. Examples of guidance provided in the standards and guidelines include minimum sidewalk widths, design vehicle lengths, crosswalk treatments, and recommended bikeway design variations.

The proposed project would provide a walkable area with good pedestrian connections between land uses and Diridon Station and the greater Downtown area. Specific streets have not been fully designed, but the typical street sections outlined within the project site are generally consistent with the example cross sections illustrated in the Complete Streets Design Standards and Guidelines as well as the Downtown West Design Standards and Guidelines.

As discussed above, the proposed project's on-site and off-site transportation network improvements would be designed in accordance with state and City standards and would not prevent the implementation of planned bicycle or pedestrian facilities. Thus, the proposed project would not create hazardous conditions where none exist today, nor would it conflict with planned facilities or local agency policies. Based on the discussion above, the proposed project would not conflict with a plan, policy, or ordinance related to bicycle or pedestrian facilities, and this impact would be **less than significant**.

Mitigation: None required.

Impact TR-2: The proposed project would not conflict or be inconsistent with CEQA Guidelines Section 15064.3(b) regarding the use of VMT for analysis of land use projects. *(Less than Significant)*

As described previously, the City of San José Transportation Impact Policy (Council Policy 5-1) replaces the former Council Policy 5-3, which used intersection LOS, or vehicle delay or congestion, as the primary measure of traffic impacts from development. Thus, the evaluation of a

project's impact on LOS at intersections under the City's jurisdiction is no longer allowed under CEQA. Council Policy 5-1 provides guidance on project screening criteria, thresholds of significance for environmental clearance for development projects, and methods for VMT analysis.

Screening Criteria

The City's VMT procedure includes screening criteria that are used to identify the types, characteristics, and/or locations of projects that would not exceed the CEQA thresholds of significance. If a project or a component of a mixed-use project meets the screening criteria, the project or component is presumed to result in a less-than-significant VMT impact and a VMT analysis is not required. The screening criteria categorize development projects as one of the following:

- Small infill project;
- Local-serving retail;
- Local-serving public facility;
- Project located in a Planned Growth Area with low VMT and high-quality transit; or
- Deed-restricted affordable housing located in a Planned Growth Area with high-quality transit.

A project or a component of a mixed-use project that meets the associated screening criteria is exempted from performing a CEQA-level VMT analysis. The screening criteria are described in detail in the City's *Transportation Analysis Handbook*.

Project work on most of the potential residential and office development parcels included in the proposed project would meet the City's screening criteria for VMT analysis and would be presumed to have a less-than-significant VMT impact. This finding is based on the parcels':

- Location in a Planned Growth Area (Downtown);
- Proximity to high-quality transit;
- Location in an area of low VMT in accordance with the established thresholds;
- Transit-supporting density; and
- Limited amount of parking provided.

Generally, only the proposed project's development parcels north of Julian Street are located outside of low-VMT areas. Those parcels would not meet the screening criteria and would require a detailed VMT analysis. However, given the size and unique characteristics of the proposed project, and to provide full disclosure, a VMT analysis using the City's model was conducted for the entire project in lieu of applying the City's VMT screening tool. The results of the VMT analysis are presented below.

Project Land Use Vehicle Miles Traveled

The City developed a spreadsheet-based tool, known as the City's VMT Evaluation Tool, to estimate VMT-related impacts and mitigation measures for new land use development projects.

The tool is used to determine the existing and project VMTs for the area around the parcel where the proposed project is located. However, the tool is geared toward smaller projects because it analyzes projects at the parcel level. Because of the size of the proposed project (more than 100 parcels), the project's VMT for all land uses except for the event center and logistics center was evaluated using the City's Travel Demand Forecasting Model directly, instead of the City's VMT spreadsheet tool. The proposed project's land uses and transportation system changes were incorporated into the City's 2015 baseline model. The model was run and used to estimate the VMT for all vehicle trips with an origin or destination on the project site on an average weekday.

To obtain VMT per capita, the VMT estimates for all residential vehicle trips generated by the proposed project with an origin or destination on the project site were divided by the number of residents. The results were compared to the City's VMT threshold for residential projects. Similarly, the VMT estimates for all project-related, office-generated vehicle trips with an origin or destination on the project site were divided by the number of office employees to obtain VMT per employee.[34] The results were compared to the City's VMT threshold for office projects.

The hotel and retail components of the proposed project were evaluated separately from the project's other land use components. Specifically, the total regional VMT with the proposed project was calculated for two scenarios—without and with the retail/hotel uses—to compare the shifts in an equivalent amount of retail from other locations in San José. The premise of the analysis is that if retail is located at the project site, then travel demand from other similar locations in San José would be shifted to the project site. This is a typical analysis to evaluate the project's effect on retail VMT; the project does not propose to physically shift retail from other areas of the city.

Table 3.13-4 summarizes the results for the residential, office, and retail/hotel components of the proposed project.

TABLE 3.13-4
RESULTS OF THE VEHICLE MILES TRAVELED ANALYSIS

Scenario	VMT	VMT Threshold	Exceed VMT Threshold?
Residential Project Components			
Project	7.93 per capita	10.12 VMT per capita	No
Office (General Employment) Project Component			
Project	9.72 per employee	12.21 VMT per employee	No
Retail/Hotel Uses			
Existing	74,303,439	Net increase from regional total VMT	N/A
Existing plus Retail/Hotel Shift	74,261,308		No

NOTE:
N/A = not applicable (existing VMT is not subject to the thresholds); VMT = vehicle miles traveled
SOURCES: Data compiled by Fehr & Peers in 2020; City of San José, *Transportation Analysis Handbook*, 2018.

[34] Section 3.11, *Population and Housing*, explains how the numbers of residents and office employees were derived.

With implementation of the proposed project, both the residential and office VMTs would be below the City's VMT thresholds, and the VMT impact of the proposed project for these land uses would be **less than significant**.

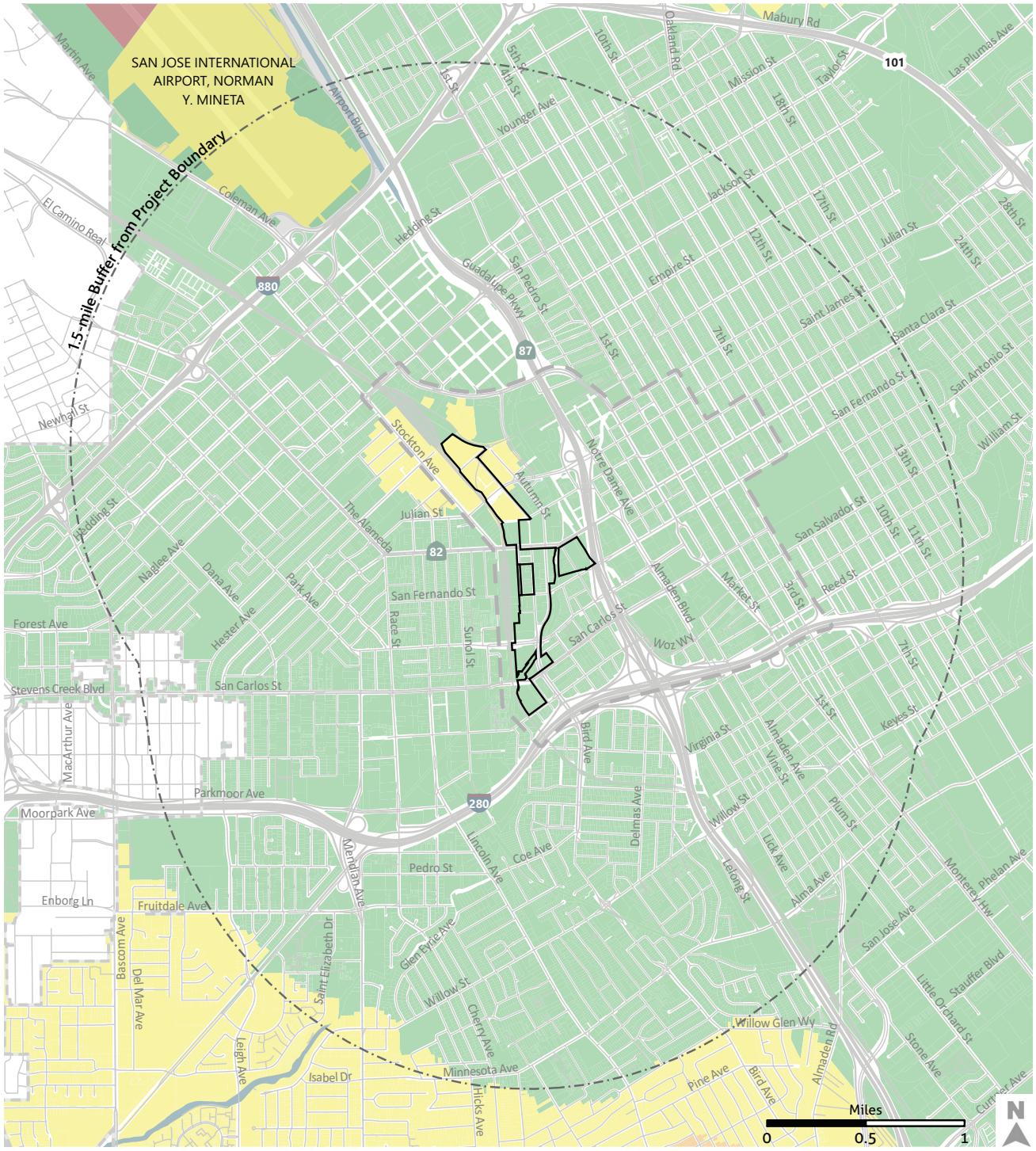
As discussed in Chapter 2, *Project Description*, the proposed project will include an affordable housing program in support of the MOU's articulated goal of 25 percent affordable housing throughout the DSAP. The City's Travel Demand Forecasting Model does not distinguish between affordable and market-rate housing. Affordable housing would likely result in lower VMT than market-rate housing because residents of affordable housing have comparatively lower vehicle ownership rates and higher transit usage. For reference purposes, **Figure 3.13-5** and **Figure 3.13-6** show the City's residential VMT per capita and employment VMT per office job maps. As shown on these figures, VMT is lowest in denser urban areas of San José with good transit and multimodal connectivity. Denser areas with a mix of land uses provide opportunities for residents and workers to walk to their destinations, along with good multimodal access to Diridon Station, light rail, and bus transit that provides for a broader range of travel options.

Based on the modeling of total regional VMT with and without the project's retail/hotel uses, total regional VMT would be reduced by 42,131 as a result of the shift in retail/hotel VMT caused by the proposed project. Based on the City's retail/hotel VMT threshold of no net increase from regional total VMT, the proposed project's retail/hotel VMT impact would be **less than significant**, because the total regional VMT would be reduced with the proposed project.

As noted in the *Approach to Analysis*, the City's Travel Demand Forecasting Model does not directly account for the use of TNCs, such as Uber and Lyft, since there was limited available travel survey data available during development of the model itself. Further, there are no alternative, accepted models for quantifying estimated TNC demand or travel distances in San José. However, trips made by TNC are likely shorter than average vehicle trips that currently occur in the area; have higher average vehicle occupancy; and are generally not associated with travel for work purposes; therefore, these trips are not anticipated to substantially affect per capita VMT associated with the proposed project. Additionally, the VMT associated with the project, as summarized in Table 3.13-4, is projected to be well below the VMT per capita threshold for a significant impact; in the event that the use of TNCs would increase the VMT per capita in the study area, this effect is not anticipated to be great enough to exceed the threshold of significance, given the typical use purpose, vehicle occupancy, and trip length of TNC trips.

Event Center Vehicle Miles Traveled

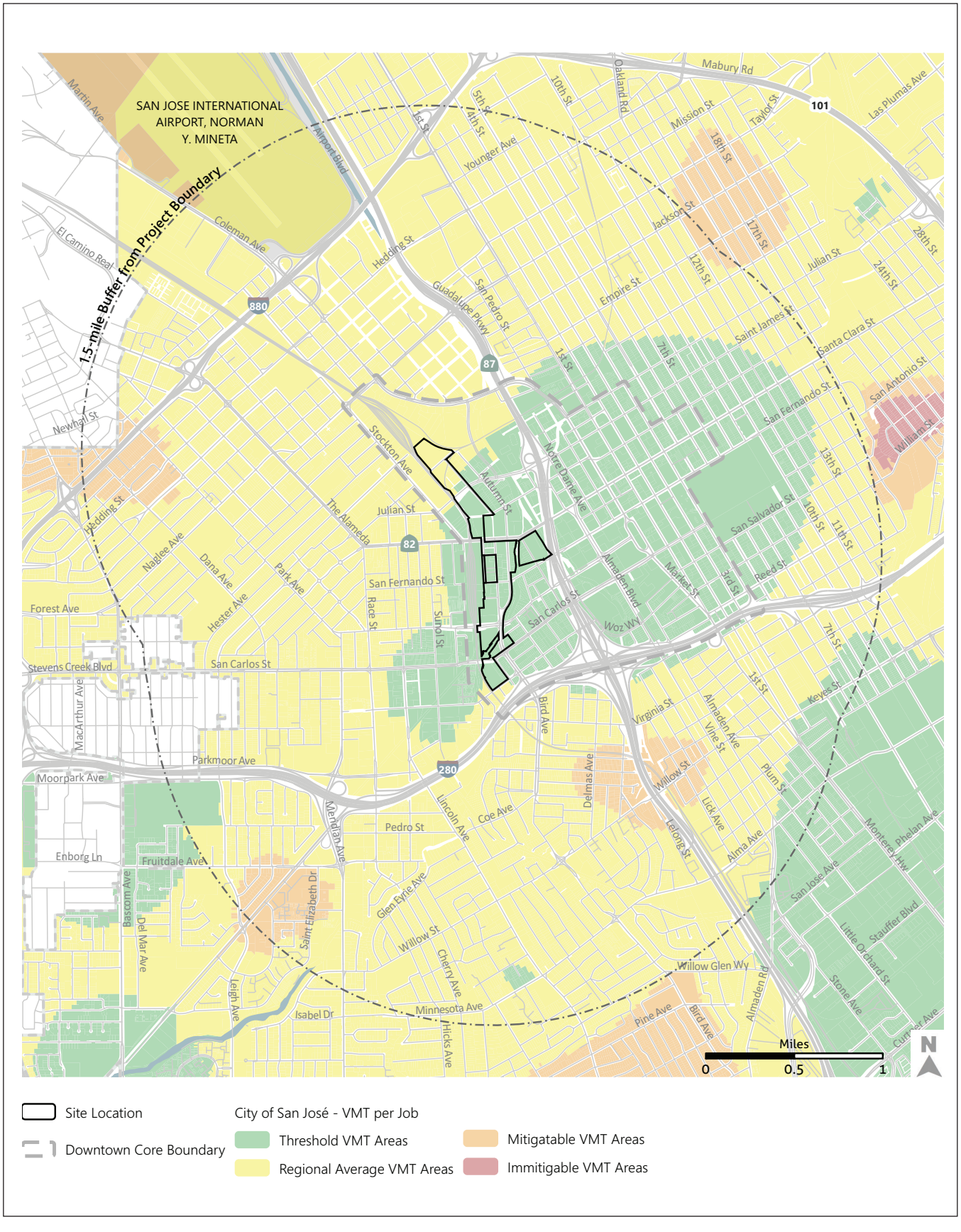
Because of the unique characteristics of the event center component of the proposed project, the City's Travel Demand Forecasting Model was not used to estimate VMT for that component. Instead, VMT for the event center was evaluated qualitatively based on the characteristics of its anticipated usage (e.g., number and type of events, attendee profiles).



SOURCE: Fehr & Peers, 2020

Downtown West Mixed-Use Plan

Figure 3.13-5
Residential VMT per Capita Map



SOURCES: Fehr & Peers, 2020

Downtown West Mixed-Use Plan

Figure 3.13-6
Employment VMT per Office Job Map

The proposed project would also include up to 100,000 square feet of event center uses in the center of the project site. The event center uses could accommodate up to 2,000 people and would function as a flexible space to accommodate a variety of event functions supporting Google businesses. Typical events could include product launches/announcements, corporate meetings, conferences, seminars, small conventions, and screenings. External trips to the site would vary based on the type of event; most events would be targeted toward on-site employees, and as a result, most attendees (approximately 70 percent) would already be at the project site and would not generate a substantial number of additional trips. For most functions at the event space, VMT effects would be smaller than for typical stand-alone event spaces, such as a convention center, because the number of trips for which attendees would travel longer distances (more than 5 miles) would be low compared to trips already on or near the project site. The convention-type events, which would attract a larger proportion of attendees from farther away, would occur an estimated four or five times a year and would not be considered part of the event center's normal day-to-day operations. For these reasons, the VMT impact for daily use of the event space would be considered **less than significant**.

Logistics Center Vehicle Miles Traveled

The proposed project includes 100,000 square feet of on-site logistics center uses to serve the commercial uses on-site. The 100,000 square feet would include two 50,000 square feet buildings; one in the Northern Infrastructure Zone of the project site and the other in the Southern Infrastructure Zone (see Chapter 2, *Project Description*, Figure 2-3). The logistics centers would allow for better management and distribution of daily deliveries within the site; thus generating a negligible amount of external trips to the site and not separately accounted for in the proposed project's travel demand and VMT estimates.

However, to provide a worst-case scenario, a separate VMT analysis was conducted applying the City's VMT Evaluation Tool) to estimate the project-generated VMT for the two logistics centers. The logistics center would be located in the area north west of the Julian Street/ Montgomery Street intersection in the Northern Infrastructure Zone and the area south west of the San Fernando Street/Autumn Street intersection in the Southern Infrastructure Zone. Parcels within these areas were selected for use of the City's VMT Evaluation Tool. The results from the City's VMT Tool are compared to the threshold for industrial projects as shown in **Table 3.13-5**. Outputs from the City's VMT Evaluation Tool for the two logistics centers are provided in Appendix J1.

TABLE 3.13-5
LOGISTICS CENTER VEHICLE MILES TRAVELED ANALYSIS

Location	VMT	VMT Threshold	Exceed VMT Threshold?
Northern Infrastructure Zone	10.17	14.37 VMT per Employee	No
Southern Infrastructure Zone	9.25		No

NOTE:

SOURCES: Data compiled by Fehr & Peers in 2020; City of San José, *VMT Evaluation Tool*, 2020.

With implementation of the proposed project, both the northern and southern logistics centers would generate VMT per employee below the City's VMT thresholds for industrial uses. Therefore, the VMT impact for the logistics center uses would be **less than significant**.

Project Roadway Modification Vehicle Miles Traveled

The proposed project would include several changes to the roadway network, as well as the proposed use of "dynamic" lanes. The VMT effects of these roadway modifications are discussed below.

Roadway Network Changes

The proposed roadway network changes include new streets or the removal of select streets, which in general would provide a small grid network that would allow efficient circulation within the project site. The streets that would be removed are generally short (less than 250 feet), with the exception of the segment of South Montgomery Street between West San Fernando Street and Park Avenue, which is approximately 950 feet long; and the segment of Delmas Avenue between West Santa Clara Street and West San Fernando Street, which is approximately 750 feet long. The removal of the one-way segment of South Montgomery Street would be partially offset by the extension of a two-way Cahill Street to the north and south. With the extension of Cahill Street and the parallel Autumn Street, the project site would maintain continuous north–south connections through the project site.

Similarly, north-south connections through the project site with the closure of Delmas Avenue between West Santa Clara Street and West San Fernando Street would be maintained via parallel routes on Autumn Street and Almaden Boulevard. The southern portion of the segment of Delmas Avenue to be removed as a through street would be reconfigured as a private street/driveway from West San Fernando Street. This new private street would connect with two new private streets between West San Fernando Street and West Santa Clara Street, an east-west street within the block and a north-south street between the development and the west edge of the Guadalupe River (the western half of the east-west street would be considered a mid-block passage). These new streets would provide parking access and egress to and from the proposed development on the portion of the project site between Los Gatos Creek and the Guadalupe River.

These roadway network modifications would result in a decrease in overall VMT by improving multimodal connections to and from the project site. Furthermore, the improved multimodal connections provide additional ways to access Diridon Station, which is served by commuter rail, light rail, and bus transit services.

As stated in the City's *Transportation Analysis Handbook*, most other roadway projects, including construction of new roadways, may or may not induce additional vehicle travel and associated VMT. In select cases, adding a link that greatly improves connectivity by providing drivers a shorter route in exchange for a longer one may reduce total VMT. Because the project site generally has a small grid network, there are easily accessible alternate routes for vehicle travel; in some cases, the new route may be slightly longer, while in other cases, it may be shorter. On balance, however, the network changes (including new streets and removal of streets) would not substantially increase VMT in the area. Therefore, the VMT impact of the proposed project related to roadway network changes would be **less than significant**.

Dynamic Lanes

The Downtown West Design Standards and Guidelines identify several roadways on the project site that are proposed to have "dynamic" lanes. Dynamic lanes are lanes adjacent to the curb that are flexible in that they can provide space for a variety of uses depending on need: vehicle or bicycle parking, pick-up/drop-off for goods or people, stormwater management and landscaping, or additional travel lanes to support SAP Center event traffic. Because these dynamic lanes would not be used for additional travel throughput, except for short periods to support event traffic from the SAP Center, the dynamic lanes are not considered to be travel- or VMT-inducing. Therefore, this VMT impact would be **less than significant**.

Mitigation: None required.

Impact TR-3: The proposed project would not substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment). ***(Less than Significant)***

As described in Section 2.7.1, *Changes to the Street Network*, several street network changes are currently proposed as part of the project. Any roadway extensions and new streets included in the final design would need to comply, subject to allowances pursuant to Title 13 and Title 19 of the Municipal Code, with the City of San José's Complete Streets Design Standards and Guidelines[35] (May 2018) and the Planned Development Permit, both of which include design specifications to ensure the safe and efficient travel of vehicles, bicycles, pedestrians, and transit vehicles.

In addition, final building footprints and site designs, including access and egress to individual development sites, would be subject to Council Policy 5-1 (2018). The policy states, in part, "All projects may be required to submit an LTA as determined by the Public Works Director," indicating that project LTAs must contain sufficient detail to analyze safety elements "proximate to the project site." Under Council Policy 5-1, the project applicant must prepare and submit LTAs evaluating sight distance, on-site circulation, and building access/egress when sufficient information is available for each building or development phase to allow the City to evaluate those aspects of the project for conformance with the City's Complete Streets Design Standards and Guidelines, and any other relevant City standards before recordation of final maps. For this reason, the proposed project would not introduce any geometric design features or incompatible uses, and this impact would be **less than significant**.

Mitigation: None required.

---

[35] City of San José, *San Jose Complete Streets Design Standards & Guidelines*, May 2018. Available at https://www.sanjoseca.gov/home/showdocument?id=33113.

Impact TR-4: The proposed project would not result in inadequate emergency access. *(Less than Significant)*

An emergency access impact would occur if the project would create conditions that would substantially affect the ability of drivers to yield the right-of-way to emergency vehicles, or preclude the ability of emergency vehicles to access streets in the project vicinity.

The proposed project would extend portions of certain streets and remove parts of other streets within the project site to improve circulation. Proposed street network changes include:

- Extend Cahill Street to North Montgomery Street to the north and to Park Avenue in the south to provide continuous north–south connectivity through the length of the project site.
- Extend West St. John Street to connect from Montgomery Street to the new Cahill Street extension toward the north end of the project site.
- Create a new east–west extension of Post Street between South Montgomery Street and Autumn Street.
- Create a new north-south roadway between Cinnabar Street and Lenzen Avenue, providing public access to Block A1.
- Create a new "L-shaped" connection from Auzerais Avenue to Royal Avenue along existing alignments of Drake Street and Columbia Avenue (private street).
- Create a new ring roadway extending west from the intersection of North Montgomery and Cinnabar Streets around the rear (west) of Block A1, connecting to the former Lenzen Avenue right-of-way (private street) and to a new public street along the east side of Block A1.
- Close Delmas Avenue between West Santa Clara Street and West San Fernando Street to through traffic.
- Remove North Montgomery Street between West St. John Street and Cahill Street.
- Remove South Montgomery Street between West San Fernando Street and Park Avenue.
- Remove Otterson Street to the west of South Montgomery Street.
- Remove Cinnabar Street west of North Montgomery Street.
- Create several mid-block passages through the project site to facilitate pedestrian and bicycle access. Mid-block passages are a small-scale pedestrian network of passageways that provide mid-block shortcuts for people walking, increasing accessibility throughout the project site.

The proposed project also proposes to establish emergency vehicle access at the north end of the site before occupancy, to allow emergency vehicles to enter the site by going across or under the railroad tracks. The project applicant has evaluated a range of options for a new at-grade railroad crossing or new grade separation under the railroad. Grade separation options include an underpass at Lenzen Avenue or North Montgomery Street. A grade separation over the railroad is not being considered because the elevations required for rail clearance would not be feasible given the current roadway geometry. At-grade rail crossing options include a modification to the existing North Montgomery Street at-grade crossing or a new at-grade crossing on the north leg of the Warm Springs wye (the UPRR track that runs southeasterly from the Caltrain tracks north

of the project site) to the San Jose Market Center (the retail center northeast of the site). In addition, with the introduction of new technologies, such as remotely controlled bollards/gates, integrated communications between building fire alarm systems and rail and/or mass notification systems, North Montgomery Street could potentially continue to serve as the sole access point for emergency vehicles.

The specific proposal for emergency vehicle access has not been finalized because of the need to coordinate with other efforts that affect the feasibility of certain options. The City is applying to the Federal Railroad Administration for a quiet zone on the Warm Springs corridor from North Montgomery Street to Horning Street, about a mile northeast of the project site, which may include improvements to the North Montgomery Street at-grade railroad crossing. In addition, the DISC partner agencies have approved a Concept Layout that would elevate the railroad tracks that currently limit access to the site. Elevation of the tracks, consistent with the Concept Layout, would allow for at-grade or nearly at-grade reconnections of streets to the north end of the project site. These streets could include North Autumn Street, Cinnabar Street, and Lenzen Avenue.

Any new emergency vehicle access proposed by the project at the north end of the project site could be reconfigured, replaced, or supplemented by alternative access options at the time that the railroad is elevated as proposed by the DISC partner agencies. The new at-grade or grade-separated crossing ultimately proposed by the project would require coordination with the City and with the California Public Utilities Commission and/or Federal Railroad Administration and Caltrain and UPRR as applicable.

Staff members from the San José Bureau of Fire Prevention, Public Works, and Department of Planning, Building and Code Enforcement would review and approve individual building plans and related emergency access, which would be established before occupancy.

Any roadway extensions and new streets would need to comply, subject to allowances pursuant to Title 13 and Title 19 of the Municipal Code, with the City's Complete Streets Design Standards and Guidelines (May 2018), which include design specifications that consider emergency vehicle access requirements. Design requirements could include mountable concrete buffers, mountable curbs, and corner or sidewalk bulbs to accommodate turning of emergency vehicles. All new street segments would be designed in accordance with City policies, would provide adequate emergency vehicle access, and would not impede access to the project site and surrounding area by emergency vehicles.

Overall, the proposed roadway extensions and new streets would provide a grid network that would accommodate emergency vehicle access throughout the project site. The streets proposed for removal are generally short (less than 250 feet) and would not prevent emergency vehicles from accessing individual buildings via driveways.

The removal of Cinnabar Street west of North Montgomery Street would be replaced by a new private street connection between North Montgomery Street and Lenzen Avenue along the southern and western perimeter of the block, and a new north-south connection between Cinnabar Street and Lenzen Avenue along the eastern perimeter of the block that could be used for

emergency vehicle access. Access to the block along North Montgomery Street across railroad tracks serving Union Pacific Railroad (UPRR) would be maintained.

Given the planned land use and occupancy intensification from the existing manufacturing to the proposed office at the north end, the project proposes modifying the existing North Montgomery Street at-grade railroad crossing to provide adequate emergency vehicle access. Options are currently being explored, but may include a lane dedicated to emergency vehicle access. In addition, the introduction of new technologies could be implemented such as remotely controlled bollards and/or gates and integrated communications between building fire alarm systems and rail and/or mass notification systems, that could allow the North Montgomery railroad crossing to continue to serve as the sole access point to the block for emergency vehicles. Individual building plans and related emergency access would be established before occupancy and is subject to the review and approval of the San Jose Bureau of Fire Prevention, Public Works, and Department of Planning, Building and Code Enforcement.

Though the project applicant proposes the existing North Montgomery Street railroad crossing continue to serve as the sole access point to the block for emergency vehicles, options for a second access point for emergency vehicles were studied for compliance with San Jose Fire Code. The range of options for a second access point could include a new at-grade railroad crossing or new grade separation under the railroad. Grade separation options studied include an underpass at Lenzen Avenue or North Montgomery Street. In addition to the proposed modification of the existing North Montgomery Street at-grade crossing, a new at-grade crossing on the along the eastern boundary of the block, to the San Jose Market Center (the retail center northeast of the site) was studied. The underpass at Lenzen Avenue would have the greatest impact to air quality of all the options, and was included in the air quality analysis.

In addition, the City is applying to the Federal Railroad Administration for a quiet zone on the Warm Springs corridor from North Montgomery Street to Horning Street, about a mile northeast of the project site, which may include improvements to the North Montgomery Street at-grade railroad crossing. Also, the DISC partner agencies are studying a Concept Layout that would elevate the railroad tracks that currently limit access to the north end of the site. Elevation of the tracks, consistent with the Concept Layout, would allow for at-grade or nearly at-grade reconnections of streets to the north end of the project site. These streets could include North Autumn Street, Cinnabar Street, and Lenzen Avenue.

Proposed modification of the existing at-grade crossing, and options for a new at-grade or grade-separated crossing studied by the project would require coordination with the City and with the California Public Utilities Commission and/or Federal Railroad Administration, as well as Caltrain and/or UPRR as applicable.

The increases in vehicle, bicycle, and pedestrian demand associated with the proposed project would not substantially affect emergency vehicle access patterns; however, the addition of project-generated vehicle trips could increase intersection delays and overall travel times,

especially in the study area. At intersections, emergency vehicle access would not be significantly affected for the following reasons:

- The City has implemented a citywide emergency vehicle preemption system, managed through a central control system, that preempts signal control at individual intersections based on the global positioning system location of emergency vehicles and their priority as they respond to an incident.
- California law requires drivers to yield the right-of-way an emergency vehicle and remain stopped until the emergency vehicle passes, and emergency vehicles are equipped with flashing lights and sirens to facilitate movement through congested streets.

Multi-lane roadways, such as Santa Clara Street and San Carlos Street, provide for higher speed access by emergency vehicles and provide room for traffic to more easily move out of the path of emergency vehicles.

In summary, the site plans for each building or phase of project development would be required to comply with (subject to allowances pursuant to Title 13 and Title 19 of the Municipal Code) the City's Complete Streets Design Standards and Guidelines. Compliance would be governed by Council policy 5-1, which states, in part, "All projects may be required to submit an LTA as determined by the Public Works Director," indicating that project LTAs must contain sufficient detail to analyze safety elements "proximate to the project site." LTAs evaluating sight distance, on-site circulation, and building access/egress when sufficient information is available for each building or development phase would allow the City to evaluate those aspects of the project for conformance with the City's Complete Streets Design Standards and Guidelines, and any other relevant City standards before recordation of final maps. City review of the LTAs would ensure that all proposed roadway network changes (i.e., additions or removals of street segments) would not impede emergency vehicle access to the project site or surrounding areas. Design requirements deemed necessary by the City would be incorporated into the final design of each roadway network change. Design requirements could include mountable concrete buffers, mountable curbs, and corner or sidewalk bulbs to accommodate the turning of emergency vehicles. For the reasons described above, the proposed project would not result in inadequate emergency access, and this impact would be **less than significant**.

Mitigation: None required.

Impact TR-5: The proposed project would not cause an increase in VMT per service population over Year 2040 Cumulative No Project conditions. ***(Less than Significant)***

Where a General Plan Amendment is proposed, the City of San José considers an increase in VMT per service population compared to Year 2040 Cumulative No Project conditions to constitute a significant impact. VMT per service population is a measure of the daily VMT divided by the total number of residents and employees in a project area. VMT per service population (residents + jobs) differs from VMT per capita (residents only) and VMT per employee, discussed previously under Impact TR-2. VMT per capita and VMT per employee are metrics used to calculate average trip length per resident and per job for CEQA purposes. The

VMT per service population metric is typically used for air quality analysis and to evaluate proposed General Plan Amendments in San José. The VMT per service population includes all vehicle trips (trips to work, school, shopping, medical facilities, movie theaters, parks, etc.) that both start *and* end in the project area, and only half of the trips that either start *or* end in the project area.

The daily VMT per service population was calculated using the City's Travel Demand Forecasting Model. VMT is calculated by multiplying the number of vehicle trips and the length of the trip. Any increase to the VMT over Year 2040 Cumulative No Project conditions that is attributable to the project would constitute a significant impact. **Table 3.13-6** shows the citywide daily VMT per service population under the Base Year, Year 2040 Cumulative No Project, and Year 2040 Cumulative Plus Project conditions.

TABLE 3.13-6
CITYWIDE VEHICLE MILES TRAVELED PER SERVICE POPULATION

	Base Year (2015)	Year 2040 Cumulative No Project	Year 2040 Cumulative plus Project
Citywide Daily VMT	17,505,088	27,000,706	27,428,691
Citywide Service Population	1,392,946	2,025,534	2,069,268
Daily VMT per Service Population	12.57	13.33	13.26
Total Increase in VMT per Service Population over General Plan Conditions			**-0.07**

NOTES:
General Plan = *Envision San José 2040 General Plan*; VMT = vehicle miles traveled
Service population = total residents + total jobs. Refer to Section 3.11, *Population and Housing*, for the calculation of project population and employment. As discussed in Section 3.11, the number of project residents and employees is anticipated to be within the total growth projected for the General Plan in 2040.
SOURCE: Data compiled by Fehr & Peers in 2020.

Although the proposed project would result in an increase in the daily VMT per service population relative to the Base Year, the proposed project would have 0.07 less daily VMT per service population than the current Year 2040 Cumulative No Project buildout assumptions, which is the comparison called for in the City's General Plan Amendment significance criteria. This lower VMT is attributable to increased transit and multimodal access in the Downtown area compared to other parts of the city, because the proposed project would mainly shift land uses to Downtown. Therefore, the impact of the proposed project on citywide daily VMT per service population would be **less than significant**.

Mitigation: None required.

Impact TR-6: The proposed project would not cause an increase in journey-to-work drive-alone mode share over Year 2040 Cumulative No Project conditions. *(Less than Significant)*

The journey-to-work mode share measures the distribution of all daily work trips by travel mode. These travel modes include drive-alone, carpool with two persons, carpool with three or more

persons, transit, bike, and walk trips. The focus of this analysis is on evaluating work trips that occur during the a.m. peak (6 a.m. to 10 a.m.) and p.m. peak (3 p.m. to 7 p.m.) commute periods, using the City's Travel Demand Forecasting Model.

Because most weekday trips occur during the a.m. and p.m. peak commute hours, the journey-to-work mode is used to determine whether the land use amendments proposed as part of the project's General Plan Amendment would cause a significant impact. Any increase in the drive-alone journey-to-work mode share would be considered a significant impact. **Table 3.13-7** summarizes the journey-to-work mode share under Base Year, Year 2040 Cumulative No Project, and Year 2040 Cumulative Plus Project conditions.

TABLE 3.13-7
CITYWIDE JOURNEY-TO-WORK MODE SHARE

	Base Year (2015)		Year 2040 Cumulative No Project		Year 2040 Cumulative Plus Project	
Mode	**Trips**	**Percentage**	**Trips**	**Percentage**	**Trips**	**Percentage**
Drive-Alone	753,264	79.7%	1,062,938	71.1%	1,065,489	69.6%
Carpool 2	85,496	9.0%	133,139	8.9%	135,567	8.9%
Carpool 3+	28,526	3.0%	51,488	3.4%	52,782	3.5%
Transit	48,181	5.1%	190,440	12.8%	215,045	14.1%
Bicycle	14,120	1.5%	26,813	1.8%	28,182	1.8%
Walk	15,666	1.7%	30,568	2.0%	32,837	2.1%
Total	*945,253*	*100%*	*1,495,243*	*100%*	*1,529,485*	*100%*
Total Increase in Drive-Alone Mode Share over General Plan Conditions						**-1.5%**

NOTE: General Plan = *Envision San José 2040 General Plan*

SOURCE: Data compiled by Fehr & Peers in 2020, based on output from City's Travel Demand Forecasting Model (prior to any adjustments to reflect implementation of project TDM program).

As shown in Table 3.13-7, the total of all trips would increase by approximately 34,200 with implementation of the proposed project as a result of the new trips that would be generated by the project's land uses. Despite this increase in total trips, the proposed project would decrease the drive-alone mode share by 1.45 percentage points, likely because of its location in an area that has and will have substantially more transit service than most other areas of San José and the region. Therefore, the impact of the proposed project related to the citywide journey-to-work mode share would be **less than significant**.

Mitigation: None required.

Impact TR-7: The proposed project would cause a decrease in average travel speed on a transit corridor below Year 2040 Cumulative No Project conditions in the 1-hour a.m. peak period when the average speed drops below 15 mph or decreases by 25 percent or more; OR when the average speed drops by 1 mph or more for a transit corridor with average speed below 15 mph. *(Less than Significant with Mitigation)*

The average travel speeds for all vehicles in San José's 14 transit corridors were calculated for the a.m. peak hour by dividing the segment distance by vehicle travel time. Transit corridors are identified as Grand Boulevards in the General Plan's Land Use/Transportation Element. Grand Boulevards accommodate moderate to high volumes of through traffic in and beyond the city in addition to serving as primary routes for VTA transit service, which includes LRT and BRT. Transit is prioritized over all other travel modes on Grand Boulevards. It should be noted that travel speeds are a measure of congestion and differ from the VMT metrics discussed in this report that evaluate connectivity and trip lengths.

The average vehicle a.m. peak-hour travel speeds along the city's 14 transit corridors were calculated using the City's Travel Demand Forecasting Model. **Table 3.13-8** summarizes the average vehicle speeds in the city's 14 transit corridors under the Base Year (2015), Year 2040 Cumulative No Project, and Year 2040 Cumulative Plus Project conditions. Although the drive-alone mode share would be reduced with the proposed project (refer to Table 3.13-7) in 2040, the reallocation of land uses closer to Downtown would shift more vehicle trips to transit corridors serving Downtown, resulting in more traffic congestion and lower transit speeds along some corridors.

Under the General Plan plus Project scenario, travel speeds of 15 mph or less are forecast for the following five transit corridors:

- Alum Rock Avenue (Capitol Avenue to U.S. 101)
- East Santa Clara Street (U.S. 101 to Delmas Avenue)
- North First Street (SR 237 to Keyes Street)
- Tasman Drive (Lick Mill Boulevard to McCarthy Boulevard)
- The Alameda (Alameda Way to Delmas Avenue)

Four of the five corridors are already projected to experience travel speeds of 15 mph or less with Cumulative No Project buildout in 2040, and travel speeds on these corridors would not constitute a significant impact unless the proposed project would reduce travel speeds by 1.0 mph or more.

As shown in Table 3.13-8, corridor travel speeds along Alum Rock Avenue are forecast to be above 15 mph under the Year 2040 Cumulative No Project scenario and would drop below 15 mph with implementation of the proposed project; thus, the project would result in a significant impact at this location. Travel speeds below 15 mph are forecast for the East Santa Clara Street, North First Street, Tasman Drive, and The Alameda corridors both without and with the proposed project; however, implementing the project would not decrease the travel speeds by more than 1.0 mph, and therefore, the impact on these four segments would be less than significant. In summary, the proposed project would result in a potentially significant transit travel-speed impact on the Alum Rock Avenue corridor, warranting mitigation.

TABLE 3.13-8
A.M. PEAK HOUR TRANSIT CORRIDOR TRAVEL SPEEDS (MPH)

Transit Corridor	Base Year (2015)	Year 2040 Cumulative No Project (A)	Year 2040 Cumulative plus Project (B)	Percent Difference (B–A)/(A+B)	Absolute Difference (B–A)
Alum Rock Avenue Capitol Ave to U.S. 101	21.3	15.2	**14.7**	**-2%**	**-0.5**
Camden Avenue SR 17 to Meridian Ave	23.1	17.0	16.9	-1%	-0.1
Capitol Avenue S. Milpitas Blvd to Capitol Expy	27.1	22.9	22.6	-1%	-0.3
Capitol Expressway Capitol Ave to Meridian Ave	33.0	26.5	26.1	-1%	-0.3
E Santa Clara Street U.S. 101 to Delmas Ave	20.4	**14.6**	**13.7**	-3%	-0.9
Meridian Avenue Park Ave to Blossom Hill Rd	24.9	19.8	19.5	-1%	-0.3
Monterey Road Keyes St to Metcalf Rd	27.4	21.3	21.1	-1%	-0.2
N First Street SR 237 to Keyes St	21.3	**13.1**	**13.3**	1%	0.2
San Carlos Street Bascom Ave to SR 87	24.8	20.5	19.4	-3%	-1.1
Second Street San Carlos St to St. James St	16.6	15.2	15.5	1%	0.3
Stevens Creek Boulevard Bascom Ave to Tantau Ave	24.3	18.8	18.8	0%	0.0
Tasman Drive Lick Mill Blvd to McCarthy Blvd	22.7	**12.3**	**12.8**	2%	0.5
The Alameda Alameda Wy to Delmas Ave	20.5	**14.0**	**13.4**	-2%	-0.6
W San Carlos Street SR 87 to Second St	20.0	18.3	17.5	-2%	-0.8

NOTES:
Ave = Avenue; Blvd = Boulevard; Expy = Expressway; General Plan = *Envision San José 2040 General Plan*; mph = miles per hour; Rd = Road; SR = State Route; St = Street; U.S. = U.S. Highway; Wy = Way
Bold text indicates travel speeds below 15 mph. **Bold shaded** text indicates significant impacts.
SOURCE: Data compiled by Fehr & Peers in 2020, based on output from City's Travel Demand Forecasting Model (prior to any adjustments to reflect implementation of project TDM program).

Mitigation Measure AQ-2h, Enhanced Transportation Demand Management Program (refer to Section 3.1, *Air Quality*) outlines required TDM program components, performance measures, implementation, and monitoring that would reduce emissions of air pollutants from mobile sources by reducing vehicle trips. Specifically, Mitigation Measure AQ-2h would achieve a non-single-occupancy vehicle mode share of 65 percent, which is estimated to be equivalent to a 27-percent reduction in daily vehicle trips from the City's Travel Demand Forecasting Model following completion of service enhancement related to Caltrain electrification and BART service to Diridon Station by 2040. As summarized in **Table 3.13-9**, with implementation of Mitigation Measure AQ-2h, travel speeds along the Alum Rock Avenue corridor would increase to at least 15.0 mph, thereby reducing the impact on this corridor to a **less-than-significant** level.

TABLE 3.13-9
MITIGATED A.M. PEAK HOUR TRANSIT CORRIDOR TRAVEL SPEEDS (MPH)

Transit Corridor	Year 2040 Cumulative No Project	Year 2040 Cumulative Plus Project	Year 2040 Cumulative Plus Project with Mitigation
Alum Rock Avenue Capitol Ave to U.S. 101	15.2	**14.7**	15.9

NOTES:
Ave = Avenue; General Plan = Envision San José General Plan; mph = miles per hour; U.S. = U.S. Highway
Bold shaded text indicates significant impacts.
SOURCE: Data compiled by Fehr & Peers in 2020.

It should be noted that the LTA for the proposed project (refer to Appendix J2 of this EIR) includes an additional transit evaluation that focuses on the proposed project's ability to support transit ridership. It includes an assessment of transit facilities and services, access to transit, and transit operations.

Significance after Mitigation: Less than significant.

Cumulative Impacts

Impact C-TR-1: The proposed project would result in a cumulatively considerable contribution to a significant transportation impact. ***(Less than Significant with Mitigation)***

The analyses presented above, which use the City's Travel Demand Forecasting Model to consider the proposed project's impacts in the context of projected growth through the year 2040 under the General Plan/Cumulative No Project, are by definition cumulative analyses and are not repeated here. For the following reasons, the proposed project would not result in a cumulatively considerable contribution to a significant transportation impact with respect to conflicts with plans, ordinances, or policies; increases in VMT; increased hazards; emergency access; VMT per service population; or journey-to-work drive-alone mode share, or transit corridor travel speeds.

- As shown in Table 3.13-6, the proposed project would reduce the cumulative VMT per service population under Year 2040 conditions as compared with conditions without the proposed project, and thus would not contribute to citywide VMT impacts.
- As discussed previously under Impact TR-1, the proposed project is consistent with the General Plan policies related to transportation facilities.
- The proposed project is located in a central, underused area of San José near Downtown and high-quality transit. These characteristics are beneficial with regard to VMT, reduced vehicle trips, and increased usage of non-auto transportation (walking, biking, and transit).
- Corridor travel speeds along Alum Rock Avenue are forecast to drop below 15 mph with implementation of the proposed project. However, with implementation of Mitigation Measure AQ-2h, corridor travel speeds in this corridor would be 15 mph or higher, thereby reducing the impact to a **less-than-significant** level.

Mitigation Measure

Mitigation Measure AQ-2h: Enhanced Transportation Demand Management Program (refer to Section 3.1, *Air Quality*)

Significance after Mitigation: Less than significant.

3.13.4 Non-CEQA Transportation Issues

Transportation Analysis

As stated in Section 3.13.3, *Impacts and Mitigation Measures*, under *General Plan Amendment Significance Criteria*, the transportation analysis prepared for the proposed project (refer to Appendix J1 of this EIR) includes an analysis of potential project impacts on roadways in adjacent jurisdictions. Because that analysis is based on the measures of delay/LOS, which are no longer allowed under CEQA, this is considered a non-CEQA transportation issue, and is summarized below for informational purposes.

Using the City's Travel Demand Forecasting Model, roadway conditions on major streets in adjacent jurisdictions were evaluated for the morning 4-hour peak commute period (6 to 10 a.m.) in the General Plan buildout year of 2040 based on the V/C ratios of the street segments and San José's contribution to the total traffic. Freeway facilities and expressways located within San José city limits are also considered in this analysis because they are not operated by the City. The *V/C ratio* represents the ability of a segment to accommodate vehicular demand; it measures the proportion of roadway capacity being used. A V/C ratio less than 0.85 indicates that sufficient capacity is available and vehicles are not expected to experience significant delays or queuing. A V/C ratio greater than 1.0 indicates that roadway capacity is being fully used and that vehicles will experience excessive delay and queuing. Roadway segments with a V/C ratio greater than 1.0 were isolated to calculate the total deficient-lane miles in each jurisdiction.

A deficient roadway segment in an adjacent jurisdiction is attributed to San José when trips originating from residents and jobs in San José equal 10 percent or more on the deficient segment. An impact on an adjacent jurisdiction would occur when 25 percent or more of the total deficient-lane miles are attributable to San José. The 25 percent threshold represents what would be a noticeable change in traffic.

Twelve of the 14 surrounding jurisdictions as well as Caltrans facilities and County expressways in Santa Clara County are projected to have deficient-lane miles attributed to San José in year 2040 with General Plan implementation. Overall, with implementation of the proposed project, the deficient-lane miles attributed to San José would increase in total for all local jurisdictions

from about 21.7 miles to 22.4 miles, and would decrease from about 4,792 miles to 4,784 miles across all of Santa Clara County in 2040.

For the following jurisdictions, the percentages of deficient-lane miles attributed to San José would increase in 2040 with implementation of the proposed project:

- **Palo Alto:** The deficient-lane miles would increase by one percentage point to 50 percent attributed to San José. Compared to the current General Plan, the total deficient-lane miles would decrease from 3.44 miles to 3.38 miles.
- **Sunnyvale:** The deficient-lane miles would increase by two percentage points to 100 percent attributed to San José. Compared to the current General Plan, the total deficient-lane miles attributed to San José would increase from 3.10 miles to 9.20 miles.

The proposed project would exceed the General Plan Amendment threshold on the roadway segments in the adjacent jurisdiction of Sunnyvale because the percentages of deficient-lane miles are projected to increase both in total value and by percent contribution attributed to San José. However, with implementation of the project's TDM program (refer to Mitigation Measure AQ-2h), which would reduce average daily vehicle trips by about 27 percent, the General Plan Amendment threshold would no longer be exceeded for Sunnyvale.

Local Transportation Analysis

As noted previously, the LTA prepared for the proposed project analyzes non-CEQA transportation issues and is included in Appendix J2 of this EIR. Specific topics addressed include intersection performance; a freeway segment analysis; project construction; a parking supply assessment; an analysis of neighborhood traffic and parking intrusion; and an additional non-CEQA analysis of pedestrian, bicycle, and transit service, as summarized below.[36] To the extent that the LTA identifies physical improvements to address non-CEQA impacts beyond those described above under Impact TR-1, including study of and/or funding contributions towards multimodal improvements or those that would expand roadway capacity, these improvements have not been studied in detail, designed, or funded and are not considered part of the project.

City and Adjacent-Jurisdiction Intersections—Level of Service Analysis

Based on City guidelines, these intersections include 12 signalized intersections (study intersection nos. 1 through 12) within 0.5 miles of the project site that are not within the City-designated Downtown Core. They also include 9 study intersections (study intersection nos. 13 through 21) under the jurisdiction of either the City or County, based on the guidance of those jurisdictions for selecting study intersections.

1. Coleman Avenue and Hedding Street
2. Coleman Avenue and Taylor Street
3. The Alameda and West Julian Street

[36] Unlike the CEQA analysis of transit, bicycles, and pedestrians, which is focused on plan consistency and the potential for a project to introduce hazardous conditions, the LTA analysis focuses on access and capacity constraints, and on connectivity (i.e., gaps in the network) in accordance with San José Council Policy 5-1.

4. Park Avenue and Race Street
5. West San Carlos Street and Race Street
6. Race Street and Auzerais Avenue
7. Race Street and Saddle Rack Street
8. Race Street and Parkmoor Avenue
9. Auzerais Avenue and Lincoln Street
10. Auzerais Avenue and Sunol Street
11. Bird Avenue and Virginia Street
12. Bird Avenue and Coe Avenue
13. De La Cruz Boulevard and Central Expressway
14. De La Cruz Boulevard and Martin Avenue
15. De La Cruz Boulevard and Reed Street
16. Coleman Avenue and Brokaw Road
17. El Camino Real and Benton Street
18. El Camino Real and Palm Drive
19. El Camino Real and Campbell Avenue
20. El Camino Real and The Alameda
21. The Alameda and Newhall Street

The LOS analysis found that at Coleman Avenue/Taylor Street (study intersection no. 2), the proposed project would degrade acceptable intersection operations to unacceptable levels during the p.m. peak hour. Although LOS operations would not be affected, it should be noted that as part of the off-site transportation improvements included as part of the proposed project, the project applicant would construct multimodal improvements at the Coleman Avenue/Taylor Street intersection, as physical improvements to expand intersection capacity were found to be infeasible. The plans include improvements to enhance bicycle connectivity along West Taylor Street from Walnut Street to Stockton Avenue; improvements to the pedestrian walkway, removal of corner islands, and widening within the existing rail undercrossing could also be included.

The LOS analysis also found that at De La Cruz Boulevard/Central Expressway (study intersection no. 13), the proposed project would exacerbate unacceptable intersection operations and meet the County's adverse effect threshold during the a.m. peak hour. The VTA's VTP 2040 identifies a highway project that is relevant to the identified intersection adverse effects: VTP ID H25: US 101 Southbound/Trimble Road/De La Cruz Boulevard/Central Expressway Interchange Improvements. This project includes several ramp modifications, in addition to widening of the De La Cruz Boulevard bridge across US 101 from four to six lanes. Complete improvement of freeway interchange impacts is considered beyond the scope of an individual development project, due to the inability of any individual project or City to fully fund a major freeway mainline improvement. Thus, consistent with the proposed project's multimodal and TDM goals, no improvements are identified for this intersection.

City Intersections—Localized Access and Queuing Analysis

The following 14 intersections (study intersection nos. 22 through 35) were analyzed to evaluate roadway system capacity at the main entry points to the study area and to provide queuing and signal operations for the localized access and queuing analysis.

22. West Julian Street and Stockton Avenue
23. The Alameda and Stockton Avenue
24. West Santa Clara Street and Cahill Street
25. West San Carlos and Bird Avenue
26. Bird Avenue and I-280 Northbound Ramps
27. Bird Avenue and I-280 Southbound Ramps
28. West Julian Street and Autumn Parkway
29. West Julian Street and SR 87 Southbound Ramp
30. West Julian Street and SR 87 Northbound Ramp
31. West Santa Clara Street and SR 87 Northbound Off-Ramp
32. Park Avenue and Delmas Avenue/SR 87 Southbound Off-Ramp
33. Park Avenue and SR 87 Northbound On-Ramp/Woz Way
34. Auzerais Avenue and Delmas Avenue/SR 87 Southbound Ramp
35. Woz Way and SR 87 Northbound Off-Ramp

The intersection operations analysis found that implementation of the proposed project would result in LOS F intersection operations at eight locations not already projected to operate at LOS F in 2040 without the proposed project:

- Intersection #22 – West Julian Street & Stockton Avenue during the a.m. peak hour (the intersection already operates at LOS F during the p.m. peak hour under the Background No Project scenario)
- Intersection #23 – The Alameda & Stockton Avenue during the p.m. peak hour
- Intersection #25 – West San Carlos Street & Bird Avenue during the a.m. peak hour
- Intersection #26 – Bird Avenue & I-280 Northbound Ramps during the a.m. peak hour
- Intersection #27 – Bird Avenue & I-280 Southbound Ramps during the a.m. peak hour
- Intersection #31 – West Santa Clara Street & SR 87 Northbound Off-Ramp during the a.m. and p.m. peak hours
- Intersection #32 – Park Avenue & Delmas Avenue/SR 87 Southbound Off-Ramp during the a.m. peak hour
- Intersection #34 – Auzerais Avenue & Delmas Avenue/SR 87 Southbound On-Ramp during the p.m. peak hour

Ongoing signal coordination would improve intersection operations and may result in better vehicle progression, particularly along West Julian Street and Delmas Avenue. In addition,

intersection capacity enhancements such as changes to lane channelization and/or roadway widening at the following two intersections where bottlenecks would occur were recommended to the City for further consideration:

- Intersection #22—West Julian Street and Stockton Avenue
- Intersection #34—Auzerais Avenue and Delmas Avenue/SR 87 Southbound On-Ramp

Although the identified improvements would address vehicle LOS, they would not improve overall access and would result in additional pedestrian/bicycle conflicts with vehicles; therefore, these improvements were not recommended for implementation. However, to further multimodal connectivity to the project and to support the project's TDM goals, the project applicant would be required to construct multimodal intersection improvement at the Auzerais Avenue/SR 87 Southbound On-Ramp intersection as part of the conditions of approval for the proposed project. Improvements include the tightening of the turning radius at the north-east corner by extending the bulbout, which will slow vehicle turn speeds and decrease the pedestrian crossing distance across the north leg of the intersection. This improvement will require the upgrade and relocation of the signal pole at that corner. In addition, the project applicant will be required to widen the northern sidewalk between Delmas Avenue and Woz Way (beneath the elevated SR 87 freeway) to provide for a continuous sidewalk that is not interrupted by the existing pillars from freeway overcrossing.

The turn-lane storage analysis found that several turn pocket lengths would be exceeded with implementation of the proposed project. To address potential queue spillback, Intelligent Transportation Systems improvements such as adaptive signal control, and/or advanced signal loop detectors or video image detectors, could be implemented to improve signal operations and queuing. Consistent with the City's multimodal goals and the project's TDM goals, the vehicle capacity enhancing improvements are not recommended. The project applicant would contribute to the Bird Avenue/I-80 Bicycle-Pedestrian multimodal connection from Diridon Station area to the Gardner community.

The off-ramp queueing analysis found that six of the seven study off-ramps would require additional storage capacity to minimize queue spillback onto the freeway mainline. While Intelligent Transportation Systems improvements at the ramp terminal intersections could alleviate some of the queueing, most off-ramps would likely require further modifications to increase the storage capacity or throughput at the intersection. A review of aerial photography indicated that some additional right-of-way may be available to increase the off-ramp storage capacities at the southbound Julian Street off-ramp, northbound Julian Street off-ramp, southbound Park Avenue off-ramp, and southbound Bird Avenue off-ramp. However, no right-of-way is available at the northbound Bird Avenue off-ramp from I-280. The additional storage capacity would not fully address the off-ramp queues, but would help minimize the frequency of queue spillbacks onto the mainline. The project applicant is not proposing the expansion of these freeway off-ramps, as such expansions would be contrary to the proposed project's emphasis on multimodal accessibility. However, as an off-setting improvement consistent with the project's multimodal and TDM goals, the project applicant would contribute to planned pedestrian and bicycle improvements at the Bird Avenue/I-80 Bicycle-Pedestrian multimodal connection from Diridon Station area to the Gardner community.

The on-ramp capacity analysis found that maximum capacities would be exceeded by project demand at four of the six study locations. On initial review, there does not appear to be sufficient right-of-way to provide additional on-ramp capacity at the Julian Street (southbound), Auzerais Avenue (southbound), Park Avenue (northbound), or Bird Avenue (southbound) on-ramps without completely rebuilding the on-ramps. It should be noted that this analysis does account for the full trip reduction required under the project's Enhanced TDM Program required as part of the EIR (refer to Mitigation Measure AQ-2h); thus the demand at the on-ramps would be lower than identified.

Congestion Management Program Intersections—Level of Service Analysis

In accordance with VTA's *Transportation Impact Analysis Guidelines*, LOS conditions at the following 18 CMP intersections (study intersection nos. 36 through 53) where the proposed project is anticipated to add more than 10 trips per lane were evaluated:

36. The Alameda and I-880 Southbound Off-Ramp
37. The Alameda and I-880 Northbound Off-Ramp
38. The Alameda and Hedding Street
39. The Alameda and Naglee Avenue
40. Coleman Avenue and I-880 Southbound Off-Ramp
41. Coleman Avenue and I-880 Northbound Ramps
42. Taylor Street and SR 87 Northbound/Southbound Ramps
43. Oakland Road and U.S. 101 Northbound Ramps
44. Oakland Road and U.S. 101 Southbound Ramps
45. First Street and Willow Street
46. First Street and Goodyear Street/Keyes Street
47. First Street and Alma Avenue
48. Monterey Road and Curtner Avenue/Tully Road
49. 10th Street and I-280 Northbound On-Ramp
50. 10th Street and I-280 Southbound Off-Ramp
51. 11th Street and I-280 Northbound Off-Ramp
52. 11th Street and I-280 Southbound On-Ramp
53. McLaughlin Avenue and I-280 Southbound Off-Ramp

LOS calculations were applied to operations of the 18 study CMP intersections under Existing Conditions and Year 2040 Cumulative scenarios with and without the proposed project.[37] The proposed project would not result in any exceedances of LOS thresholds at CMP intersections under Existing Plus Project conditions. Under Year 2040 Cumulative Plus Project conditions, all

[37] The Existing Conditions analysis year in the LTA (2018/2019) differs from the analysis year used for the VMT analysis in the EIR (2015) because the LTA analysis uses data collected for the proposed project rather than outputs from the City's Travel Demand Forecasting model.

intersections would operate at acceptable levels except the following four intersections during the identified peak periods:

- **Intersection #38, The Alameda/Hedding Street (LOS E threshold):** Adding project traffic would exacerbate unacceptable LOS F operations during the p.m. peak hour.
- **Intersection #39, The Alameda/Naglee Avenue (LOS E threshold):** Adding project traffic would exacerbate unacceptable LOS F operations during the p.m. peak hour.
- **Intersection #42, Taylor Street/SR 87 Ramps (LOS E threshold):** Adding project traffic would exacerbate unacceptable LOS F operations during the a.m. peak hour.
- **Intersection #46, First Street/Goodyear Street (LOS E threshold):** Adding project traffic would exacerbate unacceptable LOS F operations during the p.m. peak hour.

Physical improvements to address the CMP intersections' exceedances of LOS thresholds noted above would require providing additional roadway capacity. However, right-of-way constraints limit the feasibility of widening these roadways. Thus, improvements that would add roadway capacity would not be feasible, and the adverse effect of vehicle LOS cannot be reduced for the Year 2040 Cumulative Plus Project condition through such improvements. Further, the General Plan identifies The Alameda and First Street as Grand Boulevards. Grand Boulevards are intended as primary transit corridors where accommodating pedestrians is also an important goal, because transit riders are pedestrians when they are not riding transit. Any removal of medians or expansion of roadway widths required to add roadway capacity would conflict with the functional intent of The Alameda and First Street.

To support the project's multimodal and TDM goals, the project applicant would contribute to the City/ Caltrans programmed signal and bikeway improvements at the Taylor Street/SR 87 interchange. Additionally, the project applicant may include as part of the conditions of approval, the applicant's contribution of funding toward the First Street/Goodyear Street multimodal improvements consistent with those identified in the Story-Keyes Complete Streets Corridor Plan.

Congestion Management Program Freeway Segment Analysis

In accordance with VTA's *Transportation Impact Analysis Guidelines*, freeway segments where the proposed project is anticipated to add more than 1 percent of the segment's capacity were included in the analysis. The analysis includes more than 70 freeway segments, including segments on SR 87, U.S. 101, I-280, I-680, and I-880.

Consistent with the VTA *Transportation Impact Analysis Guidelines*, freeway LOS is analyzed only for Year 2015 Existing Conditions. For the Year 2015 Existing Plus Project scenario, 40 mixed-flow segments are projected to operate at unacceptable LOS F during the a.m. peak hour and 29 segments during the p.m. peak hour. Similarly, 18 HOV lane segments are projected to operate at unacceptable LOS F during the a.m. peak hour and 7 lane segments during the p.m. peak hour. Based on the criteria outlined in the VTA *Transportation Impact Analysis Guidelines*, the proposed project would result in exceedances of LOS thresholds for CMP freeway segments at the 12 locations identified below.

- SR 87:
  - Northbound, between Curtner Avenue and Almaden Boulevard: Mixed-flow and HOV in the a.m. peak hour;
  - Southbound, between Julian Street and I-280: Mixed-flow in the p.m. peak hour; and
  - Southbound, between I-280 and Alma Avenue: Mixed-flow in the p.m. peak hour.
- I-280:
  - Westbound, between U.S. 101 and McLaughlin Avenue: Mixed-flow in the a.m. peak hour; and
  - Westbound, between 10th Street and SR 87: Mixed-flow in the a.m. peak hour.
- I-680:
  - Southbound, between Alum Rock Avenue and Capitol Expressway: Mixed-flow in the a.m. peak hour;
  - Southbound, between Capitol Expressway and King Road: Mixed-flow in the a.m. peak hour; and
  - Southbound, between King Road and U.S. 101: Mixed-flow in the a.m. peak hour.
- I-880:
  - Southbound, between Montague Expressway and Brokaw Road: Mixed-flow in the a.m. peak hour;
  - Northbound, between North First Street and U.S. 101: Mixed-flow in the p.m. peak hour;
  - Southbound, between Brokaw Road and U.S. 101: Mixed-flow in the a.m. peak hour; and
  - Southbound, between U.S. 101 and North First Street: Mixed-flow in the a.m. peak hour.

Options for widening the affected freeway segment are limited by right-of-way constraints. In addition, widening roadways can lead to other effects, such as induced travel demand (e.g., more vehicles on the roadway as a result of the increased capacity), air quality degradation, increased noise levels from motor vehicles, and reductions in transit use (less congestion or reduced driving time may make driving more attractive than transit travel). Complete improvement of freeway facilities is considered beyond the scope of an individual development project, given the inability of any individual project or city to fully fund a major freeway mainline improvement; therefore, no improvements were identified.

Project Construction

Construction of the proposed project would occur in three primary phases, which would involve demolition, grading, and construction of various project elements (buildings, street network changes, and other infrastructure). Construction would begin in 2021 and continue through 2031. The duration of each phase would vary; however, on average, each phase would last approximately five years, with the end of one phase and the start of the subsequent phase potentially overlapping one another.

The proposed project would be required to prepare a Recommended Temporary Traffic Control Plan (RTTCP) to limit peak-hour traffic and to address potential safety/accessibility issues related to vehicles (including emergency responders), transit, bicycles, and pedestrians. Required RTTCP elements are provided, based on best practices and consideration of site-specific constraints. The project applicant would be required to prepare and submit the RTTCP to the City for approval before beginning project construction. A more detailed summary of the RTTCP is provided in the discussion of Impact TR-1.

Transit, Bicycle, and Pedestrian Analyses

For the LTA transit assessment, Transit Priority Corridors, as specified in the General Plan, that are located within 1 mile of the project boundary were considered for evaluation. The LTA transit analysis focuses on the main transit corridors that provide direct transit connections to the project site and are served by local routes in addition to limited-stop and/or express bus routes. The LTA bicycle assessment focuses on Primary Bicycle Corridors (per the General Plan), marked bike lanes, and trails within 1.5 miles of the project boundary. The study area for the LTA pedestrian assessment is within a 0.5-mile radius of the project boundary, with a focus on main pedestrian access routes between the proposed project and major pedestrian generators and attractors. The main conclusions of the LTA transit, bicycle, and pedestrian analyses are summarized below.

Transit Analysis

The analysis of transit supply and demand found that the proposed project would have the potential to result in crowding of key transit services if there were no increase in those services. Project-generated transit trips would account for around 15 percent of total daily transit capacity and up to 20 percent of peak-hour transit capacity. The proposed project would continue to provide access to Diridon Station and bus stops to help facilitate this growth in transit demand. Although the proposed project would contribute many peak-hour riders to all transit services in its vicinity, those ridership increases would not themselves create barriers to transit use. The proposed project would maintain and support public transit use, and as such, would not adversely affect transit access or demand.

The analysis of transit vehicle delay found that the proposed project would result in additional delay to transit service in the area. The added traffic on San Carlos Street, The Alameda/Santa Clara Street, and First Street would cause increases in delays for all 10 study routes (routes located within 1 mile of the project site with full-day service and frequencies of 30 minutes or less). Delay increases are generally three minutes or more on San Carlos Street and The Alameda/Santa Clara Street, and two minutes or less on First Street, which is largely a function of the cumulative growth and congestion estimated by the year 2040. The City does not currently have established policies or significance criteria related to transit vehicle delay. However, the City and the project applicant may include as part of the conditions of approval applicant-provided funding for the study of a dedicated bus lane and/or other transit speed improvements (queue jumps, signalization, etc.) within existing right-of-way from 17th Street to I-880 along Santa Clara Street–The Alameda as part of the Development Agreement.

Bicycle Analysis

Most of the existing bike facilities near the project site are along the major corridors with east–west connectivity such as West San Fernando Street, Park Avenue, and West San Carlos Street. Street segments lacking bike facilities introduce gaps in the existing network and increase traffic stress for cyclists, such as San Fernando Street between Race Street and Wilson Avenue, and The Alameda between Race Street and Sunol Street. Network gaps lead to higher traffic stress as traffic volume grows. The bicycle analysis reflects that the proposed bike facility improvements included as part of the proposed project, which would fill in gaps in the existing network, would reduce traffic stress across multiple roadways. However, to further multimodal connectivity to the project and to support the project's TDM goals, the project applicant would be required to construct several bicycle improvements as part of the conditions of approval for the proposed project. These proposed facilities are described in detail in the discussion of Impact TR-1.

Pedestrian Analysis

The pedestrian analysis found that all the sidewalks are sufficient to meet the expected pedestrian volumes. With implementation of the proposed project, the additional pedestrian trips would not substantially change the LOS of any of the 15 study sidewalk segments; most of them would maintain both an average and platoon LOS of A or B. Overall, the project-generated pedestrian trips would be accommodated by the surrounding pedestrian infrastructure. However, to further multimodal connectivity to the project and to support the project's TDM goals, the project applicant would be required to construct several pedestrian improvements as part of the conditions of approval for the proposed project. These proposed facilities are described in detail in the discussion of Impact TR-1.

Parking Supply Assessment

The project would provide up to 4,800 publicly accessible and/or commercial parking spaces to meet the demand for parking of site-specific users and the public, and up to 2,360 parking spaces for the project's proposed residential uses. In total, the project would provide 7,160 off-street vehicle parking spaces.[38] As explained in Chapter 2, *Project Description*, the project would provide only about 62 percent of the non-residential parking spaces typically required by the Municipal Code (Section 20.70.330) for a project in the Downtown zoning districts. Municipal Code Section 20.70.330 states that the Director of Planning, Building and Code Enforcement may grant a Downtown development up to a 15 percent reduction in parking requirements if the project provides a TDM program that incorporates specified strategies such as VTA's SmartPass (an employer-paid commute pass, formerly known as Eco Pass), parking cash-out, alternate work schedules, ridesharing, transit support, carpool/vanpools, shared parking, or any other reasonable measures; and if the project demonstrates that it can maintain a TDM program for the life of the project. In general, the 15 percent reduction in parking requirements is in addition to the 50

[38] As explained in Chapter 2, *Project Description*, this could include a portion of the residential spaces that could be available for shared use by office employees, and some commercial parking could be provided at off-site location(s), should such off-site parking be developed separately from the project in the future.

percent reduction for qualified projects permitted under Municipal Code Section 20.90.220.[39] With these reductions, the proposed project would be required to provide 0.425 off-street parking spaces per residential unit, 1.06 spaces per 1,000 square feet of office space, and 0.15 spaces per hotel room. This would total a requirement of 10,290 total off-street spaces (7,782 commercial spaces and 2,508 residential spaces).

However, Municipal Code Section 20.120.510 allows custom development standards, including standards related to required parking ratios, under the Planned Development rezoning process, so the City may approve projects in planned development zoning districts with less parking than the amounts allowed under Municipal Code Sections 20.90.220 and 20.70.330.

The City's General Plan outlines a vision in which San José shifts from being an auto-dependent community to a multimodal one, where most trips are made by walking, biking, transit, or carpool. Because the availability of parking encourages driving, the less parking that is provided, the more trips via the preferred modes will occur. For the area of Downtown where the project site is located, the City has identified a mode split goal in which no more than 25 percent of trips are by single-occupancy vehicle. Meeting this goal at the project site would result in the need for less parking supply than is required by the City's Parking Code. However, this analysis does not quantify the specific parking supply required to achieve the City's mode split goals, as it would also be a function of the effectiveness of the project's TDM program elements and neighborhood parking management plan (refer to the discussion below).

The project would provide at least 3,292 bicycle parking spaces: 1,552 for the office uses, 1,475 for the residential uses, and 265 spaces for the remaining land uses, as required by the Municipal Code.

Neighborhood Traffic and Parking Intrusion Analysis

The City's *Transportation Analysis Handbook* outlines the requirements for monitoring potential neighborhood cut-through traffic, speeding concerns, and parking intrusion from the trips generated by developments. After project approval, initial monitoring data would be collected to establish a baseline to which future conditions would be compared. Annual monitoring for up to four years as determined by the City's Department of Transportation, would occur after the project is constructed and occupied to ensure surrounding neighborhoods do not experience excessive cut-through traffic, speeding, and/or parking spillover. If the project is found to be creating these conditions, specific actions would be required to reduce the effect of the increased traffic in the area due to the development.

If the project were to add traffic and parking demand exceeding cut-through traffic thresholds stated in the City's *Transportation Analysis Handbook* or parking spillover thresholds recommended as part of the LTA analysis, the City's Department of Transportation may require the implementation of a parking plan and payment representative of the project's proportional

[39] To qualify for the 50 percent parking reduction, a project must be within 2,000 feet of a proposed or an existing rail station or bus rapid transit or a General Plan growth; provide the Code-required number of bicycle parking spaces; and provide a robust TDM program that includes either transit incentives or a carpool/vanpool/carshare program and at least two additional TDM strategies from among 14 options presented in the code.

share of the recommended parking management strategies. The parking plan would include traffic calming measures that could be implemented to address cut-through traffic and speeding, including the installation of traffic control devices, traffic enforcement, safety education, and physical roadway design features or dynamic signage or warning systems. Strategies to address parking intrusion include time limits, metering, and residential parking programs.

3.14 Utilities and Service Systems

This section addresses potential impacts of the proposed project on public utilities and service systems. Section 3.8, *Hydrology and Water Quality*, discusses project impacts related to surface water and stormwater runoff, and Section 3.4, *Energy*, discusses impacts related to electricity and natural gas supply and demand.

This analysis is based on proposed utilities improvements for the project described in the *Google Downtown West Infrastructure Plan*, prepared by Arup, Lendlease, and Sherwood Design Engineers (October 7, 2020). This analysis also considers the *Water Supply Assessment, Downtown West Mixed-Use Project (Google Project)*, prepared by San Jose Water Company (January 2020), which is included as **Appendix H** to this Draft EIR.

The discussion below is organized by topic (water; wastewater; stormwater; other utilities; solid waste) and addresses the environmental setting, regulatory framework, impacts, and mitigation measures relevant to each respective topic. Impacts of the proposed utility corridor ("utilidor"), which is intended to convey multiple utility services, are addressed in Section 3.14.3, Impact UT-1. Refer to Figure 2-10, *Preliminary Utilidor Alignment Options*, for proposed utilidor locations.

Water

3.14.1 Environmental Setting

Water Supply

The project area is served by San Jose Water Company, a privately owned public utility that serves most of the cities of San José and Cupertino; the entire cities of Campbell, Monte Sereno, and Saratoga; the town of Los Gatos; and parts of unincorporated Santa Clara County. San Jose Water Company has three sources of potable water supply: groundwater, imported treated surface water, and local surface water. Recycled water provides a fourth source of water, albeit for non-potable applications. Efforts to develop potable recycled water systems are currently underway in Santa Clara County, indicating that recycled water for potable uses may be possible in the future.

On average, groundwater from the major water-bearing aquifers of the Santa Clara Subbasin compose one-third of San Jose Water Company's potable water supply. San Jose Water Company purchases just over 50 percent of its potable water supply from the Santa Clara Valley Water District (Valley Water), which obtains water from several sources: local reservoirs, the State Water Project, and the Central Valley Project. San Jose Water Company supplies approximately 7 percent of its water from surface water in the local watersheds of the Santa Cruz Mountains.[1]

[1] San Jose Water Company, *2015 Urban Water Management Plan*, Final Report, June 2016. Available at http://wuedata.water.ca.gov/public/uwmp_attachments/5545697867/2015%20UWMP%20with%20Appendices.pdf. Accessed October 23, 2019.

The Santa Clara Subbasin is an un-adjudicated basin; thus, Valley Water, the local groundwater sustainability agency, is responsible for maintaining the basin and ensures that the basin does not become overdrafted.[2] The subbasin is designated as a high-priority subbasin by the California Department of Water Resources based on criteria that include overlying population, projected growth, number of wells, irrigation acreage, groundwater reliance, and groundwater impacts.[3] The subbasin has not been identified as being in overdraft, and Valley Water, in its 2016 Groundwater Management Plan, indicated that long-term average groundwater yields are sustainable.[4]

The Santa Clara Subbasin has an estimated operational storage capacity of approximately 350,000 acre-feet (AF). Typically, San Jose Water Company obtains 35 percent to 40 percent of its water supply from groundwater. However, the percentage can vary.[5] In 2012, the groundwater basin was at a high level and well-prepared for the effects of a multi-year drought because of a decline in pumping, the increased use of imported water, and the recharge of water by Valley Water into the aquifer. Groundwater volume pumped in 2014 as part of San Jose Water Company's supply was 74,552 AF, or 57 percent of the company's supply. In 2015, however, San Jose Water Company pumped 37,888 AF of groundwater, or 36 percent of its supply.[6]

Municipal Water Supply and Infrastructure

San Jose Water Company's distribution system serves the project site. Water mains in adjacent streets vary from 4 inches to 16 inches in diameter. The backbone water lines that serve the project site include 12- to 16-inch water lines in West Santa Clara Street, 6- and 12-inch parallel lines in Delmas Avenue, a 16-inch line in South Autumn Street, and 12- to 12.75-inch lines in Park Avenue. San Jose Water Company operates its own program to replace deteriorated pipes through user rate fees.

Static water pressure near the project site averages between 45 and 65 pounds per square inch. Under existing conditions, the system has capacity to deliver water at a residual pressure of 20 pounds per square inch during maximum-day demand coincident with a fire flow (with fire hydrant[s] open and flowing). Groundwater wells were recently constructed in the surrounding area to augment water pressure during periods of high demand. San Jose Water Company plans to install a new pressure-regulating station, approximately 0.5 miles away from Diridon Station, that will be

[2] San Jose Water Company, *2015 Urban Water Management Plan*, Final Report, June 2016. Available at http://wuedata.water.ca.gov/public/uwmp_attachments/5545697867/2015%20UWMP%20with%20Appendices.pdf. Accessed October 23, 2019.

[3] California Department of Water Resources, *Sustainable Groundwater Management Act 2019 Basin Prioritization Process and Results*, May 2020. Available at https://data.cnra.ca.gov/dataset/13ebd2d3-4e62-4fee-9342-d7c3ef3e0079/resource/ffafd27b-5e7e-4db3-b846-e7b3cb5c614c/download/sgma_bp_process_document.pdf. Accessed May 14, 2020.

[4] Santa Clara Valley Water District, *2016 Groundwater Management Plan Santa Clara and Llagas Subbasins*, November 2016. Available at https://s3.us-west-2.amazonaws.com/assets.valleywater.org/2016%20Groundwater%20Management%20Plan.pdf. Accessed May 14, 2020.

[5] SJW Group, *Source to Tap: 2019 Sustainability Report*, undated. Available at: https://www.sjwater.com/sites/default/files/2019-12/SJW-Sustainability-Report-WEB.pdf. Accessed August 11, 2020.

[6] San Jose Water, *Water Supply Assessment, Downtown West Mixed-Use Project (Google Project)*, January 2020.

capable of moving up to 5.7 million gallons per day (mgd) of water into the project area and is planned for inclusion in San Jose Water Company's 2021 capital improvement project budget.[7]

Recycled water is not currently available on the project site. An off-site recycled water pipeline that terminates at Autumn Parkway north of the Union Pacific Railroad (UPRR) tracks carries recycled water provided by the South Bay Water Recycling Program, a long-term program for the cities of Milpitas, San José, and Santa Clara that was created to bring a reliable, sustainable, and drought-proof supply of non-potable water to the South Bay. This existing line serves both Guadalupe River Park and Columbus Park.[8]

Water System Improvements

Based on existing land uses in the Diridon Station Area, there are no water system capacity issues, nor are any improvements planned by San Jose Water Company described in the *Diridon Station Area Infrastructure Analysis*. In addition, no condition-related improvements to the Diridon Station Area have been identified as being required under existing conditions. The *Diridon Station Area Infrastructure Analysis* identifies backbone water infrastructure elements, including segments running through the project site in Julian Street and Park Avenue, that are recommended for upsizing with development of the Diridon Station Area Plan (DSAP).

The *Diridon Station Area Infrastructure Analysis* also identifies a potential extension of the recycled water infrastructure that would tie into the existing terminus of the recycled water line in Autumn Parkway on the north side of the UPRR tracks. As noted in the analysis, connecting to this pipe would require an agreement with from UPRR for permanent improvements and construction under the railroad tracks by jack-and-bore methods.[9]

The DSAP EIR envisioned construction of this water infrastructure and found that the resulting impacts would be less than significant.[10]

3.14.2 Regulatory Framework

State

Urban Water Management Planning Act

California Water Code Section 10610 et seq. requires all public water systems that provide water for municipal purposes to more than 3,000 customers, or that supply more than 3,000 acre-feet per year (AFY), to prepare an Urban Water Management Plan (UWMP). UWMPs are key water supply planning documents for municipalities and water purveyors in California, and often form the basis of Water Supply Assessments (WSAs) (refer to the following discussion of Senate Bill [SB] 610 and SB 221) prepared for individual projects. UWMPs must be updated at least every

7 San Jose Water, *Water Supply Assessment, Downtown West Mixed-Use Project (Google Project)*, January 2020.
8 City of San José, *Diridon Station Area Infrastructure Analysis*, January 31, 2017.
9 City of San José, *Diridon Station Area Infrastructure Analysis*, January 31, 2017.
10 City of San José, *Diridon Station Area Plan Draft PEIR*, December 2013.

5 years on or before December 31, in years ending in 5 and 0. San Jose Water Company adopted its 2015 UWMP in June 2016.[11]

Senate Bills 610 and 221

The purpose and legislative intent of SB 610 and SB 221, enacted in 2001, is to preclude the approval of certain development projects without specific evaluations performed and documented by the local water provider that indicate that water is available to serve the project. SB 610 requires the local water provider for a large-scale development project to prepare a WSA.[12] The WSA evaluates the water supply available for new development based on anticipated demand. The WSA must be included in the environmental document. The lead agency may evaluate the information presented in the WSA, and then must determine whether the projected water supplies would be sufficient to satisfy the project's demands in addition to existing and planned future uses.

Completion of a WSA requires collection of proposed water supply data and information relevant to the project in question, an evaluation of existing/current use, a projection of anticipated demand sufficient to serve the project for a period of at least 20 years, delineation of proposed water supply sources, and an evaluation of water supply sufficiency under single-year and multiple-year drought conditions. San Jose Water Company prepared a WSA for the proposed project, which is included as Appendix H. The conclusions of the WSA are described and analyzed in Impact UT-2 below.

SB 221 requires the local water provider to provide "written verification" of "sufficient water supplies" to serve subdivisions involving more than 500 residential units per Government Code Section 66473.7. Sufficiency is different under SB 221 than under SB 610. Under SB 221, sufficiency is determined by considering:

- The availability of water over the past 20 years;
- The applicability of any urban-water shortage contingency analysis prepared in compliance with Water Code Section 10632;
- The reduction in water supply allocated to a specific use by an adopted ordinance; and
- The amount of water that can be reasonably relied upon from other water supply projects, such as conjunctive use, reclaimed water, water conservation, and water transfer.

As a result of the information contained in the written verification, as part of the tentative map approval process, a city or county may attach conditions to ensure that an adequate water supply

[11] San Jose Water Company, *2015 Urban Water Management Plan*, Final Report, June 2016. Available at http://wuedata.water.ca.gov/public/uwmp_attachments/5545697867/2015%20UWMP%20with%20Appendices.pdf. Accessed October 23, 2019.

[12] All projects that meet any of the following criteria require a WSA: (1) A proposed residential development of more than 500 dwelling units; (2) a proposed shopping center or business establishment employing more than 1,000 persons or having more than 500,000 square feet of floor space; (3) a proposed commercial office building employing more than 1,000 persons or having more than 250,000 square feet of floor space; (4) a proposed hotel or motel, or both, having more than 500 rooms; (5) a proposed industrial, manufacturing, or processing plant, or industrial park planned to house more than 1,000 persons, occupying more than 40 acres of land, or having more than 650,000 square feet of floor area; (6) a mixed-use project that includes one or more of the projects specified in SB 610; or (7) a project that would demand an amount of water equivalent to, or greater than, the amount of water required by a 500-dwelling-unit project.

is available to serve the proposed plan. Typically, following project certification, an additional water supply verification must be completed at the tentative map stage, prior to adoption of the final map, for certain tentative maps. In most cases, the WSA prepared under SB 610 would meet the requirement for proof of water supply under SB 221.

The WSA for the proposed project was prepared in response to both SB 610 and SB 221.[13]

Assembly Bill 325

Assembly Bill (AB) 325, the Water Conservation in Landscaping Act of 1990, directs local governments to require the use of low-flow plumbing fixtures and the installation of drought-tolerant landscaping in all new development. Pursuant to the Water Conservation in Landscaping Act, the California Department of Water Resources developed a Model Water Efficient Landscape Ordinance. In compliance with AB 325, the City of San José developed a Model Water-Efficient Landscape Ordinance on April 30, 2013 (Ordinance No. 29243), amending its existing water efficient landscape standards (refer to San José Municipal Code Chapter 5.11, discussed below under *Local*).

California Health and Safety Code Section 116555

Under California Health and Safety Code Section 116555, a public water system must provide a reliable and adequate supply of pure, wholesome, healthful, and potable water.

Water Code Section 10608 et seq. (Senate Bill 7 or Senate Bill X7-7)

Water Code Section 10608 et seq. required urban retail water suppliers to set and achieve water use targets that would help the state achieve a 20 percent per capita reduction in urban water use by 2020. SB X7-7 required each urban retail water supplier to develop urban water use targets and an interim urban water use target, in accordance with specified requirements. The bill is intended to promote urban water conservation standards that are consistent with the California Urban Water Conservation Council's adopted best management practices and the requirements for demand management in California Water Code Section 10631 as part of UWMPs.

Senate Bill 7 (2016)

In September 2016, Governor Jerry Brown signed into law SB 7, which requires new multi-family residential rental buildings in California constructed after January 1, 2018, to include a sub-meter for each dwelling unit and to bill tenants in apartment buildings accordingly for their water use to encourage water conservation.

Executive Orders B-29-15 and B-37-16

In April 2015, Governor Brown issued Executive Order B-29-15, which called for mandatory water use reductions. The executive order required cuts for public landscaping and institutions that typically use large amounts of water (e.g., golf courses), banned new landscape irrigation

[13] San Jose Water Company, *Water Supply Assessment, Downtown West Mixed-Use Project (Google Project)*, January 2020.

installation, and required municipal agencies to implement conservation pricing, subsidize water-saving technologies, and implement other measures to reduce the state's overall urban water use by 25 percent. The order also required local water agencies and large agricultural users to report their water use more frequently.

In May 2016, Governor Brown issued Executive Order B-37-16, which made the mandatory water use reduction of 25 percent permanent and directed the California Department of Water Resources and State Water Resources Control Board (State Water Board) to strategize further water reduction targets. The order also made permanent the requirement that local agencies report their water use monthly. Additionally, certain wasteful practices such as sidewalk hosing and runoff-causing landscape irrigation were permanently outlawed, while local agencies must prepare plans to handle droughts lasting 5 years.

California Green Building Standards Code

Part 11 of the Title 24 Building Energy Efficiency Standards is referred to as the California Green Building Standards Code (CALGreen Code). The CALGreen Code is intended to encourage more sustainable and environmentally friendly building practices, conserve natural resources, and promote the use of energy-efficient materials and equipment. Since 2011, the CALGreen Code has been mandatory for all new residential and non-residential buildings constructed in the state. Mandatory measures related to water conservation include water-conserving plumbing fixture and appliance requirements, including flow rate maximums, compliance with state and local water-efficient landscape standards for outdoor potable water use in landscape areas, and recycled water systems, where available. The CALGreen Code was most recently updated in 2019 to include new mandatory measures for residential and non-residential uses; the 2019 amendments to the CALGreen Code became effective January 1, 2020. Updates include more stringent requirements for residential metering faucets, and a requirement that all residential and non-residential developments adhere to a local water efficient landscape ordinance or to the State of California's Model Water Efficient Landscape Ordinance, whichever is more stringent.

Local

Envision San José 2040 General Plan

The *Envision San José 2040 General Plan* (General Plan) contains the following relevant policies related to water systems:

> **Policy MS-3.1:** Require water-efficient landscaping, which conforms to the State's Model Water Efficient Landscape Ordinance, for all new commercial, institutional, industrial, and developer-installed residential development unless for recreation needs or other area functions.
>
> **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.

Policy MS-3.3: Promote the use of drought tolerant plants and landscaping materials for nonresidential and residential uses.

Policy MS-18.4: Retrofit existing development to improve water conservation.

Policy MS-18.5: Reduce per capita water consumption by 25 percent by 2040 from a baseline established using the 2010 Urban Water Management Plans of water retailers in San José.

Policy MS-18.6: Achieve by 2040, 50 million gallons per day of water conservation savings in San José, by reducing water use and increasing water use efficiency.

Policy MS-19.1: Require new development to contribute to the cost-effective expansion of the recycled water system in proportion to the extent that it receives benefit from the development of a fiscally and environmentally sustainable local water supply.

Policy MS-19.3: Expand the use of recycled water to benefit the community and the environment.

Policy MS-19.4: Require the use of recycled water wherever feasible and cost-effective to serve existing and new development.

Policy ER-9.3: Utilize water resources in a manner that does not deplete the supply of surface or groundwater or cause overdrafting of the underground water basin.

Policy IN-1.5: Require new development to provide adequate facilities or pay its fair share of the cost for facilities needed to provide services to accommodate growth without adversely impacting current service levels.

Policy IN-1.5: Ensure that public facilities and infrastructure are designed and constructed to meet ultimate capacity needs to avoid the need for future upsizing. For facilities subject to incremental upsizing, initial design shall include adequate land area and any other elements not easily expanded in the future. Infrastructure and facility planning should discourage over-sizing of infrastructure which could contribute to growth beyond what was anticipated in the 2040 General Plan.

Policy IN-1.7: Implement financing strategies, including assessment of fees and establishment of financing mechanisms, to construct and maintain needed infrastructure that maintains established service levels and mitigates development impacts to these systems (e.g., pay capital costs associated with existing infrastructure that has inadequate capacity to serve new development and contribute toward operations and maintenance costs for upgraded infrastructure facilities).

Policy IN-3.3: Meet the water supply, sanitary sewer and storm drainage level of service objectives through an orderly process of ensuring that, before development occurs, there is adequate capacity. Coordinate with water and sewer providers to prioritize service needs for approved affordable housing projects.

Urban Environmental Accords

On November 1, 2005, the San José City Council signed on to the Urban Environmental Accords, a declaration of participating city governments to build ecologically sustainable, economically dynamic, and socially equitable futures for their urban citizens. The Urban Environmental Accords include 21 actions in seven different areas, such as energy, waste, and urban nature. The actions that relate to utilities and service systems are:

- Develop policies to increase adequate access to safe drinking water, aiming at access for all by 2015. For cities with potable water consumption greater than 100 liters per capita per day, adopt and implement policies to reduce consumption by 10 percent by 2015.
- Protect the ecological integrity of the City's primary drinking water sources (i.e., aquifers, rivers, lakes, wetlands and associated ecosystems).

The City Council approved a Water Conservation Plan on September 23, 2008, to support achievement of the Urban Environmental Accord actions above.[14]

San José Water Conservation Programs

The City's water conservation programs are intended to meet future water needs and minimize flows to the sanitary sewer and sewage treatment systems. The program includes the following elements related to water:

- Limited landscape watering hours
- Restrictions on the use of potable water for construction purposes
- Ultra-low-flow toilet incentives
- A shower head retrofit program
- Landscape ordinances for non-residential new construction
- Commercial/industrial water audits
- Financial incentives for commercial/industrial conservation
- Water use prohibitions

San José Municipal Code

Chapter 15.11 (Water Efficient Landscape Standards for New and Rehabilitated Landscaping) of the San José Municipal Code is intended to promote the conservation and efficient use of water, and to prevent the waste of this valuable resource by regulating landscape design, installation, and maintenance consistent with AB 325. New construction projects with a total landscape area equal to or greater than 500 square feet are subject to the requirements of Chapter 5.11, including landscape and irrigation design specifications.

[14] City of San José, *Green Vision 2012 Annual Report*. Available at https://www.sanjoseca.gov/Home/ShowDocument?id=658. Accessed January 31, 2020.

3.14.3 Impacts and Mitigation Measures

Significance Criteria

For the purposes of this EIR, a utilities and service systems impact related to water would be significant if implementing the proposed project would:

- Require or result in the relocation or construction of new or expanded water facilities, the construction or relocation of which could cause significant environmental effects; or
- Have insufficient water supplies to serve the project and reasonably foreseeable future development during normal, dry, and multiple dry years.

Approach to Analysis

This analysis identifies the potential impacts of construction and operation of the proposed project as they relate to water use and facilities. Information about proposed infrastructure used throughout the analysis is sourced from the *Google Downtown West Infrastructure Plan*, prepared by Arup, Lendlease, and Sherwood Design Engineers (October 7, 2020). In addition, prior analyses completed for the DSAP, including the *Diridon Station Area Infrastructure Analysis*, were consulted regarding planned improvements in the project area.

This section also addresses impacts of the proposed utilidor, because the utilidor would facilitate the provision of utilities (including recycled water) for the project. The utilidor would affect multiple utility system types; however, to avoid repetition, a single detailed analysis is presented below under Impact UT-1. That analysis is referenced in the subsequent analyses of all affected utility types.

The project is maintaining two alternatives for recycled water servicing:

1. Installation of a private recycled water distribution network to facilitate operations of the district water reuse facility(s), which would collect wastewater from the project for treatment, and produce recycled water for non-potable uses, such as toilet flushing, irrigation, and cooling; or
2. Connection to the existing recycled water network and extension to individual buildings and systems within the project site.

Each of these options is analyzed below. Project impacts to existing water mains are based on a preliminary block-specific fire flow analysis.[15]

[15] Arup, Lendlease & Sherwood Design Engineers. *Google Downtown West Infrastructure Plan*, October 7, 2020.

Impact Analysis—Water

Impact UT-1: The proposed project would not require or result in the relocation or construction of new or expanded water facilities, the construction or relocation of which could cause significant environmental effects. *(Less than Significant with Mitigation)*

The proposed project would connect to the San Jose Water Company system (as described previously in Section 3.14.1, *Environmental Setting*) at each building to serve domestic and fire water needs. Approximately 5,810 linear feet of new water mains within new proposed project streets outside of the proposed utilidor would be needed to serve both building demands and fire hydrants. Proposed new water mains include new 10- and 12-inch lines in the proposed L-shaped street linking Royal Avenue and Auzerais Street, a new 6-inch line in Lorraine Avenue, new 8- and 10-inch lines in Cahill Street, a new 10-inch line in a proposed private service street in the D-Blocks, a new 8-inch line in West San Fernando Street and the proposed E-Blocks Loop, a new 10-inch line in West Saint John Street, and a new 10-inch line in the proposed rerouted Cinnabar Street and Chestnut Street. Some upgrades to existing water lines would also be required to accommodate the increased demand, including line size upgrades and the installation of additional fire hydrants. Approximately 2,025 linear feet of existing water lines would require upgrades to serve the proposed project with adequate fire flows. Upgrades include upsizing existing 4-inch water lines in West San Carlos Street and West San Fernando Street to 8 inches, as well as upsizing an existing 5-inch water line in South Montgomery Street to 8 inches. Segments of existing water lines would be removed in portions of South Montgomery Street, Delmas Avenue, Cinnabar Street, and North Montgomery Street, aligning with the removal or realignment of these streets. Removal would be completed by the San Jose Water Company and may require the lines to either be demolished or abandoned in place. The removal of these existing water line segments would be phased with the construction of new water lines to ensure no service interruptions.[16] Water line improvements would occur mainly on the project site, with connections and upgrades off-site within public rights-of-way, and would generate no further impacts beyond those identified in this draft EIR for the proposed project.

In addition, the DSAP EIR envisioned the construction of upsized water infrastructure in the project area, some of which may overlap with the proposed project improvements. The DSAP EIR found that the impacts of such improvements would be less than significant.[17]

The proposed project includes infrastructure to support the delivery of non-potable water to the project site. The project includes an option to obtain recycled water from district water reuse facility(s) (described in the *Wastewater* section, below) and distribute the water to project development blocks through a private distribution system. The non-potable water pipe would be routed through the proposed utilidor and would connect to all proposed buildings to provide non-potable water for plumbing and irrigation. The construction of recycled water infrastructure is assumed as part of the proposed utilidor. Potable water supplied by San Jose Water Company would be used as a backup supply to the recycled water system in the event of a temporary failure of the on-site recycled water system. Due to the phasing of the project, potable water would also

[16] Arup, Lendlease & Sherwood Design Engineers. *Google Downtown West Infrastructure Plan*, October 7, 2020.
[17] City of San José, *Diridon Station Area Plan Draft PEIR*, December 2013.

be used as a supply for non-potable uses until the water reuse facility(s) are constructed and brought online.

The utilidor may include direct-bury utility trenches or an underground tunnel structure. Chapter 2, Figure 2-9, presents the proposed alignment for the utilidor. The utilidor would include crossings of existing streets, railroad tracks, and Los Gatos Creek. The utilidor would cross the creek by one or more of the three following options: on the replacement bridge at West San Fernando Street that is proposed as part of the project, on the new footbridge that would be built across Los Gatos Creek as part of the project, and/or by jack-and-bore construction method to cross underneath the creek, or a combination of these options. Elsewhere, the utilidor would be constructed as a combination of direct-bury utility trenches, utilities within basement parking areas, or underground tunnel structures. Where crossing existing rights-of-way, the proposed utilidor would be constructed using jack-and-bore methods, where feasible, to cross underneath all existing utilities within the rights-of-way without disturbing them or requiring street closures. The physical environmental impacts of the utilidor relative to crossing existing rights-of-way and the Los Gatos Creek crossing are evaluated in Section 3.1, *Air Quality*; Section 3.2, *Biological Resources*; Section 3.3, *Cultural Resources and Tribal Cultural Resources*; Section 3.5, *Geology, Soils, and Paleontological Resources*; Section 3.7, *Hazards and Hazardous Materials*; Section 3.8, *Hydrology and Water Quality*; and Section 3.10, *Noise and Vibration*. District utility infrastructure, including water reuse facility(s), are also proposed in two locations—a southern zone and a northern zone—as illustrated in Chapter 2, Figure 2-9.

To the extent that construction of the utilidor (and associated recycled water infrastructure) could result in significant adverse environmental effects, construction-related impacts of the project, including the utilidor, are analyzed throughout this EIR. To reduce these impacts (including impacts of utility infrastructure) to the extent feasible, the project would implement City of San José Standard Conditions of Approval (SCAs) (including those described in Section 3.2, *Biological Resources*, and Section 3.8, *Hydrology and Water Quality*) and the mitigation measures in Section 3.1, *Air Quality*; Section 3.2, *Biological Resources*; Section 3.3, *Cultural Resources and Tribal Cultural Resources*; Section 3.5, *Geology, Soils, and Paleontological Resources*; Section 3.7, *Hazards and Hazardous Materials*; Section 3.8, *Hydrology and Water Quality*; and Section 3.10, *Noise and Vibration*. Mitigation measures would be implemented to reduce impacts of ground-disturbing construction activities, including construction within the proposed utilidor, to the extent feasible.

Should the proposed project not include district water reuse facility(s), recycled water could be delivered through an extension of the existing recycled water pipeline off site. The DSAP EIR envisioned construction of expanded recycled water infrastructure in the project area and found impacts related to its construction to be less than significant. Independent of the analysis previously performed for this envisioned extension under the proposed project the potential extension of recycled water infrastructure to serve the project site would be installed primarily in existing roadways and utility rights-of-way.[18] This infrastructure is not expected to affect sensitive habitat

[18] According to the *Draft Downtown West Infrastructure Plan* (August 2020), options for connecting to the existing system include connecting at Coleman Avenue, Autumn Parkway, and/or West Hedding Street. In addition to these connection(s) to the north of the project site, a loop system could also be considered between the Downtown pipeline terminating at South Fourth Street and East San Fernando Street, and the north connection point to improve reliability.

areas, and aside from short-term construction disturbance, it would generate no further environmental impacts beyond those identified in this draft EIR for overall construction activity for the proposed project with incorporation of the mitigation measures outlined below.

For all of the reasons described above, with implementation of the mitigation measures listed in this impact discussion, project impacts related to new or relocated water infrastructure would be **less than significant with mitigation incorporated**.

Mitigation Measures

The following mitigation measures apply to construction of the proposed utilidor.

Refer to Section 3.1, *Air Quality*, for the following mitigation measures:

Mitigation Measure AQ-2a: Construction Emissions Minimization Plan

Mitigation Measure AQ-2b: Construction Equipment Maintenance and Tuning

Mitigation Measure AQ-2c: Heavy-Duty Truck Model Year Requirement

Refer to Section 3.2, *Biological Resources*, for the following mitigation measures:

Mitigation Measure BI-1a: General Avoidance and Protection Measures

Mitigation Measure BI-1b: In-Water Construction Schedule

Mitigation Measure BI-1c: Native Fish Capture and Relocation

Mitigation Measure BI-1d: Western Pond Turtle Protection Measures

Mitigation Measure BI-1e: Avoidance of Impacts on Nesting Birds

Mitigation Measure BI-1f: Roosting Bat Surveys

Mitigation Measure BI-2a: Avoidance of Impacts on Riparian Habitat

Mitigation Measure BI-2b: Frac-Out Contingency Plan

Mitigation Measure BI-2d: Avoidance and Protection of Creeping Wild Rye Habitat

Mitigation Measure BI-3: Avoidance of Impacts on Wetlands and Waters

Refer to Section 3.3, *Cultural Resources and Tribal Cultural Resources*, for the following mitigation measures:

Mitigation Measure CU-8a: Cultural Resources Awareness Training

Mitigation Measure CU-8b: Archaeological Testing Plan

Mitigation Measure CU-8c: Archaeological Evaluation

Mitigation Measure CU-8d: Archaeological Resources Treatment Plan

Refer to Section 3.5, *Geology, Soils, and Paleontological Resources*, for the following mitigation measures:

Mitigation Measure GE-5a: Project Paleontologist

Mitigation Measure GE-5b: Worker Training

Mitigation Measure GE-5c: Paleontological Monitoring

Mitigation Measure GE-5d: Significant Fossil Treatment

Refer to Section 3.7, *Hazards and Hazardous Materials*, for the following mitigation measures:

Mitigation Measure HA-3a: Land Use Limitations

Mitigation Measure HA-3b: Health and Safety Plan

Mitigation Measure HA-3c: Site Management Plan

Mitigation Measure HA-3d: Vapor Mitigation

Refer to Section 3.8, *Hydrology and Water Quality*, for the following mitigation measure:

Mitigation Measure HY-1: Water Quality Best Management Practices during Construction Activities in and near Waterways

Mitigation Measure HY-3a: Flood Risk Analysis and Modeling

Refer to Section 3.10, *Noise and Vibration*, for the following mitigation measures:

Mitigation Measure NO-1c: Master Construction Noise Reduction Plan

Mitigation Measure NO-2a: Master Construction Vibration Avoidance and Reduction Plan

Mitigation Measure NO-2b: Master Construction Vibration Avoidance from Compaction

Significance after Mitigation: Less than significant. Although the proposed project as a whole would result in significant and unavoidable construction-related air quality and noise impacts, construction work involving utilities is included in the overall construction analysis. The utility construction work would be responsible for a relatively small portion of these project impacts. Therefore, for construction related to utilities, the impact would be less than significant with mitigation incorporated.

Impact UT-2: The proposed project would have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry, and multiple dry years. *(Less than Significant)*

Construction

Construction activities would involve the use of non-potable water for dust suppression when available using water tank trucks, when required and on an intermittent basis. Potable water for construction workers would be provided by the construction contractors, as needed based on the number of construction workers each day. The small increase in potable water demand during construction would not be substantial. Existing water use on the project site is approximately

33,690 gallons per day (gpd).[19] Because existing uses are taken off-line during construction, some of the demand for water needed for construction activities would be offset. In addition, this water use would be temporary, terminating with the completion of construction. Water supplies for the project site are provided by San Jose Water Company, and are planned such that short-term spikes in water use can be accommodated. Therefore, impacts related to water supply during construction would be **less than significant**.

Mitigation: None required.

Operation

The proposed project would result in an increase in population on the project site and thus an increased demand for potable water. The project would use water provided by San Jose Water Company, which has multiple sources of water, as discussed in Section 3.14.1, *Environmental Setting*, including groundwater from the Santa Clara Valley Subbasin; imported local and surface water from Valley Water; local surface water from Los Gatos Creek, Saratoga Creek, and local watersheds; and recycled water from South Bay Water Recycling. Per the requirements of SB 610 and SB 221, a WSA was prepared for the proposed project by San Jose Water Company.[20]

Total estimated water usage for the proposed project at buildout is approximately 2,971,100 gpd, which is equivalent to approximately 3,328 AFY of water.[21] Existing water use on the project site is approximately 33,690 gpd or approximately 38 AFY, and would be eliminated.[22] Thus, the net demand increase in water usage associated with the proposed project would be approximately 2,937,410 gpd or 3,290 AFY. The net increase in demand for water during project operation represents an approximate 2.2 percent increase over the systemwide pre-drought 2013 water production of 146,776 AFY, and approximately 2.0 percent of the projected demand in the San Jose Water Company service area in 2040. The increased demand associated with the proposed project is also consistent with San Jose Water Company's 2015 UWMP, which projected a 12.3 percent increase in total system demand between actual 2013 demand and projected 2040 demand. Therefore, project-related demand is within the 2040 demand projections.

The WSA assumed all water demands for the project would be met with potable water, thus demonstrating that the full water demand for the project could be met by the San Jose Water Company without the use of recycled water.[23] San Jose Water Company would be able to meet the needs of its service area as a whole through 2040 for average years, and through 2035 for single dry years, without a call for water use reductions. In 2040, water use reductions would be required to

[19] San Jose Water Company, *Water Supply Assessment, Downtown West Mixed-Use Project (Google Project)*, January 2020.
[20] San Jose Water Company, *Water Supply Assessment, Downtown West Mixed-Use Project (Google Project)*, January 2020.
[21] This EIR conservatively uses the WSA (January 2020) demand factors to estimate proposed project water demand.
[22] The project applicant may retain about 62,000 square feet of existing small-scale industrial structures on and near South Autumn Street. However, those structures would be repurposed with new uses as part of the proposed project. Therefore, the existing water demand was considered eliminated and the forecasted water demand at buildout for that retained space was considered new water demand.
[23] San Jose Water Company, *Water Supply Assessment, Downtown West Mixed-Use Project (Google Project)*, January 2020.

meet projected demand during single dry years.[24] San Jose Water Company has filed water-waste tariff provisions with the California Public Utilities Commission promoting conservation that would go into effect during a drought. When a low-level water shortage prompts a call for voluntary conservation by customers, a list of water-waste provisions goes into effect. Provisions include limits on watering the landscape and using potable water for landscape after rainfall; obligations to fix leaks; and limits on washing vehicles, serving water in eating and drinking establishments, and using water in fountains or other decorative water devices. For high-level water shortages when mandatory conservation measures are deemed necessary, water-waste provisions limit watering days, the use of potable water for watering streets with trucks or for construction purposes, and filling of ornamental lakes or ponds.[25] As a result of these provisions, it is assumed by San Jose Water Company that conservation-related reduced demand would equal available water supplies. During multiple-dry-year droughts, voluntary and mandatory conservation would be required to meet demand. Valley Water is working with multiple water agencies to investigate regional opportunities for collaboration to enhance water supply reliability, leverage existing infrastructure investments, facilitate water transfers during critical shortages, and improve climate change resiliency. Projects under consideration include interagency pipelines, treatment plant improvements and expansion, groundwater management and recharge, potable reuse, desalination, and water transfers, which may result in the addition of future supplies for Valley Water.[26] To date, Valley Water has not identified any projects or funding assistance to the City of San José, or South Bay Water Recycling, that would result in additional recycled water to support this project.

San Jose Water Company projects that 37 percent of its supply from 2020 to 2040 will be from groundwater. Groundwater supplies are often a reliable supply during normal and short-term drought conditions because they are local and their large storage retains available supply when surface flows become limited. However, some threats to groundwater supply reliability include overdraft under extended supply pressures, which can also cause subsidence; climate change, which could increase the potential for overdraft by increasing demand, reducing other sources of supply, and reducing natural recharge and inflows from surface water and precipitation; and population growth, which could increase demands on groundwater supplies, potentially creating risk of overdraft. As groundwater is pumped by San Jose Water Company and other retailers and municipalities in Santa Clara County, Valley Water influences groundwater pumping reductions, and thus reliability, through financial and management practices to protect groundwater storage and minimize the risk of land subsidence.

San Jose Water Company has identified multiple sources of water for the proposed project, which would provide a high-quality, diverse, and redundant source of supply. San Jose Water Company

[24] San Jose Water Company, *Water Supply Assessment, Downtown West Mixed-Use Project (Google Project)*, January 2020.

[25] San Jose Water Company, Schedule No.14.1: Water Shortage Contingency Plan with Staged Mandatory Reductions and Drought Surcharges, June 9, 2015. Available at https://www.sjwater.com/sites/default/files/2018-03/Schedule%2014.1%20Feb%202017.pdf. Accessed May 14, 2020.

[26] San Jose Water Company, *Water Supply Assessment, Downtown West Mixed-Use Project (Google Project)*, January 2020.

would continue to work with Valley Water to ensure that the water supply for the proposed project is reliable, while the impact on the existing Santa Clara Valley Subbasin is minimal.[27]

San Jose Water Company can also use less groundwater in certain areas or zones to achieve the overall balance that best meets the operational goals of Valley Water and San Jose Water Company.

Water supplies presented in the WSA are based on Valley Water's water evaluation and planning system model. The model simulates Valley Water's water supply system, which consists of facilities to recharge Santa Clara County's groundwater basins, and of local water systems including the operation of reservoirs and creeks, treatment and distribution facilities, and raw-water conveyance systems. The WSA shows that San Jose Water Company's current groundwater supply is sufficient to meet future 2040 maximum-day demands within the entire system, and that San Jose Water Company has excess system capacity.[28]

The WSA determined that the additional demand for water introduced by the proposed project is within previously determined growth projections for water demand in San Jose Water Company's system, and would not adversely affect the company's ability to meet total system demand. The proposed project is also located in one of San Jose Water Company's largest pressure zones and there are many water supply lines. San Jose Water Company has indicated that it has the capacity to serve the proposed project through buildout based on its current water supply capacity and Valley Water's proposed water supply projects. Valley Water is pursuing water supply solutions to ensure that no more than 20 percent conservation will be required during any future drought, and San Jose Water Company is committed to working with Valley Water to meet future demand and mitigate future shortages. After comparing the estimated increase in total system demand for water supplies associated with the proposed project, based on both the San Jose Water Company and Valley Water UWMPs, San Jose Water Company has determined that the quantity of water needed for the proposed project is within its projections of normal growth, and sufficient water is available to serve the proposed project.[29]

The proposed project would be required to comply with the CALGreen Code, which requires that new construction use high-efficiency plumbing fixtures, such as high-efficiency toilets, urinals, showerheads, and faucet fixtures. For outdoor water use, the CALGreen Code requires that irrigation controllers be weather- or soil moisture–based and automatically account for rainfall, or be attached to a rainfall sensor. In addition, as described under Impact UT-1 above, the proposed project includes infrastructure to support the delivery of non-potable water to the project site. The project would include an option to obtain recycled water from on-site district water reuse facility(s) (described in the *Wastewater* section, below) and distribute the water to project development blocks through a private distribution system, or recycled water could be delivered through an extension of the existing recycled water pipeline off site. The district recycled water system would have the capacity to serve the project applicant's blocks and the rights-of-way and

[27] San Jose Water Company, *Water Supply Assessment, Downtown West Mixed-Use Project (Google Project)*, January 2020.
[28] San Jose Water Company, *Water Supply Assessment, Downtown West Mixed-Use Project (Google Project)*, January 2020.
[29] San Jose Water Company, *Water Supply Assessment, Downtown West Mixed-Use Project (Google Project)*, January 2020.

public parks within the DSAP area. Implementation of water conservation and efficiency measures and use of recycled water would minimize the potable water demand generated by the proposed project.

Overall, because projected water supplies would be sufficient to satisfy the demands of the project, in addition to existing and planned future uses during normal, single dry, and multiple dry years (as confirmed in San Jose Water Company's WSA)[30] and the proposed project would minimize its water demand through conservation measures and use of recycled water, the proposed project's impact related to water supply would be **less than significant**.

Mitigation: None required.

Cumulative Impacts—Water

The cumulative geographic context for water systems considers the service areas of the local utility providers. This analysis considers development under the City's General Plan for water infrastructure and future projections by San Jose Water Company (which includes projections for Valley Water's supply system) contained within the WSA prepared for the proposed project for water supply.

Impact C-UT-1: The proposed project, in combination with past, present, existing, approved, pending, and reasonably foreseeable future projects in the vicinity, would not contribute considerably to cumulative impacts on water utility systems or water supply. *(Less than Significant)*

Water Infrastructure

The proposed project, in combination with past, present, existing, approved, pending, and reasonably foreseeable future projects in the vicinity, could result in the construction of new or expanded water facilities as a result of increased demands for service. The 2040 General Plan EIR and Downtown Strategy 2040 EIR concluded that planned growth would not result in a significant impact associated with the construction of additional water infrastructure, with implementation of existing programs, regulations, and General Plan policies.[31,32]

Development of the proposed project may exceed the growth anticipated for the Downtown area in the General Plan and the Downtown Strategy 2040 (refer to Section 3.11, *Population and Housing*). In addition, the proposed amendments to the DSAP would increase density beyond what was previously considered for the plan area. The increase in density could result in the need for additional infrastructure improvements in the Downtown area. While the proposed project would exceed prior growth projections in the Downtown area, as discussed under Impact UT-1, the proposed project includes a suite of water infrastructure improvements to fully address potable water supply demands for the project site, the construction of which would not result in

[30] Given that the WSA assumes all water used on the site would be potable, non-potable water is not necessary to ensure a sufficient a water supply for the proposed project.
[31] City of San José, *Envision San José 2040 General Plan Draft Program EIR*, June 2011.
[32] City of San José, *Downtown Strategy 2040 Integrated Final EIR*, December 2018.

significant impacts. Therefore, the proposed project would not contribute considerably to a significant cumulative impact in this regard, and impacts would be **less than significant**.

Water Supply

The proposed project, in combination with past, present, existing, approved, pending, and reasonably foreseeable future projects in the vicinity, would result in additional demand for potable water. As discussed under Impact UT-2, after comparing the estimated increase in total system demand associated with the proposed project to water supplies, based on both the San Jose Water Company and Valley Water UWMPs, San Jose Water Company determined that the quantity of water needed for the proposed project is within its projections of normal growth and sufficient water is available to serve the proposed project together with cumulative projects.[33] Therefore, the cumulative impact would be less than significant, and the proposed project would not contribute considerably to a significant cumulative impact in this regard. Impacts would be **less than significant**.

Mitigation: None required.

---

[33] San Jose Water, *Water Supply Assessment, Downtown West Mixed-Use Project (Google Project)*, January 2020.

Wastewater

3.14.4 Environmental Setting

Wastewater Collection and Treatment

The San José–Santa Clara Regional Wastewater Facility (SJ-SC RWF) serves the City of San José, along with seven other cities and four sanitation districts. The SJ-SC RWF treats an average of 110 mgd of wastewater, with a capacity of up to 167 mgd.[34] In 2019, the City's share of the SJ-SC RWF's treatment capacity was 106.0 mgd, and the City has approximately 36.2 mgd of excess treatment capacity within its share.[35] A Plant Master Plan for the SJ-SC RWF, adopted in 2013, identified more than 100 capital improvement projects to be implemented at the SJ-SC RWF over a 30-year period.[36]

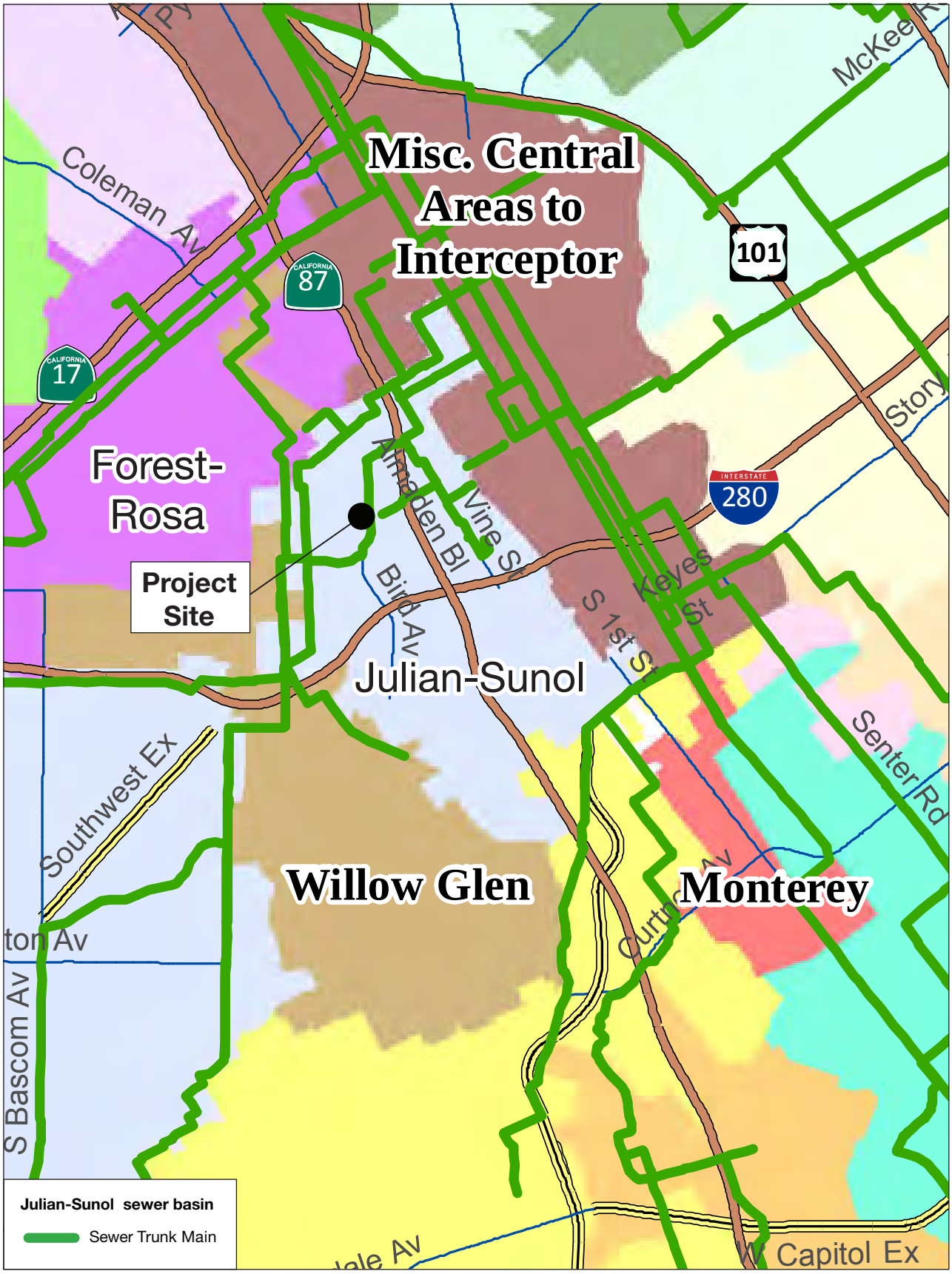
The project site is served by the City's existing sanitary sewer network, with more than 2,000 miles of sanitary sewer pipeline 6–90 inches in diameter flowing north to the SJ-SC RWF.[37] Three sewer basins, or sewersheds, currently serve the project site and the greater Diridon Station Area.[38] Most of the project site is within the Julian-Sunol Sewershed, while portions of the northern part of the site are within the Forest-Rosa and Willow Glen sewersheds (the latter basin is mostly south of the site). Existing sewer basins and trunk mains are illustrated on **Figure 3.14-1**.

Five sanitary sewer siphons in the vicinity of the project site transfer wastewater from the west side to the east side of the Guadalupe River and Los Gatos Creek by gravity, and carry wastewater from the site to the SJ-SC RWF.[39] Concern about adding flow to siphons is usually related to the unknown condition of the siphons; siphons can be partially plugged due to debris, or the condition of the pipes could have deteriorated for other reasons.

Wastewater System Improvements

The *Diridon Station Area Infrastructure Analysis* identified backbone sanitary-sewer infrastructure elements, including segments running through the project site in Autumn and Julian Streets, that would need to be replaced based on operational deficiencies as a result of development of the DSAP.[40] The DSAP EIR envisioned construction of this sanitary sewer infrastructure, finding that the resulting impacts would be less than significant.[41]

[34] City of San José, *City of San José Annual Report on City Services 2017–18*, December 2018. Available at https://www.sanjoseca.gov/Home/ShowDocument?id=38849. Accessed October 3, 2019.
[35] San Jose's 2019 RWF capacities provided by City Environmental Services Department staff.
[36] San José/Santa Clara Water Pollution Control Plant, *The Plant Master Plan*, November 2013. Available at https://www.sanjoseca.gov/home/showdocument?id=206. Accessed October 23, 2019.
[37] City of San José, *Diridon Station Area Infrastructure Analysis*, January 31, 2017.
[38] Arup, Lendlease & Sherwood Design Engineers. *Google Downtown West Infrastructure Plan*, October 7, 2020
[39] Arup, Lendlease & Sherwood Design Engineers. *Google Downtown West Infrastructure Plan*, October 7, 2020
[40] City of San José, *Diridon Station Area Infrastructure Analysis*, January 31, 2017.
[41] City of San José, *Diridon Station Area Plan Draft PEIR*, December 2013.



SOURCE: City of San Jose

Downtown West Mixed-Use Plan

Figure 3.14-1
Project Area Sewer Basins and Trunk Mains

The City is in the process of upgrading the Fourth Major Interceptor, one of four large diameter sanitary sewers running in parallel streets from 7th and Empire streets to the SJ-SC RWF, under their Sanitary Sewer Capital Improvement Program (CIP). The Diridon Station Area Infrastructure Analysis did not consider the downstream capacity of the interceptor sewers a constraint. However, upgrades to the interceptor sewers are documented in the 2013 *Sanitary Sewer Master Plan Capacity Assessment: Phase II and Update of Phase I*. There are seven segments, or phases, of the interceptor sewer. The Phase VI upgrades are under construction and the design work for the Phase VII upgrades is expected to commence towards the end of 2021. The Phase VII upgrades were identified in an August 1986 report titled, "Preliminary Design Report for a Fourth Major Interceptor." As described in the *2020–2024 Proposed Capital Improvement Program*, "[c]ompletion of the Phase VIIA Project will conclude capacity improvements for the Fourth Major Interceptor system between the intersections of North 5th Street and Commercial Street, and North 7th Street and Empire Street."[42]

3.14.5 Regulatory Framework

Federal and state laws regarding wastewater focus primarily on the regulation of pollutant discharges that could contaminate surface waters or groundwater. As such, the federal Clean Water Act and National Pollutant Discharge Elimination System (NPDES), as well as the state Porter-Cologne Water Quality Control Act (Porter-Cologne Act), regulate wastewater treatment and the discharge of treated effluent. (Refer to Section 3.8, *Hydrology and Water Quality*, Section 3.8.2, *Regulatory Setting*, for additional requirements.)

Federal

National Pollutant Discharge Elimination System

The NPDES is a nationwide program for permitting of surface water discharges, including from municipal and industrial point sources. In California, NPDES permitting authority is delegated to and administered by the nine regional water quality control boards (regional water boards). The San Francisco Bay Regional Water Board has set standard conditions for each permittee in the Bay Area, including effluent limitation and monitoring programs. In addition to issuing and enforcing compliance with NPDES permits, each regional water board prepares and revises the relevant basin plan (refer to the following discussion of state regulations).

Part 503: Standards for the Use or Disposal of Sewage Sludge

Code of Federal Regulations Title 40, Part 503, *Standards for the Use or Disposal of Sewage Sludge*, establishes general requirements, pollutant limits, management practices, and operational standards for the final use or disposal of sewage sludge generated during the treatment of domestic sewage in a treatment works. Standards are included for sewage sludge applied to the land, placed on a surface disposal site, or fired in a sewage sludge incinerator. Also included are requirements to reduce the attraction of pathogens and alternative vectors to sewage sludge applied to the land or placed on a surface disposal site.

[42] Arup, Lendlease & Sherwood Design Engineers. *Google Downtown West Infrastructure Plan*, October 7, 2020

In addition, the standards include requirements governing the frequency of monitoring and recordkeeping when sewage sludge is applied to the land, placed on a surface disposal site, or fired in a sewage sludge incinerator. This rule applies to any person who prepares sewage sludge, applies sewage sludge to the land, or fires sewage sludge in a sewage sludge incinerator; to the owner/operator of a surface disposal site; and to the exit gas from a sewage sludge incinerator stack.

State

Porter-Cologne Water Quality Control Act

The Porter-Cologne Act (Division 7 of the California Water Code) provides the basis for water quality regulation in California. The Porter-Cologne Act defines water quality objectives as the limits or levels of water constituents that are established for reasonable protection of beneficial uses of surface, ground, and saline waters of the state. The State Water Board administers water rights, water pollution control, and water quality functions throughout California, while the San Francisco Bay Regional Water Board conducts regional planning, permitting, and enforcement activities. For additional requirements, refer to Section 3.14.5, *Regulatory Framework*; Section 3.8, *Hydrology and Water Quality*, Section 3.8.2, *Regulatory Setting*; and *Permitting of Proposed Water Reuse Facility(s)*, below.

Water Quality Order No. 2004-12-DWQ

In July 2004, the State Water Board adopted Water Quality Order No. 2004-12-DWQ (General Order) which incorporates the minimum standards established by the Part 503 Rule and expands upon them to fulfill obligations to the California Water Code. However, since California does not have delegated authority to implement the Part 503 Rule, the General Order does not replace the Part 503 Rule. The General Order also does not preempt or supersede the authority of local agencies to prohibit, restrict, or control the use of biosolids subject to their jurisdiction, as allowed by law.

Local

Envision San José 2040 General Plan

The General Plan contains the following relevant policies related to wastewater systems:

> **Policy IN-1.5:** Require new development to provide adequate facilities or pay its fair share of the cost for facilities needed to provide services to accommodate growth without adversely impacting current service levels.
>
> **Policy IN-1.5:** Ensure that public facilities and infrastructure are designed and constructed to meet ultimate capacity needs to avoid the need for future upsizing. For facilities subject to incremental upsizing, initial design shall include adequate land area and any other elements not easily expanded in the future. Infrastructure and facility planning should discourage over-sizing of infrastructure which could contribute to growth beyond what was anticipated in the 2040 General Plan.
>
> **Policy IN-1.7:** Implement financing strategies, including assessment of fees and establishment of financing mechanisms, to construct and maintain needed infrastructure that

maintains established service levels and mitigates development impacts to these systems (e.g., pay capital costs associated with existing infrastructure that has inadequate capacity to serve new development and contribute toward operations and maintenance costs for upgraded infrastructure facilities).

Policy IN-3.1: Achieve minimum level of services:

- For sanitary sewers, achieve a minimum level of service "D" or better as described in the Sanitary Sewer Level of Service Policy and determined based on the guidelines provided in the Sewer Capacity Impact Analysis (SCIA) Guidelines.
- For storm drainage, to minimize flooding on public streets and to minimize the potential for property damage from stormwater, implement a 10-year return storm design standard throughout the City, and in compliance with all local, State and Federal regulatory requirements.

Policy IN-3.3: Meet the water supply, sanitary sewer and storm drainage level of service objectives through an orderly process of ensuring that, before development occurs, there is adequate capacity. Coordinate with water and sewer providers to prioritize service needs for approved affordable housing projects.

Policy IN-3.4: Maintain and implement the City's Sanitary Sewer Level of Service Policy and Sewer Capacity Impact Analysis (SCIA) Guidelines to:

- Prevent sanitary sewer overflows (SSOs) due to inadequate capacity so as to ensure that the City complies with all applicable requirements of the Federal Clean Water Act and State Water Board's General Waste Discharge Requirements for Sanitary Sewer Systems and National Pollutant Discharge Elimination System permit. SSOs may pollute surface or ground waters, threaten public health, adversely affect aquatic life, and impair the recreational use and aesthetic enjoyment of surface waters.
- Maintain reasonable excess capacity in order to protect sewers from increased rate of hydrogen sulfide corrosion and minimize odor and potential maintenance problems.
- Ensure adequate funding and timely completion of the most critically needed sewer capacity projects.
- Promote clear guidance, consistency and predictability to developers regarding the necessary sewer improvements to support development within the City.

Policy IN-3.5: Require development which will have the potential to reduce downstream LOS [level of service] to lower than "D", or development which would be served by downstream lines already operating at a LOS lower than "D", to provide mitigation measures to improve the LOS to "D" or better, either acting independently or jointly with other developments in the same area or in coordination with the City's Sanitary Sewer Capital Improvement Program.

Policy IN-4.1: Monitor and regulate growth so that the cumulative wastewater treatment demand of all development can be accommodated by San José's share of the treatment capacity at the San José/Santa Clara Regional Wastewater Facility.

Policy IN-4.2: Maintain adequate operational capacity for wastewater treatment and water reclamation facilities to accommodate the City's economic and population growth.

Policy IN-4.3: Adopt and implement new technologies for the operation of wastewater treatment and water reclamation facilities to achieve greater safety, energy efficiency and environmental benefit.

Policy IN-4.6: Encourage water conservation and other programs which result in reduced demand for wastewater treatment capacity.

Policy IN-5.1: Monitor the continued availability of long-term collection, transfer, recycling and disposal capacity to ensure adequate solid waste capacity. Periodically assess infrastructure needs to support the City's waste diversion goals. Work with private Material Recovery Facilities (MRF) and Landfill operators to provide facility capacity to implement new City programs to expand recycling, composting and other waste processing.

San José Municipal Code

City Municipal Code Chapter 14.35 adopts the Diridon Station Area Basic Infrastructure Impact Fee, which requires that all new development in the Diridon Station Area Impact Fee Zone contribute to the Diridon Station Area Impact Fee Fund. This fee funds the construction of necessary sanitary sewer infrastructure specified in the Diridon Station Area: Impact Fee Nexus Study for Basic Infrastructure. As described above, the DSAP EIR envisioned construction of sanitary sewer infrastructure, finding that the resulting impacts would be less than significant.[43]

San José Water Conservation Programs

The City's water conservation programs are intended to meet future water needs and minimize flows to the sanitary sewer and sewage treatment systems. The program includes the following elements:

- Limited landscape watering hours
- Restrictions on the use of potable water for construction purposes
- Ultra-low-flow toilet incentives
- A shower head retrofit program
- Landscape ordinances for non-residential new construction
- Commercial/industrial water audits
- Financial incentives for commercial/industrial conservation
- Water use prohibitions
- A ban on cleaning vehicles without an automatic shut-off valve

Sanitary Sewer Level of Service Policy

The City of San José has adopted a level of service (LOS) policy for determining whether sewer mains are adequate to serve development.[44] The levels of service range from "A" to "F," with

[43] City of San José, *Diridon Station Area Plan Draft PEIR*, December 2013.

[44] Sanitary Sewer LOS Policy 8-7 was approved in 1982 to ensure that an adequate and safe level of public services was provided to residences and businesses, and to prevent sewage spills from the collection system that could pose a threat to public health and safety.

LOS A defined as unrestricted flow and LOS F defined as being inadequate to convey existing wastewater flow. To meet the City's guidelines, new developments must meet LOS D or better. At LOS D, the sewer main runs full during peak conditions.[45] For the two main sanitary sewer trunk lines flowing through the project site, the Lincoln Line (under Park Avenue) is flowing at roughly half-full during dry-weather flows; and the Sunol Line (under West Julian Street) is flowing at greater than two-thirds full in dry conditions and may surcharge during wet-weather conditions.[46]

The City is currently revising the LOS to address federal and state regulations and best management practices for sanitary sewer systems. Under current City policy, new development is required to avoid or minimize impacts related to existing or anticipated sewer line deficiencies by constructing, or contributing to the construction of, new lines or by waiting for completion of planned sewer system improvements.

Permitting of Proposed Water Reuse Facility(s)

To permit the proposed water reuse facility(s), coordination with multiple regulatory agencies and stakeholders would be required. The San Francisco Bay Regional Water Board would issue the operational permit or order. The State Water Board's Division of Drinking Water would review the engineering report and provide technical comments on tertiary filtration and disinfection unit processes. The Santa Clara County Department of Public Health may act in an advisory role. The City would act as a permit stakeholder and would issue the building permit.

To receive permit approval, the water reuse facility(s) would be required to meet the following requirements:

- California Water Code, Section 7 (Porter-Cologne Act)
- California Health Laws Related to Recycled Water ("The Purple Book")
- California Code of Regulations Title 22, Division 4, Environmental Health
- California Plumbing Code
- Industrial pretreatment permit and requirements for the discharge of treatment residuals

3.14.6 Impacts and Mitigation Measures

Significance Criteria

For the purposes of this EIR, a utilities and service systems impact related to wastewater would be significant if implementing the proposed project would:

- Require or result in the relocation or construction of new or expanded wastewater treatment facilities, the construction or relocation of which could cause significant environmental effects; or

[45] Peak wet-weather flow assumes rainfall-derived and infiltration flow from a 10-year storm in addition to normal wastewater flows. Sewage flow increases during storm events as a result of inflow from surface water that enters the system through improper sewer connections and manhole covers, and from infiltration of groundwater through leaky sewer pipes and connections.

[46] Arup, Lendlease & Sherwood Design Engineers. *Google Downtown West Infrastructure Plan*, October 7, 2020

- Result in a determination by the wastewater treatment provider that serves or may serve the project that it does not have adequate capacity to serve the project's projected demand in addition to the provider's existing commitments.

Approach to Analysis

This analysis identifies the potential impacts of construction and operation of the proposed project as they relate to wastewater generation and facilities. Information about proposed infrastructure used throughout the analysis is sourced from the *Google Downtown West Infrastructure Plan*, prepared by Arup, Lendlease, and Sherwood Design Engineers (October 7, 2020). The *Google Downtown West Infrastructure Plan* used the City's sanitary sewer model for the Diridon Station Area as the basis for the City's project-specific analysis to determine expected project impacts.

The proposed project is maintaining two options for wastewater servicing: (1) one or two district water reuse facility(s) that would collect wastewater from the development for treatment, with a private wastewater collection system; and (2) traditional wastewater connections from individual buildings that would connect to the City's sanitary sewer system. Each option is analyzed below.

Under the wastewater reuse and collection system option ("preferred option"), the project would construct a private, low-pressure collection network with one or two district water reuse facilities. Based on this design, there would be up to two sanitary sewer connections to the City's system, one per water reuse facility. The district system would discharge wastewater to the City system during times of lower demand for recycled water (e.g., rainy season) or if the district system were offline for any reason. Under the traditional collection system approach (the "business-as-usual" option), individual buildings would connect to the City's sanitary sewer system located within the public right-of-way.

Four scenarios (three scenarios for the preferred option and one for the business-as-usual option) were modeled to determine the project's potential impacts on the City's sanitary sewer system:

1. **Preferred Option, One or Two Water Reuse Facilities:** Discharge via a pipeline within the utilidor, with one point of connection to the sanitary sewer along Almaden Boulevard.
2. **Preferred Option, One Water Reuse Facility:** Discharge of 100 percent of the flows into the Park Avenue line, with one point of connection to the sanitary sewer.
3. **Preferred Option, Two Water Reuse Facilities:** Discharge into both sewer mains in Park Avenue and West Julian Street, with two points of connection to the sanitary sewer.
4. **Business-as-Usual Option.**

As described in the Setting, the City is in the process of upgrading the Fourth Major Interceptor. Of the seven segments, or phases, of the interceptor sewer, the Phase VI upgrades are under construction and design of the Phase VII upgrades is expected to begin in 2021. Therefore, the scenarios including proposed district water reuse facility(s) were modeled with and without Phase VII upgrades.

The initial results of the City's modeling of the proposed sanitary sewer options and scenarios inform the analysis below.[47]

This section also analyzes impacts of the proposed utilidor, because constructing the utilidor would advance the provision of utilities (including sanitary sewer) for the project. The following discussions refer to the detailed analysis in Impact UT-1 as necessary (refer to Section 3.14.3, above).

Impact Analysis—Wastewater

Impact UT-3: The proposed project would not require or result in the relocation or construction of new or expanded wastewater treatment facilities, the construction or relocation of which could cause significant environmental effects. ***(Less than Significant with Mitigation)***

Construction—Wastewater Infrastructure

The project includes a preferred option for a system to collect wastewater from all proposed development blocks via a private collection network to district water reuse facilities. Under this preferred option, the proposed project would include up to two wastewater treatment facilities. The facilities would treat project-generated wastewater to disinfected tertiary recycled water standards for beneficial (unrestricted) reuse[48] to meet the project's non-potable water demands. The on-site wastewater treatment facilities would be constructed within the Southern and Northern Infrastructure Zones (as shown in Chapter 2, Figure 2-9).

The proposed design for wastewater collection includes a private, low-pressure sanitary sewer collection network that would be integrated into the proposed utilidor alignment. Sanitary waste would be collected in a small pump station in each building basement. The pump stations would include a collection tank and a pump to feed into a low-pressure force main, routed within the proposed utilidor. The utilidor would cross underneath all existing sewer lines when crossing through public rights-of-way, and would not require the relocation of any existing sewer lines. The mitigation measures discussed under Impact UT-1 would be implemented to reduce impacts of ground-disturbing construction activities, including construction of facilities in the proposed infrastructure zones and utilidor, to the extent feasible.

The water reuse facility(s) would connect to the existing sewer network for the purpose of discharging excess wastewater. As noted, the district system would tie into the City's sanitary sewer network to receive flows when there are lower demands for recycled water or if the district system were offline for any reason. These discharges would incur a fee based on the City's monitored industrial discharge rates.

The sanitary sewer connection would extend beyond the footprint of the proposed utilidor to make a connection with the City's sanitary sewer. The sanitary sewer connection infrastructure that would serve the project would be installed within the proposed utilidor and one point of connection to the sanitary sewer along Almaden Boulevard. An existing City sanitary sewer trunk line has been

47 Arup, Lendlease & Sherwood Design Engineers. *Google Downtown West Infrastructure Plan*, October 7, 2020

48 State discharge standards for recycled water and its reuse are regulated by the Porter-Cologne Act and the State Water Board's 2019 Water Recycling Policy. Title 22 of the California Code of Regulations refers to state guidelines for the discharge and use of treated and recycled water.

identified running within Almaden Boulevard where a connection is proposed. The point of connection would be determined in coordination with City staff. The connection infrastructure may require some installation within existing roadways once it exits the proposed utilidor.

If a northern water reuse facility is constructed, a second sanitary sewer connection would be required. The northern water reuse facility would connect to the City's sanitary sewer system at West Julian Street via a separate discharge connection outside of the proposed utilidor. This infrastructure is not expected to affect sensitive habitat areas, and aside from short-term construction disturbance, which is analyzed in this draft EIR for the proposed project, it would generate no further environmental impacts.

The analysis of the modeling scenarios performed for the preferred option with the Phase VII upgrades (see *Approach to Analysis*, above) shows the following results:

- Under the One or Two Water Reuse Facilities scenario, in which wastewater would enter the City's system only at Almaden Boulevard, no upgrades to the existing sanitary sewer infrastructure would be needed to accommodate these flows.
- Under the One Water Reuse Facility scenario, where wastewater would enter at Park Avenue, the model results indicate surcharge[49] due to capacity limitations from the connection point to Guadalupe Parkway plus surcharge due to backwater just upstream of the connection point.
- Under the Two Water Reuse Facilities scenario, in which the discharge of wastewater flows would be split between Park Avenue and West Julian Street, the model results indicate that the discharge from the southern water reuse facility would result in surcharge due to capacity limitations along portions of Park Avenue and South Autumn Street and along West St. John Street from North Autumn Street to Guadalupe Parkway. The discharge from the northern water reuse facility to West Julian Street would result in surcharge due to backwater along West Julian Street; however, the backwater represents a Level "D" under the City's LOS policy, which is acceptable.[50]

The analysis of the modeling scenarios performed for the preferred option without the Phase VII upgrades (see *Approach to Analysis*, above) shows the following results:

- Under the One or Two Water Reuse Facilities scenario, in which wastewater would enter the City's system only at Almaden Boulevard, the model results indicate surcharge due to backwater with some surcharge due to capacity limitations along the Almaden Boulevard line from Carlysle Street to the interceptor system at 5th Street and Empire Street, ending beyond the limits of the mapped results.
- Under the One Water Reuse Facility scenario, where wastewater would enter at Park Avenue, the model results indicate surcharge due to capacity limitations mixed with surcharge due to backwater from the connection point along the sanitary sewer line to the interceptor system at 5th Street and Empire Street, ending beyond the limits of the mapped results.
- Under the Two Water Reuse Facilities scenario, in which the discharge of wastewater flows would be split between Park Avenue and West Julian Street, the model results

[49] *Sewer surcharge* refers to the overloading of the sewer beyond its design capacity as a result of the inflow and infiltration of water.
[50] Arup, Lendlease & Sherwood Design Engineers. *Google Downtown West Infrastructure Plan*, October 7, 2020

> indicate that the discharge from the southern water reuse facility would result in surcharge due to capacity limitations along portions of Park Avenue and South Autumn Street and along West St. John Street from North Autumn Street to Almaden Boulevard. The discharge from the northern water reuse facility to West Julian Street would result in surcharge due to capacity limitations along portions of North Pleasant Street and Bassett Street from the Guadalupe River to the interceptor system at 5th Street and Empire Street, ending beyond the limits of the mapped results.[51]

The potential impacts of construction activities in these waterways on biological resources and hydrology are discussed in Section 3.2, *Biological Resources*, and Section 3.8, *Hydrology and Water Quality*, respectively. Therefore, the construction of infrastructure required for connection to the City's existing sanitary sewer system would generate no further impacts beyond those identified in this draft EIR for the proposed project.

Connecting to the City's existing sanitary sewer system on a site-by-site basis is also being considered for the proposed project under the business-as-usual option. The modeling results show that two upgrades would be required: (1) at North Autumn Street between Howard Street and West Julian Street and (2) at West Santa Clara Street between South Montgomery Street and South Autumn Street.[52] This infrastructure is not expected to affect sensitive habitat areas, and aside from short-term construction disturbance, which is analyzed in this draft EIR for the proposed project, it would generate no further environmental impacts. Under the business-as-usual option, no impacts on sanitary sewer siphons would occur.

As discussed below for storm drain infrastructure (refer to Section 3.14.9), the existing Park Avenue Stormwater Pump Station would also likely need to be relocated, likely into a new public utility easement within this development block, to avoid conflicts with the proposed building design. An existing sanitary sewer main running through the block would also be relocated, either into the existing street or within an easement along the north edge of the block.[53] The impacts of relocating the sanitary sewer main are analyzed throughout the EIR as part of the overall project development.

In addition, the proposed project would be subject to the Diridon Station Area Basic Infrastructure Impact Fee, which would constitute the project's fair-share payment toward the improvements to the backbone sanitary-sewer infrastructure necessary to serve development in the Diridon Station Area. The DSAP EIR envisioned construction of expanded sewer infrastructure in the project area. The EIR found that the resulting impacts would be less than significant.[54]

Therefore, with implementation of the mitigation measures listed under Impact UT-1, project impacts related to new or relocated wastewater infrastructure would be **less than significant with mitigation incorporated**.

Arup, Lendlease & Sherwood Design Engineers. *Google Downtown West Infrastructure Plan*, October 7, 2020

52 Arup, Lendlease & Sherwood Design Engineers. *Google Downtown West Infrastructure Plan*, October 7, 2020

53 Arup, Lendlease & Sherwood Design Engineers. *Google Downtown West Infrastructure Plan*, October 7, 2020

54 City of San José, *Diridon Station Area Plan Draft PEIR*, December 2013.

Operation—Wastewater Treatment Facilities

The water reuse facility(s) would include a multi-stage treatment system for primary treatment, secondary treatment, tertiary filtration, and disinfection.[55] The project would provide odor control measures at the initial stage of treatment by housing primary screenings in a ventilated enclosure at the water reuse facility(s). Water that has been tertiary filtered and disinfected would be stored in a non-potable storage tank before being distributed for uses such as toilet flushing, cooling, and irrigation. Treated non-potable water would be distributed via a pressurized distribution network within the private utilidor, described further in Chapter 2, *Project Description*, Section 2.8.3, *Utility Corridor*.

The water reuse facility residuals would be predominantly liquid, with a very low percentage of solids (approximately 2 percent). These solids could be discharged into the City's sanitary sewer system. Based on the Diridon Station Infrastructure Analysis, the City's sanitary sewers have adequate flow to carry these solids to the SJ-SC RWF.[56] As such, it is not anticipated that this discharge would create a high corrosion potential in the sewer lines.

Alternatively, solids produced as a byproduct of on-site treatment could be managed on-site through anaerobic digestion,[57] generating biogas that could be combusted and used in fuel cells to generate electricity.[58,59] Should anaerobic digestion be implemented, co-digestion with food waste collected via the automated waste collection system would increase the amount of biogas and biosolids produced. The digested biosolids would be dewatered and reused beneficially as soil amendments. Larger solids and trash entering the wastewater collection system would be washed and compacted before being collected in a covered bin and intermittently hauled away by trucks.

The water reuse facility(s) would be housed within the central utility plant, which would be soundproofed to alleviate potential noise issues and would include appropriate odor controls (air blowers and odor control units [e.g., carbon filters]) to manage any objectionable odors. A low-pressure collection system (also known as a pressure sanitary sewer) operates through a sealed system, eliminating leakages (exfiltration) and stormwater inflow and infiltration while also reducing odor issues. The pump station wet wells associated with the pressure sanitary sewer

55 At the initial stage of treatment, raw wastewater would be screened to remove inorganic solids, which would be collected in a roll-off bin and periodically hauled off site. During secondary treatment, a membrane bioreactor would be used to reduce concentrations of organic and inorganic compounds present in the primary effluent. Either a microfiltration or ultrafiltration membrane module would be used to achieve tertiary filtration of the wastewater. Following filtration, the membrane bioreactor effluent would be directed to advanced treatment and disinfection processes. Advanced treatment may be included to achieve color removal and to reduce the risk of microorganism re-growth in the distribution system. Disinfection is typically the final stage in wastewater treatment to reduce the presence of pathogens in treated effluent. Chlorine contact is the conventional means of achieving disinfection, but ultraviolet (UV) irradiation is an alternative disinfection process that could also be used. UV disinfection is the preferred disinfection unit process for the proposed project.

56 No equipment beyond that required for wastewater treatment would need to be installed; however, space could be reserved and pipe connections could be stubbed out to facilitate residual solids treatment and reuse of biosolids on-site in the future.

57 The proposed project could also include source-separated food waste in the digestion process, using a state-of-the-art anaerobic digester for co-digestion.

58 The on-site digestion of wastewater solids could supply enough energy to offset a portion of the energy demand of the water reuse facility(s), including wastewater collection and distribution of recycled water.

59 Arup, Lendlease & Sherwood Design Engineers. *Google Downtown West Infrastructure Plan*, October 7, 2020.

would be vented as required to prevent odorous conditions. If needed, air blowers and odor control units (e.g., carbon filters) would be incorporated into the pump station design.

Grit such as sand, gravel, coffee grounds, and eggshells would be removed to prevent them from accumulating in downstream processes such as aeration basins and anaerobic digesters. Similar to screenings, grit does not have a resource recovery value and would be hauled off site. The screenings and grit would be managed to avoid creating nuisance odors, which may be subject to the jurisdiction of the Bay Area Air Quality Management District (BAAQMD). With this handling and disposal, screenings and grit must be washed and drained, and the wash water may be recycled to the front of the treatment train. Once washed and dewatered, the screenings and grit would be stored in refuse containers satisfying the City's requirements, and routinely hauled off-site to a permitted landfill. Refuse containers would be odor-proof and contained in an area that would drain to the sanitary sewer in the case of a rain event. Odor control measures may also include housing primary screenings in a ventilated enclosure at the water reuse facility(s).

Primary treatment and management of primary and secondary solids would also produce odors. The water reuse facility(s) would have appropriate odor controls to manage any objectionable odors from these processes, with venting and containment similar to that described above. Should the odor control design prove to be inadequate (e.g., public complaints are received by the facility operator or BAAQMD),), a typical approach would involve setting up a monitoring network to quantify concentrations of odor compounds. Control designs would be revisited to further reduce source odors and bring concentrations below the BAAQMD threshold levels. Refer to Section 3.1, *Air Quality*, and Section 3.10, *Noise and Vibration*, for further discussion.

Secondary solids would also be required to meet the Part 503 Standards for the Use or Disposal of Sewage Sludge. SB 1383 restricts the amount of organics that can be landfilled. Therefore, if the wastewater solids were managed on site, a beneficial land application location would be identified and permitted to receive the treated biosolids. If too many biosolids were available to be applied to uses such as the landscaped areas of the project's open space, a permitted off-site location would be identified and used. As discussed in Section 3.12, *Public Services and Recreation*, many parks and open spaces are located within project vicinity. The hauling distance for treated biosolids would be minimized to the greatest extent feasible. Therefore, operational impacts related to the proposed water reuse facility(s) would be **less than significant with mitigation**.

> **Mitigation:** Refer to the list of mitigation measures under Impact UT-1.
>
> **Significance after Mitigation:** Less than significant. Although the proposed project as a whole would result in significant and unavoidable construction-related air quality and noise impacts, construction work involving utilities is included in the overall construction analysis. The utility construction work would be relatively minimal and would not, by itself, exceed any significance thresholds for air quality or noise. Therefore, for construction related to utilities, the impact would be less than significant with mitigation incorporated.

Impact UT-4: The proposed project would not result in a determination by the wastewater treatment provider that serves or may serve the project that it does not have adequate capacity to serve the project's projected demand in addition to the provider's existing commitments. ***(Less than Significant)***

The proposed project would increase demand for wastewater treatment services. As discussed under Impact UT-3, the project includes a preferred option for a system that would collect wastewater from all of the project's proposed development blocks via a private collection network to the district water reuse facility(s). During typical project operation, the on-site wastewater treatment facilities would not send any flows or solids to the City's sewer system when there is sufficient demand for recycled water.

The on-site system would tie into the City's sanitary sewer network to receive any excess wastewater flows or in the event of on-site plant failure.[60] Under this option, the project would contribute minimal flows during peak irrigation and cooling season and more flows during the wet season. As discussed in Section 3.14.4, *Environmental Setting*, the City has approximately 36.2 mgd of excess treatment capacity at the SJ-SC RWF. Therefore, the proposed project with the district water reuse facility(s) would have a less-than-significant impact on the ability of the SJ-SC RWF to meet existing demand for wastewater services.

As discussed above, connection to the City's existing sanitary sewer system throughout the district is also under consideration for the proposed project. Sewer flows into the City's sanitary sewer system would be treated at the SJ-SC RWF. Based on City modeling, the project could generate wastewater flows of approximately 2.52 mgd.[61,62] This increase represents approximately 7 percent of the City's excess treatment capacity at the SJ-SC RWF. Therefore, the proposed project would have a less-than-significant impact on the ability of the sewer system to meet existing demand for wastewater services. The project would not result in wastewater capacity issues. This impact would be **less than significant**.

Mitigation: None required.

Cumulative Impacts—Wastewater

The cumulative geographic context for wastewater systems considers the service areas of the local utility providers. The City's projections of conveyance and treatment capacity are considered in this analysis.

60 Arup, Lendlease & Sherwood Design Engineers. *Google Downtown West Infrastructure Plan*, October 7, 2020.

61 Existing demand for potable water accounts for approximately 230,000 gpd, yielding wastewater flows of approximately 207,000 gpd of existing wastewater flow. Thus, net wastewater flow would be approximately 2.5 million gpd.

62 The project applicant has submitted a memorandum to the City and San Jose Water Company proposing that San Jose Water Company review and adjust the demand factors used to estimate the project's water demand (Sherwood Design Engineers, *Technical Memorandum, Downtown West Mixed-Use Project Water Demands*, March 18, 2020). These proposed factors include demand factors, which would decrease the overall water demand for the project, compared to that estimated by San Jose Water Company, thereby reducing the amount of wastewater produced. This EIR conservatively uses the City's wastewater demand factors to estimate wastewater generation.

Impact C-UT-2: The proposed project, in combination with past, present, existing, approved, pending, and reasonably foreseeable future projects in the vicinity, would not contribute considerably to cumulative impacts on wastewater utility systems. ***(Less than Significant)***

Wastewater Infrastructure

The proposed project, in combination with past, present, existing, approved, pending, and reasonably foreseeable future projects in the vicinity, could result in the construction of new or expanded wastewater treatment facilities as a result of increased demands for service. The 2040 General Plan and Downtown Strategy EIRs concluded that planned growth would not result in a significant impact associated with the construction of additional sanitary sewer infrastructure, with implementation of existing programs, regulations, and General Plan policies.[63], [64]

Development of the proposed project may exceed the growth anticipated in the General Plan and the Downtown Strategy 2040 (refer to Section 3.11, *Population and Housing*) for the project site. In addition, the proposed amendments to the DSAP would increase density beyond what was previously considered for the plan area. The cumulative increase in density could result in the need for additional infrastructure improvements in the Downtown area. As discussed under Impact UT-3, the proposed project includes a suite of wastewater infrastructure improvements to fully address wastewater requirements for the project, the construction of which would not result in significant impacts. The DSAP EIR concluded that planned growth would not result in a significant impact associated with the construction of additional wastewater infrastructure, with implementation of existing programs, regulations, and General Plan policies.[65] The proposed project and other projects in the Diridon Station Area would be subject to the Diridon Station Area Basic Infrastructure Impact Fee, which would constitute fair-share payment toward the improvements to the backbone sanitary-sewer infrastructure necessary to serve development in the Diridon Station Area. Therefore, the proposed project would not contribute considerably to a significant cumulative impact in this regard, and impacts would be **less than significant**.

Wastewater Treatment

The proposed project, in combination with past, present, existing, approved, pending, and reasonably foreseeable future projects in the vicinity, would increase the demand for wastewater treatment. According to the 2040 General Plan EIR, development under the General Plan is estimated to generate an average of approximately 30.8 mgd of dry-weather influent flow. Because the City has approximately 36.2 mgd of excess treatment capacity at the SJ-SC RWF, planned growth in San José is not expected to exceed the City's allotted capacity.

Development of the proposed project may exceed the growth anticipated for the project site in the General Plan and the Downtown Strategy 2040 (refer to Section 3.11, *Population and Housing*). However, as discussed under Impact UT-3, with the proposed project under the preferred option, the on-site wastewater treatment facilities would send reduced flows and/or solids to the City's sewer system. Sewer flows into the City's sanitary sewer system would be treated at the SJ-SC RWF.

63 City of San José, *Envision San José 2040 General Plan Draft Program EIR*, June 2011.
64 City of San José, *Downtown Strategy 2040 Integrated Final EIR*, December 2018.
65 City of San José, *Envision San José 2040 General Plan Draft Program EIR*, June 2011.

Should the proposed project only tie into the City's sewer system, the project would contribute approximately 2.52 mgd to the SJ-SC RWF. This increase represents approximately 7 percent of the City's excess treatment capacity at the SJ-SC RWF. Conservatively assuming that none of the project's contribution is included in the General Plan contribution, the SJ-SC RWF and the sanitary sewer system would continue to have excess capacity with the addition of project flows. Therefore, the cumulative impact related to wastewater treatment capacity would be less than significant, and the proposed project would not contribute considerably to a significant cumulative impact on wastewater treatment capacity. Impacts would be **less than significant**.

Mitigation: None required.

Stormwater

3.14.7 Environmental Setting

Stormwater Collection and Treatment

The project site is currently occupied mostly by industrial and commercial development, with many large asphalt parking lots and minimal existing landscaped areas, making the site approximately 97 percent impervious. The existing developments do not treat stormwater runoff before it is discharged to the City's collection network.

The project site is served by the City's existing storm drain network. In the project area, the system drains to Los Gatos Creek and the Guadalupe River, which are under the jurisdiction of Valley Water.[66] The project site drains via 17 existing sub-watersheds that outfall directly into either Los Gatos Creek, Guadalupe Creek, or the Guadalupe River. There are three pump stations on the project site: the Park Pump Station, on the northeast corner of the existing San José Fire Department Training Center (Park Avenue); the Julian Pump Station, in the northeast corner of SAP Center Parking Lots A, B, and C (Julian Street); and the Cahill Pump Station, on West Santa Clara Street at the rail crossing underpass (West Santa Clara Street).[67]

Stormwater Drainage System Improvements

The City of San José does not currently maintain an ongoing storm drain assessment model to identify the existing conditions of storm drain pipes. However, a preliminary storm drain modeling analysis conducted as part of the *Diridon Station Area Infrastructure Analysis* did identify flooding during the 10-year, 24-hour storm event under existing conditions, including the intersection of Montgomery Street and Cinnabar Street, and along Santa Clara Street between Cahill Street and Autumn Street.[68,69] Localized flooding over 1 foot was also modeled on San Carlos Street from Leigh Avenue to Race Street under existing conditions caused by insufficiently sized pipes downstream. However, the flooding is not identified in the project area.[70]

The *Diridon Station Area Infrastructure Analysis* found that the storm drain infrastructure does not have the capacity to convey existing flows. Improvements would be required to mitigate flooding in the Diridon Station Area and the larger watershed, related to development in the Diridon Station Area. The improvements to backbone stormwater infrastructure identified include upsizing and constructing new pipes through the project site in Cinnabar Street, Santa Clara Street, and San Fernando Street and at the intersection of Park Avenue and Montgomery Street. These projects would add new outfalls to Los Gatos Creek and would require flap gates to control exit conditions.[71] The DSAP EIR envisioned construction of this infrastructure, finding that the resulting impacts would be less than significant.[72] Since publication of the DSAP EIR, the City has undertaken a

66 City of San José, *Diridon Station Area Infrastructure Analysis*, January 31, 2017.
67 Arup, Lendlease & Sherwood Design Engineers. *Google Downtown West Infrastructure Plan*, October 7, 2020.
68 City of San José, *Diridon Station Area Infrastructure Analysis*, January 31, 2017.
69 Schaaf & Wheeler, *Google San Jose Storm System Analysis*, August 2020.
70 Schaaf & Wheeler, *Google San Jose Storm System Analysis*, August 2020.
71 City of San José, *Diridon Station Area Infrastructure Analysis*, January 31, 2017.
72 City of San José, *Diridon Station Area Plan Draft PEIR*, December 2013.

storm drain master plan project in 2020 that included remodeling of the storm drain system within the DSAP area. Improvements identified in the updated modeling are generally consistent with those identified in the 2017 Diridon Station Area Infrastructure Analysis.

3.14.8 Regulatory Framework

Federal and state laws regarding stormwater focus primarily on the regulation of pollutant discharges that could contaminate surface waters or groundwater. As such, the federal Clean Water Act and NPDES, as well as the state Porter-Cologne Act, regulate stormwater runoff, as discussed in Section 3.14.5, above. Refer to Section 3.8, *Hydrology and Water Quality*, Section 3.8.2, *Regulatory Setting*, for additional description and requirements.

Regional

National Pollutant Discharge Elimination System Waste Discharge Regulations

Discharges of stormwater runoff from municipal separate storm sewer systems (MS4s) are regulated by the Municipal Regional Stormwater NPDES permit, under Order No. R2-2015-0049; NPDES Permit No. CAS612008, issued by the San Francisco Bay Regional Water Board.

Under CWA Section 402(p), stormwater permits are required for discharges from MS4s that serve populations of 100,000 or more. The Municipal Regional Permit (MRP) manages the Phase I Permit Program (serving municipalities of more than 100,000 people), the Phase II Permit Program (for municipalities of fewer than 100,000 people), and the Statewide Storm Water Permit for the California Department of Transportation.

The State Water Board and the individual water boards implement and enforce the MRP. Multiple municipalities, including the City of San José, along with Santa Clara County (County) and Valley Water, are co-permittees. These entities formed the Santa Clara Valley Urban Runoff Pollution Prevention Program to collectively address waste discharge requirements and manage stormwater runoff from storm drains and watercourses within their jurisdictions.

Municipal Regional Permit Provision C.3

Under Provision C.3 of the MRP, new and redevelopment projects that create or replace 10,000 square feet or more of impervious surface area, or 5,000 square feet or more of impervious surface area for regulated projects involving special land use categories (i.e., auto service, retail gasoline station, restaurant, and/or uncovered parking), are required to implement site design, source control, and Low Impact Development–based stormwater treatment controls to treat post-construction stormwater runoff. Low Impact Development–based treatment controls are intended to maintain or restore the site's natural hydrologic functions, maximizing opportunities for infiltration and evapotranspiration, and for using stormwater as a resource (e.g., rainwater harvesting for non-potable uses). The MRP also requires that stormwater treatment measures be properly installed, operated, and maintained.

In addition, the MRP requires new development and redevelopment projects that create or replace 1 acre or more of impervious surface to manage development-related increases in peak runoff flow,

volume, and duration, where such hydromodification is likely to cause increased erosion, generate silt pollutants, or cause other impacts on local rivers, streams, and creeks. Projects may be deemed exempt from these requirements if they do not meet the minimum size threshold, drain into tidally influenced areas or directly into San Francisco Bay, or drain into hardened channels, or if they are infill projects in sub-watersheds or catchment areas that are at least 65 percent impervious.

Local

Envision San José 2040 General Plan

The General Plan contains the following relevant policies related to stormwater systems:

Policy IN-1.5: Require new development to provide adequate facilities or pay its fair share of the cost for facilities needed to provide services to accommodate growth without adversely impacting current service levels.

Policy IN-1.5: Ensure that public facilities and infrastructure are designed and constructed to meet ultimate capacity needs to avoid the need for future upsizing. For facilities subject to incremental upsizing, initial design shall include adequate land area and any other elements not easily expanded in the future. Infrastructure and facility planning should discourage over-sizing of infrastructure which could contribute to growth beyond what was anticipated in the 2040 General Plan.

Policy IN-1.7: Implement financing strategies, including assessment of fees and establishment of financing mechanisms, to construct and maintain needed infrastructure that maintains established service levels and mitigates development impacts to these systems (e.g., pay capital costs associated with existing infrastructure that has inadequate capacity to serve new development and contribute toward operations and maintenance costs for upgraded infrastructure facilities).

Policy IN-3.1: Achieve minimum level of services:

- For storm drainage, to minimize flooding on public streets and to minimize the potential for property damage from stormwater, implement a 10-year return storm design standard throughout the City, and in compliance with all local, State and Federal regulatory requirements.

Policy IN-3.3: Meet the water supply, sanitary sewer and storm drainage level of service objectives through an orderly process of ensuring that, before development occurs, there is adequate capacity. Coordinate with water and sewer providers to prioritize service needs for approved affordable housing projects.

Policy IN-3.9: Require developers to prepare drainage plans that define needed drainage improvements for proposed developments per City standards.

San José Municipal Code

City Municipal Code Chapter 14.35 adopted the Diridon Station Area Basic Infrastructure Impact Fee, which requires that all new development in the Diridon Station Area Impact Fee Zone contribute to the Diridon Station Area Impact Fee Fund. This fee funds the construction of necessary storm drainage and flood control infrastructure specified in the Diridon Station Area:

Impact Fee Nexus Study for Basic Infrastructure, as described in Section 3.14.5, *Regulatory Framework*, in the *Wastewater* section, above.

City of San Jose Policy 6-29 (Post-Construction Urban Runoff Management)

City of San José Policy 6-29 implements the stormwater treatment requirements of Provision C.3 of the MRP. City Council Policy 6-29 requires new development and redevelopment projects to implement post-construction best management practices and treatment control measures, including minimizing stormwater flow.

3.14.9 Impacts and Mitigation Measures

Significance Criteria

For the purposes of this EIR, a utilities and service systems impact related to stormwater would be significant if implementing the proposed project would:

- Require or result in the relocation or construction of new or expanded stormwater drainage facilities, the construction or relocation of which could cause significant environmental effects.

Approach to Analysis

This analysis identifies the potential impacts of construction and operation of the proposed project as they relate to stormwater generation and facilities. Information about proposed infrastructure used throughout the analysis is sourced from the *Google Downtown West Infrastructure Plan*, prepared by Arup, Lendlease, and Sherwood Design Engineers (October 7, 2020).

This analysis also relies upon the *Google San Jose Storm System Analysis*, prepared by Schaaf & Wheeler (August 2020). Improvements to the City's backbone storm drain infrastructure were based on results of the latest storm drain master plan modeling for the 10-year storm event provided by the City (August 2020). The City's storm drain model represents the piping system, integrated riverine system, and overland flows throughout the City. The proposed condition scenario was developed to assess the storm drain needs in the Diridon Station Area and upstream watershed based on the condition in which upstream pipe capacity restrictions are removed. Pipes found to have capacity deficiencies and considered for improvements would be improved to meet current standard design guidelines described in the Santa Clara County Drainage Manual and the City's 2002 Development Manual (Development Manual). Backbone improvements are those that have broad benefit to large areas of the Diridon Station Area and upstream watershed, and would be constructed in a comprehensive manner, rather than incrementally with each development. Proposed backbone improvements include those within the Downtown West project boundary, remaining improvements would be led by the City in the future and completed in conjunction with DSAP development outside of the project site. Individual developments would still be obligated to construct frontage improvements, storm drain services, and localized

storm drain improvements beyond those listed in the *Downtown West Storm System Analysis* consistent with City policies and as required by conditions of approval.[73]

Impact Analysis

Impact UT-5: The proposed project would not require or result in the relocation or construction of new or expanded stormwater drainage facilities, the construction or relocation of which could cause significant environmental effects. *(Less than Significant with Mitigation)*

The proposed project would construct approximately 6,300 linear feet of new storm drain facilities in both existing and new streets to serve new development, new streets, or streets with new stormwater treatment. Existing storm drain pipes would also be upgraded on- and off-site to address potential flooding issues associated with the project (described further in Section 3.8, *Hydrology and Water Quality*). Upsizing and constructing a new, larger storm drainage pipe in Cinnabar Street and North Autumn Street in the northern portion of the site, to connect with a new storm drain installed in North Autumn Street in connection with the under-construction Platform 16 project, would eliminate flooding in Cinnabar Street and North Autumn Street. These new storm drainage pipes would connect to an existing outfall east of the abandoned Howard Street that drains to the Guadalupe River. The City plans to increase the size of the outfall as part of its ongoing Capital Improvement Program, with construction occurring independently of the proposed project. The proposed project would construct approximately 880 feet of 66-inch storm drain pipeline in Cinnabar Street from the Caltrain tracks to North Autumn Street and about 185 feet of 18-inch pipeline in North Montgomery Street just south of Cinnabar Street.

The proposed project would also construct approximately 840 feet of storm drain pipe in West Santa Clara Street from Cahill Street to Los Gatos Creek. The proposed larger pipe in West Santa Clara Street would eliminate flooding in the respective areas identified along West Santa Clara Street.[74] The project would also reconstruct the existing outfall to Los Gatos Creek, upsizing the existing 18-inch pipe to a 33-inch pipe. The outfall, located underneath the West Santa Clara Street overcrossing, would require a new and larger flap gate to accommodate the larger pipe and to control exit conditions.

The proposed project would remove two street segments to align with the new street grid: South Montgomery Street between West San Fernando Street and Park Avenue; and North Montgomery Street for approximately 200 linear feet north of West St. John Street. These upgrades are proposed to mitigate existing flooding, as the proposed development does not increase discharge to the storm drain mains.

The potential impacts of construction activities in these waterways on biological resources and hydrology are discussed in Section 3.2, *Biological Resources*, and Section 3.8, *Hydrology and Water Quality*, respectively. The existing Park Avenue Pump Station would also likely need to be relocated, likely into a new easement within this development block, to avoid conflicts with the

[73] Schaaf & Wheeler, *Google San Jose Storm System Analysis*, August 2020.
[74] Schaaf & Wheeler, *Google San Jose Storm System Analysis*, August 2020.

proposed building design. Existing storm drain infrastructure would also be relocated, either into the existing street or within an easement along the north edge of the block.[75] The impacts of relocating the pump station are analyzed as part of the overall project development throughout the EIR.

The proposed project would be subject to the Diridon Station Area Basic Infrastructure Impact Fee, which would constitute the project's fair-share payment toward the improvements to backbone stormwater infrastructure necessary to serve development in the Diridon Station Area.

The proposed project would also include an on-site stormwater management system that may include bioretention, flow-through planters, pervious paving, green roofs, and potentially rainwater harvesting or infiltration facilities. As discussed in Section 3.8, *Hydrology and Water Quality*, this system would be designed to comply with all regulatory requirements for stormwater management, at a minimum. The project would be designed to implement site design, source control, and Low Impact Development–based stormwater management consistent with Provision C.3 of the MRP and City Policy 6-29, which would minimize stormwater runoff and impacts to the storm drainage system. Improvements to storm drain infrastructure would occur mainly within the project site, with connections off-site within public rights-of-way, and would generate no further impacts beyond those identified in this draft EIR for the proposed project.

In addition, one of the major components of the new streetscapes is stormwater treatment areas and tree planters, which require subgrade area. Thus, some existing utilities within the right-of-way may require relocation to avoid conflicts between proposed streetscape elements and existing utilities. These relocations would also occur within the right-of-way, and would generate no further impacts beyond those identified in this draft EIR for the proposed project.

In addition, the DSAP EIR envisioned construction of expanded storm drain infrastructure in the project area, some of which may overlap with the proposed project improvements. Improvements included upsizing of pipelines in Cinnabar and North Autumn Streets and in West Santa Clara Street from Diridon Station to Los Gatos Creek. The EIR found that the resulting impacts would be less than significant.[76] However, independent of the analysis previously performed for the proposed pipeline upsizing, required storm drain infrastructure improvements are analyzed throughout the EIR as part of the overall project development. Therefore, with implementation of the mitigation measures listed under Impact UT-1, project impacts related to new or relocated storm drain infrastructure would be **less than significant with mitigation incorporated**.

> **Mitigation:** Refer to the list of mitigation measures under Impact UT-1.
>
> **Significance after Mitigation:** Less than significant. Although the proposed project as a whole would result in significant and unavoidable construction-related air quality and noise impacts, construction work involving utilities is included in the overall construction analysis. The utility construction work would be responsible for a small portion of these impacts. Therefore, for construction related to utilities, the impact would be less than significant with mitigation incorporated.

[75] Arup, Lendlease & Sherwood Design Engineers. *Google Downtown West Infrastructure Plan*, October 7, 2020.
[76] City of San José, *Diridon Station Area Plan Draft PEIR*, December 2013.

Cumulative Impacts—Stormwater

The cumulative geographic context for storm drain systems considers the service areas of the local utility providers, specifically the City's existing storm drain network. Development under the City's General Plan and amendments to the DSAP for storm drain infrastructure are considered in this analysis.

Impact C-UT-3: The proposed project, in combination with past, present, existing, approved, pending, and reasonably foreseeable future projects in the vicinity, would not contribute considerably to cumulative impacts on stormwater utility systems. ***(Less than Significant)***

Stormwater Infrastructure

The proposed project, in combination with past, present, existing, approved, pending, and reasonably foreseeable future projects in the vicinity, could result in the construction of new or expanded storm drainage facilities as a result of increased demands for service. The 2040 General Plan and Downtown Strategy EIRs concluded that planned growth would not result in a significant impact associated with the construction of additional stormwater infrastructure, with implementation of existing programs, regulations, and General Plan policies.[77][78]

Development of the proposed project may exceed the growth anticipated for the Downtown area in the General Plan and the Downtown Strategy 2040 (refer to Section 3.11, *Population and Housing*). In addition, the proposed amendments to the DSAP would increase density beyond what was previously considered for the plan area. The cumulative increase in density could result in the need for additional infrastructure improvements in the Downtown area. However, as discussed under Impact UT-1, the proposed project includes stormwater infrastructure improvements to fully address stormwater demands for the project, the construction of which would not result in significant impacts.

The proposed stormwater management improvements may include bioretention, flow-through planters, pervious paving, green roofs, and potentially rainwater harvesting or infiltration facilities. As discussed in Section 3.8, *Hydrology and Water Quality*, this system would be designed to comply with all regulatory requirements for stormwater management, at a minimum, which are designed to minimize stormwater runoff. The proposed project would include its own on-site stormwater management system and stormwater infrastructure improvements, but construction would not result in significant impacts; therefore, the proposed project would not contribute considerably to a significant cumulative impact in this regard. Impacts would be **less than significant**.

Mitigation: None required.

[77] City of San José, *Envision San José 2040 General Plan Draft Program EIR*, June 2011.
[78] City of San José, *Downtown Strategy 2040 Integrated Final EIR*, December 2018.

Other Utilities

3.14.10 Environmental Setting

Electricity

Pacific Gas and Electric Company (PG&E) and San José Clean Energy (SJCE) provide electric service in San José. SJCE is a community choice energy agency governed by the San José City Council as a City department. SJCE purchases power wholesale and makes retail sales to customers through existing PG&E electrical infrastructure.[79] SJCE customers are automatically enrolled in the GreenSource program, which includes electricity that is generated by renewable and carbon-free sources and is approximately 80 percent carbon free. Customers can also choose a TotalGreen plan with 100 percent renewable energy, or can opt out and choose to remain customers of PG&E.[80] PG&E also provides natural gas service in San José.

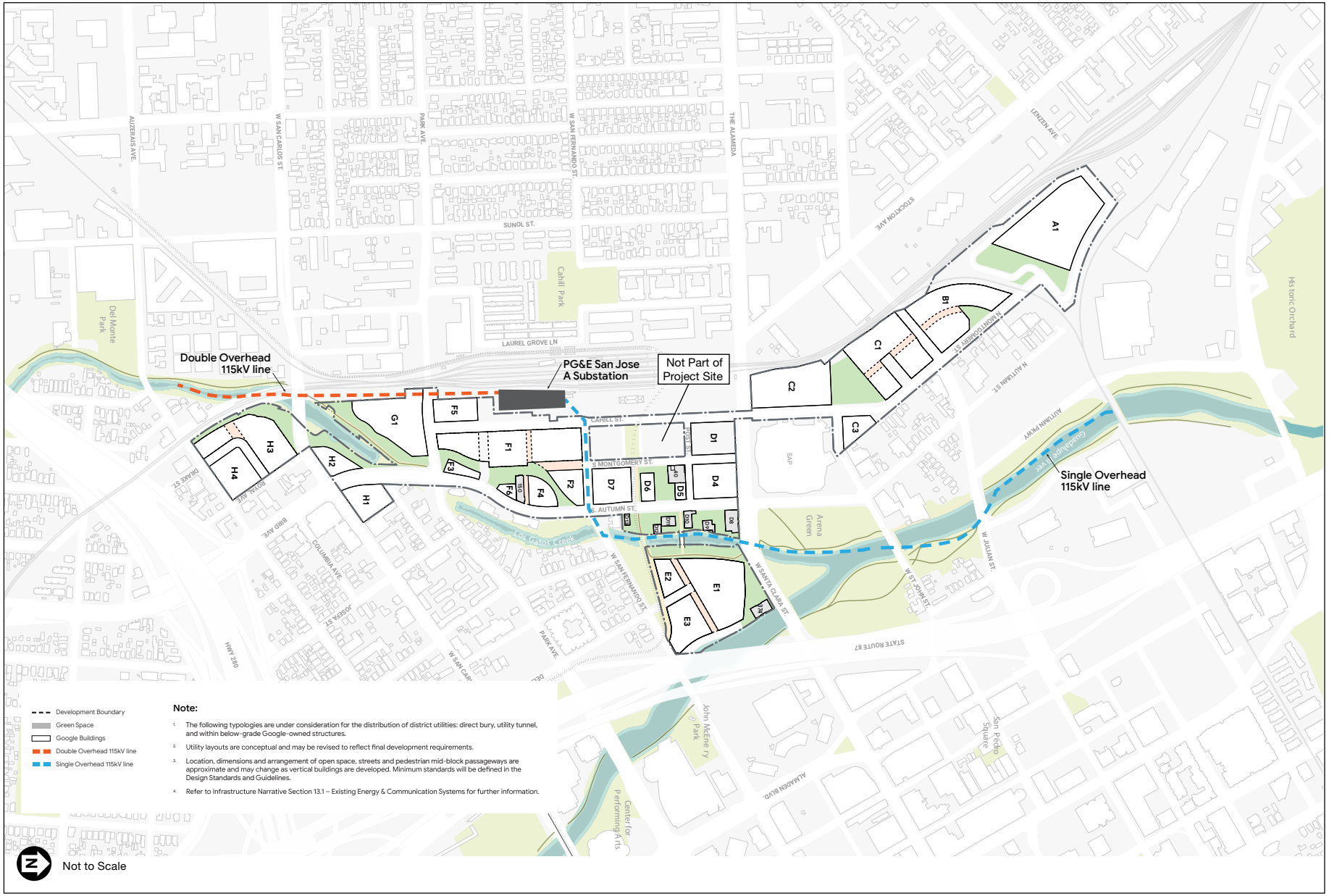
Existing electrical infrastructure near the project site includes a transmission corridor to the PG&E San Jose A Substation, adjacent to the project site to the east. A double overhead 115-kilovolt (kV) transmission line runs south from the substation and connects to the El Patio Substation in the city of Campbell; a single overhead 115 kV transmission line runs west from the substation along West San Fernando Street and follows Los Gatos Creek and the Guadalupe River to the north, connecting with the San Jose B Substation, located northeast of the project site near the intersection of Coleman Avenue and State Route 87. **Figure 3.14-2** illustrates the existing substation and overhead power lines.

In the project area, there are overhead and underground PG&E distribution systems, and overhead and underground secondary distribution and service systems for various voltages below 600 volts. The substation has two available distribution voltages: 12.47 kV and 4.16 kV. In its current configuration, the San Jose A Substation has around 5 megawatts of capacity remaining on the 12.47 kV network. The 4.16 kV system is legacy voltage and not available for new customers.[81]

Natural Gas

PG&E also provides natural gas service in San José. Existing natural gas infrastructure within the project site includes gas mains within sections of Cinnabar Street, Delmas Street, Autumn Street, West San Fernando Street, and Stover Alley. Existing blocks serviced by gas infrastructure connect either to these interior lines or lines in adjacent roadways; however, not all existing blocks are served by natural gas connections. A gas transmission line also terminates near the project site at the corner of Julian Street and Autumn Street, which serves mains within the project site. The transmission line originates north and east of the termination, and does not pass through the project site.[82]

[79] San José Clean Energy, FAQ. Available at https://www.sanjosecleanenergy.org/faq. Accessed October 12, 2019.
[80] San José Clean Energy, The Choice is Yours. Available at https://www.sanjosecleanenergy.org/your-choices. Accessed October 12, 2019.
[81] Arup, Lendlease & Sherwood Design Engineers. *Google Downtown West Infrastructure Plan*, October 7, 2020.
[82] Arup, Lendlease & Sherwood Design Engineers. *Google Downtown West Infrastructure Plan*, October 7, 2020.



SOURCE: Google, 2020

Downtown West Mixed-Use Plan

Figure 3.14-2
Existing Transmission Corridor

Telecommunications

The telecommunications system serving the project area consists of aboveground and buried telecommunications circuits from several providers, primarily AT&T and Comcast. Comcast uses a combination of coaxial cables and strand-mounted active equipment for service. Medium-count copper cables provide voice services to businesses and residents in the area, and fiber-optic cables also provide high-speed data service.

North of the SAP Center/The Alameda, circuits include a mix of pole-mounted communications cables on PG&E poles, with undergrounding at rail crossings and major street intersections. Cable is located underground in the area to the south and east of the SAP Center. South of The Alameda, telephone and cable TV lines are primarily aboveground, and mounted on electrical poles with a few dedicated telecommunications poles. Undergrounding occurs at major intersections, creek/river crossings, and rail crossings.

There are also train signaling cables in the project area, including an aboveground pole-mounted signaling cable from the main Caltrain trunk to the rail crossing between Cinnabar Street and North Autumn Street. Additionally, in the area to the east of Diridon Station at Crandall Street before the tracks emerge aboveground, there are light-rail communications and signaling circuits.

The project area contains one cross-connect box, an outdoor metal box that allows access to telecommunications wiring, at southeast corner of Cinnabar Street and North Montgomery Street. While outside the project area, there is also a cross-connect box and an active equipment controlled environment vault at the northwest corner of West St. John Street and North Autumn Street that appears to serve the SAP Center.

There are four pole-mounted cellular telephone sites in the project area:

- Southeast corner of North Montgomery Street
- Mid-block on the south side of West Julian Street
- Mid-block on the east side of South Montgomery Street south of Crandall Street
- Mid-block on the west side of South Montgomery Street adjacent to the Fire Training Center

There is also a radio transmission tower in PG&E Substation A south of Diridon Station.

The central office that serves the project area is the AT&T San Jose A central office at 95 Almaden Avenue. There is also an AT&T service center located at 145 South Montgomery Street. While this is no longer identified as a central office, there is an underground telecommunications structure on South Montgomery Street and a large telecommunications structure consisting of multiple underground vaults in both the north and south lanes of Park Avenue.

Electricity, Gas, and Telecommunications Improvements

The *Diridon Station Area Infrastructure Analysis* assumed that all overhead distribution facilities, including electric and telecommunication lines, would be undergrounded in conjunction with development of the Diridon Station Area. The analysis also recommended undergrounding the overhead utilities along backbone streets during construction of the proposed roadway improvements.

The analysis included land use changes equivalent to Commercial Downtown uses in the area occupied by PG&E Substation A on Otterson Street, south of Diridon Station. These office and commercial uses could be applied to increase densities at other sites, if the substation were to remain. According to the *Diridon Station Area Infrastructure Analysis*, should the site be redeveloped, the PG&E substation and portions of the associated overhead transmission system would need to be relocated to another suitable and available property.

3.14.11 Regulatory Framework

Local

San José Reach Code

Reach codes are building codes that are more advanced than those required by the state. In September 2019, the San José City Council approved a building reach code ordinance (Ordinance No. 30311) that encourages building electrification and energy efficiency. In October 2019, the City Council approved an ordinance (Ordinance No. 30330) prohibiting natural gas infrastructure in new detached accessory dwelling units, single-family, and low-rise multi-family buildings that would supplement the reach code ordinance.

Envision San José 2040 General Plan

The General Plan contains the following relevant policies related to other utilities:

> **Policy IN-1.5:** Require new development to provide adequate facilities or pay its fair share of the cost for facilities needed to provide services to accommodate growth without adversely impacting current service levels.
>
> **Policy IN-1.5:** Ensure that public facilities and infrastructure are designed and constructed to meet ultimate capacity needs to avoid the need for future upsizing. For facilities subject to incremental upsizing, initial design shall include adequate land area and any other elements not easily expanded in the future. Infrastructure and facility planning should discourage over-sizing of infrastructure which could contribute to growth beyond what was anticipated in the 2040 General Plan.
>
> **Policy IN-1.7:** Implement financing strategies, including assessment of fees and establishment of financing mechanisms, to construct and maintain needed infrastructure that maintains established service levels and mitigates development impacts to these systems (e.g., pay capital costs associated with existing infrastructure that has inadequate capacity to serve new development and contribute toward operations and maintenance costs for upgraded infrastructure facilities).

3.14.12 Impacts and Mitigation Measures

Significance Criteria

For the purposes of this EIR, a utilities and service systems impact would be significant if implementing the proposed project would:

- Require or result in the relocation or construction of new or expanded electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects.

Approach to Analysis

This analysis identifies the potential impacts of construction and operation of the proposed project as they relate to electric, natural gas, and telecommunications facilities. Information about proposed infrastructure used throughout the analysis is sourced from the *Google Downtown West Infrastructure Plan*, prepared by Arup, Lendlease, and Sherwood Design Engineers (October 7, 2020).

This section also addresses impacts of the proposed utilidor, as the utilidor would advance the provision of utilities (including potential microgrid electrical, thermal energy, and telecommunications) for the project. The following discussions refer to the detailed analysis in Impact UT-1 as necessary (refer to Section 3.14.3, above).

Impact Analysis—Other Utilities

Impact UT-6: The proposed project would not require or result in the relocation or construction of new or expanded electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects. ***(Less than Significant with Mitigation)***

Electricity and Thermal Energy

Electricity

Additional electrical service would be required to meet the project's energy needs. The proposed project, as part of the infrastructure plan[83] for the project site, would require upgrades to the existing electrical transmission and distribution infrastructure (as described in Chapter 2, *Project Description*). The proposed electrical infrastructure improvements are shown in Chapter 2, Figure 2-9.

The existing PG&E overhead transmission circuits may be placed underground as part of the project. To facilitate this effort, transition stations (from overhead to underground) would be required off-site at the locations of existing PG&E electrical towers. Because these transition stations would be located within the footprint of existing PG&E infrastructure, impacts would be minimal. Portions of the transmission lines proposed to be undergrounded are located mainly within existing roads and rights-of-way, both on and off site. The proposed undergrounding of the northern 115 kV single overhead line would involve a segment crossing the Guadalupe River.

[83] Arup, Lendlease & Sherwood Design Engineers. *Google Downtown West Infrastructure Plan*, October 7, 2020.

The potential impacts of construction activities in these waterways on biological resources and hydrology are discussed in Section 3.2, *Biological Resources*, and Section 3.8, *Hydrology and Water Quality*, respectively. Therefore, the construction of infrastructure required for undergrounding of PG&E transmission infrastructure would generate no further impacts beyond those identified in this draft EIR for the proposed project.

The existing PG&E San Jose A Substation would also require improvements, consisting of a new ancillary control building and associated battery building, and other electrical and telecommunications equipment. In addition, the El Patio and San Jose B Substations may require minor equipment improvements. These improvements would be constructed within the existing footprints of the substations, and would generate no further impacts beyond those identified in this draft EIR for the proposed project.

A gas-insulated switching station and project substation would be installed on the project site. The station would be located in the Southern Infrastructure Zone, construction of which is analyzed in this draft EIR (e.g., Section 3.1, *Air Quality*, and Section 3.10, *Noise and Vibration*, among others). Alternatively, the switching station may be able to be located within San Jose A allowing for direct PG&E distribution service from San Jose A. In this option the project would not require a new dedicated customer substation and switching station, and would be served with 12 kV supplies directly from San Jose A. San Jose A would be upgraded to accommodate direct distribution needs for the project.

The proposed project would also provide localized infrastructure from the substation to connect the majority of buildings within the project site in a microgrid with a single point of connection to the main grid. The microgrid would include controls to share power between buildings across the microgrid distribution, and controls to operate any below-substation generation and storage disconnected from the grid in the event of an outage.

It is not anticipated, however, that the microgrid would have sufficient renewable energy and storage to operate for an extended period in an islanded scenario, given the high-density nature of the project. The intent of a single point of connection and microgrid topology is primarily to enable the sharing of renewable power and storage and provide limited resilience to critical functions in the event of an outage. The electrical distribution infrastructure for the microgrid would be located within the utilidor or direct-buried in a joint trench, the construction of which is analyzed in this draft EIR. Each individual building, or groups of buildings, would then contain step-down transformers to provide building-level 480-volt power. The mitigation measures discussed in Impact UT-1 would be implemented to reduce impacts of ground-disturbing construction activities, including construction of facilities within the proposed utilidor and infrastructure zones, to the extent feasible.

Some buildings may not connect to the microgrid; these include existing buildings that would remain on the project site, some residential buildings, and blocks that may require power before construction of the central utility plants and microgrid because of phasing. Electrical distribution to buildings outside the microgrid would be provided by PG&E to the main meter for the building via distribution lines in a joint trench located in the public right-of-way, rather than via the private

utilidor, and would generate no further impacts beyond those identified in this draft EIR for the proposed project. Renewable generation and storage assets located at these buildings would not contribute to the microgrid.

Therefore, with implementation of the mitigation measures listed under Impact UT-1, impacts related to new or relocated electrical infrastructure would be **less than significant with mitigation incorporated**.

Thermal Energy

Central utility plants located in infrastructure zones on the project site would provide thermal energy for the proposed project. The central utility plants would provide hot water for heating and chilled water for cooling to all office buildings, and potentially to all buildings on the site. A limited number of buildings may not receive thermal service from the central utility plants because of phasing or construction limitations. These include existing buildings that would remain on the project site, certain residential buildings, and blocks that may be constructed before completion of the central utility plants and the hot and chilled water line infrastructure. Where appropriate, temporary thermal service may be located at these blocks with a later connection to the central utility plants, replacing the temporary service when appropriate. In other cases, the blocks would maintain stand-alone thermal equipment unconnected to a central utility plant.

Hot water and chilled water would be distributed via infrastructure included as part of the proposed utilidor or where necessary direct buried and central utility plants, construction of which is analyzed in this draft EIR. Condenser water pipes connecting the ground source heating and cooling within the subsurface foundations would also be present in the utilidor, connecting ground loops to the central utility plants. Therefore, with implementation of the mitigation measures listed under Impact UT-1, impacts associated with new thermal energy infrastructure would be **less than significant with mitigation incorporated**.

Natural Gas

The proposed project is designed to reduce the use of natural gas and to be combustion-free by providing heating and cooling only through electric equipment. The project applicant's preferred option is not to use natural gas. However, the proposed project may need to use natural gas on-site in up to 20,000 square feet of restaurant kitchen space; otherwise, systems are anticipated to be all-electric. If necessary, the project would construct new natural gas infrastructure to connect into existing natural gas distribution pipelines. Natural gas infrastructure would be provided to these buildings by PG&E, via distribution lines located in a joint trench in the public right-of-way rather than the private utilidor, and would generate no further impacts beyond those identified in this draft EIR for the proposed project. Therefore, with implementation of the mitigation measures listed under Impact UT-1, impacts related to new or relocated gas infrastructure would be **less than significant with mitigation incorporated**.

Telecommunications

Telecommunications infrastructure—fiber-optic cable for data, phone and cable television service—would be routed through the utilidor and would connect to all proposed buildings,

as shown in Chapter 2, Figure 2-9. In addition, underground telecommunications infrastructure under South Montgomery Street and Park Avenue associated with the AT&T service center at 145 South Montgomery Street may need to be relocated based on the utilidor alignment. The construction and relocation of telecommunications infrastructure would be included as part of the proposed utilidor, which is analyzed in this draft EIR. Therefore, with implementation of the mitigation measures listed under Impact UT-1, impacts related to new or relocated telecommunications infrastructure would be **less than significant with mitigation incorporated**.

Mitigation: Refer to the list of mitigation measures under Impact UT-1.

Significance after Mitigation: Less than significant. Although the proposed project as a whole would result in significant and unavoidable construction-related air quality and noise impacts, construction work involving utilities is included in the overall construction analysis. The utility construction work would be responsible for a small portion of these project impacts. Therefore, for construction related to utilities, the impact would be less than significant with mitigation incorporated.

Cumulative Impacts—Other Utilities

The cumulative geographic context for other utilities considers development of the project, including cumulative projects in the city of San José and the service areas of the local utility providers. The cumulative projects that are considered in this analysis (past, approved, pending, and under construction) are included in Chapter 3, Figure 3-1, and in Appendix B, Table B-1.

Impact C-UT-4: The proposed project, in combination with past, present, existing, approved, pending, and reasonably foreseeable future projects in the vicinity, would not contribute considerably to cumulative impacts on electric power, natural gas, or telecommunications systems. ***(Less than Significant)***

Electric Power, Natural Gas, and Telecommunications Infrastructure

The proposed project, in combination with past, present, existing, approved, pending, and reasonably foreseeable future projects in the vicinity, could result in the construction of new or expanded electric power, natural gas, or telecommunications facilities as a result of increased demands for service. The 2040 General Plan and Downtown Strategy 2040 EIRs concluded that, with implementation of existing programs, regulations, and General Plan policies, planned growth would not result in a significant impact associated with the construction of additional utilities infrastructure.[84][85]

Development of the proposed project may exceed the growth anticipated in the General Plan and the Downtown Strategy 2040 (refer to Section 3.11, *Population and Housing*) for the Downtown area. In addition, the proposed amendments to the DSAP would increase density beyond what was previously considered for the plan area. The cumulative increase in density could result in the need for additional infrastructure improvements in the Downtown area. However, as discussed in

84 City of San José, *Envision San José 2040 General Plan Draft Program EIR*, June 2011.
85 City of San José, *Downtown Strategy 2040 Integrated Final EIR*, December 2018.

Impact UT-6, the proposed project includes a suite of electric power, natural gas, and telecommunications infrastructure improvements to serve the project site, the construction of which would not result in significant impacts. Therefore, the proposed project would not contribute considerably to a significant cumulative impact in this regard. Impacts would be **less than significant**.

Mitigation: None required.

Solid Waste

3.14.13 Environmental Setting

Solid Waste

The City's Environmental Services Department (ESD), Integrated Waste Management Division, supports solid waste collection, processing, and disposal for residential, commercial, and City facility operations. The ESD provides recycling and garbage services to nearly 326,000 residential households in San José through contracted service providers.[86] Residential waste, including for multi-family households, is managed through the Recycle Plus program, which includes curbside garbage and recycling collection, collection of yard trimmings, street sweeping, and garbage processing provided by four contractors in three service areas. Materials not sent to a landfill include recyclables and organics (yard trimmings and organics extracted from garbage processing sent to a composting facility).

The commercial waste management system is a three-way collaboration between the City, Republic Services, and Zero Waste Energy Development Company (ZWED). Republic Services owns and operates a material recovery facility (MRF), and ZWED owns and operates a commercial-scale dry anaerobic digestion facility. Republic Services processes the material collected from commercial businesses to remove recyclables before any portion is sent to a landfill. Republic Services collects organic waste from commercial businesses and delivers the organics to the ZWED facility for processing into energy and compost.

The ESD manages non-exclusive franchise agreements with, as of August 1, 2020, 30 construction and demolition (C&D) debris haulers to provide temporary drop-box and debris collection services for new construction, remodeling, and demolition projects and residential clean-outs. C&D is the largest component of the City's overall waste stream by weight, partly because C&D waste is composed of heavy materials (e.g., concrete, asphalt), which do not break down in the same way as other waste, and thus take up more volume.

San José is unique in the amount of solid waste facility infrastructure located within its city limits. Three MRFs used for the city's residential and commercial material are located in north San José. As of July 1, 2020, 11 out of the total 19 City-certified C&D waste facilities are located in San José, and recycle 75 percent of C&D debris produced in the city. Lastly, multiple landfills serve the city.[87] However, the City must use the Newby Island Landfill for residential, commercial, and City waste streams:[88]

- **Newby Island Landfill** receives a maximum of 4,000 tons per day of solid waste for disposal (including C&D and municipal waste), has approximately 21,200,000 cubic

[86] City of San José, *City of San José Annual Report on City Services 2018–19*, December 2019. Available at https://www.sanjoseca.gov/home/showdocument?id=49148. Accessed January 16, 2020.
[87] City of San José, *Status Report on Zero Waste Strategic Plan 2022*, February 15, 2017. Available at http://sanjose.granicus.com/MetaViewer.php?meta_id=619657. Accessed October 10, 2019.
[88] Peggy Horning, personal communication with Environmental Services Department District Systems, City of San José, December 17, 2019.

yards (29,680,000 tons) of remaining capacity, and is estimated to remain in operation until 2041.[89,90] This landfill is located at the western terminus of Dixon Landing Road in San José, approximately 8.5 miles north of the project site.

- **Guadalupe Landfill** receives a maximum of 1,300 tons per day of solid waste for disposal (including C&D and municipal waste), has approximately 11,055,000 cubic yards of remaining capacity, and is estimated to reach permitted disposal capacity by the year 2048.[91,92] This landfill is located southeast of the town of Los Gatos, approximately 8 miles south of the project site.
- **Kirby Canyon Landfill** receives a maximum of 2,600 tons per day of solid waste for disposal (including C&D and municipal waste), has approximately 16,191,600 cubic yards of remaining capacity, and is anticipated to close in 2044.[93,94] This landfill is located in the town of Morgan Hill, approximately 16 miles southeast of the project site. However, the Kirby Canyon Landfill is not a City certified C&D waste facility.
- **Zanker Material Processing Facility** is a C&D materials recovery facility. Landfilled or buried tonnage is limited to a maximum of 350 tons per day. The facility has approximately 640,000 cubic yards of remaining capacity, and is estimated to close in 2025.[95,96] This facility is located across from the SJ-SC RWF, approximately 8 miles north of the project site.

3.14.14 Regulatory Framework

State

Assembly Bill 939 (California Integrated Waste Management Act)

AB 939, enacted in 1989 and known as the Integrated Waste Management Act (Public Resources Code Section 40050 et seq.), requires each city and county in the state to prepare a Source Reduction and Recycling Element to demonstrate a reduction in the amount of waste being disposed to landfills. The act required each local agency to divert 50 percent of all solid waste generated within the local

89 California Department of Resources Recycling and Recovery, SWIS Facility Detail: Newby Island Sanitary Landfill (43-AN-0003). Available at https://www2.calrecycle.ca.gov/SWFacilities/Directory/43-AN-0003/Detail. Accessed October 11, 2019.

90 SWT Engineering, *Newby Island Sanitary Landfill Partial Final Closure/Post-Closure Maintenance Plan*, November 2015. Available at https://www2.calrecycle.ca.gov/swfacilities/Document/GetDocument/299964. Accessed October 11, 2019.

91 California Department of Resources Recycling and Recovery, SWIS Facility Detail: Guadalupe Sanitary Landfill (43-AN-0015). Available at https://www2.calrecycle.ca.gov/swfacilities/Directory/43-AN-0015. Accessed October 11, 2019.

92 California Department of Resources Recycling and Recovery, *Guadalupe Landfill, City of San José (43-AN-0015), Preliminary Closure & Postclosure Maintenance Plan Technical Adequacy*, June 19, 2017. Available at https://www2.calrecycle.ca.gov/swfacilities/Directory/43-AN-0015/Document. Accessed October 11, 2019.

93 California Department of Resources Recycling and Recovery, SWIS Facility Detail: Kirby Canyon Recycl. & Disp. Facility (43-AN-0008). Available at https://www2.calrecycle.ca.gov/swfacilities/Directory/43-AN-0008. Accessed October 11, 2019.

94 California Department of Resources Recycling and Recovery, *Kirby Canyon Landfill, City of San José (43-AN-0008), Preliminary Closure and Postclosure Maintenance Plans Review Comments*, August 9, 2019. Available at https://www2.calrecycle.ca.gov/swfacilities/Directory/43-AN-0008/Document. Accessed October 11, 2019.

95 California Department of Resources Recycling and Recovery, SWIS Facility Detail: Zanker Material Processing Facility (43-AN-0001). Available at https://www2.calrecycle.ca.gov/swfacilities/Directory/43-AN-0001. Accessed October 11, 2019.

96 California Department of Resources Recycling and Recovery, *Revised Solid Waste Facility Permit, Zanker Material Processing Facility*, January 6, 2015. Available at https://www2.calrecycle.ca.gov/swfacilities/Directory/43-AN-0001/Document. Accessed October 11, 2019.

agency's service area by January 1, 2000. Diversion includes waste prevention, reuse, and recycling. SB 1016 revised the reporting requirements of AB 939 by implementing a per capita disposal rate based on a jurisdiction's population (or employment) and its disposal.

The Integrated Waste Management Act requires local agencies to maximize the use of all feasible source reduction, recycling, and composting options before using transformation (incineration of solid waste to produce heat or electricity) or land disposal. The act also resulted in the creation of the state agency now known as the California Department of Resources Recycling and Recovery (CalRecycle). Under the Integrated Waste Management Act, local governments develop and implement integrated waste management programs consisting of several types of plans and policies, including local construction and demolition ordinances. The act also set in place a comprehensive statewide system of permitting, inspections, and maintenance for solid waste facilities, and authorized local jurisdictions to impose fees based on the types and amounts of waste generated.

In 2011, AB 341 amended AB 939 to declare the policy goal of the state that not less than 75 percent of solid waste generated would be source reduced, recycled, or composted by the year 2020, and annually thereafter.

California Green Building Standards Code

As amended, the CALGreen Code (California Code of Regulations Title 24, Part 11) requires that readily accessible areas be provided for recycling by occupants of residential and non-residential buildings. The CALGreen Code also requires that residential and non-residential building projects recycle and/or salvage for reuse a minimum of 65 percent of their non-hazardous construction and demolition waste, or comply with a local construction and demolition waste management ordinance, whichever is more stringent (Section 5.408.1). San José has adopted a more stringent requirement, mandating 75 percent diversion for projects that qualify under CALGreen. In addition, 100 percent of trees, stumps, rocks, and associated vegetation and soils resulting primarily from land clearing must be reused or recycled unless contaminated by disease or pest infestation (Section 5.408.3).

The 2016 version of the code increased the minimum diversion requirement for non-hazardous construction and demolition waste to 65 percent from 50 percent (in the 2013 and earlier versions) in response to AB 341, which declared the policy goal of the state that not less than 75 percent of solid waste generated would be source reduced, recycled, or composted by 2020.

Assembly Bills 341 and 1826

AB 341, signed into law in 2012, requires commercial and multi-family dwellings to recycle. AB 1826 (2014) furthered diversion and recycling requirements by requiring that all businesses and multi-family dwellings with more than five units also divert organic material. AB 1826 does not require multi-family dwellings to divert organic food waste.

Senate Bill 1383

SB 1383 established targets to achieve a 50 percent reduction in the level of the statewide disposal of organic waste from the 2014 level by 2020 and a 75 percent reduction by 2025.

SB 1383 granted CalRecycle the regulatory authority required to achieve the organic-waste disposal reduction targets. It also established a target of recovering not less than 20 percent of currently disposed edible food for human consumption by 2025.

Local

Envision San José 2040 General Plan

The General Plan contains the following relevant policies related to solid waste:

> **Policy IN-5.1:** Monitor the continued availability of long-term collection, transfer, recycling and disposal capacity to ensure adequate solid waste capacity. Periodically assess infrastructure needs to support the City's waste diversion goals. Work with private Material Recovery Facilities (MRF) and Landfill operators to provide facility capacity to implement new City programs to expand recycling, composting and other waste processing.
>
> **Policy IN-5.3:** Use solid waste reduction techniques, including source reduction, reuse, recycling, source separation, composting, energy recovery and transformation of solid wastes to extend the life span of existing landfills and to reduce the need for future landfill facilities and to achieve the City's Zero Waste goals.
>
> **Policy IN-5.4:** Support the expansion of infrastructure to provide increased capacity for Materials Recovery Facilities (MRF)/transfer, composting, and Construction and Demolition materials processing (C&D) at privately operated facilities and on lands under City control to provide increased long-term flexibility and certainty.
>
> **Policy IN-5.13:** Designate no new candidate landfill sites until the need for additional landfill capacity has been established. Source reduction, recycling/composting alternatives, and waste conversion should be taken into account when evaluating the need for a landfill.
>
> **Policy IN-5.15:** Expand the capacity of existing landfill sites as the preferred method for increasing the City's landfill capacity and monitor the continued availability of recycling, resource recovery and composting capacity to ensure adequate long term capacity.

Urban Environmental Accords

On November 1, 2005, the San José City Council signed on to the Urban Environmental Accords, a declaration of participating city governments to build ecologically sustainable, economically dynamic, and socially equitable futures for their urban citizens. The Urban Environmental Accords include 21 actions in seven different areas such as energy, waste, and urban nature. The actions that relate to solid waste are:

- Establish a policy to achieve zero waste to landfills and incinerators by 2040.
- Adopt a citywide law that reduces the use of a disposable, toxic, or non-renewable product category by at least 50 percent in 7 years.
- Implement "user-friendly" recycling and composting programs, with the goal of reducing by 20 percent per capita solid waste disposal to landfill and incineration in 7 years.

Construction and Demolition Diversion Deposit Program

Chapter 9.10 of the San José Municipal Code outlines solid waste management regulations in the City. Chapter 9.10, Part 15, establishes the City's Construction and Demolition Diversion Deposit Program, which uses financial incentives to encourage the recycling of C&D material and requires projects to divert 50 percent of the total projected waste. Under the program, developers pay a deposit when they apply for a construction permit with the City. The deposit is fully refundable if C&D materials were reused, donated, or sent to a City-certified processing facility.

San José Zero Waste Strategic Plan

On October 30, 2007, the San José City Council adopted Resolution 74077, which established a goal to reduce the amount of material being sent to landfills by 75 percent by 2013, and a goal of zero waste by 2022. In San José, "zero waste" is defined as landfilling no more than 10 percent of waste, or recycling 90 percent. To help reach the waste reduction goals, the City developed a Zero Waste Strategic Plan that identifies policies, programs, and facilities to be implemented in a phased approach in the short and long terms. In 2013, approximately 73 percent of the waste generated was diverted from landfill disposal through programs that include residential curbside recycling and yard trimmings collection programs, City facilities recycling, and the Construction & Demolition Diversion Deposit program.[97]

Climate Smart

Climate Smart San José, adopted by the City Council in 2018, lays out how the City is doing its part to address climate change. The plan is a community-wide initiative to reduce air pollution, save water, and improve quality of life. The plan uses the best data available to chart an economy-wide strategy that is aligned with the decarbonization goals of the Paris Agreement. The plan focuses on nine key strategies:

- Transition to a renewable energy future.
- Embrace our Californian climate.
- Densify our City to accommodate our future neighbors.
- Make homes efficient and affordable for our families.
- Create clean, personalized mobility choices.
- Develop integrated, accessible public transport infrastructure.
- Improve our commercial building stock.
- Make commercial goods movement clean and efficient.
- Create local jobs in our City to reduce vehicle miles traveled.[98]

[97] City of San José, Green Vision Goals, Zero Waste. Available at https://www.sanjoseca.gov/home/showdocument?id=21999. Accessed January 23, 2020.

[98] City of San José, *Climate Smart San José: A People-Centered Plan for a Low-Carbon City*. Available at https://www.sanjoseca.gov/your-government/environment/climate-smart-san-jos. Accessed January 23, 2020.

Permitting of Automatic Waste Collection System

To comply with Public Resources Code Sections 44001 and 44002, each automatic collection system terminal would require a CalRecycle Full Permit as a waste transfer station. CalRecycle's local enforcement agency is housed in the Planning, Building, Code Enforcement offices of San José's city hall.

Because the waste collection system would be a pneumatic system, coordination with the California Air Resources Board (CARB) is recommended. The local representative of CARB is BAAQMD. The following permits may be required in consultation with BAAQMD:

- **Authority to Construct (A/C)**—This is a pre-construction permit that is issued before equipment is installed. An A/C may require the permit holder to meet certain conditions before operation can begin.
- **Permit to Operate (P/O)**—This permit allows the holder to operate (use) all equipment or activities listed on the permit.
- **Certificate of Registration**—This type of permit is given to specific types of equipment or activities that are smaller in nature.
- **Certificate of Exemption**—Upon request, this type of document is issued if the specific type of equipment or activity does not require an air district permit.
- **Register Equipment**—Owners of certain types of small source equipment such as smaller boilers, steam generators, and process heaters, and charbroilers at commercial cooking operations may be eligible to apply for a renewable registration certificate instead of a permit.

3.14.15 Impacts and Mitigation Measures

Significance Criteria

For the purposes of this EIR, an impact related to solid waste would be significant if implementing the proposed project would:

- 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; or
- Fail to comply with federal, state, and local management and reduction statutes and regulations related to solid waste.

Approach to Analysis

This analysis identifies the potential impacts of construction and operation of the proposed project as they relate to solid waste generation and facilities. Information about proposed infrastructure used throughout the analysis is sourced from the *Google Downtown West Infrastructure Plan*, prepared by Arup, Lendlease, and Sherwood Design Engineers (October 7, 2020).

Impact Analysis—Solid Waste

Impact UT-7: The proposed project would not generate solid waste in excess of state or local standards or of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals. *(Less than Significant)*

The proposed project would generate solid waste during both construction and operation. During construction, the project would generate construction-related debris. During operation, the project's residential and commercial uses would result in an increase in the demand for solid waste services.

Construction

As described in Section 3.14.14, *Regulatory Framework*, the City's Construction and Demolition Diversion Deposit Program—a key strategy in the City's Zero Waste Strategic Plan—requires projects to achieve a 50 percent recycling rate. In addition, the City of San José requires the proposed project to achieve 75 percent diversion under the CALGreen Code and create and maintain a construction waste management plan. The diversion requirement may be met through direct facility recycling, reuse of the materials on site, or donation to reuse and salvage businesses in the Bay Area.

The Newby Island Landfill, Guadalupe Landfill, and Zanker Material Processing Facility are all certified under the City's Program to process mixed construction and demolition waste. The remaining residue from the materials that could not be recovered are landfilled. The landfills in San José have an estimated combined remaining capacity of approximately 33 million cubic yards, and all but the Zanker Material Processing Facility have an estimated closure date beyond 2040. The City must use the Newby Island Landfill for residential, commercial, and City waste streams. This landfill has approximately 21,200,000 cubic yards (29,680,000 tons) of remaining capacity, including enough capacity to serve the project's solid waste stream. Project construction is not expected to generate substantial amounts of solid waste relative to the remaining capacity of the Newby Island Landfill.

To comply with City of San José requirements, this project would be required to develop a construction waste management plan and divert at least 75 percent of the solid waste generated during the new building construction phase. If prior to erecting a new building, demolition activity would occur, 50 percent diversion is required. The construction and demolition waste would be processed at a mixed C&D City-certified facility which would dispose of the leftover residue.

Construction of the proposed project would not generate solid waste in excess of local infrastructure, and would not impair the attainment of state-level or local waste reduction goals. This impact would be **less than significant**.

Operation

During operation of the proposed project, the project's up to 5,900 residential units, 1,100 hotel and limited term corporate accommodation rooms, and 31,198 potential employees would generate solid waste. **Table 3.14-1** presents the estimated solid waste generation for the proposed project, based on estimates used in the 2040 General Plan EIR, collected by CalRecycle, and provided by

the City's ESD. Conservatively using the maximum number of residential units and the maximum employment estimates, the residential uses and non-residential uses would generate up to approximately 5,829 tons and 10,300 tons of waste per year, respectively, for a total of approximately 16,129 tons of solid waste per year, using generation factors from the General Plan. These rates do not capture the diversion of materials that would occur through recycling or composting, as waste generation typically includes all materials discarded, whether or not they are later recycled or disposed in a landfill. However, these rates are used to conservatively estimate the impact of the project on the local waste stream.[99]

TABLE 3.14-1
PROPOSED PROJECT SOLID WASTE GENERATION

	Generation Rate	Units	Estimated Waste Generated (tons/year)
Land Use			
Residential	38 pounds per household per week[a]	5,900 households[b]	5,829
Office[c]	1.24 pounds per employee per day[d]	29,280 employees	6,626
Retail[e]	10.53 pounds per employee per day[d]	1,038 employees	1,995
Institutional[f]	3.55 pounds per employee per day[d]	130 employees	84
Industrial (Central Utilities Plant)	8.93 pounds per employee per day[d]	130 employees	212
Logistics/Warehouse & Event/Conference Center	13.82 pounds per employee per day[g]	230 employees	580
Hotel/Limited-term Corporate Accommodation	4 pounds per room per day[g]	1,100 rooms	803
Total	**—**	**—**	***16,129 tons***

NOTES:
[a] Rate provided by the City's ESD.
[b] Represents the maximum number of residential units considered for the project.
[c] Includes office uses and co-working/small neighborhood office uses (including non-profit organizations).
[d] Based on various rates for industrial (8.93 pounds/employees/day), office (1.24 pounds/employees/day), retail (10.53 pounds/employees/day), and institutional (3.55 pounds/employees/day) uses contained in the 2040 General Plan EIR.
[e] Includes retail and restaurant/bar/nightlife uses.
[e] Includes office uses and co-working/small neighborhood office uses (including non-profit organizations).
[f] Includes education, fitness, arts and cultural, and theater uses.
[g] Based on solid waste generation rates collected by the California Department of Resources Recycling and Recovery.

SOURCES:
City of San José, *Envision San José 2040 General Plan Draft Program Environmental Impact Report*, June 2011.
California Department of Resources Recycling and Recovery, Estimated Solid Waste Generation Rates. Available at https://www2.calrecycle.ca.gov/WasteCharacterization/General/Rates. Accessed July 1, 2020.

[99] The greenhouse gas analysis in Section 3.6 of this EIR uses somewhat different solid waste generation factors, based on the CalEEMod air quality model, to arrive at a result of about 8,750 tons per year (46 percent less than given here), and also incorporates a diversion rate of 84 percent based on Google-specific data, as included in the project's AB 900 application for certification as an environmental leadership development project (*Development Project Application for the Downtown West Mixed-Use Plan*, Appendix C1, *Analysis of GHG Impacts for the Downtown West Mixed-Use Plan*, Table 22, *Solid Waste Landfill Annual Generation*, Final Draft, August 23, 2019. Available at http://opr.ca.gov/ceqa/docs/ab900/20190903-DWSJ_AB900_Application_Appendices.pdf). The 84 percent diversion rate is higher than the 66 percent diversion rate achieved citywide in 2015 (City of San José, Staff Memorandum: Status Report on Zero Waste Strategic Plan 2022, February 15, 2017. Available at http://sanjose.granicus.com/metaviewer.php?meta_id=619657); however, it is reasonable given that a closed environment such as a corporate campus—by far, the largest component of the proposed project—is more susceptible than a conventional environment to on-site source separation and diversion through recycling and composting. The resulting total solid waste generation is approximately 1,400 tons per year, a number that more likely represents the project's estimated solid waste generation than the conservative estimate used in this section.

The proposed project may include a centralized solid waste collection system, including on-site collection and sorting of solid waste, recyclables, and other discarded material before off-hauling. The project may also include automatic waste collection, which could involve a pressurized below-grade pneumatic pipe that would transport disposed materials from various locations on the project site to a collection and sorting facility within the infrastructure zones, allowing the efficient processing of solid waste.[100] Individual buildings would connect to the main automatic waste collection pipe via below-grade laterals. Other residual waste streams, such as large or bulky items, not transported by the automatic waste collection system would be collected by a vehicle from each building. The automatic waste collection system would support up to three waste streams, the specifics of which remain flexible. One option for the three waste streams is wet, dry, and source-separated recycling. These streams would support existing local waste collection procedures, while preserving the option for on-site anaerobic digestion. The system could also support other three-stream combinations, such as solid waste, mixed recycling, and compost.

Compliance with existing policies and regulations, including the CALGreen Code's building requirements, would reduce non-renewable sources of solid waste; would minimize the project's solid waste disposal to the extent feasible; would not impede the City from meeting waste diversion requirements; and would not cause the City to violate other applicable federal, state, and local statutes and regulations related to solid waste. Impacts would be less than significant. The City must use the Newby Island Landfill for residential, commercial, and City waste streams. This landfill has approximately 21,200,000 cubic yards (29,680,000 tons) of remaining capacity, including enough capacity to serve the project's solid waste stream through at least 2041. Therefore, operation of the proposed project would not generate solid waste in excess of the local infrastructure, and would not impair the attainment of state-level or local waste reduction goals. This impact would be **less than significant**.

Mitigation: None required.

Impact UT-8: The proposed project would comply with federal, state, and local management and reduction statutes and regulations related to solid waste. *(Less than Significant)*

During construction and operation, the proposed project would be required to comply with the state and local solid waste standards identified in Section 3.14.14, *Regulatory Framework*, such as the California Integrated Waste Management Act, AB 939, the CALGreen Code, AB 341 and AB 1826, SB 1383, and the City of San José Zero Waste Strategies Plan.

As described in Impact UT-4, project construction would comply with state and local requirements for management of construction and demolition waste. The proposed project would comply with state-level recycling requirements during project operation. Republic Services' and ZWED's processing (described in Section 3.14.13, *Environmental Setting*) keeps the City's businesses compliant with state-mandated recycling requirements (AB 341 and AB 1826),

[100] The exclusive franchisee commercial hauler may have the exclusive right to this material per Chapter 9.10.1600 of the San José Municipal Code.

including recycling of organics, and furthers the City's sustainability goals. The City's Recycle Plus program for residents also includes garbage processing, which extracts residual recyclables and organics from solid waste before landfilling.[101] In addition, the proposed project's centralized solid waste collection system would include on-site collection and sorting of solid waste, recyclables, and other discarded material before off-hauling.

As a result, the proposed project would not conflict with state or local waste reduction policies, including the City's Zero Waste Strategic Plan. Therefore, the impact of the proposed project with regard to compliance with solid waste regulations would be **less than significant**.

Mitigation: None required.

Cumulative Impacts—Solid Waste

The cumulative geographic context for utilities and service systems considers development of the project, including cumulative growth in the city of San José and the service areas of the local utility providers. This analysis considers projected growth of development under the City's General Plan.

Impact C-UT-5: The proposed project, in combination with past, present, existing, approved, pending, and reasonably foreseeable future projects in the vicinity, would not contribute considerably to cumulative impacts related to solid waste. ***(Less than Significant)***

The proposed project, in combination with past, present, existing, approved, pending, and reasonably foreseeable future projects in the vicinity, would generate solid waste. According to the 2040 General Plan EIR, development under the General Plan (including the level of employment and population growth proposed for the project and proposed amendments to the Diridon Station Area Plan) would not exceed the capacity of the existing Newby Island Landfill, which serves the City; the City would avoid estimated increases in solid waste generation from such development by implementing its Zero Waste Strategic Plan. Therefore, the cumulative impact is less than significant. As discussed under Impacts UT-4 and UT-5, construction and operation of the proposed project would not generate solid waste in excess of the local infrastructure; would not impair the attainment of state or local waste reduction goals; and would comply with federal, state, and local management and reduction statutes and regulations related to solid waste. Therefore, the proposed project would not contribute considerably to a significant cumulative impact with regard to solid waste, and impacts would be **less than significant**.

Mitigation: None required.

---

[101] City of San José, *Status Report on Zero Waste Strategic Plan 2022*, February 15, 2017. Available at http://sanjose.granicus.com/MetaViewer.php?meta_id=619657. Accessed October 10, 2019.

CHAPTER 4
Other CEQA Issues

California Environmental Quality Act (CEQA) Guidelines Section 15126 requires that all phases of a project be considered when evaluating its impact on the environment, including planning, acquisition, development, and operation. Further, CEQA Guidelines Section 15126.2(a) requires that the evaluation of significant impacts consider direct and reasonably foreseeable indirect effects of the proposed project over the short term and long term. The EIR must identify all of the following:

- Significant environmental effects of the proposed project.
- Potentially feasible mitigation measures proposed to avoid or substantially lessen significant effects.
- Significant environmental effects that cannot be avoided if the proposed project is implemented.
- Significant irreversible environmental changes that would result from implementation of the proposed project.
- Growth-inducing impacts of the proposed project.
- Alternatives to the proposed project.

Chapter 3, *Environmental Setting, Impacts, and Mitigation*, Sections 3.1 through 3.14, of this EIR provide a comprehensive presentation of the proposed project's environmental effects, potentially feasible mitigation measures, and conclusions regarding the level of significance of each impact both before and after mitigation. Effects found not to be significant are discussed in the introduction to Chapter 3. Chapter 5, *Alternatives*, presents a comparative analysis of alternatives to the proposed project.

In accordance with CEQA Section 21100(b)(2)(A) and CEQA Guidelines Sections 15126.2(c) and 15126.2(d), this chapter identifies significant impacts on the environment that cannot be avoided if the project is implemented and significant effects on the environment that would be irreversible if the project is implemented, following an analysis of "growth-inducing impacts" pursuant to CEQA Section 21100(b)(5) and CEQA Guidelines Section 15126.2(e).

4.1 Growth-Inducing Impacts

The CEQA Guidelines require that an EIR evaluate the growth-inducing impacts of a proposed action (Section 15126.2(e)), which are defined as:

> *[T]he ways in which the proposed project could foster economic or population growth, or the construction of additional housing, either directly or indirectly, in the surrounding environment. Included in this are projects which would remove obstacles to population growth … It must not be assumed that growth in any area is necessarily beneficial, detrimental, or of little significance to the environment.*

A project can have direct and/or indirect growth-inducement potential. Direct growth inducement results if a project involves construction of new housing that would result in new residents moving to the area. A project can have indirect growth-inducement potential if it establishes substantial new permanent employment opportunities (e.g., commercial, industrial, or governmental enterprises) or if it involves a substantial construction effort with substantial short-term employment opportunities and indirectly stimulates the need for additional housing and services to support the new employment demand. Similarly, under CEQA, a project could indirectly induce growth if it expands roadway capacity or removes an obstacle to additional growth and development, such as removing a constraint on required public services or utilities (e.g., adding a sewage treatment plant that has capacity to serve demand beyond the associated project).

The project proposes to rezone and redevelop an approximately 81-acre project site that is currently underused and is located in an existing urbanized area containing a mix of residential, commercial, entertainment, industrial, office, and parking uses, along with transportation facilities and open space.

4.1.1 Removal of Obstacles to Growth

The elimination of physical obstacles to growth is considered a growth-inducing effect. Common factors that limit growth include limited capacities of local or regional utility infrastructure, such as storm drainage systems or wastewater conveyance and treatment systems. Transportation infrastructure can also be a factor that limits growth.

The Project Site is within a fully urbanized area, with extensive transportation and utility infrastructure designed to accommodate urban development. In general, the proposed circulation and utility components are localized improvements necessary to support the proposed project. As described in Chapter 2, *Project Description*, and Section 3.14, *Utilities and Service Systems*, the project proposes a district-systems approach to utilities, including handling of wastewater, energy, and solid waste. Proposed infrastructure improvements necessary to support the project would include:

- Up to two central utility plants that would provide all-electric thermal heating and cooling, distributing energy to buildings constructed on-site via a private utility corridor, or "utilidor," serving the site.
- A centralized area for solid-waste collection, sorting, and off-hauling.

- Installation of new water lines where new street segments are proposed, relocation of several segments of existing water mains, and upgrades to some existing water lines serving the site to accommodate the increased demand.
- Upgrades to wastewater collection facilities, possibly including construction of a private sewage collection network with connections to the San José–Santa Clara Regional Wastewater Facility, and possible construction of one or two on-site wastewater treatment plants/water reuse facilities.
- Installation of facilities necessary to use recycled water generated on-site and potentially connect the site to the City's recycled water system for backup supply.
- Reduction in impervious surfaces to reduce stormwater runoff, installation of new stormwater collection facilities in proposed streets, relocation or removal of existing infrastructure where streets would be closed, upgrades to existing storm drains, and installation of a new outfall to Los Gatos Creek.
- Upgrades to existing electrical transmission and distribution infrastructure serving the site, potentially including construction of an electrical microgrid to help meet and manage the additional electrical load.

A limited number of buildings could have "business as usual" heating, ventilation, and air conditioning and other utility systems installed in place of connections to district systems to accommodate opening of certain buildings prior to completion of the first central utility plants and/or because some new on-site residential buildings would be built by different developers. None of the on-site utility infrastructure improvements would involve extensions to serve future development outside of the project site or increase the capacity of services in the surrounding area, with the exception of recycled water. If the project constructs one or two on-site wastewater treatment plants and generates recycled water, or extends the City's existing recycled water infrastructure to the Diridon Station Area Plan (DSAP) area, recycled water could be made available for irrigation of parks, open spaces, and parcels outside the project site. The ability to facilitate use of recycled water beyond the project boundaries is not in and of itself the elimination of an obstacle to growth that would be expected to result in growth-inducing effects.

As described and illustrated in Chapter 2, *Project Description*, the project proposes street network changes on the project site, including:

- Extension of Cahill Street to North Montgomery Street in the north and Park Avenue in the south
- Extension of North Montgomery Street to the site's northern edge
- Possible extension of Lenzen Avenue to the east or west for emergency vehicle access
- Extension of West St. John Street to connect with the extended Cahill Street
- A new L-shaped street linking Royal Avenue and Auzerais Street through the project site
- Introduction of mid-block passages at several locations
- New/improved pedestrian and bicycle facilities on- and off-site to enhance linkages with the rest of Downtown

The street network changes are intended to address on-site circulation and access, and none would increase roadway capacity in a way that would induce growth along the roadway corridor. The only meaningful increases in roadway capacity would be for the access/connections offered to pedestrians and bicyclists. These improvements would increase safety and convenience, but would not in and of themselves be expected to induce growth or development.[1]

The project also proposes to replace the West San Fernando Street bridge with a clear-span structure and restore Los Gatos Creek to remove the debris, logjams, invasive species, and dead trees. These components would improve floodwater conveyance to reduce the risk of flooding on-site. The replacement bridge would not expand roadway capacity, but it could reduce the risk of flooding for parcels located off-site. Specifically, it would remove 314 individual parcels or portions of parcels from Federal Emergency Management Agency flood hazard zones requiring flood protection for new buildings. This change could increase the ease of development on the affected parcels by eliminating the need for importing fill. However, the zoning and *Envision San José General Plan* (General Plan) land use designation of these parcels would not change as part of the proposed project, and thus the proposed project would not authorize growth on these parcels beyond what is currently allowed.

For the foregoing reasons, the proposed project would not eliminate obstacles to further growth within the meaning of CEQA Guidelines Section 15126.2(e).

4.1.2 Economic Effects

Direct Growth Inducement

As discussed in Chapter 2, *Project Description*, and Section 3.11, *Population and Housing*, the proposed project would include an amendment to the General Plan and a zoning change to increase the development potential of the project site and add up to 5,900 new market-rate and affordable residential units—increasing the potential residential population on the site by up to 12,980 persons. The number of residents in the City of San José as a whole is projected to increase from about 1.04 million in 2019 to 1.38 million by 2040 (Table 3.11-2), or approximately 334,000 more residents than in 2019. The estimated residential population introduced under the proposed project would constitute less than 4 percent of this population increase and is well within the planned growth for the City of San José, as established by the General Plan.

Also as discussed in Section 3.11, *Population and Housing*, employment-generating uses on the project site would result in up to an estimated 31,198 employees at full buildout and a net increase in employment on the project site of30,551, a substantial increase in on-site employment. Construction would also involve temporary employment during the site's development. The total number of jobs in San José is projected to increase from 359,128 in 2015 to 751,650 by 2040

[1] To the extent that the LTA identifies physical improvements to address non-CEQA impacts beyond those described above under Impact TR-1, including study of and/or funding contributions towards multimodal improvements or those that would expand roadway capacity, these improvements have not been studied in detail, designed, or funded and are not considered part of the project.

(Table 3.11-4), representing an increase of 392,522 jobs.[2] The estimated increase in permanent employment (i.e., not construction workers) under the project would constitute approximately 8 percent of this increase in jobs, and is therefore within the planned growth for the City of San José, as established by the General Plan.

Indirect Growth Inducement

Indirect growth inducement would occur if employment on the project site would generate a demand for housing and if spending by new residents and employees would trigger additional job growth and therefore housing demand elsewhere in the City or the region.

As discussed in Impact PH-1, some new employees on-site would already have housing and some would create new demand for housing. This new housing demand could be met on site, elsewhere in the City, or elsewhere in the region, given the site's transit accessibility. In addition, spending by project residents and employees would indirectly benefit the local economy. An analysis of the proposed project by Economic & Planning Systems, Inc. indicates that project employment would result in labor income and spending increases such that more than 80,000 new jobs could be indirectly created or induced.[3] Any of these new jobs that are filled by employees who are new to the region would result in new housing demand.

While it would be speculative to determine with any specificity where the new jobs stimulated by project spending would occur or where the demand for housing generated by these employees and those who work on site would be met and in what amounts, any new jobs that are located in the city would further the City's goal to improve the city's jobs housing balance. As discussed in Impact C-PH-1, a major strategy of the General Plan is to "support San José's growth as a center of innovation and regional employment," and a core objective of this strategy is achieving a jobs-to-employed-residents ration of 1.1 to 1 by the year 2040. The addition of 30,552 net new jobs on site plus potentially over 80,000 additional jobs in the region, a portion of which would be within the City of San Jose, would improve the City's ratio of jobs-to-employed residents, although given that the City currently has more housing than jobs and a ratio of 0.82, it is unlikely that the City will reach its goal by 2040. Nonetheless, the General Plan EIR identified a significant and unavoidable cumulative growth-inducing impact as a result of the planned employment growth, indicating that an indirect effect of the job growth would be to induce population growth elsewhere. The EIRs prepared for the DSAP (2014) and the Downtown Strategy 2040 (2018), and the addendum prepared for the 2040 General Plan Four-Year Review (2016), each reached the same conclusion regarding those respective policies, adopted in furtherance of the General Plan's goals.

Because the proposed project would also advance the City's General Plan goal, introducing new employment and indirectly stimulating employment that could contribute to the demand for

[2] The numbers presented here reflect job growth anticipated under the General Plan and are sourced from the City of San José's *Downtown Strategy 2040 Integrated Final EIR.* ABAG projections predicted less job growth, with a total of 173,030 new jobs between 2010 and 2040. Project-related employment would represent up to about 18 percent of the ABAG total between 2010 and 2040.

[3] Economic & Planning Systems, Inc., Economic Impact of Operations at Downtown West, EPS #201019, Memorandum to Lendlease at Google, July 14, 2020. The job estimate is made based on the IMPLAN "input/output" model of the local economy.

housing elsewhere in the city and the region, the project would contribute to the cumulative growth-inducing impact identified in the 2040 General Plan EIR.

4.1.3 Environmental Impacts of Induced Growth

While economic and employment growth at the project site is an intended consequence of the proposed project, growth induced directly and indirectly by the proposed project could also affect the greater region. Increased future employment generated by resident and employee spending ultimately results in physical development of space to accommodate those employees. It is the characteristics of this developed physical space at a specific location that determines the type and magnitude of environmental impacts associated with this additional economic activity. It would be speculative to identify the specific location of jobs created as an indirect result of the project. Therefore, it would also be speculative to identify any specific environmental impact other than those already identified for cumulative development under the City's general plan projections for 2040.

Depending on its location and design, potential effects caused by induced growth in the region could include: increased vehicle miles traveled (VMT); increased air pollutant emissions; loss of open space; loss of habitat and associated flora and fauna; increased demand on public utilities and services such as fire and police protection, water, recycled water, wastewater, solid waste, energy, and natural gas; and increased demand for housing.

An increase in housing demand in the South Bay region could cause significant environmental effects as new residential development occurs and requires additional governmental services, such as schools, libraries, and parks. Indirect and induced employment and population growth could further contribute to the loss of open space because it could encourage conversion of open space to urban uses for housing, commercial space, and infrastructure.

Local governments throughout the region are planning for additional residential and employment-generating land uses, some of which could meet the demands created indirectly by the proposed project. Through their planning and entitlement actions, the future actions of those local agencies would be subject to environmental review under CEQA, and would be required to be consistent with regional and state plans and regulations. To the extent that future development accommodating indirect and induced growth from the proposed project is undertaken in a manner consistent with the multitude of planning and regulatory documents referred to throughout the technical sections of Chapter 3 of this EIR, many of the potential adverse environmental consequences would be reduced in magnitude or avoided altogether.

Based on the discussions above, the proposed project would not remove physical obstacles to growth such that it would indirectly induce growth, nor would it result in significant direct growth inducement. However, as noted above, the project would result in indirect growth in the form of housing demand associated with project employment and employment generated as a result of new spending by project residents and employees. The City's General Plan EIR identified a significant and unavoidable cumulative growth-inducement impact as a result of employment growth, indicating that an indirect effect of the job growth would be to induce population growth elsewhere. The EIRs prepared for the DSAP (2014) and the Downtown Strategy 2040 (2018) and

the addendum prepared for the 2040 General Plan Four-Year Review (2016) each reached the same conclusion regarding those respective policies; thus, the cumulative effect of the proposed project in combination with buildout of the City's General Plan could result in the City having more jobs than housing, leading to a substantial increase in VMT per service population in the Bay Area and significant cumulative environmental impacts, including air pollution, noise, greenhouse gas (GHG) emissions, and biological resources (e.g., nitrogen deposition). It should be noted, however, that in the case of the proposed project, VMT per capita generated by project office development—the largest component of the project—would be reduced compared to existing conditions. Therefore, if the majority of new indirect/induced jobs created were in areas well-served by transit, and if some of the new employees were to live in or near San José, the impact identified in the General Plan EIR could be less severe.

4.2 Significant and Unavoidable Impacts

CEQA Guidelines Section 15126.2(c) requires that an EIR describe any significant impacts that cannot be avoided, even with the implementation of feasible mitigation measures. As described in Chapter 3 and above, the impacts listed below would be considered significant and unavoidable, even with implementation of feasible mitigation measures. With the exception of the following impacts, all project impacts would be either less than significant or reduced to less-than-significant levels by implementation of the identified mitigation measures. If the project is approved, a statement of overriding considerations would be required for the following significant unavoidable impacts.

4.2.1 Air Quality

Impact AQ-2: The proposed project would result in a cumulatively considerable net increase of a criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard.

- Implementing Mitigation Measures AQ-2a, Construction Emissions Minimization Plan; AQ-2b, Construction Equipment Maintenance and Tuning; AQ-2c, Heavy-Duty Truck Model Year Requirement; AQ-2d, Super-Compliant VOC Architectural Coatings during Operations; AQ-2e, Best Available Emissions Controls for Stationary Emergency Generators; AQ-2f, Operational Diesel Truck Emissions Reduction; AQ-2g, Electric Vehicle Charging; and AQ-2h, Enhanced Transportation Demand Management Program would reduce the severity of the impact, but not to a less-than-significant level.

Impact AQ-3: The proposed project would expose sensitive receptors to substantial pollutant concentrations.

- Implementing Mitigation Measures AQ-2a, Construction Emissions Minimization Plan; AQ-2b, Construction Equipment Maintenance and Tuning; AQ-2c, Heavy-Duty Truck Model Year Requirement; AQ-2e, Best Available Emissions Controls for Stationary Emergency Generators; AQ-2f, Operational Diesel Truck Emissions Reduction; AQ-2g, Electric Vehicle Charging; AQ-2h, Enhanced Transportation Demand Management Program; and AQ-3, Exposure to Air Pollution—Toxic Air Contaminants, would reduce the severity of the impact, but not to a less-than-significant level.

Impact C-AQ-1: The proposed project, in combination with past, present, and reasonably foreseeable future development in the project area, would result in a cumulatively considerable contribution to significant cumulative regional air quality impacts.

- Implementing Mitigation Measures AQ-2a, Construction Emissions Minimization Plan; AQ-2b, Construction Equipment Maintenance and Tuning; AQ-2c, Heavy-Duty Truck Model Year Requirement; AQ-2d, Super-Compliant VOC Architectural Coatings during Operations; AQ-2e, Best Available Emissions Controls for Stationary Emergency Generators; AQ-2f, Operational Diesel Truck Emissions Reduction; AQ-2g, Electric Vehicle Charging; AQ-2h, Enhanced Transportation Demand Management Program; and AQ-5, Hydrogen Sulfide and Odor Management Program for the Potential Water Reuse Facility(s), would reduce the severity of the impact, but not to a less-than-significant level.

Impact C-AQ-2: The proposed project, in combination with past, present, and reasonably foreseeable future development in the project area, would result in a cumulatively considerable contribution to significant cumulative health risk impacts on sensitive receptors.

- Implementing Mitigation Measures AQ-2a, Construction Emissions Minimization Plan; AQ-2b, Construction Equipment Maintenance and Tuning; AQ-2c, Heavy-Duty Truck Model Year Requirement; AQ-2e, Best Available Emissions Controls for Stationary Emergency Generators; AQ-2f, Operational Diesel Truck Emissions Reduction; AQ-2g, Electric Vehicle Charging; AQ-2h, Enhanced Transportation Demand Management Program; and AQ-3, Exposure to Air Pollution—Toxic Air Contaminants, would reduce the severity of the impact, but not to a less-than-significant level.

4.2.2 Cultural Resources

Impact CU-1: The proposed project would demolish historic resources, resulting in a substantial adverse change in the significance of a historical resource as defined in CEQA Guidelines Section 15064.5.

- Implementing Mitigation Measures CU-1a, Documentation; CU-1b, Relocation; CU-1c, Interpretation/Commemoration; and CU-1d, Salvage, would reduce the severity of the impact, but not to a less-than-significant level.

Impact CU-3: The proposed project would construct one or more additions to and adaptively reuse 150 South Montgomery Street (Hellwig Ironworks). The proposed additions and modifications would result in a substantial adverse change in the significance of a historical resource as defined in CEQA Guidelines Section 15064.5.

- Implementing Mitigation Measure CU-1a, Documentation, and Mitigation Measure CU-1c, Interpretation/Commemoration, would reduce the severity of the impact, but would not prevent alterations or additions that are inconsistent with the Secretary of the Interior's Standards from affecting the 150 South Montgomery Street building's integrity.

Impact C-CU-1: The proposed project would contribute to a citywide cumulative adverse impact on historical resources as defined in CEQA Guidelines Section 15064.5.

- Implementing Mitigation Measures CU-1a, Documentation; CU-1b, Relocation; CU-1c, Interpretation/Commemoration; and CU-1d, Salvage, would reduce the severity of the project's contribution, but not to a less-than-significant level.

4.2.3 Land Use

Impact LU-2: The proposed project would cause a significant environmental impact due to a conflict with a land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect.

- Implementing Mitigation Measure NO-3, Exposure to Airport Noise, would reduce the severity of the impact, but not to a less-than-significant level.

Impact C-LU-2: The proposed project, in combination with past, present, and reasonably foreseeable future projects in the vicinity of the project site, would result in a significant cumulative impact due to a conflict with a land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect.

- Implementing Mitigation Measure NO-3, Exposure to Airport Noise, would reduce the project's contribution to this cumulative impact, which would remain significant and unavoidable.

4.2.4 Noise and Vibration

Impact NO-1b: Project-generated traffic noise would result in permanent increases 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.

- Implementing Mitigation Measure NO-1b, Traffic Noise Impact Reduction, would reduce roadside noise impacts at existing noise-sensitive receptors, but not to a less-than-significant level.

Impact NO-1c: Construction of the proposed project could result in temporary increases 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.

- Implementing Mitigation Measure NO-1c, Master Construction Noise Reduction Plan, would implement a construction noise logistics plan to reduce the noise impact with respect to exposure of persons to, or generation of, noise levels in excess of standards established in the local general plan, specific plan, or other land use plan, but not to a less-than-significant level.

Impact NO-3: 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, the proposed project could expose people residing or working in the project area to excessive noise levels.

- Implementing Mitigation Measure NO-3, Exposure to Airport Noise, would reduce interior noise levels; however, because the project could include outdoor residential areas located within the airport's 65 dB CNEL contour, it could result in a land use that is not compatible with the CLUP and the impact would remain significant and unavoidable.

Impact C-NO-1: Construction activities of the proposed project combined with cumulative construction noise in the project area would result in substantial temporary or periodic increase in ambient noise levels in excess of standards established in the Envision San José 2040 General Plan (General Plan) or Noise Ordinance.

- Implementing Mitigation Measure NO-1c, Master Construction Noise Reduction Plan, would reduce the project's contribution to this cumulative impact, which would remain significant and unavoidable.

Impact C-NO-2: Operation of the proposed project when considered with other cumulative development would cause a substantial permanent increase in ambient noise levels in excess of standards established in the General Plan or Noise Ordinance.

- Implementing Mitigation Measure C-NO-2, Cumulative Traffic Noise Impact Reduction, would reduce the project's contribution to this cumulative impact, which would remain significant and unavoidable.

Impact C-NO-3: The proposed project would make a considerable contribution to exposure of people to excessive airport noise levels.

- Implementing Mitigation Measure NO-3, Exposure to Airport Noise, would reduce interior noise levels, reducing the project's contribution to this cumulative impact, which would remain significant and unavoidable due to outdoor residential areas within the airport's 65 dB CNEL contour.

4.2.5 Population and Housing

Impact C-PH-1: The proposed project would result in a cumulatively considerable contribution to the citywide significant and unavoidable cumulative impact related to the jobs/housing imbalance identified in the 2040 General Plan EIR.

- As described in the EIRs for the General Plan and Downtown Strategy 2040, there is no feasible mitigation for this impact.

4.3 Significant Irreversible Environmental Changes

CEQA Guidelines Section 15126.2(d) states that "Uses of nonrenewable resources during the initial and continued phases of the project may be irreversible, because a large commitment of such resources makes removal or nonuse thereafter unlikely. Primary impacts and, particularly, secondary impacts (such as highway improvement which provides access to a previously

inaccessible area) generally commit future generations to similar uses. Also, irreversible damage can result from environmental accidents associated with the project. Irretrievable commitments of resources should be evaluated to assure that such current consumption is justified."

Generally, a project would result in significant irreversible environmental changes if:

- The project would involve uses in which irreversible damage could result from any potential environmental accidents associated with the project.
- The project would involve a large commitment of nonrenewable resources or the proposed consumption of resources is not justified (e.g., the project involves the wasteful use of energy).
- The primary and secondary impacts would generally commit future generations to similar uses.

Each of these three categories is discussed below.

4.3.1 Irreversible Damage from Environmental Accidents

The proposed project would require the use and disposal of hazardous materials during construction and operation. While not anticipated, there is always the potential for accidents that may damage the environment when hazardous materials are present. The presence and use of hazardous materials on-site and the remediation of existing hazardous materials anticipated within the project site are described in Section 3.7, *Hazards and Hazardous Materials*, along with existing regulations and mitigation measures that would reduce the possibility of significant environmental damage to **less than significant**. Based on this conclusion, any potential damage would not be irreversible.

4.3.2 Consumption of Non-Renewable Resources

In an urban context where there are no agricultural or forest lands or minerals and mines, consumption of non-renewable resources involves the use of non-renewable energy sources, including fossil fuels, natural gas, and electricity. The proposed project would use these resources for construction (e.g., fuel for construction equipment, steel products, cement, and glass) and operation (e.g., fuel for transportation, building heating and lighting), as described in Section 3.4, *Energy*, and summarized here.

Project Construction

Construction activities on the project site would involve demolition and site clearance, excavation and soil removal, foundation and sub-surface infrastructure, vertical construction, surface/street work, and streetscape and open space improvements. These activities would use electricity and transportation fuels as well as construction materials themselves, including cement, glass, steel products, paving materials, and more.

The project's commitment that all off-road equipment with engines greater than 25 horsepower would adhere to Tier 4 Final off-road emission standards would reduce energy use during

construction; an estimate of annual average consumption of electricity, natural gas, gasoline fuel, and diesel fuel during construction is presented in Table 3.4-2 in Section 3.4, *Energy*. This energy use would be reduced with implementation of mitigation measures, which are detailed in Section 3.6, *Greenhouse Gas Emissions*, and Section 3.1, *Air Quality*, such as Mitigation Measure GR-1, GHG Emission Reduction Plan, and Mitigation Measure AQ-1a, Construction Emissions Minimization Plan, respectively.

Project Operation

Project operation, meaning the use of the proposed buildings and infrastructure, would result in the consumption of electricity, natural gas, and transportation fuels. Project features such as the project's commitments to meet Leadership in Energy and Environmental Design (LEED) Neighborhood Design (ND) Gold Certification requirements and to meet LEED Gold Certification requirements for office buildings would tend to reduce energy use, as would the commitment to all-electric buildings (with the exception of some ground-floor commercial), sourcing electricity from San Jose Clean Energy, and use of on-site solar photovoltaic panels.

Table 3.4-3 in Section 3.4, *Energy*, presents an estimate of the total annual use of electricity, natural gas, gasoline, and diesel fuel during operation of the project after buildout, demonstrating that the use of these resources by the project would represent a small percentage (generally less than 1 percent) of energy use in Santa Clara County as a whole. In addition, this energy use would be reduced with implementation of mitigation measures such as Mitigation Measure TR-7, Transportation Demand Management Program; Mitigation Measure AQ-1f, Electrified Loading Docks and Electric Truck Transportation Refrigeration Units; and Mitigation Measure AQ-1h, Electrical Vehicle Charging.

Overall, implementation of the proposed project would result in the long-term commitment of resources to continued urban development; however, as discussed in Section 3.4, *Energy*, it would not result in wasteful, inefficient, and/or unnecessary use of energy and would not conflict with adopted energy conservation plans or violate energy standards. Project features and mitigation measures included in Section 3.1, *Air Quality*, and Section 3.6, *Greenhouse Gas Emissions*, would limit non-renewable energy consumption and, therefore, consumption of non-renewable energy resources would not result in the unjustified consumption of resources.

4.3.3 Changes in Land Use that Commit Future Generations

Development under the proposed project would result in the intensification of underused properties, with development featuring a mix of residential, commercial, and other uses that are traditional in urban downtown settings. This would limit commitment of the project site to these uses for the useful life of the buildings, consistent with city, regional, and state policy encouraging development in transit-rich areas as discussed in Section 3.9, *Land Use* (Impact LU-2). For these reasons, the project would not commit future generations to changes in land use.

CHAPTER 5
Alternatives

5.1 Introduction

CEQA Guidelines Section 15126.6(a) requires an analysis of project alternatives, stating: "An EIR shall describe a range of reasonable alternatives to the project, or to the location of the project, which would feasibly attain most of the basic objectives of the project but would avoid or substantially lessen any of the significant effects of the project, and evaluate the comparative merits of the alternatives."

The City's goal in defining the range of alternatives is to select those alternatives that would avoid or substantially lessen the significant impacts of the project and feasibly attain most of the basic project objectives. Accordingly, this chapter describes the legal requirements and methodology used to select alternatives to the proposed project, which includes the project objectives identified in Chapter 2, *Project Description*, and the significant impacts of the project identified in Chapter 3, *Environmental Setting, Impacts, and Mitigation*. The subsequent sections discuss potential alternatives that were considered but were not selected for in-depth analysis, and the basis for selecting specific alternatives over others and, finally, prepared a comparative analysis of these selected alternatives.

After the analysis of five selected alternatives—which compares the impacts of those alternatives to the impacts of the proposed project—this chapter concludes with a matrix comparing the project to all five alternatives analyzed in this chapter and a discussion of the "environmentally superior" alternative.

5.1.1 Requirements for Alternatives Analysis

CEQA, the CEQA Guidelines, and the case law on the subject have established a comprehensive framework for the identification and analysis of alternatives to the proposed project in an EIR. CEQA Guidelines Section 15126.6(a) states that an EIR must describe and evaluate a reasonable range of alternatives to the proposed project that would feasibly attain most of the project's basic objectives, but that would avoid or substantially lessen any identified significant adverse environmental effects of the project. An EIR is not required to consider every conceivable alternative to a proposed project. Rather, it must consider a reasonable range of potentially feasible alternatives that will foster informed decision-making and public participation. The EIR must evaluate the comparative merits of the alternatives and include sufficient information about each alternative to allow meaningful evaluation, analysis, and comparison with the proposed project.

CEQA Guidelines Section 15126.6(b) provides guidance regarding the topics that the alternatives analysis should consider, stating that "the discussion of alternatives shall focus on alternatives to the project or its location which are capable of avoiding or substantially lessening any significant effects of the project, even if these alternatives would impede to some degree the attainment of the project objectives, or would be more costly."

The term "feasibility" is relevant to the selection of alternatives because of the requirement that the alternatives "feasibly attain most of the basic objectives of the project," and because the range of alternatives must be "potentially feasible" (CEQA Guidelines Section 15126.6(a)). CEQA Guidelines Section 15364 defines "feasible" as "capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, legal, social, and technological factors." CEQA Guidelines Section 15126.6(f)(1) lists the following factors that may be taken into account when addressing the feasibility of alternatives:

- Site suitability
- Economic viability
- Availability of infrastructure
- General plan consistency
- Other plans or regulatory limitations
- Jurisdictional boundaries (projects with a regionally significant impact should consider the regional context)
- Whether the proponent can reasonably acquire, control, or otherwise have access to the alternative site (or the site is already owned by the proponent)

The CEQA Guidelines set forth the following additional criteria for selecting and evaluating alternatives:

- The range of alternatives is to be governed by the "rule of reason." CEQA requires that only those alternatives necessary to "permit a reasoned choice" be included, and that the range shall be limited to alternatives that would avoid or substantially lessen any of the significant effects of the project. Of those alternatives, the EIR need examine in detail only the ones that the lead agency determines could feasibly attain most of the basic objectives of the project. The range of feasible alternatives shall be selected and discussed in a manner to foster meaningful public participation and informed decision-making (see CEQA Guidelines Section 15126.6(f)).
- The specific alternative of 'no project' shall also be evaluated along with its impact. When the proposed project is "a development project on identifiable property, the 'no project' alternative is the circumstance under which the project does not proceed." This is the case for the proposed project addressed in this EIR (see CEQA Guidelines Section 15126.6(e)).
- Alternative locations for the project are to be considered where any of the significant effects of the project could be avoided or substantially lessened by putting the project in another location (see CEQA Guidelines Section 15126.6(f)(2)(A)).
- The EIR should also identify any alternatives that were considered by the lead agency, but were rejected as infeasible during the scoping process and briefly explain the reasons underlying the determination (see CEQA Guidelines Section 15126.6(c)).

- Finally, an EIR need not consider alternatives for which the environmental effects cannot be reasonably ascertained and for which implementation is remote and speculative (see CEQA Guidelines Section 15126.6(f)(3)).

5.2 Project Objectives

Pursuant to CEQA Guidelines Section 151`, the EIR must include a statement of objectives, including the underlying purpose of the project. As listed in Chapter 2, Section 2.14, *Project Objectives*, the City and the project applicant seek to achieve the following objectives by undertaking the proposed project:

5.2.1 Project Applicant Objectives

By undertaking the proposed project, the project applicant, Google LLC, seeks to achieve the objectives listed below.

Overarching Objectives

- The project applicant's key objective is to provide sufficient high-quality office space to accommodate the long-term expansion of its workforce and business operations in a Bay Area location that is anchored by public transportation.
- Deliver community benefits consistent with the terms of the MOU.
- Provide this new office space in a vibrant mixed-use neighborhood centered around Diridon Station that includes not only new workplaces, but also housing and active commercial and open spaces with the amenities and services necessary to support a diverse, thriving community of residents and workers.

Establish Diridon Station as a New Regional Job Center

- Deliver a critical mass of new office space consistent with the goals and objectives of the Diridon Station Area Plan.
- Encourage a significant shift to public transportation by leveraging existing and planned local, regional, and statewide transportation facilities at the site by developing a high-density mix of office and residential uses.
- Create a dense commercial center that is designed to anticipate and adapt to changing business needs and growth over several decades, with floorplates large enough to provide horizontally connected workplaces.
- Group office uses contiguously while creating a mixed-use environment in order to take advantage of operational efficiencies, such as the ability to share amenity spaces.

Develop Housing, Including Affordable Housing, Alongside Jobs

- Deliver thousands of units of new, high-quality housing.
- Construct housing with sufficient density to maintain day and evening, weekday and weekend activities in Downtown West.

- Offer a mix of unit types, sizes, and levels of affordability to accommodate a range of potential residents.
- Deliver affordable housing consistent with the goals set forth in the MOU.

Create Opportunity Pathways

- Develop commercial retail spaces on the project site that would attract diverse tenants, adapt to future needs, integrate local small businesses, stimulate local economic activity, serve the neighborhood, and complement adjacent public spaces.
- Promote learning and career opportunities from retail, to food service, to professional and tech jobs.

Build a Place that is of San José

- Incorporate high-quality urban design, architecture, and open spaces with varied form, scale, and design character to enliven San José's downtown.
- Preserve and adapt landmark historic resources and assets where feasible to foster a place authentic to San José and foster contemporary relations to San José's history.
- Develop key public spaces at the core of the project site as an extension to Downtown.
- Build upon the project's location at the convergence of a significant regional and statewide transportation hub and the city's Downtown to create a world-class, architecturally iconic civic/cultural center for the City of San José, particularly through the combination and juxtaposition of historic and contemporary design elements.
- Optimize environmental performance and comfort within buildings and adjacent public spaces through orientation, massing, and building technology.
- Create a place that fosters arts and cultural uses, especially through the provision of dedicated spaces for the arts, and as part of a larger suite of community benefits.

Connect People to Nature and Transit

- Connect people with nature along Los Gatos Creek and the Guadalupe River.
- Create myriad opportunities for passive recreation in new public open spaces, while improving access to active recreation by significantly augmenting a multi-use trail.
- Improve pedestrian, bicycle, and transit connectivity within the project area, as well as between the project area and existing adjacent neighborhoods, in order to create a highly active and lively pedestrian and bicycle friendly environment.
- Consistent with the MOU, develop a project with minimal parking and robust Transportation Demand Management measures in order to encourage active transportation and public transit use, and to support implementation of the City's Climate Smart plan.
- Provide a model of 21st century sustainable urban development by implementing shared infrastructure and logistics systems across the project, significantly reducing energy and water demand, vehicle miles traveled, and greenhouse gas emissions.

Vibrant Public Realm

- Create a network of connected plazas, green spaces, streetscapes, and trails to link office and residential uses with retail, cultural, hotel, and other active uses and provide a range of publicly accessible amenities that create attractive, vibrant and safe experiences.

5.2.2 City Objectives

The City of San José seeks to achieve the following objectives by approving the proposed project:

- Ensure development of the project site consistent with policies in the General Plan, Downtown Strategy 2040, and Diridon Station Area Plan, that encourages ambitious job creation, promotes development of Downtown as a regional job center and a world-class urban destination, and supports transit ridership.
- Align the Diridon Station Area Plan with the Downtown Strategy 2040, specifically with regard to the increase in office development capacity.
- Ensure that development advances the City's progress toward the following goals and policies, as reflected in and implemented through the Downtown Strategy 2040 and Diridon Station Area Plan:
  - Manage land uses to enhance employment lands to improve the balance between jobs and workers residing in San José. To attain fiscal sustainability for the City, strive to achieve a minimum ratio of 1.1 jobs per employed resident by 2040. In the near term, strive to achieve a minimum ratio of 1 job per employed resident by 2025. (General Plan Policy IE-1.4)
  - Promote the intensification of employment activities on sites in close proximity to transit facilities and other existing infrastructure, in particular within the Downtown, North San José, the Berryessa International Business Park, and Edenvale. (General Plan Policy IE-1.5)
  - Advance the Diridon Station Area as a world-class transit hub and key transportation center for Northern California. (General Plan Policy IE-1.7)
  - Foster development patterns that will achieve a complete community in San José, particularly with respect to increasing jobs and economic development and increasing the City's jobs-to-employed resident ratio while recognizing the importance of housing a resident workforce. (General Plan Policy LU-1.1)
  - Provide maximum flexibility in mixing uses throughout the Downtown area. Support intensive employment, entertainment, cultural, public/quasi-public, and residential uses in compact, denser forms to maximize social interaction; to serve as a focal point for residents, businesses, and visitors; and to further the Vision of the *Envision General Plan*. (General Plan Policy LU-3.1)

5.2.3 Objectives of the City and Google Memorandum of Understanding

- Implement the vision statement in the MOU dated December 4, 2018, by (1) creating a vibrant, welcoming, and accessible urban destination on the project site consisting of land uses that are well-integrated with the intermodal transit station, adjacent neighborhoods, and Downtown; (2) demonstrating a commitment to place making, social equity,

economic development, environmental sustainability, and financially viable private development; and (3) collaborating with the project applicant to innovate in the development of an urban destination that will bring opportunity to the local community and create new models for urban and workplace design and development.

- Deliver community benefits consistent including, but not limited to, achieving the following goals in the MOU:
  - Grow and preserve housing, including affordable housing.
  - Create broad job opportunities for San José residents of all skill and educational levels.
  - Enhance and connect the public realm.
  - Pay construction workers a prevailing hourly wage and benefit rate for Office and Research and Development building construction.
  - Increase access to quality education, enrichment opportunities, internships, and pathways to careers in science, technology, engineering, and mathematics (STEM) fields.
  - Support the timely delivery of substantial jobs and housing in the area surrounding Diridon Station to maximize integration with planned transit projects and successful implementation of the Diridon Station Area Plan.
- Support San José's economic growth by adding economic vitality to downtown and enhancing the property tax base.

5.3 Significant Impacts of the Proposed Project

5.3.1 Significant and Unavoidable Impacts

As stated above, a focus of the discussion of alternatives is to determine whether there are potentially feasible alternatives that could avoid or substantially lessen the significant impacts of the proposed project. As discussed in Chapter 4, Section 4.2, *Significant and Unavoidable Impacts*, the proposed project would result in the following significant unavoidable impacts related to air quality, historic architectural resources, land use, noise, and population and housing.

Air Quality

Impact AQ-2: The proposed project would result in a cumulatively considerable net increase of a criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard.

- Implementing Mitigation Measures AQ-2a, Construction Emissions Minimization Plan; AQ-2b, Construction Equipment Maintenance and Tuning; AQ-2c, Heavy-Duty Truck Model Year Requirement; AQ-2d, Super-Compliant VOC Architectural Coatings during Operations; AQ-2e, Best Available Emissions Controls for Stationary Emergency Generators; AQ-2f, Operational Diesel Truck Emission Reduction; AQ-2g, Electric Vehicle Charging; and AQ-2h, Enhanced Transportation Demand Management Program, would reduce the severity of the impact, but not to a less-than-significant level.

Impact AQ-3: The proposed project would expose sensitive receptors to substantial pollutant concentrations.

- Implementing Mitigation Measures AQ-2a, Construction Emissions Minimization Plan; AQ-2b, Construction Equipment Maintenance and Tuning; AQ-2c, Heavy-Duty Truck Model Year Requirement; AQ-2e, Best Available Emissions Controls for Stationary Emergency Generators; AQ-2f, Operational Diesel Truck Emission Reduction; AQ-2g, Electric Vehicle Charging; AQ-2h, Enhanced Transportation Demand Management Program; and AQ-3, Exposure to Air Pollution—Toxic Air Contaminants, would reduce the severity of the impact, but not to a less-than-significant level.

Impact C-AQ-1: The proposed project, in combination with past, present, and reasonably foreseeable future development in the project area, would result in a cumulatively considerable contribution to significant cumulative regional air quality impacts.

- Implementing Mitigation Measures AQ-2a, Construction Emissions Minimization Plan; AQ-2b, Construction Equipment Maintenance and Tuning; AQ-2c, Heavy-Duty Truck Model Year Requirement; AQ-2d, Super-Compliant VOC Architectural Coatings during Operations; AQ-2e, Best Available Emissions Controls for Stationary Emergency Generators; AQ-2f, Operational Diesel Truck Emission Reduction; AQ-2g, Electric Vehicle Charging; AQ-2h, Enhanced Transportation Demand Management Program; and AQ-5, Hydrogen Sulfide and Odor Management Program for the Potential Water Reuse Facility(s), would reduce the severity of the impact, but not to a less-than-significant level.

Impact C-AQ-2: The proposed project, in combination with past, present, and reasonably foreseeable future development in the project area, would result in a cumulatively considerable contribution to significant cumulative health risk impacts on sensitive receptors.

- Implementing Mitigation Measures AQ-2a, Construction Emissions Minimization Plan; AQ-2b, Construction Equipment Maintenance and Tuning; AQ-2c, Heavy-Duty Truck Model Year Requirement; AQ-2e, Best Available Emissions Controls for Stationary Emergency Generators; AQ-2f, Operational Diesel Truck Emission Reduction; AQ-2g, Electric Vehicle Charging; AQ-2h, Enhanced Transportation Demand Management Program; and AQ-3, Exposure to Air Pollution—Toxic Air Contaminants, would reduce the severity of the impact, but not to a less-than-significant level.

Cultural Resources

Impact CU-1: The proposed project would demolish historic architectural resources, resulting in a substantial adverse change in the significance of a historical resource as defined in CEQA Guidelines Section 15064.5.

- Implementing Mitigation Measures CU-1a, Documentation; CU-1b, Relocation; CU-1c, Interpretation/Commemoration; and CU-1d, Salvage, would reduce the severity of the impact, but not to a less-than-significant level.

Impact CU-3: The proposed project would construct one or more additions to and adaptively reuse 150 South Montgomery Street (Hellwig Ironworks). The proposed additions and modifications would result in a substantial adverse change in the significance of a historical resource as defined in CEQA Guidelines Section 15064.5.

- Implementing Mitigation Measure CU-1a, Documentation, and Mitigation Measure CU-1c, Interpretation/Commemoration, would reduce the severity of the impact, but not to a less-than-significant level.

Impact C-CU-1: The proposed project would make a cumulatively considerable contribution to previously identified significant citywide cumulative adverse impact on historical resources as defined in CEQA Guidelines Section 15064.5.

- Implementing Mitigation Measures CU-1a, Documentation; CU-1b, Relocation; CU-1c, Interpretation/Commemoration; and CU-1d, Salvage, would reduce the severity of the project's contribution, but not to a less-than-significant level.

Land Use

Impact LU-2: The proposed project would cause a significant environmental impact due to a conflict with a land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect.

- Implementing Mitigation Measure NO-3, Exposure to Airport Noise, would reduce the severity of the impact, but not to a less-than-significant level.

Impact C-LU-2: The proposed project, in combination with past, present, and reasonably foreseeable future projects in the vicinity of the project site, would result in a significant cumulative impact due to a conflict with a land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect.

- Implementing Mitigation Measure NO-3, Exposure to Airport Noise, would reduce the project's contribution to this cumulative impact, which would remain significant and unavoidable.

Noise and Vibration

Impact NO-1b: Project-generated traffic noise would result in permanent increases 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.

- Implementing Mitigation Measure NO-1b, Traffic Noise Impact Reduction, would reduce roadside noise impacts at existing noise-sensitive receptors, but not to a less-than-significant level.

Impact NO-1c: Construction of the proposed project could result in temporary increases 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.

- Implementing Mitigation Measure NO-1c, Master Construction Noise Reduction Plan, would implement a construction noise logistics plan to reduce the noise impact with respect to exposure of persons to, or generation of, noise levels in excess of standards

established in the local general plan, specific plan, or other land use plan, but not to a less-than-significant level.

Impact NO-3: 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, the proposed project could expose people residing or working in the project area to excessive noise levels.

- Implementing Mitigation Measure NO-3, Exposure to Airport Noise, would reduce interior noise levels; however, because the project could include outdoor residential areas located within the airport's 65 dB CNEL contour, it could result in a land use that is not compatible with the CLUP and the impact would remain significant and unavoidable.

Impact C-NO-1: Construction activities of the proposed project combined with cumulative construction noise in the project area would result in substantial temporary or periodic increase in ambient noise levels in excess of standards established in the Envision San José 2040 General Plan (General Plan) or Noise Ordinance.

- Implementing Mitigation Measure NO-1c, Master Construction Noise Reduction Plan, would reduce the project's contribution to this cumulative impact, which would remain significant and unavoidable.

Impact C-NO-2: Operation of the proposed project when considered with other cumulative development would cause a substantial permanent increase in ambient noise levels in excess of standards established in the General Plan or Noise Ordinance.

- Implementing Mitigation Measure C-NO-2, Cumulative Traffic Noise Impact Reduction, would reduce the project's contribution to this cumulative impact, but not to a less-than-significant level.

Impact C-NO-3: The proposed project would make a considerable contribution to exposure of people to excessive airport noise levels.

- Implementing Mitigation Measure NO-3, Exposure to Airport Noise, would reduce interior noise levels, reducing the project's contribution to this cumulative impact, which would remain significant and unavoidable due to outdoor residential areas within the airport's 65 dB CNEL contour.

Population and Housing

Impact C-PH-1: The proposed project would result in a cumulatively considerable contribution to the citywide significant and unavoidable cumulative impact related to the jobs/housing imbalance identified in the 2040 General Plan EIR.

- As described in the EIRs for the General Plan and Downtown Strategy 2040, there is no feasible mitigation for this impact.

5.3.2 Significant Impacts that Can Be Mitigated to Less than Significant

As stated above, a focus of the discussion of alternatives is to determine whether there are potentially feasible alternatives that could avoid or substantially lessen the significant impacts of the proposed project. This can include significant impacts for which mitigation measures have been identified to reduce the severity of project impacts to less than significant. As discussed throughout Chapter 3, *Setting, Impacts, and Mitigation*, and summarized in Table S-1, *Summary of Impacts and Mitigation*, in Chapter S, *Summary*, the proposed project would result in the following potentially significant impacts related to air quality, biological resources, cultural resources and tribal cultural resources, geology/soils/paleontological resources, greenhouse gas emissions, hazards and hazardous materials, hydrology and water quality, noise and vibration, public services and recreation, transportation, and utilities/service systems that could be reduced to a less-than-significant level with mitigation:

Air Quality

Impact AQ-1: The proposed project would not conflict with or obstruct implementation of the applicable air quality plan.

- Implementing Mitigation Measures AQ-2a, Construction Emissions Minimization Plan; AQ-2b, Construction Equipment Maintenance and Tuning; AQ-2c, Heavy-Duty Truck Model Year Requirement; AQ-2d, Super-Compliant VOC Architectural Coatings during Operations; AQ-2e, Best Available Emissions Controls for Stationary Emergency Generators; AQ-2f, Operational Diesel Truck Emission Reduction; AQ-2g, Electric Vehicle Charging; AQ-2h, Enhanced Transportation Demand Management Program; AQ-3, Exposure to Air Pollution—Toxic Air Contaminants; and AQ-5, Hydrogen Sulfide and Odor Management Program for the Potential Water Reuse Facility(s), would reduce air emissions and bring the project into conformance with the Clean Air Plan.

Impact AQ-5: The proposed project would not result in other emissions (such as those leading to odors) adversely affecting a substantial number of people.

- Implementing Mitigation Measure AQ-5, Hydrogen Sulfide and Odor Management Program for the Potential Water Reuse Facility(s), would reduce this impact to a less-than-significant level.

Biological Resources

Impact BI-1: The proposed project could have a substantial adverse effect, either directly, indirectly, or through habitat modifications, on a species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by CDFW or USFWS (western pond turtle, central California coast steelhead distinct population segment, nesting birds, special-status bats).

- Implementing Mitigation Measures BI-1a, General Avoidance and Protection Measures; BI-1b, In-Water Construction Schedule; BI-1c, Native Fish Capture and Relocation; BI-1d, Western Pond Turtle Protection Measures; BI-1e, Avoidance of Impacts on

Nesting Birds; and BI-1f, Roosting Bat Surveys, would reduce this impact to a less-than-significant level.

Impact BI-2: The proposed project could have a substantial adverse effect on riparian habitat or other sensitive natural communities identified in local or regional plans, policies, regulations, or by CDFW or USFWS.

- Implementing Mitigation Measures BI-1a, General Avoidance and Protection Measures; BI-1b, In-Water Construction Schedule; BI-1c, Native Fish Capture and Relocation; BI-1e, Avoidance of Impacts on Nesting Birds; BI-1f, Roosting Bat Surveys; BI-2a, Avoidance of Impacts on Riparian Habitat; BI-2b, Frac-Out Contingency Plan; BI-2c, Monitor Effects of Shading and Heat Island Effect on Riparian Vegetation and Stream Temperature; BI-2d, Avoidance and Protection of Creeping Wild Rye Habitat; HY-3b, Plan for Ongoing Creek Maintenance; and NO-1a, Operational Noise Performance Standard, would reduce this impact to a less-than-significant level.

Impact BI-3: The proposed project could have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means.

- Implementing Mitigation Measures BI-1a, General Avoidance and Protection Measures; BI-2a, Avoidance of Impacts on Riparian Habitat; BI-2d, Avoidance and Protection of Creeping Wild Rye Habitat; and BI-3, Avoidance of Impacts on Wetlands and Waters, would reduce this impact to a less-than-significant level.

Impact BI-4: The proposed project could interfere substantially with the movement of a native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites.

- Implementing Mitigation Measure BI-4, Avian Collision Avoidance Measures, would reduce this impact to a less-than-significant level.

Impact BI-6: The proposed project would not conflict with the provisions of an adopted habitat conservation plan, natural community conservation plan, or other approved local, regional, or state habitat conservation plan.

- Implementing Mitigation Measures BI-1a, General Avoidance and Protection Measures; BI-1b, In-Water Construction Schedule; BI-1c, Native Fish Capture and Relocation; and BI-2a, Avoidance of Impacts on Riparian Habitat, would reduce this impact to a less-than-significant level.

Impact C-BI-1: The proposed project, in conjunction with other past, current, or foreseeable development in the project vicinity, could result in cumulative impacts on biological resources.

- Implementing Mitigation Measures BI-1a, General Avoidance and Protection Measures; BI-1b, In-Water Construction Schedule; BI-1c, Native Fish Capture and Relocation; BI-1d, Western Pond Turtle Protection Measures; BI-1e, Avoidance of Impacts on Nesting Birds; BI-1f, Roosting Bat Surveys; BI-2a, Avoidance of Impacts on Riparian Habitat; BI-2b, Frac-out Contingency Plan; BI-2c, Monitor Effects of Shading and Heat Island Effect on Riparian Vegetation and Stream Temperature; BI-2d, Avoidance and Protection of Creeping Wild Rye Habitat; BI-3, Avoidance of Impacts on Wetlands and

Waters; BI-4, Avian Conflict Avoidance Measures; HY-3b, Plan for Ongoing Creek Maintenance; and NO-1a, Operational Noise Performance Standard, would reduce the project's contribution to cumulative impacts, resulting in a less-than-significant impact.

Cultural Resources and Tribal Cultural Resources

Impact CU-2: The proposed project would relocate, construct an addition to, and adaptively reuse the historic portions of 40 South Montgomery Street (Kearney Pattern Works and Foundry). This could result in a substantial adverse change in the significance of a historical resource as defined in CEQA Guidelines Section 15064.5

- Implementing Mitigation Measure CU-2a, Relocation On-site; and Mitigation Measure CU-2b, Compliance with the Secretary of the Interior's Standards, would reduce this impact to a less-than-significant level.

Impact CU-4: The proposed project could result in significant impacts on historic resources resulting from construction-related vibrations.

- Implementing Mitigation Measure CU-4, Construction Vibration Operation Plan for Historic Structures; and Mitigation Measure NO-2a, Master Construction Vibration Avoidance and Reduction Plan, would reduce this impact to a less-than-significant level.

Impact CU-7: The proposed project could result in significant impacts at 105 South Montgomery Street (Stephen's Meat Projects sign), a historic resource, as a result of its removal, storage, and relocation within the project site.

- Implementing Mitigation Measure CU-7, Sign Relocation, would reduce this impact to a less-than-significant level.

Impact CU-8: The proposed project could cause a substantial adverse change in the significance of an archaeological resource as defined in CEQA Guidelines Section 15064.5.

- Implementing Mitigation Measures CU-8a, Cultural Resources Awareness Training; CU-8b, Archaeological Testing Plan; CU-8c, Archaeological Evaluation; and CU-8d, Archaeological Resources Treatment Plan, would reduce this impact to a less-than-significant level.

Impact CU-9: The proposed project would disturb human remains, including those interred outside of formal cemeteries.

- Implementing Mitigation Measure CU-8a, Cultural Resources Awareness Training, would reduce this impact to a less-than-significant level.

Impact CU-10: The proposed project could cause a substantial adverse change in the significance of a tribal cultural resource as defined in Public Resources Code Section 21074.

- Implementing Mitigation Measures CU-8a, Cultural Resources Awareness Training; CU-8b, Archaeological Testing Plan; CU-8c, Archaeological Evaluation; and CU-8d, Archaeological Resources Treatment Plan, would reduce this impact to a less-than-significant level.

Impact C-CU-4: The proposed project would combine with other projects to result in significant cumulative effects on archaeological resources as defined in CEQA Guidelines Section 15064.5; human remains, including those interred outside of formal cemeteries; and tribal cultural resources as defined in Public Resources Code Section 21074.

- Implementing Mitigation Measures CU-8a, Cultural Resources Awareness Training; CU-8b, Archaeological Testing Plan; CU-8c, Archaeological Evaluation; and CU-8d, Archaeological Resources Treatment Plan, would reduce this impact to a less-than-significant level.

Geology/Soils/Paleontological Resources

Impact GE-1: The proposed project could directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving strong seismic ground shaking; or seismic-related ground failure, including liquefaction.

- Implementing Mitigation Measure GE-1, Seismic Damage and Seismic-Related Ground Failure, including Liquefaction, would reduce this impact to a less-than-significant level.

Impact GE-3: The proposed project would not be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse.

- Implementing Mitigation Measure GE-3, Geotechnical Report, would reduce this impact to a less-than-significant level.

Impact GE-5: The proposed project could directly or indirectly destroy a unique paleontological resource or site or unique geologic feature.

- Implementing Mitigation Measures GE-5a, Project Paleontologist; GE-5b, Worker Training; GE-5c, Paleontological Monitoring; and GE-5d, Significant Fossil Treatment, would reduce this impact to a less-than-significant level.

Impact C-GE-1: The proposed project, in combination with past, present, and reasonably foreseeable future projects, could result in significant cumulative impacts related to geology, soils, or paleontology.

- Implementing Mitigation Measures GE-5a, Project Paleontologist; GE-5b, Worker Training; GE-5c, Paleontological Monitoring; and GE-5d, Significant Fossil Treatment, would reduce the project's contribution to cumulative impacts, resulting in a less-than-significant impact.

Greenhouse Gas Emissions

Impact GR-2: The proposed project would not conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases.

- Implementing Mitigation Measures GR-2, Compliance with AB 900; AQ-2a, Construction Emissions Minimization Plan; AQ-2b, Construction Equipment Maintenance and Tuning; AQ-2c, Heavy-Duty Truck Model Year Requirement; AQ-2e, Best Available Emissions Controls for Stationary Emergency Generators; AQ-2f, Diesel Truck Emissions Reduction;

AQ-2g, Electric Vehicle Charging; and AQ-2h, Enhanced Transportation Demand Management Program, would reduce this impact to a less-than-significant level.

Hazards and Hazardous Materials

Impact HA-2: The proposed project would not emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school.

- Implementing Mitigation Measure HA-3b, Health and Safety Plan, and Mitigation Measure HA-3c, Site Management Plan, would reduce this impact to a less-than-significant level.

Impact HA-3: The proposed project is located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would create a significant hazard to the public or the environment.

- Implementing Mitigation Measures HA-3a, Land Use Limitations; HA-3b, Health and Safety Plan; HA-3c, Site Management Plan; and HA-3d, Vapor Mitigation, would reduce this impact to a less-than-significant level.

Impact HA-4: The proposed project is located within 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, but would not result in a safety hazard or excessive noise for people residing or working in the project area.

- Implementing Mitigation Measure NO-3, Exposure to Airport Noise, would reduce this impact to a less-than-significant level.

Impact C-HA-1: The proposed project would not combine with other projects to result in significant cumulative impacts related to hazardous materials.

- Implementing Mitigation Measures HA-3b, Health and Safety Plan; HA-3c, Site Management Plan; and HA-3d, Vapor Mitigation, would reduce the project's contribution to cumulative impacts, resulting in a less-than-significant impact.

Impact C-HA-2: The proposed project would not combine with other projects to result in significant cumulative impacts related to proximity to airports.

- Implementing Mitigation Measure NO-3, Exposure to Airport Noise, would reduce this impact to a less-than-significant level.

Hydrology and Water Quality

Impact HY-1: The proposed project could violate a water quality standard or waste discharge requirement or otherwise substantially degrade surface or groundwater quality.

- Implementing Mitigation Measures HY-1, Water Quality Best Management Practices during Construction Activities in and near Waterways; BI-1a, General Avoidance and Protection Measures; BI-2a, Avoidance of Impacts on Riparian Habitat; HA-3b, Health and Safety Plan; and HA-3c, Site Management Plan, would reduce the project's impact to a less-than-significant level.

Impact HY-3: The proposed project could substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would result in substantial erosion or siltation on- or off-site; or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site.

- Implementing Mitigation Measures HY-1, Water Quality Best Management Practices during Construction Activities in and near Waterways; HY-3a, Flood Risk Analysis and Modeling; HY-3b, Plan for Ongoing Creek Maintenance; and BI-1a, General Avoidance and Protection Measures, would reduce this impact to a less-than-significant level.

Impact HY-4: The proposed project could create or contribute runoff water that could exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff, or impede or redirect flood flows.

- Implementing Mitigation Measures HY-1, Water Quality Best Management Practices during Construction Activities in and near Waterways; HY-3a, Flood Risk Analysis and Modeling; and HY-3b, Plan for Ongoing Creek Maintenance, would reduce this impact to a less-than-significant level.

Impact HY-5: The proposed project could risk release of pollutants in a flood hazard, tsunami, or seiche zone due to project inundation.

- Implementing Mitigation Measure HY-3a, Flood Risk Analysis and Modeling, and Mitigation Measure HY-3b, Plan for Ongoing Creek Maintenance, would reduce this impact to a less-than-significant level.

Impact HY-6: The proposed project could conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan.

- Implementing Mitigation Measure HA-3b, Health and Safety Plan, and Mitigation Measure HA-3c, Site Management Plan, would reduce this impact to a less-than-significant level.

Impact C-HY-1: The proposed project, in combination with past, present, and reasonably foreseeable future projects in the site vicinity, could result in a considerable contribution to cumulative impacts on hydrology and water quality.

- Implementing Mitigation Measures HY-1, Water Quality Best Management Practices during Construction Activities in and near Water; BI-1a, General Avoidance and Protection Measures; BI-2a, Avoidance of Impacts on Riparian Habitat; HA-3b, Health and Safety Plan; and HA-3c, Site Management Plan, would reduce the project's contribution to cumulative impacts, resulting in a less-than-significant impact.

Impact C-HY-3: The proposed project, in combination with past, present, and reasonably foreseeable future projects in the site vicinity, could result in a considerable contribution to cumulative impacts related to flood hazards.

- Implementing Mitigation Measure HY-3a, Flood Risk Analysis and Modeling, and Mitigation Measure HY-3b, Plan for Ongoing Creek Maintenance, would reduce the project's contribution to cumulative impacts, resulting in a less-than-significant impact.

Noise and Vibration

Impact NO-1a: Stationary sources associated with operation of the proposed project could result in generation of a 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.

- Implementing Mitigation Measure NO-1a, Operational Noise Performance Standard, would reduce this impact to a less-than-significant level.

Impact NO-2: The proposed project could result in the generation of excessive groundborne vibration or groundborne noise levels.

- Implementing Mitigation Measures NO-2a, Master Construction Vibration Avoidance and Reduction Plan; NO-2b, Master Construction Vibration Avoidance from Compaction; and CU-4, Construction Vibration Operation Plan for Historic Structures, would reduce this impact to a less-than-significant level.

Public Services and Recreation

Impact PS-7: The proposed project would not include recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment.

- Implementing Mitigation Measures AQ-2a, AQ-2b, AQ-2c, BI 1a, BI 1b, BI 1c, BI 1d, BI 1e, BI 1f, BI 2a, BI 2b, BI 2d, BI 3, CU 8a, CU 8b, CU 8c, CU 8d, GE 5a, GE 5b, GE 5c, GE 5d, GR-2, HA 3a, HA 3b, HA 3c, HY-1, HY-3a, NO-1c, NO-2a, and NO-2b would reduce this impact to a less-than-significant level.

Transportation

Impact TR-7: The proposed project would cause a decrease in average travel speed on a transit corridor below Year 2040 Cumulative No Project conditions in the 1-hour a.m. peak period when the average speed drops below 15 mph or decreases by 25 percent or more; OR when the average speed drops by 1 mph or more for a transit corridor with average speed below 15 mph.

- Implementing Mitigation Measure AQ-2h, Enhanced Transportation Demand Management Program, would reduce this impact to a less-than-significant level.

Impact C-TR-1: The proposed project would result in a cumulatively considerable contribution to a significant transportation impact.

- Implementing Mitigation Measure AQ-2h, Enhanced Transportation Demand Management Program, would reduce the project's contribution to cumulative impacts, resulting in a less-than-significant impact.

Utilities and Service Systems

Impact UT-1: The proposed project would not require or result in the relocation or construction of new or expanded water facilities, the construction or relocation of which could cause significant environmental effects.

- Implementing Mitigation Measures AQ-2a, AQ-2b, AQ-2c, BI-1a, BI-1b, BI-1c, BI-1d, BI-1e, BI-1f, BI-2a, BI-2b, BI-2d, BI-3, CU-8a, CU-8b, CU-8c, CU-8d, GE-5a, GE-5b, GE-5c, GE-5d, HA-3a, HA-3b, HA-3c, HA-3d, HY-1, HY-3a, NO-1c, NO-2a, and NO-2b would reduce this impact to a less-than-significant level.

Impact UT-3: The proposed project would not require or result in the relocation or construction of new or expanded wastewater treatment facilities, the construction or relocation of which could cause significant environmental effects.

- Implementing Mitigation Measures AQ-2a, AQ-2b, AQ-2c, BI-1a, BI-1b, BI-1c, BI-1d, BI-1e, BI-1f, BI-2a, BI-2b, BI-2d, BI-3, CU-8a, CU-8b, CU-8c, CU-8d, GE-5a, GE-5b, GE-5c, GE-5d, HA-3a, HA-3b, HA-3c, HA-3d, HY-1, HY-3a, NO-1c, NO-2a, and NO-2b would reduce this impact to a less-than-significant level.

Impact UT-5: The proposed project would not require or result in the relocation or construction of new or expanded stormwater drainage facilities, the construction or relocation of which could cause significant environmental effects.

- Implementing Mitigation Measures AQ-2a, AQ-2b, AQ-2c, BI-1a, BI-1b, BI-1c, BI-1d, BI-1e, BI-1f, BI-2a, BI-2b, BI-2d, BI-3, CU-8a, CU-8b, CU-8c, CU-8d, GE-5a, GE-5b, GE-5c, GE-5d, HA-3a, HA-3b, HA-3c, HA-3d, HY-1, HY-3a, NO-1c, NO-2a, and NO-2b would reduce this impact to a less-than-significant level.

Impact UT-6: The proposed project would not require or result in the relocation or construction of new or expanded electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects.

- Implementing Mitigation Measures AQ-2a, AQ-2b, AQ-2c, BI-1a, BI-1b, BI-1c, BI-1d, BI-1e, BI-1f, BI-2a, BI-2b, BI-2d, BI-3, CU-8a, CU-8b, CU-8c, CU-8d, GE-5a, GE-5b, GE-5c, GE-5d, HA-3a, HA-3b, HA-3c, HA-3d, HY-1, HY-3a, NO-1c, NO-2a, and NO-2b would reduce this impact to a less-than-significant level.

5.4 Alternatives Evaluated but Rejected

As required pursuant to CEQA Guidelines Section 15126.6(c), consideration was given to alternatives that could avoid or substantially lessen potentially significant impacts resulting from the proposed project, including comments received in response to the NOP that suggested alternatives for consideration in the EIR, as addressed below. The following alternatives were considered but were not analyzed in detail because they would not fulfill most of the basic objectives of the project, would not avoid or substantially lessen significant environmental impacts, and/or would be infeasible.

5.4.1 Off-Site Location Alternative

This alternative would locate the project's development program to another transit-accessible site in the City of San José or the region. The location would need to be approximately 81 acres in size with comparable height allowances to accommodate all proposed project uses, as described in Chapter 2, *Project Description*, and would need to be transit-accessible to avoid resulting in greater impacts than those of the project.

CEQA Guidelines Section 15126.6(f)(2) requires the consideration of alternate sites, including an examination of their potential feasibility and whether they would avoid or substantially reduce the significant impacts of the project. In this case, the City considered both whether there are other transit-accessible sites in the City or the region that would provide a similar amount of land for redevelopment, *and* whether such sites would be feasible based on the factors identified in CEQA Guidelines Section 15126.6(f)(1).

There are no sites in San Jose of similar size that are vacant or could be readily assembled and that have comparable amounts of planned transit. There may be a limited number of other sites in the region that meet the acreage requirements, are similarly transit-accessible and where the site is either vacant or can be readily assembled. However, the project applicant does not own these sites or have site control, which is one of the factors contributing to a site's feasibility. The project applicant does own land elsewhere in the City and the region (for example, in the Alviso District of north San José, and at the Google campuses in Mountain View and Sunnyvale). These sites are already developed, are already under separate study for development, and would not be able to additionally accommodate the program contemplated in this project. Also, it would not be feasible to evaluate an alternative location (i.e., in another city or location in San José) that could accomplish the objective of creating a vibrant Downtown San Jose neighborhood. An alternate site would also not address the City's objective to advance the goals and strategies of the Downtown Strategy 2040 and the Diridon Station Area Plan (DSAP). For these reasons, no off-site alternative was carried forward for in-depth analysis in this EIR.

5.4.2 Additional Residential Development Alternative

Under this alternative, the project would be modified to include approximately 17,750 dwelling units rather than 3,000 to 5,900 units, as under the proposed project. The amount of office space and other proposed uses would be the same as under the proposed project. The substantial amount of new housing in this alternative is based on a study completed by Beacon Economics for Working Partnerships USA.[1] The study examined the potential impact of on-site employment on the rental housing market, and suggested a housing response assuming that all new employees would require new housing (i.e., that new jobs would be filled by new residents who would relocate to the City or the region).

Additional housing would reduce or eliminate the project's contribution to the citywide significant cumulative impact related to a projected imbalance between jobs and housing by the year 2040. However, this alternative was not selected for in-depth analysis for a number of reasons. First, it

[1] Refer to Section 3.11, *Population and Housing*, for discussion of this report.

would not be consistent with the City's goals, as expressed in the General Plan, the DSAP and Downtown Strategy 2040, of significantly increasing the ratio of jobs to housing in the Downtown area. Second, because the alternative would provide all other uses included in the proposed project in the same amounts (e.g., 7.3 million gross square feet [gsf] of office uses), it would be difficult or impossible to accommodate the additional housing without increasing height limits beyond those proposed with the project (and allowed near the airport). In addition, the density required to accommodate such housing would be anticipated to exceed the allowance of 800 dwelling units per acre under the General Plan's Downtown designation. Also, with its increased intensity, this alternative would increase rather than reduce other significant impacts of the project, such as the air quality and noise impacts discussed in Chapter 3 and listed in Section 5.2, *Significant Impacts of the Proposed Project.* Alternative 3, Reduced Office Alternative, addresses the project's contribution to the citywide significant cumulative impact related to a projected imbalance between jobs and housing by the year 2040 without raising the additional issues regarding height, density, and associated increases in other significant environmental impacts.

5.4.3 Creek Setback Alternative

Under this alternative, the project would include 100-foot setbacks along Los Gatos Creek, consistent with the general setback provisions of the City's riparian corridor policy,[2] reducing the significant (and mitigable) biological impacts of the proposed project. The setbacks would occur at the following locations:

- At the properties along Autumn Street, affecting the amount of publicly accessible open space;
- At five locations (Blocks D8 through D12) on Autumn Street between West Santa Clara Street and the VTA light-rail tracks, where proposed retail, cultural arts, education, or other active uses could occur within the footprint of existing buildings;
- At the publicly accessible open space and one location (Block D13) between the VTA light-rail tracks and West San Fernando Street; and
- At the block (H2) on the northwest corner of West San Carlos Street and Bird Avenue, reducing the amount of housing that could be constructed.

This alternative was not included for further analysis because it would require more material modifications to the project than other reduced density alternatives and potential biological impacts of the proposed project can be reduced to less than significant through feasible mitigation.

Refer to Figure 2-3 in Chapter 2, *Project Description*, for the setback locations. The setbacks would also affect blocks along Delmas Avenue, affecting the amount of publicly accessible open space (adjacent to Block E1 and E2) between West Santa Clara Street and the VTA light-rail tracks.

The expanded setbacks would reduce the size of the five buildings that could be constructed on Autumn Street between West Santa Clara Street and the VTA tracks, and would have the potential to eliminate three of these buildings (on Blocks D9, D11, and D12). This setback would

[2] City of San José, *Riparian Corridor Protection and Bird-Safe Design* (Policy 6-34), approved August 23, 2016. Available at https://www.sanjoseca.gov/home/showdocument?id=12815.

also have the potential to eliminate the building proposed on Autumn Street between the VTA tracks and West San Fernando Street (on Block D13), as well as the proposed Los Gatos Creek Trail. The increased setbacks would not, however, affect the proposed replacement bridge over Los Gatos Creek at West San Fernando Street (replacement of an existing bridge) or the proposed new footbridge (pedestrian trails are exempt from the riparian corridor policy). Also exempt are public infrastructure projects to reduce flooding.

The size reduction for these buildings and open space, or the loss of these buildings and open space, would reduce the amount of retail, cultural, arts, education, or other active uses in the project. It also would reduce the ability to meet project objectives such as activating commercial spaces and could reduce the space potentially available elsewhere on the project site for other types of open spaces because the increased setbacks would reduce the site's overall developable area. In addition, this alternative would not avoid or substantially lessen any of the significant and unavoidable impacts of the project. Under this alternative, overall development would be reduced. This EIR analyzes two alternatives that provide a comparison between the proposed project and alternatives with reduced development. Finally, the City's riparian corridor policy expressly allows deviation from the generally applicable 100-foot setback where, as here, all impacts to riparian resources are mitigated to less-than-significant. For these reasons, the Creek Setback Alternative was not carried forward for in-depth analysis in this EIR.

5.4.4 Substantially Reduced Project (Avoidance of Significant Criteria Air Pollution Impacts)

This alternative would reduce the project to avoid or reduce to a less than significant level the significant and unavoidable impact of project operations related to emissions of criteria air pollutants. Specifically, the project would need to be reduced by nearly 90 percent to include approximately 700 dwelling units, about 880,000 gsf of office space, and about 60,000 gsf of active uses (e.g., commercial retail/restaurant, cultural, institutional, child care, and education). Hotel rooms and limited-term corporate accommodations would be reduced by comparable amounts, to about 35 and 100 rooms, respectively.[3]

It should be noted that the project, in keeping with City policies, is designed to reduce per-person (resident, employee and visitor) air pollutant emissions by providing dense, walkable development adjacent to high-quality transit. Project operations would exceed mass emissions significance thresholds for criteria air pollutants only because the project is large. If an alternative reducing the project by almost 90 percent were adopted, emissions from the project site could remain below the mass thresholds, but the remaining 90 percent of development would be expected to occur elsewhere, most likely on a site or sites with less favorable transit opportunities. Accordingly, overall criteria air pollutant emissions in the region would reasonably be expected to rise.

In addition, development at this limited scale, as compared to the project, would represent a fundamentally different project than is proposed; therefore, this alternative has been deemed infeasible. Moreover, this alternative would not meet the project applicants' and the City's objectives

[3] The required reduction in project size is based on a straight-line reduction in maximum operational emissions of reactive organic gases, the criteria pollutant that would be emitted in the greatest volume by project operations.

of developing new office space to support the long-term expansion of the project applicant's Bay Area operations and workforce, encouraging ambitious job creation and promote development of Downtown as a regional job center, supporting the implementation of the adopted 2014 DSAP, and of delivering thousands of units of new, high-quality housing. Because it would not meet most of the project objectives, this alternative is infeasible and is not considered further in this EIR.

5.4.5 No Project (No Development) Alternative

This alternative would assume no new development on the project site. Existing buildings on the project site could be reused, but further development would not occur.

This alternative would require the City to stop implementing its General Plan beyond current approved "pipeline" projects, which is neither a reasonable assumption nor consistent with the City's adopted laws and policies. CEQA Guidelines Section 15126.6(e) provides that "where failure to proceed with the project will not result in preservation of existing environmental conditions, the analysis should identify the practical result of the project's non-approval and not create and analyze a set of artificial assumptions that would be required to preserve the existing physical environment." Here, because the City has adopted policies that plan for substantial growth in the Diridon Station Area and there has been considerable development activity in the vicinity, assuming a "no build" scenario would require "analyzing a set of artificial assumptions," so is not required. This alternative would also not accomplish any of the project applicant's or the City's project objectives and thus has not been carried forward for in-depth analysis. This alternative would essentially reflect the existing setting conditions, which are described throughout Chapter 3 of the EIR. Also, another No Project Alternative, which reflects continued growth and development under the current DSAP and General Plan, has been included below.

5.5 Selection and Analysis of Project Alternatives

In selecting alternatives for analysis in this chapter, the City of San José considered: the project objectives and significant impacts identified above; the potential feasibility of alternatives based on factors in CEQA Guidelines Section 15126.6(f)(1); and whether the alternative would substantially reduce or eliminate environmental impacts of the projects, with a particular emphasis on significant and unavoidable impacts.

Consistent with these requirements, and CEQA's requirement for a No Project Alternative, this chapter describes the following alternatives:

- Alternative 1: No Project Alternative/DSAP Development Alternative
- Alternative 2A: Historic Preservation Alternative
- Alternative 2B: Historic Preservation/San José International Airport Comprehensive Land Use Plan (CLUP) Noise Compliance Alternative
- Alternative 3: 150 South Montgomery Street Preservation Alternative
- Alternative 4: Reduced Office Alternative
- Alternative 5: Reduced Intensity Alternative

Table 5-1 compares the development program of the project and the alternatives, each of which is described further below.

The following discussion provides a comparative evaluation of the environmental consequences of the alternatives selected for further consideration in this EIR. Consistent with the requirements of CEQA Guidelines Section 15126.6(d), the discussion includes "sufficient information about each alternative to allow meaningful evaluation, analysis, and comparison with" the proposed project. As provided for under CEQA, where an alternative would cause a significant impact that would not otherwise be caused by the proposed project, the significant impact of the alternative is discussed, but in less detail than the significant impacts of the proposed project that are presented in Chapter 3, *Environmental Setting, Impacts, and Mitigation Measures*. In some cases, there may be a topic area (e.g., Transportation) where certain impacts are the same as or similar to the proposed project, while others are less severe or more severe than the proposed project. In these cases, the alternative analysis splits up the topic area and presents information to assist the reader in understanding how the individual impacts within the topic area compare to the proposed project, and the reader will see, for example, some Transportation impacts discussed in the "same as or similar to" category, and some in the "less severe" category.

In order to assist comparison of the impacts of the Proposed Project and the Alternatives, **Table 5-8**, *Comparison of the Impacts of the Project and Alternatives*, at the end of this chapter, indicates for each significant impact, whether the impacts of the project alternatives are equal to, less, or more severe than those of the proposed project.

5.5.1 Alternative 1: No Project/DSAP Development Alternative

Under the No Project/DSAP Development Alternative, the project applicant's Downtown West Mixed-Use Plan would not move forward, and development on the site would continue to occur over time, based on market demand and consistent with current plans and policies. There would be no unified development plan for the site other than development projected under the existing adopted DSAP. Lots A, B, and C would remain as surface parking. Blocks E1, E2, and E3 (the former San Jose Water Company site) would remain outside the DSAP boundary, where the previously approved development project would proceed as approved, resulting in construction of approximately 1.0 million gsf of office space, 31,000 square feet of retail, and 325 residential units on this site (included in the total program for this alternative). There would be no changes to the DSAP as part of this alternative (although, as noted in Chapter 2, *Project Description*, the City is separately proceeding with amendments to the DSAP), to the General Plan, or to existing zoning, although this alternative assumes that the ballpark site included in the DSAP when it was adopted in June 2014 would be developed with a mix of uses consistent with the adjacent General Plan land use designation, Commercial Downtown.[4]

[4] The ballpark site identified in the 2014 DSAP is now privately owned, no proposal exists to develop a ballpark, and it is not realistic to assume that it would retain its Public/Quasi Public land use designation in the future. The ballpark envisioned at the time of the 2014 DSAP was intended as a new venue for the Oakland A's. After a series of political and legal actions reaching the U.S. Supreme Court and a change in team ownership, the A's refocused their efforts on building a new ballpark in Oakland. There is no active consideration of a major league ballpark in San José at this time.

TABLE 5-1
LAND USE PROGRAM ASSOCIATED WITH THE PROJECT AND ALTERNATIVES

	Proposed Project	Alternative 1: No Project/DSAP Development Alternative[a]	Alternative 2A: Historic Preservation Alternative	Alternative 2B: Hist. Pres./CLUP Noise Compliance Alternative	Alternative 3: 150 S. Montgomery Street Preservation Alternative	Alternative 4: Reduced Office Alternative	Alternative 5: Reduced Intensity Alternative
Residential	5,900 dwelling units	625 dwelling units	5,665 dwelling units	3,600 dwelling units	5,900 dwelling units	5,900 dwelling units	2,655 dwelling units
Active Uses[b]	500,000 gsf	380,000 gsf	432,000 gsf	436,000 gsf	500,000 gsf	225,000 gsf	150,000 gsf
Hotel	300 rooms	419 rooms	300 rooms	300 rooms	300 rooms	300 rooms	135 rooms
Limited-Term Corporate Accommodation	800 rooms	0 rooms	340 rooms	800 rooms	800 rooms	320 rooms	320 rooms
Office	7.3 million gsf	4.9 million gsf	5.69 million gsf	7.3 million gsf	7.3 million gsf	3.0 million gsf	3 million gsf
Event/Conference Ctr.	100,000 gsf	none	50,000 gsf	100,000 gsf	100,000 gsf	45,000 gsf	45,000 gsf
Infrastructure	230,000 gsf	none	137,000 gsf	230,000 gsf	230,000 gsf	200,000 gsf	127,000 gsf
Open Space[c]	approx. 15 acres	approx. 10 acres	approx. 15 acres	approx. 15 acres	approx. 15 acres	approx. 15 acres	approx. 8 acres

NOTES:

DSAP = Diridon Station Area Plan; gsf = gross square feet

[a] Based on development analyzed in the DSAP Draft Program Environmental Impact Report (December 2013), adjusted to conform with the site boundaries and to assume development of the ballpark site with uses permitted under the adjacent Envision San José 2040 General Plan land use designation of Commercial Downtown, and the previously approved project at 374 West Santa Clara Street (former San Jose Water Company Site).

[b] Active uses consist of Retail, Restaurant, Arts, Cultural, Live Entertainment, Institutional, Childcare and Education, Maker Spaces, Non-profit, and Small-Format Office.

[c] Open space includes all parks, plazas, green spaces, mid-block passages, and riparian buffers.

SOURCES: Data provided by Google LLC in 2019 and compiled by Environmental Science Associates in 2020.

With this adjustment to growth anticipated under the DSAP and analyzed in the DSAP EIR, plus the addition of the former San Jose Water Company site (Blocks E1, E2, and E3), the effective development area of the project site would be approximately 70 acres (Lots A, B, and C total about 11 acres), and this alternative would build out with a maximum of approximately 625 residential units, up to 380,000 square feet of retail/restaurant uses, up to 4.9 million gsf of office, and 9 acres of open space, as shown in Table 5-1. For comparison, the DSAP EIR assumed a districtwide maximum development of 2,588 dwelling units, 424,100 square feet of retail/restaurant uses, and 4.9 million square feet of office/research and development/light industrial uses in the 250-acre planning area. The overall intensity of development within the project site, measured by building floor area, would be reduced by approximately 56 percent compared to the proposed project. Given the substantial reduction in the development program compared to the proposed project, this alternative would likely preserve one or more historical resources that would be adversely affected under the proposed project.

Under the No Project/DSAP Development Alternative, development would be at lower densities than proposed with the project, and would not exceed the current height limits of 65–130 feet. The public open space network envisioned in the DSAP would build out incrementally, as would the street improvements and bicycle network identified in the plan. As explained in Chapter 2, *Project Description*, the City Council in 2019 directed Planning Division staff to develop greater height limits for portions of Downtown, including the Diridon Station Area. Therefore, it is possible that, under this alternative, one or more blocks on the project site could be developed at greater heights, and potentially at greater densities, than currently are permitted on the project site. However, in the absence of a coordinated development plan for this alternative, the analysis assumes existing height limits would remain because it would be speculative to identify potential future height increases that might be sought by individual developers. Because the underlying premise of this alternative is the adopted DSAP development program, the analysis likewise assumes the program set forth in the DSAP, with the exception that mixed-use development is assumed for the former ballpark site.

Comparison of Environmental Impacts

Air Quality

With less than half the total square footage of the proposed project, the No Project/DSAP Development Alternative would result in substantially fewer emissions of criteria pollutants and toxic air contaminants (TACs) and lower health risks from TAC emissions because it would include substantially less construction and total development at build-out. Although this alternative has not been quantified at the same level of detail as the proposed project, its reduced size would reduce operational emissions of reactive organic gases (ROG), oxides of nitrogen (NO_X), particulate matter 10 microns or less in diameter (PM_{10}), and $PM_{2.5}$ compared to those of the project; however, while emissions of $PM_{2.5}$ would be reduced to a less-than-significant level, the impact of ROG, NO_X, and PM_{10} emissions would remain significant and unavoidable. **Table 5-2** compares criteria pollutant emissions associated with operation of the alternatives to those of project operation.

TABLE 5-2
UNMITIGATED OPERATIONAL EMISSIONS OF CRITERIA POLLUTANTS—
COMPARISON OF ALTERNATIVE 1 TO THE PROPOSED PROJECT

	ROG	NO_X	PM_{10}	$PM_{2.5}$
Total Annual Emissions (tons per year)				
Significance Threshold	10	10	15	10
Proposed Project	**83**	**49**	**52**	**12**
Alternative 1: No Project/DSAP Development Alternative	**34**	**20**	**22**	5
Average Daily Emissions (pounds per day)				
Significance Threshold	54	54	82	54
Proposed Project	**471**	**306**	**327**	**77**
Alternative 1: No Project/DSAP Development Alternative	**195**	**120**	**145**	32

NOTES:
DSAP = Diridon Station Area Plan; NO_X = oxides of nitrogen; ROG = reactive organic gases; $PM_{2.5}$ = particulate matter 2.5 microns or less in diameter; PM_{10} = particulate matter 10 microns or less in diameter

Mitigation measures included in the proposed project with mitigation include the following: MM AQ-2d: Super-Compliant VOC Architectural Coatings during Operations; MM AQ-2e: Best Available Emission Controls for Stationary Emergency Generators; MM AQ-2f: Operational Diesel Truck Emissions Reduction; MM AQ-2g: Electric Vehicle Charging; MM AQ-2h: Enhanced Transportation Demand Management Program.

SOURCE: Data compiled by Environmental Science Associates in 2020.

ROG, NO_X, and PM_{10} emissions from construction on the project site would also be less than those associated with the proposed project. However, NOx emissions from construction could continue to exceed significance thresholds under this alternative and could potentially constitute a significant and unavoidable impact with mitigation, depending on construction phasing. Pollutant concentrations of TACs and $PM_{2.5}$ at sensitive receptors during construction and operation of development under the No Project/DSAP Development Alternative would also be less than those with the proposed project due to the lesser amount of development. It is conservatively assumed that increased cancer risk and non-cancer chronic health effects would remain significant and unavoidable, even with mitigation, under this alternative, although the severity of this impact would be reduced compared to that of the project. This is because no health risk assessment has been prepared for this alternative, and therefore it is not possible to state with certainty that the reduction in emissions of cancer-causing toxic air contaminants, compared to emissions with the project, would be sufficient to reduce this impact to a less-than significant level. Health risk does not correlate to pollutant emissions in a linear fashion; instead, health risks depend on factors such as location and timing of emissions, particularly peak construction emissions. It is also anticipated that the impact related to localized annual average $PM_{2.5}$ concentrations for on-site receptors would remain significant and unavoidable with mitigation, like the proposed project, although this alternative's impact would be reduced in severity due to lesser vehicular emissions during project operations.

Biological Resources

Development under the No Project/DSAP Development Alternative would involve construction on the project site, although at lower densities than under the proposed project, and without the

coordinated development of site improvements and on-site utility systems. With less activity on the site, potential impacts on biological resources would be reduced. In addition, under this alternative, the West San Fernando Street bridge would not be replaced, the project's proposed new footbridge would not be built, and there would be no in-creek enhancement work within Los Gatos Creek. However, development would still occur, and would include a riparian setback at the previously approved project at 374 West Santa Clara that is smaller compared to the proposed project's. Special-status bird, bat, and aquatic species could be affected as part of the overall development of this alternative, as could riparian habitat and wetlands along Los Gatos Creek, the creeping wild rye sensitive natural community, and fish habitat in the creek. Similar to the proposed project, mitigation measures would reduce these impacts to a less-than-significant level.

Cultural Resources and Tribal Cultural Resources

Like the proposed project, the No Project/DSAP Development Alternative would involve development on a site that contains historic architectural resources. The DSAP EIR found that potential impacts on historic resources would be less than significant with application of General Plan policies and supplemental review of individual projects. The DSAP EIR found that cumulative effects on historic resources, however, would be significant and unavoidable due to planned demolition of the then-extant former KNTV Television Broadcast Facility at 645 Park Avenue, which was a component of the then-proposed major league baseball park within the DSAP area.[5] The DSAP EIR also identified a cumulative significant unavoidable effect from the ballpark on the setting and feeling of the Southern Pacific Depot historic district. However, the ballpark is no longer proposed, meaning that this specific cumulative effect may not occur, given that the previously proposed ballpark would have involved a more dramatic change in the setting and feeling around the depot than would most other development. The DSAP EIR found a potential cumulative significant unavoidable effect on the Southern Pacific Depot historic district from BART and high-speed rail development, to which the DSAP would contribute potential removal of contributing district elements and indirectly through new construction and circulation improvements that would affect the district setting and character.

This EIR has identified a number of historic resources not previously identified, including in the DSAP EIR (refer to Section 3.3, Cultural Resources and Tribal Cultural Resources). General Plan policies call for retention of historic resources, particularly designated and candidate City landmarks, the potential for several of which has been identified in this EIR. This alternative could potentially result in lesser impacts on historical resources, given that it would develop substantially lesser overall building square footage than would the proposed project and thus could potentially avoid demolition or substantial alteration of historical resources on the project site. However, with redevelopment activities occurring on the site, the No Project/DSAP Development Alternative could still result in demolition or substantial alteration of one or more historical resources such that the significance of the resource(s) would be materially impaired. While less severe than with the proposed project, these actions would result in a significant and unavoidable impact and a considerable contribution to cumulative impacts. Mitigation measures recommended for the project could reduce the severity of these impacts, but not to a less-than-

[5] The KNTV building was destroyed by fire in 2014.

significant level. Similar to the proposed project, effects of this alternative on archaeological resources and tribal cultural resources would be less than significant with mitigation.

Energy

With substantially less development than the proposed project, the No Project/DSAP Development Alternative would use less energy for construction and operations, although it would not benefit from the project's energy efficiency that would be achieved through district utility systems. Effects would be less than significant, as with the project.

Geology, Soils, Mineral Resources, and Paleontological Resources; Hazardous Materials

Because development would occur in the same area and on many, if not all, of the same sites as under the project, the No Project/DSAP Development Alternative would have similar effects as the proposed project. Impacts would be less than significant with the same mitigation measures as required under the proposed project.

Greenhouse Gas Emissions

The No Project/DSAP Development Alternative would result in lower total construction-related and operational greenhouse gas (GHG) emissions than the proposed project because less overall construction and less development would occur on the site. With these reduced emissions, it is likely that this alternative would still meet the City's efficiency metric thresholds for 2030 and 2040, similar to the proposed project, given the transit-accessible location of the site. However, it should be noted that a robust Transportation Demand Management program, similar to the project's, would likely be needed for this alternative to comply with the efficiency metrics, and such a program could reasonably be expected to be most successful in the context of a larger unified development concept, such as the proposed project. It is also assumed that the No Project/DSAP Development Alternative would not meet the "no net additional" GHG requirement of the Jobs and Economic Improvement Through Environmental Leadership Act of 2011 (AB 900) with implementation of the mitigation measure proposed for the project, including acquisition of carbon credits to offset project GHG emissions. Moreover, it would be unlikely that AB 900 or a comparable program would be invoked absent a unified development proposal for the site. As a result, the No Project/DSAP Development Alternative would likely not meet the "no net additional" requirement, would not acquire carbon credits, and would result in an overall increase in GHG emissions when compared to the proposed project.

Hydrology and Water Quality

Although the No Project/DSAP Development Alternative would result in substantially less development than the proposed project, development would occur in the same area and on many, if not all, of the same sites as under the project. Therefore, most effects related to hydrology and water quality, including flooding impacts and effects on Los Gatos Creek and the Guadalupe River, would be similar to those of the proposed project. However, this alternative would not include the project's preferred option of replacing the West San Fernando Street bridge over Los Gatos Creek and undertaking in-stream restoration and ongoing creek maintenance to increase

flood capacity in Los Gatos Creek. This could result in increased flooding impacts, compared to conditions with the proposed project, and could require more buildings developed pursuant to this alternative to have to undergo flood-proofing. However, impacts would be less than significant with the same mitigation measures as required under the proposed project.

Land Use

The mix of land uses under the No Project/DSAP Development Alternative would be more weighted toward commercial land uses, and have significantly less housing, both proportionally in relation to commercial uses, and in absolute numbers compared to the proposed project. Due to existing DSAP height limits and the DSAP street network, the land uses would be developed at lower densities, and likely in smaller buildings. The alternative would consist of infill development, intensifying the use of an underused site similar to the proposed project, and thus would not physically divide an established community. Development under the No Project/DSAP Development Alternative would be consistent with the General Plan, and therefore would not conflict with land use plans and policies. With less overall development and smaller buildings, shading on Downtown parks by the buildings proposed under this alternative would be less than shading under the proposed project, and as with the proposed project, the impact would be less than significant. Like the project, this alternative would have a significant unavoidable impact with respect to non-compliance with the San José International Airport Comprehensive Land Use Plan (CLUP) airport noise exposure policy because it would include residential units that could have outdoor recreational space within the 65 dBA CNEL airport noise contour.

Noise and Vibration

The No Project/DSAP Development Alternative would result in less overall development than the proposed project. Therefore, this alternative would result in less construction noise, less noise from stationary sources like backup generators, and less noise from traffic along area roadways than would result from the proposed project. The No Project/DSAP Development Alternative would reduce traffic noise, compared to that of the proposed project, but impacts along the three street segments where significant impacts would occur under the project would be expected to remain significant and unavoidable, assuming a uniform proportional reduction in traffic noise on all local streets. Additionally, even with less construction than under the proposed project, construction noise would contribute to cumulative significant and unavoidable construction noise impacts associated with Bay Area Rapid Transit (BART) construction near the project site, because even with substantially less development, this alternative would still constitute large-scale redevelopment of the project site that would likely involve many years of ongoing construction. Like the project, this alternative would have a significant unavoidable impact with respect to non-compliance with the CLUP airport noise exposure policy, as explained above under Land Use. Other noise and vibration impacts would be less than significant with mitigation, as under the proposed project.

Population and Housing

Like the proposed project, the No Project/DSAP Development Alternative would not displace substantial numbers of people, because the site currently has very few residents. The No Project/DSAP Development Alternative would not, however, add substantial additional housing

to the site, and would result in a smaller increase in population and employment than the project. This increase would not conflict with adopted plans or policies, similar to the proposed project, although it could contribute to the significant and unavoidable jobs/housing imbalance projected by 2040 under the General Plan, consistent with the findings of the DSAP EIR.[6] In particular, when compared to the proposed project, because this alternative has only a minimal amount of residential use compared to a significant amount of office use, it would have a greater contribution to this cumulative impact.

Public Services, Recreation, and Utilities

Implementing the No Project/DSAP Development Alternative would result in fewer residents and employees on site than with the proposed project, and thus a lower demand for public services, recreation facilities, and utilities. This alternative would provide less open space than the proposed project, although coupled with the reduced intensity, it would continue to have a less than significant impact on recreational facilities. Like the proposed project, this alternative would not result in significant impacts related to the need for new facilities or infrastructure; mitigation applicable to the proposed project would also apply.

Transportation

With substantially less overall development than the proposed project, the No Project/DSAP Development Alternative would generate about half the vehicle traffic of the project. The alternative would not include the street network changes and pedestrian/bicycle improvements proposed by the project, but proposals included in the DSAP could be funded and implemented over time. With the proximity of the site to Diridon Station and excellent access to transit, the No Project/DSAP Development Alternative, like the proposed project, would not result in a significant impact related to vehicle miles traveled. However, the No Project/DSAP Development Alternative would have substantially less residential development, and so may result in greater per capita vehicle miles traveled as fewer people would be able to live in close proximity to the office uses and to the Diridon Station transit hub. Also like the proposed project, this alternative would result in less-than-significant impacts along transit corridors and in adjacent jurisdictions with implementation of transportation demand management (TDM) mitigation, consistent with the Transportation and Parking Management Plan prepared for the DSAP.

Ability to Meet Project Objectives

The No Project/DSAP Development Alternative would partly address the City's goals with respect to buildout under the General Plan and the DSAP. (It is noted that the City is currently studying revisions to the DSAP, as discussed in Chapter 2, *Project Description*.) However, this alternative would not address the stated objectives of either the project applicant or the City for the project site, as memorialized in the MOU dated December 4, 2018. This MOU called for creating a vibrant,

[6] The DSAP EIR found that the DSAP would contribute considerably to the significant unavoidable impact identified in the General Plan EIR as a result of implementing the General Plan's core objective of increasing jobs relative to housing in San José to reduce the city's current jobs-housing imbalance (shortage of jobs relative to housing). Because the General Plan EIR evaluated a worst-case scenario in which all of new workers in San José beyond the number in regional forecasts were assumed to live outside of Santa Clara County, it concluded that implementation of the General Plan would substantially increase VMT per service population in the Bay area.

welcoming, and accessible urban destination on the project site, and envisioned substantial new employment and housing, including affordable housing, with the City "collaborating with the project applicant to innovate in the development of an urban destination that will bring opportunity to the local community and create new models for urban and workplace design and development." Developing the project under the framework of the already adopted DSAP would to some extent prevent in-depth collaboration to create an innovative and cohesive plan. For example, the DSAP's road network would likely preclude the project's integration of development with a re-conceived road network, which creates more public open space while also meeting the project's objective of creating contiguous, horizontally connected office spaces.

In addition, with significantly reduced housing overall (695 units compared to the project's up to 5,900 units), affordable housing would also be expected to be reduced. The increase in employment would be similarly reduced, to just over 20,000 jobs, from the project's approximately 30,550 new jobs. The MOU also calls for a range of community benefits, including affordable housing. With reduced development of office space, which generally supports the financial feasibility of community benefits, including affordable housing, the ability of the No Project/DSAP Development Alternative to meet the MOU objective of community benefits would also be reduced.

This alternative also would not meet the applicant's core objective to accommodate the long-term expansion of its workforce and business operations in a Bay Area location anchored by public transportation, or any of the applicant's other objectives.

5.5.2 Alternative 2A: Historic Preservation Alternative

This alternative would retain, reuse, and avoid adverse effects on all nine of the historic resources identified within the project site (one of which is a grouping of three small residences considered a single resource), as compared to the proposed project, which would avoid adverse effects to three resources, as shown in Section 3.3, *Cultural Resources and Tribal Cultural Resources*, Figure 3.3-2.[7] Specifically, this alternative would not demolish any of the nine historic resources and would eliminate new construction on sites identified in Figure 2-3, *Land Use Plan*, as B1, F5 and the southern two-thirds of F1, as well as the northern half of H1. The Preservation Alternative would also not undertake non-historically conforming alterations to the former Hellwig Iron Works Building at 150 South Montgomery Street. This alternative would also reduce the size of new buildings proposed near historic resources, setting them back from the historic properties, and adaptively reuse, consistent with the *Secretary of the Interior's Standards for the Treatment of Historic Properties* (Secretary's Standards), all on-site historic resources as indicated in **Table 5-3**. General Plan land use designations, zoning designations, and height limits would be the same as under the proposed project, although building heights adjacent to historic resources would be reduced.

[7] The project would retain and reuse the former San Jose Water Company building (retention and reuse previously approved as part of a separate project), the significant components of the former Kearney Pattern Works and Foundry, and the Stephen's Meat Products sign; the Kearney Pattern Works and Stephen's Meat Products sign may be relocated within the project site. The project would also retain the Hellwig Iron Works building at 150 South Montgomery Street but would make additions and alterations inconsistent with the Secretary of the Interior's Standards for the Treatment of Historic Properties, a significant unavoidable impact

TABLE 5-3
DISPOSITION OF HISTORIC ARCHITECTURAL RESOURCES IN THE STUDY AREA UNDER THE HISTORIC PRESERVATION ALTERNATIVE

Address and Resource Name (Date)	Disposition under the Historic Preservation Alternative	Disposition under the Proposed Project
559 W. Julian Street (c. 1883) 563 W. Julian Street (c. 1894) 567 W. Julian Street (c. 1892)	Avoidance or adaptive reuse consistent with the Secretary's Standards (less than significant)	Demolition (significant and unavoidable with mitigation)
343 N. Montgomery Street, Advance Metal Spinning (1941)	Avoidance or adaptive reuse consistent with the Secretary's Standards (less than significant)	Demolition (significant and unavoidable with mitigation)
345 N. Montgomery Street, Circus Ice Cream (1944)	Avoidance or adaptive reuse consistent with the Secretary's Standards (less than significant)	Demolition (significant and unavoidable with mitigation)
55 S. Autumn Street, 57 S. Autumn Street, 40 S. Montgomery Street, Kearney Pattern Works and Foundry (1922, c. 1950s and c. 1993 expansion)	Avoidance or adaptive reuse of historic South Montgomery Street buildings consistent with the Secretary's Standards (less than significant)	Adaptive reuse and minor relocation of contributing 40 South Montgomery Street sections (less than significant with mitigation)
374 W. Santa Clara Street, San Jose Water Works (1934–1940)	Same as under the project[a]	Adaptive reuse (less than significant)
580 Lorraine Avenue, former union hall (1961)	Avoidance or adaptive reuse consistent with the Secretary of the Interior's Standards (less than significant)	Demolition (significant and unavoidable with mitigation)
150 S. Montgomery Street, Hellwig Ironworks/San José Taiko (c. 1935)	Avoidance or adaptive reuse consistent with the Secretary's Standards (less than significant)	Addition(s) and modifications inconsistent with the Secretary's Standards, adaptive reuse (significant and unavoidable with mitigation)
145 S. Montgomery Street, Sunlite Baking Co. (1936)	Avoidance or adaptive reuse consistent with the Secretary's Standards (less than significant)	Demolition (significant and unavoidable with mitigation)
Stephen's Meat Products Sign	Retention within project site (less than significant with mitigation)	Retention within project site (less than significant with mitigation)
237 N. Autumn Street, Dennis Residence (1870)	Same as under the project	New development nearby (less than significant)
65 Cahill Street, Southern Pacific Depot Historic District (Diridon Station) (1935)	Same as under the project	New development separated from district (less than significant)
Lakehouse Historic District	Same as under the project	New development nearby (less than significant)

NOTES:
[a] Adaptive reuse of the San Jose Water Works building approved separately as part of the Delmas Mixed-Use Development Project (File Nos. PDC15-051, PD15-061, PT16-012, and HP16-002).
c. = circa; Secretary's Standards = *Secretary of the Interior's Standards for Treatment of Historic Properties*
SOURCE: Data compiled by Environmental Science Associates in 2020

With these modifications to the treatment of historic resources on site and the reduced building program anticipated as a result, the Historic Preservation Alternative would include less overall development than the proposed project, as shown in Table 5-1. The proposed project's buildings are generally contemplated at their maximum heights allowable under FAA height restrictions, with certain densities assumed in order to meet the applicant's objectives of incorporating high-quality urban design and open spaces with varied form and scale, and of achieving high

environmental performance and comfort in its building. Therefore, with the retention of all of the project's historic resources and without altering the building typologies and urban design approach proposed under the project, some amount of program space could not be located elsewhere on site and would therefore be eliminated.

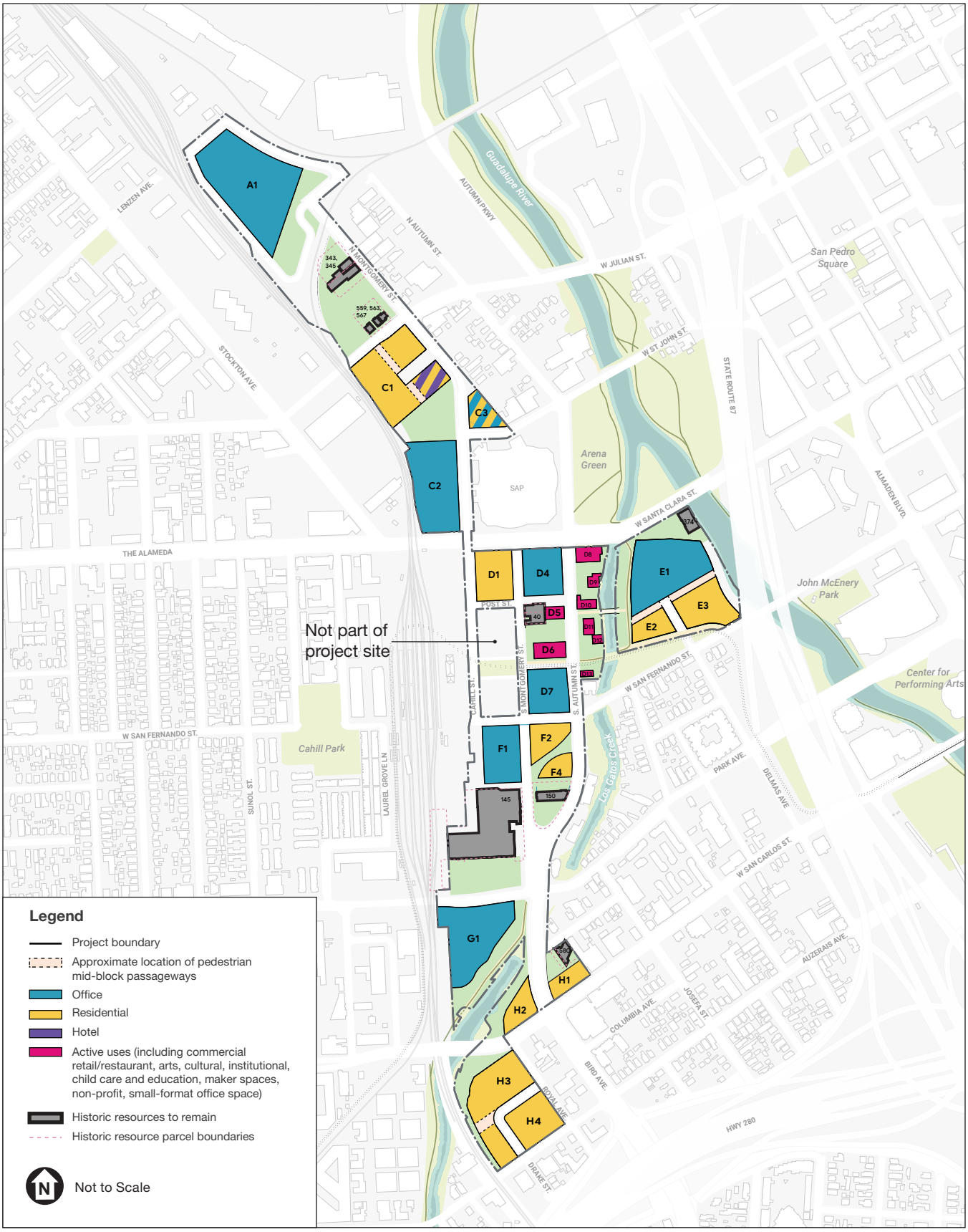
Specifically, the maximum number of residential dwelling units would be 5,665, approximately 235 units (4 percent) fewer than with the project due to preservation of 580 Lorraine Avenue affecting Block H1; the number of limited-term corporate accommodation units would be reduced by about 460 (58 percent), to a maximum of 340, due to reductions in residential and office buildings throughout the project site that would otherwise include such accommodations; and the maximum amount of office space would be reduced by about 1,610,000 gsf (22 percent), to 5,690,000 gsf, due to preservation of 145 South Montgomery Street and the three resources on North Montgomery Street/West Julian Street, as well as required setbacks from those resources for compatibility purposes, affecting Blocks B1, F1, F3, F4, F5, and F6. The floor area of active uses (e.g., commercial retail/restaurant, cultural, live entertainment, community center, institutional, childcare, and education), and infrastructure-related buildings would also be somewhat reduced, approximately in proportion to the loss of office uses, event/conference space would be cut in half, to 50,000 gsf, and the number of hotel rooms would be unchanged from the proposed project. The overall intensity of development, measured by building floor area, would be reduced by approximately 17 percent compared to the proposed project.

Other aspects of the project, including most of the proposed street network changes, open space, and infrastructure improvements, would generally remain the same or similar to the proposed project. Maximum building heights and the overall scale and density of the proposed project would also remain the same, except on Blocks B1, F1, F3, F4, F5, F6, and H1, where building footprints and/or massing would be altered to accommodate preservation of existing buildings. Unlike the project, the Historic Preservation Alternative would not eliminate South Montgomery Street south of West San Fernando Street or extend Cahill Street south to Park Avenue; instead, Cahill Street would dead-end at both the north and south sides of the historic Sunlite Baking Company (recently, AT&T) building at 145 South Montgomery Street. South Montgomery and South Autumn Streets would remain one-way streets as they function under existing conditions, and the proposed project's Meander open space, between West San Fernando Street and Park Avenue, would not be included due to preservation of 145 South Montgomery Street. **Figure 5-1** depicts the Historic Preservation Alternative.

Comparison of Environmental Impacts

Air Quality

Because the Historic Preservation Alternative would reduce the overall amount of development proposed by the project by approximately 17 percent, criteria pollutant emissions and health risks associated with TAC emissions would be somewhat reduced compared to the proposed project, as shown in **Table 5-4**. However, the reduction would not be sufficient to eliminate the project's significant and unavoidable impacts related to emissions of criteria pollutants during both construction and operation, because the incremental reduction in construction activity and overall development would not be sufficient to reduce impacts to a less-than-significant level.



SOURCE: Google LLC, 2020

Downtown West Mixed-Use Plan

Figure 5-1
Alternative 2A: Historic Preservation Alternative

TABLE 5-4
UNMITIGATED OPERATIONAL EMISSIONS OF CRITERIA POLLUTANTS—
COMPARISON OF ALTERNATIVE 2A TO THE PROPOSED PROJECT

	ROG	NO_X	PM_{10}	$PM_{2.5}$
Total Annual Emissions (tons per year)				
Significance Threshold	10	10	15	10
Proposed Project	**83**	**49**	**52**	**12**
Alternative 2A: Historic Preservation Alternative	**69**	**36**	**43**	**10**
Average Daily Emissions (pounds per day)				
Significance Threshold	54	54	82	54
Proposed Project	**471**	**306**	**327**	**77**
Alternative 2A: Historic Preservation Alternative	**392**	**227**	**270**	**61**

NOTES:
DSAP = Diridon Station Area Plan; NO_X = oxides of nitrogen; ROG = reactive organic gases; $PM_{2.5}$ = particulate matter 2.5 microns or less in diameter; PM_{10} = particulate matter 10 microns or less in diameter

Mitigation measures included in the proposed project with mitigation include the following: MM AQ-2d: Super-Compliant VOC Architectural Coatings during Operations; MM AQ-2e: Best Available Emission Controls for Stationary Emergency Generators; MM AQ-2f: Operational Diesel Truck Emissions Reduction; MM AQ-2g: Electric Vehicle Charging; MM AQ-2h: Enhanced Transportation Demand Management Program.

SOURCE: Data compiled by Environmental Science Associates in 2020.

Like the project, this alternative would expose sensitive receptors to TAC and $PM_{2.5}$ concentrations during construction and operation of the project. Under this alternative, the severity of the impact would be reduced. Even with the mitigation measures identified for the proposed project, this alternative would likely result in a significant unavoidable impact with respect to increased lifetime cancer risk for off-site receptors, as would the project, because the magnitude of development would not be sufficiently lessened so as to reduce this impact to a less-than-significant level. However, the increased risk would be somewhat lower than the project-generated risk. For similar reasons, it is also anticipated that localized annual average $PM_{2.5}$ concentrations would remain significant and unavoidable under this alternative.

Biological Resources

With similar intensity, building footprints (with limited exceptions), and site improvements as the proposed project, the Historic Preservation Alternative would result in similar potential impacts on special-status bird, bat, and aquatic species; riparian habitat and wetlands along Los Gatos Creek; the creeping wild rye sensitive natural community; and fish habitat in the creek. Similar to the proposed project, impacts would be less than significant with implementation of the mitigation measures proposed for the project.

Cultural Resources and Tribal Cultural Resources

The Historic Preservation Alternative would avoid and/or adaptively reuse all buildings on the project site identified as historical resources, thereby avoiding the project's significant and unavoidable impacts relating to demolition of historic resources. The Historic Preservation Alternative also would not include additions and alterations to the historic Hellwig Ironworks building located at 150 South Montgomery, and would avoid the project's significant and

unavoidable impact on this resource. Under the Historic Preservation Alternative, any rehabilitation and adaptive reuse of the on-site historic architectural resources would be completed in accordance with the Secretary's Standards, subject to confirmation during the City's review of building plans for each individual property, resulting in a less-than-significant impact. Similar to the project, this alternative would also relocate and preserve the Stephen's Meats Dancing Pig Sign, which is a contributor to a pending Commercial Signage Discontiguous Historic District and, therefore, is considered a historic resource.

As noted above, new buildings proposed for the project site that would have the potential to affect the setting of identified historic resources would be designed carefully, and their massing would be altered if necessary, to avoid both the physical loss of historic resources and changes to their setting that would adversely affect their significance and integrity. Conformance review by the City pursuant to the project's Planned Development Permit and associated Design Standards and Guidelines would confirm the compatibility of proposed construction, resulting in a less-than-significant impact.

The Historic Preservation Alternative would include standard conditions of approval and project mitigation identified for archaeological resources, human remains, vibration impacts on adjacent and nearby historic buildings, and tribal cultural resources. With these mitigation measures, impacts on subsurface cultural resources and tribal cultural resources would be less than significant with mitigation, as with the project. Unlike the project, however, this alternative would avoid significant impacts on historic architectural resources on the project site; all such effects would be less than significant. Like the proposed project, this alternative would have a less than significant impact on the Southern Pacific Railroad Historic District. Cumulative impacts would also be less than significant because, based on the preceding conclusions, this alternative would not contribute considerably to cumulative effects on the Historic District, similar to the proposed project, and unlike the proposed project, this alternative would not contribute meaningfully to the previously identified cumulative impact on historical resources in Downtown.

Energy

With incrementally less development than the proposed project, the Historic Preservation Alternative would use less energy for construction and operations. Effects would be less than significant, as with the project.

Geology, Soils, Mineral Resources, and Paleontological Resources; Hazardous Materials

Because development would occur in the same area and on many of the same sites as under the project, the Historic Preservation Alternative would have similar effects as the proposed project. Impacts would be less than significant with the same mitigation measures as required under the proposed project.

Greenhouse Gas Emissions

Reuse of existing buildings can reduce GHG emissions when compared to new construction because there would be no emissions from new construction. The reduced development intensity

of the Historic Preservation Alternative compared to the proposed project would also reduce total construction-related and operational GHG emissions. The magnitude of the reduction in development intensity would be approximately 17 percent, and would not alter the conclusions of the project's GHG analysis. Similar to the proposed project, the impact of GHG emissions would remain less than significant when compared to the City's efficiency metrics for 2030 and 2040. While it is uncertain whether the existing AB 900 certification would continue to apply to this alternative, it is assumed for purposes of this discussion that it would be feasible to retain certification and that this alternative, like the proposed project, would achieve "no net new" emissions. As a result, this alternative would result in similar GHG impacts as the proposed project and GHG impacts would remain less than significant.

Hydrology and Water Quality

Although the Historic Preservation Alternative would result in incrementally less development than the proposed project, development would occur in the same area and on many of the same sites as under the project. Therefore, effects related to hydrology and water quality, including flooding impacts and effects on Los Gatos Creek and the Guadalupe River, would be incrementally less substantial those of the proposed project. Impacts would be less than significant with the same mitigation measures as required under the proposed project.

Land Use

The land uses proposed as part of the Historic Preservation Alternative are the same as those that would be located on site with the proposed project, although the building footprints on some blocks would be reduced and some existing buildings would be reused. Maximum building heights would remain the same, however, as would most of the proposed street network and open space areas. With these similarities to the project, the Historic Preservation Alternative would similarly avoid physically dividing an established community or conflicting with land use plans and policies. The impact of shade on Downtown parks would also remain less than significant, similar to the proposed project. Like the project, this alternative would have a significant unavoidable impact with respect to non-compliance with the CLUP airport noise exposure policy because it would include residential units that could have outdoor recreational space within the 65 dBA CNEL airport noise contour.

Noise and Vibration

The land uses proposed as part of the Historic Preservation Alternative would be the same as those under the project, and the intensity of development would be reduced, compared to the project, by approximately 17 percent because of the retention and reuse of existing buildings. With this reduction in intensity, noise impacts from construction and operation of this alternative could be somewhat less than the impacts of the proposed project; however, traffic noise would still affect sensitive receptors along three corridors. As under the project, this impact would be significant and unavoidable, assuming a uniform proportional reduction in traffic noise on all local streets, because traffic volumes would be only incrementally reduced, compared to those with the project. Also, even with less construction than under the proposed project, construction noise under the Historic Preservation Alternative would contribute to cumulative significant and

unavoidable construction noise impacts associated with BART construction near the project site, because the incremental decrease in development under this alternative, compared to the project, would still result in substantial construction activity over many years. Like the project, this alternative would have a significant unavoidable impact with respect to non-compliance with the CLUP airport noise exposure policy, as explained above under Land Use. Other noise and vibration impacts would be less than significant with mitigation, as under the proposed project.

Population and Housing

Like the proposed project, the Historic Preservation Alternative would not displace substantial numbers of people, because the site currently has very few residents. The Historic Preservation Alternative would add housing to the site, although somewhat less than the proposed project, and would result in a smaller increase in population and employment than the project. This increase would not conflict with adopted plans or policies, similar to the proposed project; however, like the project, it would have a cumulatively considerable contribution to the significant and unavoidable cumulative jobs/housing impact projected by 2040 under the General Plan.

Public Services, Recreation, and Utilities

Implementing the Historic Preservation Alternative would result in fewer residents and employees on site than under the proposed project, and thus a proportionally lower demand for public services, recreational facilities, and utilities. Like the project, this alternative would not result in significant impacts related to the need for new facilities or infrastructure for public services, recreation, or utilities; mitigation applicable to the proposed project would also apply.

Transportation

With less overall development than the proposed project, the Historic Preservation Alternative would generate about 20 percent less vehicle traffic and less use of transit, bike, and pedestrian facilities in the project area. This alternative would include most of the street network changes and pedestrian/bicycle improvements proposed by the project with the major exceptions of South Montgomery and South Autumn Streets through the core of the project area which would remain one-way streets. With the proximity of the site to Diridon Station and excellent access to transit, the Historic Preservation Alternative would not result in a significant impact related to vehicle miles traveled, similar to the proposed project. Like the proposed project, the Historic Preservation Alternative would not have significant impacts relating to conflicts with transportation policies, safety, emergency access, or mode share. Also like the proposed project, the Historic Preservation Alternative would result in less-than-significant impacts along transit corridors and in adjacent jurisdictions with implementation of TDM mitigation. Cumulative impacts would likewise be less than significant with mitigation.

Ability to Meet Project Objectives

This alternative would respond to a number of policies in the General Plan, including Policy LU-13.2 (preservation of candidate or designated landmark buildings, structures and historic objects), and Policy LU-13.6 (modifications to candidate or designated landmarks to

conform to the Secretary's Standards and/or appropriate State requirements). The alternative would also particularly address the project applicant's objective to "Preserve and adapt landmark historic resources and assets where feasible to foster a place authentic to San José and foster contemporary relations to San José's history."

The Historic Preservation Alternative would resemble the project in most respects, and would therefore meet most of the project objectives, although to a lesser extent than the proposed project. However, this alternative would result in approximately 17 percent less overall development, including a 4 percent (235-unit) reduction in the number of housing units, which would also reduce the amount of affordable housing. It would not advance, to the same degree, the City's objectives to develop the site in a way that aligns with the General Plan, DSAP, and Downtown Strategy 2040 goals to encourage ambitious job creation in close proximity to transit, or to advance the Diridon Station Area as a world-class transit hub and key transportation center for Northern California.

The Historic Preservation Alternative would include a mixed-use program somewhat comparable to that of the proposed project, although the mix of uses would be different. However, the retention of a number of historic resources, and the resulting removal or significant reduction of certain new-construction buildings in the Historic Preservation Alternative, as compared to the project, would result in less overall cohesion in the development plan. For example, the northern and southern ends of the project would likely be more isolated as a result of larger gaps in the development. Circulation improvements in the central area of the site would not be implemented, resulting in no southern extension of Cahill Street. Similarly, by retaining 145 South Montgomery Street, the proposed open space known as the Meander would not be built.

Economic growth and contribution to the City's tax base would be somewhat less compared to the proposed project, as the Historic Preservation Alternative would have a reduced office program compared to the proposed project, which is designed to realize the density gains encouraged by the City Council. The reduced office program would also limit or reduce the financial feasibility of delivering a range of community benefits, as sought by the MOU.

While office uses would also be generally grouped in order to achieve a balance of a vibrant mixed-use environment with efficiencies in shared program, the loss of certain office buildings under the Historic Preservation Alternative would reduce operational efficiencies, as well as the potential for future business operations to grow in place. The loss of office buildings at the northern and southern areas of the plan would reduce connectivity and the ability to share amenities. When compared to the proposed project, the alternative would eliminate some proposed large floorplate buildings, thereby reducing the project's ability to meet the objective of creating a dynamic range of floorplate types, including horizontally connected ones, that best suit the project applicant's need for workplace flexibility and for anticipating changing business needs and growth over the next several decades. This alternative, therefore, would not fully achieve the project applicant's objective to develop a dense commercial center that is anchored by (and better leverages) public transit infrastructure.

In addition, reduced development under the Historic Preservation Alternative could affect the layout and construction and reduce the efficiency of the project's proposed district infrastructure

systems, potentially achieving less in the way of efficiency than the proposed project. Shared infrastructure systems developed at a scale appropriate to the proposed project and the Historic Preservation Alternative are expected to require generally fixed or similar costs. Therefore, reduced overall development in the Historic Preservation Alternative would result in both lower efficiency for district systems, while impacting economic efficacy.

5.5.3 Alternative 2B: Historic Preservation/CLUP Noise Compliance Alternative

The Historic Preservation/CLUP Noise Compliance Alternative would combine aspects of the Preservation Alternative and the proposed project to avoid significant impacts to all but one of the historical resources on the project site and would also avoid significant noise and land use effects related to non-compliance with the CLUP airport noise exposure policy.

Like Alternative 2A, the Historic Preservation/CLUP Noise Compliance Alternative would retain and reuse all nine of the historical resources identified within the project site (one of which is a grouping of three small residences considered a single resource), as compared to the proposed project, which would avoid adverse effects to three of the nine resources. However, unlike the Historic Preservation Alternative, this alternative would include the proposed project's additions and alterations to the former Hellwig Iron Works Building at 150 South Montgomery to create an architectural icon. These changes are intended to create an architecturally iconic feature and, because this transformation would appear to alter the building form and affect its historic integrity, it would result in a significant and unavoidable impact, similar to the proposed project.

Similar to Alternative 2A, the Historic Preservation/CLUP Noise Compliance Alternative would reduce the size of new buildings proposed near historic resources when compared to the proposed project, setting them back from the historic properties. General Plan land use designations, zoning designations, and height limits would be the same as under the proposed project, although building heights adjacent to historic resources would be reduced.

With these modifications to the treatment of historic resources and the resulting reduced building program, the Historic Preservation/CLUP Noise Compliance Alternative would include less overall development than the proposed project, as shown in Table 5-1. Notably, the Historic Preservation/CLUP Noise Compliance Alternative would retain most of the proposed project's non-residential development program, while substantially reducing the number of residential units proposed and making a smaller reduction in floor area of active uses. Specifically, this alternative would develop a maximum of 3,600 dwelling units, 2,300 (nearly 40 percent) fewer than with the project, and 436,000 gsf of active uses, about 13 percent less than the project. Unlike the proposed project, no residential uses would be developed on Blocks E2, E3, F2, F4, H2, or (potentially) H3. Instead, these blocks would be developed with office space.

With these realignments of the land use plan, this alternative would develop 7.3 million gsf of office space, 300 hotel rooms, 800 units of limited-term corporate accommodation, 100,000 gsf of conference/event space, and 230,000 gsf devoted to infrastructure and utilities; all of these totals would be the same as under the proposed project. This alternative would also include about 15 acres

of open space as under the project. The reduction in the number of residential units would avoid most development of new residential units within the 65 dBA CNEL airport noise contour. Unlike the proposed project, under this alternative, there would be no residential development on Blocks E1, E2, or E3 (the former San José Water Company site), while the relatively small number of residential units that would be along the North Montgomery Street façade of Block C1—where the 65 dBA CNEL airport noise contour line runs just inside the property lines along the west side of North Montgomery Street—would not include patios, balconies, or other outdoor spaces.

Other aspects of the project, including most of the proposed street network changes, open space, and infrastructure improvements, would generally be similar under this alternative. Maximum building heights and the overall scale and density of the proposed project would also remain the same, except on Blocks B1, F1, F3, F4, F5, F6, and H1, where building footprints and/or massing would be altered to accommodate preservation of existing buildings. Similar to Alternative 2A and unlike the project, this alternative would not eliminate South Montgomery Street south of West San Fernando Street or extend Cahill Street south to Park Avenue; instead, Cahill Street would dead-end at both the north and south sides of the historic Sunlite Baking Company (recently, AT&T) building at 145 South Montgomery Street. South Montgomery and South Autumn Streets would remain one-way streets as they function under existing conditions, and the proposed project's Meander open space, between West San Fernando Street and Park Avenue, would not be included due to preservation of 145 South Montgomery Street. **Figure 5-2** depicts the Historic Preservation/CLUP Noise Compliance Alternative.

Comparison of Environmental Impacts

Air Quality

Because the Historic Preservation/CLUP Noise Compliance Alternative would reduce the overall amount of development proposed by the project by approximately 14 percent, criteria pollutant emissions and health risks associated with TAC emissions would be somewhat reduced compared to the proposed project, as shown in **Table 5-5**. However, the reduction would not be sufficient to eliminate the project's significant and unavoidable impacts related to emissions of criteria pollutants during both construction and operation, because the incremental reduction in construction activity and overall development would not be sufficient to reduce impacts to a less-than-significant level.

Like the project, this alternative would expose sensitive receptors to TAC and $PM_{2.5}$ concentrations during construction and operation of the project. Under this alternative, the severity of the impact would be reduced. Even with the mitigation measures identified for the proposed project, this alternative would likely result in a significant unavoidable impact with respect to increased lifetime cancer risk for off-site receptors, as would the project, because the magnitude of development would not be sufficiently lessened so as to reduce this impact to a less-than-significant level. However, the increased risk would be somewhat lower than the project-generated risk. For similar reasons, it is also anticipated that localized annual average $PM_{2.5}$ concentrations would remain significant and unavoidable under this alternative.

TABLE 5-5
UNMITIGATED OPERATIONAL EMISSIONS OF CRITERIA POLLUTANTS—
COMPARISON OF ALTERNATIVE 2B TO THE PROPOSED PROJECT

	ROG	NO_X	PM_{10}	$PM_{2.5}$
Total Annual Emissions (tons per year)				
Significance Threshold	10	10	15	10
Proposed Project	**83**	**49**	**52**	**12**
Alternative 2B: Historic Preservation CLUP Noise Compliance Alt.	**73**	**43**	**46**	**11**
Average Daily Emissions (pounds per day)				
Significance Threshold	54	54	82	54
Proposed Project	**471**	**306**	**327**	**77**
Alternative 2B: Historic Preservation CLUP Noise Compliance Alt.	**416**	**270**	**290**	**68**

NOTES:
DSAP = Diridon Station Area Plan; NO_X = oxides of nitrogen; ROG = reactive organic gases; $PM_{2.5}$ = particulate matter 2.5 microns or less in diameter; PM_{10} = particulate matter 10 microns or less in diameter

Mitigation measures included in the proposed project with mitigation include the following: MM AQ-2d: Super-Compliant VOC Architectural Coatings during Operations; MM AQ-2e: Best Available Emission Controls for Stationary Emergency Generators; MM AQ-2f: Operational Diesel Truck Emissions Reduction; MM AQ-2g: Electric Vehicle Charging; MM AQ-2h: Enhanced Transportation Demand Management Program.

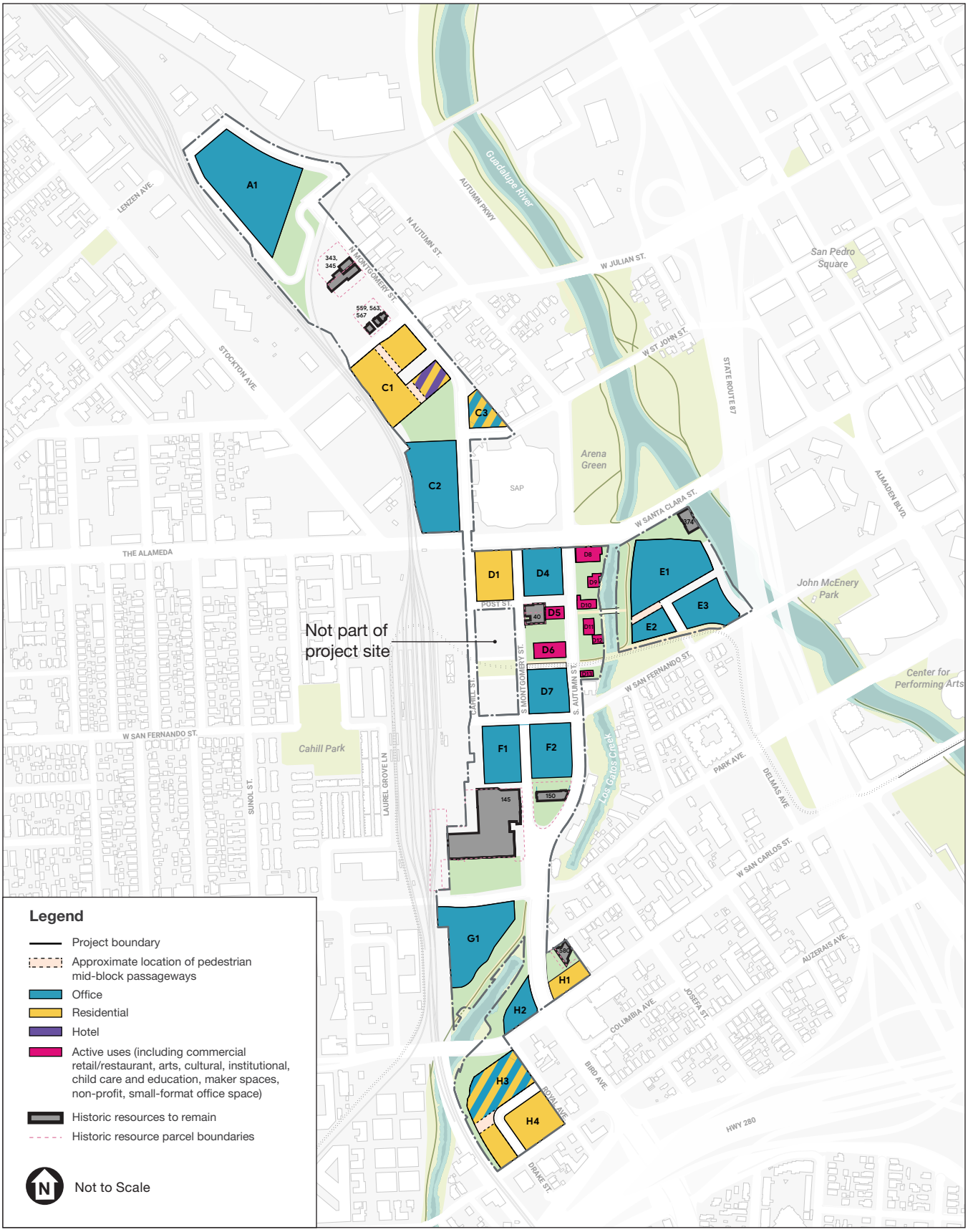
SOURCE: Data compiled by Environmental Science Associates in 2020.

Biological Resources

With similar intensity, building footprints (with limited exceptions), and site improvements as the proposed project, the Historic Preservation/CLUP Noise Compliance Alternative would result in similar potential impacts on special-status bird, bat, and aquatic species; riparian habitat and wetlands along Los Gatos Creek; the creeping wild rye sensitive natural community; and fish habitat in the creek. Similar to the proposed project, impacts would be less than significant with implementation of the mitigation measures proposed for the project.

Cultural Resources and Tribal Cultural Resources

The Historic Preservation/CLUP Noise Compliance Alternative would avoid adverse effects to eight of the nine buildings on the project site identified as historical resources. However, because it would include the proposed project's additional and alterations to the former Hellwig Iron Works building at 150 South Montgomery Street that would appear to alter the building form and affect its historic integrity, this alternative would have a significant and unavoidable impact on historic resources, like the project. The overall impact on historical resources would, however, be substantially reduced in severity compared to that with the proposed project. Under this alternative, rehabilitation and adaptive reuse of the remaining eight on-site historic architectural resources would be completed in accordance with the Secretary's Standards, subject to confirmation during the City's review of building plans for each individual property. Similar to the project, this alternative would also relocate and preserve the Stephen's Meats Dancing Pig Sign, which is a contributor to a pending Commercial Signage Discontiguous Historic District and, therefore, is considered a historic resource.



SOURCE: Google LLC, 2020

Downtown West Mixed-Use Plan

Figure 5-2
Alternative 2B: Historic Preservation/ CLUP Noise Compliance Alternative

As with Alternative 2A, new buildings proposed for the project site that would have the potential to affect the setting of identified historic resources would be designed carefully, and their massing would be altered if necessary, to avoid both the physical loss of historic resources and changes to their setting that would adversely affect their significance and integrity, thereby resulting in less-than-significant impacts with respect to these other resources. Conformance review by the City pursuant to the project's Planned Development Permit and associated Design Standards and Guidelines would confirm the compatibility of proposed construction, resulting in a less-than-significant impact.

The Historic Preservation/CLUP Noise Compliance Alternative would include standard conditions of approval and project mitigation identified for archaeological resources, human remains, vibration impacts on adjacent and nearby historic buildings, and tribal cultural resources. With these mitigation measures, impacts on subsurface cultural resources and tribal cultural would be less than significant with mitigation, as with the project. Like the proposed project, this alternative would have a less than significant impact on the Southern Pacific Railroad Historic District. Cumulative impacts would also be less than significant because, based on the preceding conclusions, this alternative would not contribute considerably to cumulative effects on the Historic District, similar to the proposed project, and unlike the proposed project, this alternative would not contribute meaningfully to the previously identified cumulative impact on historical resources in Downtown.

Energy

With incrementally less development than the proposed project, the Historic Preservation/CLUP Noise Compliance Alternative would use less energy for construction and operations. Effects would be less than significant, as with the project.

Geology, Soils, Mineral Resources, and Paleontological Resources; Hazardous Materials

Because development would occur in the same area and on many of the same sites as under the project, the Historic Preservation/CLUP Noise Compliance Alternative would have similar effects as the proposed project. Impacts would be less than significant with the same mitigation measures as required under the proposed project.

Greenhouse Gas Emissions

Reuse of existing buildings can reduce GHG emissions when compared to new construction because there would be no emissions from new construction. The reduced development intensity of the Historic Preservation/CLUP Noise Compliance Alternative compared to the proposed project would also reduce total construction-related and operational GHG emissions. The magnitude of the reduction in development intensity would be approximately 14 percent, and would not alter the conclusions of the project's GHG analysis. Similar to the proposed project, the impact of GHG emissions would remain less than significant when compared to the City's efficiency metrics for 2030 and 2040. While it is uncertain whether the existing AB 900 certification would continue to apply to this alternative, it is assumed for purposes of this discussion that it would be feasible to

retain certification and that this alternative, like the proposed project, would achieve "no net new" emissions. As a result, this alternative would result in similar GHG impacts as the proposed project and GHG impacts would remain less than significant.

Hydrology and Water Quality

Although the Historic Preservation/CLUP Noise Compliance Alternative would result in incrementally less development than the proposed project, development would occur in the same area and on many of the same sites as under the project. Therefore, effects related to hydrology and water quality, including flooding impacts and effects on Los Gatos Creek and the Guadalupe River, would be incrementally less substantial those of the proposed project. Impacts would be less than significant with the same mitigation measures as required under the proposed project.

Land Use

The land uses proposed as part of the Historic Preservation/CLUP Noise Compliance Alternative are the same as those that would be located on site with the proposed project, although the building footprints on some blocks would be reduced and some existing buildings would be reused. Maximum building heights would remain the same, however, as would most of the proposed street network and open space areas. With these similarities to the project, the Historic Preservation/CLUP Noise Compliance Alternative would similarly avoid physically dividing an established community or conflicting with land use plans and policies. The impact of shade on Downtown parks would also remain less than significant, similar to the proposed project. Unlike the proposed project, however, this alternative would have a less-than-significant effect with respect to non-compliance with the CLUP airport noise exposure policy because residential units would be either outside the 65 dBA CNEL airport noise contour or would not include patios, balconies, or other outdoor space, as described above in the description of this alternative. Therefore, the alternative would not be inconsistent with Policy N-4 and its restriction on residential outdoor uses within the noise contour. As such, this alternative would avoid the project's significant and unavoidable impact of the proposed project with respect to a conflict with a plan, policy, or regulation adopted for the purpose of avoiding an environmental effect, and the impact would be less than significant.

Noise and Vibration

The land uses proposed as part of the Historic Preservation/CLUP Noise Compliance Alternative would be the same as those under the project, and the intensity of development would be reduced, compared to the project, by approximately 14 percent because of the retention and reuse of existing buildings. With this reduction in intensity, noise impacts from construction and operation of this alternative could be somewhat less than the impacts of the proposed project; however, traffic noise would still affect sensitive receptors along three corridors. As under the project, this impact would be significant and unavoidable, assuming a uniform proportional reduction in traffic noise on all local streets, because traffic volumes would be only incrementally reduced, compared to those with the project. Also, even with less construction than under the proposed project, construction noise under the Historic Preservation/CLUP Noise Compliance Alternative would contribute to cumulative significant and unavoidable construction noise impacts associated

with BART construction near the project site, because the incremental decrease in development under this alternative, compared to the project, would still result in substantial construction activity over many years. As discussed above under Land Use, and unlike the proposed project, this alternative would not have a significant impact with respect to non-compliance with the CLUP airport noise exposure policy, and thus this alternative would avoid the project's significant unavoidable impact in this regard. Other noise and vibration impacts would be less than significant with mitigation, as under the proposed project.

Population and Housing

Like the proposed project, the Historic Preservation/CLUP Noise Compliance Alternative would not displace substantial numbers of people, because the site currently has very few residents. The Historic Preservation/CLUP Noise Compliance Alternative would add housing to the site, although only about 60 percent of the number of units in the proposed project, and would therefore result in a substantially smaller increase in population than the project. However, this alternative would generate only about 1 percent fewer employees than would the project, and it would therefore have a jobs-to-employed residents ratio of nearly 5.8, compared to approximately 3.5 with the proposed project. This increase would not conflict with adopted plans or policies, similar to the proposed project; however, like the project, it would have a cumulatively considerable contribution to the significant and unavoidable cumulative jobs/housing impact projected by 2040 under the General Plan.

Public Services, Recreation, and Utilities

Implementing the Historic Preservation/CLUP Noise Compliance Alternative would result in 40 percent fewer residents and slightly fewer employees on site than under the proposed project, and thus a proportionally lower demand for public services, recreational facilities, and utilities. Like the project, this alternative would not result in significant impacts related to the need for new facilities or infrastructure for public services, recreation, or utilities; mitigation applicable to the proposed project would also apply.

Transportation

With less overall development than the proposed project, the Historic Preservation/CLUP Noise Compliance Alternative would generate about 10 percent less vehicle traffic and less use of transit, bike, and pedestrian facilities in the project area. This alternative would include most of the street network changes and pedestrian/bicycle improvements proposed by the project with the major exceptions of South Montgomery and South Autumn Streets through the core of the project area which would remain one-way streets. With the proximity of the site to Diridon Station and excellent access to transit, the Historic Preservation/CLUP Noise Compliance Alternative would not result in a significant impact related to vehicle miles traveled, similar to the proposed project. Like the proposed project, the Historic Preservation/CLUP Noise Compliance Alternative would not have significant impacts relating to conflicts with transportation policies, safety, emergency access, or mode share. Also like the proposed project, the Historic Preservation/CLUP Noise Compliance Alternative would result in less-than-significant impacts along transit corridors and

in adjacent jurisdictions with implementation of TDM mitigation. Cumulative impacts would likewise be less than significant with mitigation.

Ability to Meet Project Objectives

This alternative would respond to a number of policies in the General Plan, including Policy LU-13.2 (preservation of candidate or designated landmark buildings, structures and historic objects), and Policy LU-13.6 (modifications to candidate or designated landmarks to conform to the Secretary of the Interior's Standards for Treatment of Historic Properties and/or appropriate State requirements). The alternative would also particularly address the project applicant's objective to "Preserve and adapt landmark historic resources and assets where feasible to foster a place authentic to San José and foster contemporary relations to San José's history."

The Historic Preservation/CLUP Noise Compliance Alternative would resemble the project in most respects, and would therefore meet most of the project objectives, although to a lesser extent than the proposed project. However, this alternative would result in approximately 14 percent less overall development, including a nearly 40 percent (2,300-unit) reduction in the number of housing units, which would also reduce the amount of affordable housing. The alternative would achieve the project's key objective to provide sufficient high-quality office space to accommodate the long-term expansion of its workforce and business operations in a Bay Area location that is anchored by public transportation, by allowing for up to 7.3 million gsf of office development. Retaining the office development under this alternative would also advance the key objective of providing economic vitality and an economically feasible project. Further, the alternative would achieve the City's policy objectives to promote development of Downtown as a regional job center, to intensify employment activities on sites in close proximity to transit facilities, and increasing jobs and economic development Downtown. However, this alternative would not meet the City's and the applicant's MOU objectives to develop housing, including affordable housing, to the same degree as the proposed project. The reduction in residential development also would not advance to the same degree as the proposed project the applicant's objective to develop housing at a sufficient density to maintain activity levels in the project site outside of normal business hours. This alternative would also reduce by about 13 percent the square footage of active uses developed on the project site, and thus would not advance, to the same degree, the City's objectives to develop the site in a way that aligns with the General Plan, DSAP, and Downtown Strategy 2040 goals to encourage ambitious job creation in close proximity to transit, or to advance the Diridon Station Area as a world-class transit hub and key transportation center for Northern California.

Similar to Alternative 2A, the Historic Preservation/CLUP Noise Compliance Alternative would include a mixed-use program somewhat comparable to that of the proposed project, although the mix of uses would be different. However, the retention of a number of historic resources, and the resulting removal or significant reduction of certain new-construction buildings in this alternative, as compared to the project, would result in less overall cohesion in the development plan. For example, the northern and southern ends of the project would likely be more isolated as a result of larger gaps in the development. Circulation improvements in the central area of the site would not be implemented, resulting in no southern extension of Cahill Street. Similarly, by retaining 145 South Montgomery Street, the proposed open space known as the Meander would not be built.

As with Alternative 2A, economic growth and contribution to the City's tax base would be somewhat less compared to the proposed project, as the Historic Preservation/CLUP Noise Compliance Alternative would have a reduced office program compared to the proposed project, which is designed to realize the density gains encouraged by the City Council.

Like Alternative 2A, the Historic Preservation/CLUP Noise Compliance Alternative would eliminate some proposed large floorplate buildings that would be developed under the proposed project, thereby reducing the project's ability to meet the objective of creating a dynamic range of floorplate types, including horizontally connected ones, that best suit the project applicant's need for workplace flexibility and for anticipating changing business needs and growth over the next several decades. This alternative, therefore, would not fully achieve the project applicant's objective to develop a dense commercial center that is anchored by (and better leverages) public transit infrastructure.

In addition, reduced development under the Historic Preservation/CLUP Noise Compliance Alternative could affect the layout and construction and reduce the efficiency of the project's proposed district infrastructure systems, potentially achieving less in the way of efficiency than the proposed project. Shared infrastructure systems developed at a scale appropriate to the proposed project and the Historic Preservation/CLUP Noise Compliance Alternative are expected to require generally fixed or similar costs. Therefore, reduced overall development in the Historic Preservation/CLUP Noise Compliance Alternative would result in both lesser efficiency for district systems, while impacting economic efficacy.

5.5.4 Alternative 3: 150 South Montgomery Street Preservation Alternative

This alternative would be identical to the proposed project with one exception: it would not include the proposed project's alterations and additions to the building at 150 South Montgomery Street (historic Hellwig Ironworks), whereby the building would be expanded vertically or horizontally, to the south (or both), to accommodate new arts and cultural use in an addition of up to approximately 8,500 square feet. This alternative is identified in addition to the Historic Preservation Alternatives to address the particular nature of the proposed project's impacts to 150 South Montgomery Street.[8]

The proposed project would build on the characteristics of the existing building, such as its brick construction, angled roof, and orientation, and construct a contemporary addition to create an iconic new center at the heart of the project site, adjacent to open space in the Meander and, as a result, would not comply with the Secretary's Standards. In contrast, under this alternative, the 150 South Montgomery Street building would instead be preserved and/or rehabilitated and adaptively reused in compliance with the Secretary's Standards. Like the proposed project, this alternative would adaptively reuse the former San Jose Water Company building at 374 West Santa Clara Street and the major portion of the historic former Kearney Pattern Works and Foundry building at 40 South Montgomery Street, along with the Stephen's Meat Products sign,

[8] 150 South Montgomery Street would also be preserved under the Historic Preservation Alternatives.

which would be retained and relocated within the site. Also like the project, this alternative would demolish the other five historic resources identified within the project site (one of which is a grouping of three small residences considered a single resource). Land use designations and height limits would be the same as under the proposed project. as would the proposed development program, as the program space identified for addition(s) to the 150 South Montgomery Street building would be developed elsewhere on the project site.

Comparison of Environmental Impacts

Cultural Resources and Tribal Cultural Resources

Impacts of this alternative would be virtually identical to those of the proposed project, with the exception of Impact CU-3 (additions and modifications to 150 South Montgomery Street). With the project, this impact would be significant and unavoidable, because the purpose of the alterations would be to create an architecturally iconic feature and this transformation would appear to alter the building form and affect its historic integrity, thereby resulting in a significant unavoidable impact. With this alternative, the impact would be less than significant with mitigation because under this alternative, the 150 South Montgomery Street building would be preserved and/or rehabilitated and adaptively reused in compliance with the Secretary's Standards. Similar to the proposed project, effects of this alternative on archaeological resources and tribal cultural resources would be less than significant with mitigation.

Other Impacts

No other impacts would be meaningfully different than those of the project. The level of construction activity would be virtually the same compared to that with the project, as the development associated with the project's proposed addition (up to approximately 8,500 square feet) would be relocated elsewhere on the project site, and any minor decrease in construction activity would not measurably decrease air quality or noise impacts. Similarly, the minor redistribution of traffic, should it occur, would not measurably change transportation impacts.

Ability to Meet Project Objectives

The 150 South Montgomery Street Preservation Alternative would allow both the City and the project applicant to meet virtually all project objectives, except that the project would likely not include the "world-class, architecturally iconic civic/cultural center for the City of San José" envisioned by project designers due to the site's proposed "combination and juxtaposition of historic and contemporary design elements." Under this alternative, the applicant's objectives to build a place that is "of San José" through high-quality urban design, fostering contemporary connections to San José's history, and creating places that foster arts and cultural uses, would be achieved, although not to the same degree as with the proposed project. While arts and cultural uses would be anticipated elsewhere on the site, they would not be anticipated in an iconic, contemporary interpretation of a historic building. They also would not be as located centrally on the project site in a spot adjacent to a major new open space such as the Meander, reducing the ability of such uses to create an iconic architectural moment.

5.5.5 Alternative 4: Reduced Office Alternative

This alternative would include the same amount of housing as the proposed project and a reduced amount of commercial office space, and is intended to reduce the project's contribution to the cumulative jobs/housing impact identified in Section 3.11, *Population and Housing*, as well as potential effects related to growth inducement that are identified in Chapter 4, *Other CEQA Issues*. Land use designations would be the same as under the proposed project. Assuming the same development footprint as the proposed project with a reduced amount of commercial office space, heights of office buildings in the Reduced Office Alternative would be approximately 60 to 120 feet, compared to the proposed project's range of 160 to 290 feet.

The Reduced Office Alternative would include less overall development than the proposed project, as shown in Table 5-1. Specifically, this alternative would include a maximum of only 3 million gsf of office space (almost 60 percent less than the proposed project); in addition, the number of limited-term corporate accommodation rooms would be reduced by 60 percent, to a maximum of 320 rooms, while infrastructure-related building space would be reduced by approximately 30,000 gsf (13 percent) and the event/conference space would be reduced from 100,000 gsf to a maximum of 45,000 gsf. The Reduced Office Alternative would provide up to 5,900 dwelling units and up to 300 hotel rooms, which are the same maximum quantities as under the project. Active uses (e.g., commercial retail/restaurant, cultural, live entertainment, community center, institutional, childcare, and education) would be reduced to a maximum of approximately 225,000 gsf, in light of the reduction in employment density that would support active uses. The overall intensity of development, measured by building floor area, would be reduced by approximately 36 percent compared to the proposed project. Given the substantial reduction in the development program compared to the proposed project, this alternative would likely preserve one or more historical resources that would be adversely affected under the proposed project.

The amount of office reduction was determined by taking into account the project applicant's key objective of accommodating substantial long-term company growth as well as the goal of reducing the project's contribution to the cumulative jobs/housing impact identified in the General Plan EIR. The project, as proposed by the applicant, would have a jobs–to-employed residents ratio of 3.5. To achieve a ratio in the project that would maintain the City's ratio of 0.82 jobs to employed residents would have required reducing the office component to approximately 665,000 gsf.[9] Because this would completely alter the nature of the project and would not achieve the overarching objectives, it was found to be infeasible. A project with 3 million gsf of office space still allows for some company growth (although much less than the proposed project) and is considered potentially feasible, while coming closer to a balance of new jobs to new housing. This alternative would have a jobs-to-employed residents ratio of 1.5, or nearly 60 percent less than that of the proposed project and a ratio that is closer to that of many nearby jurisdictions, such as Santa Clara, Milpitas, and Mountain View.

[9] This calculation and the ratios presented below use the ratio of approximately 1.5 employed residents per dwelling unit for four Downtown census tracts (5008, 5009.1, 5009.2, and 5010), including the tract that includes the project site (5008).

Comparison of Environmental Impacts

Air Quality

Because the Reduced Office Alternative would reduce the overall amount of development proposed by the project by approximately 36 percent and would reduce active uses, including retail and restaurant space, by 55 percent, criteria pollutant emissions and health risks associated with TAC emissions would be reduced compared to the proposed project (see **Table 5-6**).

TABLE 5-6
UNMITIGATED OPERATIONAL EMISSIONS OF CRITERIA POLLUTANTS—COMPARISON OF ALTERNATIVE 4 TO THE PROPOSED PROJECT

	ROG	NO_X	PM_{10}	$PM_{2.5}$
Total Annual Emissions (tons per year)				
Significance Threshold	10	10	15	10
Proposed Project	**83**	**49**	**52**	**12**
Alternative 4: Reduced Office Alternative	**55**	**28**	**33**	7
Average Daily Emissions (pounds per day)				
Significance Threshold	54	54	82	54
Proposed Project	**471**	**306**	**327**	**77**
Alternative 4: Reduced Office Alternative	**312**	**172**	**207**	50

NOTES:
DSAP = Diridon Station Area Plan; NO_X = oxides of nitrogen; ROG = reactive organic gases; $PM_{2.5}$ = particulate matter 2.5 microns or less in diameter; PM_{10} = particulate matter 10 microns or less in diameter

Mitigation measures included in the proposed project with mitigation include the following: Mitigation Measures AQ-2d, Super-Compliant VOC Architectural Coatings during Operations; AQ-2e, Best Available Emission Controls for Stationary Emergency Generators; AQ-2f, operational Diesel Truck Emissions Reduction; AQ-2g, Electric Vehicle Charging; AQ-2h, Enhanced Transportation Demand Management Program.

SOURCE: Data compiled by Environmental Science Associates in 2020.

However, the reduction would not be sufficient to eliminate the project's significant and unavoidable impacts related to criteria pollutant emissions during both construction and operation, although the volume of $PM_{2.5}$ emissions during project operations would be less than significant, unlike the case with the project. Like the project, this alternative would expose sensitive receptors to substantial TAC and $PM_{2.5}$ concentrations during construction and operation of the project, although the severity of the impact would be reduced due to the overall lesser amount of development. This alternative would likely result in a significant unavoidable impact with respect to increased lifetime cancer risk for off-site receptors, as would the project, although the increased risk would be considerably lower than the project-generated risk. This is because, while no health risk assessment has been prepared for this alternative, it is conservatively assumed that the reduction in emissions of cancer-causing toxic air contaminants, compared to emissions with the project, would not be sufficiently great as to reduce this impact to a less-than significant level because the development program would still constitute large-scale redevelopment of the project site that would likely involve many years of ongoing construction, using diesel-powered equipment, proximate to sensitive receptors. For similar reasons, it is also anticipated that localized annual average $PM_{2.5}$ concentrations would likely remain significant and unavoidable with mitigation under the Reduced Office Alternative.

Biological Resources

With similar building footprints, and site improvements as the proposed project, the Reduced Office Alternative would result in similar potential impacts on special-status bird, bat, and aquatic species; riparian habitat and wetlands along Los Gatos Creek; the creeping wild rye sensitive natural community; and fish habitat in the creek. Similar to the proposed project, these impacts would be less than significant with implementation of the mitigation measures proposed for the project.

Cultural Resources and Tribal Cultural Resources

Like the proposed project, the Reduced Office Alternative would involve development on a site that contains historic architectural resources. Given the overall reduction in development intensity, it would potentially be feasible to accommodate the Reduced Office Alternative while preserving one or more of the historic resources proposed to be demolished for the proposed project. However, in the absence of a detailed development plan for this alternative and without an explicit historic preservation objective, it is assumed that one or more historic architectural resources on the project site could be demolished and/or altered such that its historic importance would be substantially impaired. Mitigation measures recommended for the project could reduce the severity of this impact, but not necessarily to a less-than-significant level. Although these impacts would likely be less substantial than with the proposed project, they are conservatively assumed to remain significant and unavoidable, both individually and cumulatively. Similar to the proposed project, effects of this alternative on archaeological resources and tribal cultural resources would be less than significant with mitigation.

Energy

With somewhat less development than the proposed project, the Reduced Office Alternative would use less energy for construction and operations. Effects would be less than significant, as with the project.

Geology, Soils, Mineral Resources, and Paleontological Resources; Hazardous Materials

Because development would occur in the same area and on many of the same sites as under the project, the Reduced Office Alternative would have similar effects as the proposed project. Impacts would be less than significant with the same mitigation measures as required under the proposed project.

Greenhouse Gas Emissions

The Reduced Office Alternative would result in lower total construction-related and operational GHG emissions than the proposed project because less overall construction and less development would occur on the site. With these reduced emissions, it is likely that this alternative would meet the City's efficiency metric thresholds for 2030 and 2040, similar to the proposed project, given the transit-accessible location of the site. However, it should be noted that a robust Transportation Demand Management program, similar to the project's, would likely be needed for this alternative to comply with the efficiency metric. The Reduced Office Alternative is materially different from the proposed project as certified under AB 900, and therefore would not be

anticipated to meet AB 900's "no net additional" emissions requirement. As a result, although GHG impacts would likely remain less than significant, this alternative would result in greater GHG impacts than the proposed project.

Hydrology and Water Quality

Although the Reduced Office Alternative would result in somewhat less development than the proposed project, development would occur in the same area and on many of the same sites as under the project. Therefore, effects related to hydrology and water quality, including flooding impacts and effects on Los Gatos Creek and the Guadalupe River, would be somewhat less substantial than those of the proposed project. Impacts would be less than significant with the same mitigation measures as required under the proposed project.

Land Use

Land uses developed under the Reduced Office Alternative would be the same as those under the proposed project, although the office uses would be developed at lower densities, and likely in smaller buildings. Building heights would be lower, while the proposed street network and open space areas would be the same as the proposed project. With these similarities to the project, the Reduced Office Alternative would similarly avoid physically dividing an established community or conflicting with land use plans and policies. The impact of shade on Downtown parks would likely be lower than the proposed project, and would also remain less than significant, similar to the proposed project. Like the project, this alternative would have a significant unavoidable impact with respect to non-compliance with the CLUP airport noise exposure policy.

Noise and Vibration

The land uses proposed as part of the Reduced Office Alternative would be the same as those under the project, although the intensity of development would be reduced by approximately 36 percent compared to the project by reducing the amount of office space proposed. With this reduction in intensity, noise impacts from construction and operation of the alternative could be somewhat less than impacts under the proposed project. However, traffic noise would still affect sensitive receptors along three corridors; as under the project, this impact would be significant and unavoidable, assuming a uniform proportional reduction in traffic noise on all local streets. Also, even with less construction than under the proposed project, construction noise from the Reduced Office Alternative would contribute to cumulative significant and unavoidable construction noise impacts associated with BART construction near the project site, because even an approximately one-third decrease in development under this alternative, compared to the project, would still result in substantial construction activity over many years. Like the project, this alternative would have a significant unavoidable impact with respect to non-compliance with the CLUP airport noise exposure policy. Other noise and vibration impacts would be less than significant with mitigation, as under the proposed project.

Population and Housing

Like the proposed project, the Reduced Office Alternative would not displace substantial numbers of people, because the site currently has very few residents. The Reduced Office

Alternative would result in the same increase in residential population as the project, but a lesser employment increase. Similar to the proposed project, this increase would not conflict with adopted plans or policies. Unlike the project, this alternative would contribute only marginally to the cumulative significant and unavoidable jobs/housing ratio impact projected to occur by 2040 under the General Plan, reducing this impact to a less-than-significant level. Because this alternative would result in approximately 13,100 jobs and about 8,850 employed residents based on existing conditions, it would likely result in proportionally fewer employees who would commute to the project site from other areas and therefore would be anticipated to contribute less significantly to indirect cumulative environmental impacts associated with those commutes.

Public Services, Recreation, and Utilities

Implementing the Reduced Office Alternative would result in fewer employees on site than under the proposed project, and thus a somewhat lower demand for public services, recreational facilities, and utilities. Like the project, this alternative would not result in significant impacts related to the need for new facilities or infrastructure; mitigation applicable to the proposed project would also apply.

Transportation

With less overall development, and particularly office development, than under the proposed project, the Reduced Office Alternative would generate about 40 percent less vehicle traffic. The alternative would not be anticipated to include the street network changes and pedestrian/bicycle improvements proposed by the project, as such circulation improvements are generally contemplated in association with the denser development program of the proposed project. With the proximity of the site to Diridon Station and excellent access to transit, the Reduced Office Alternative would not result in a significant impact related to vehicle miles traveled, as would be the case with the proposed project. Also like the proposed project, the Reduced Office Alternative would result in less-than-significant impacts along transit corridors and in adjacent jurisdictions with implementation of TDM mitigation.

Ability to Meet Project Objectives

The Reduced Office Alternative would resemble the project in some respects, however it would substantially reduce the amount of office space proposed with the project, and would therefore only meet some of the project objectives. It would not do as much to further the City's goals, as expressed in the General Plan, the DSAP and Downtown Strategy 2040, of substantially increasing the ratio of jobs to housing in the Downtown area. It would also not advance, to the same degree, the City's objectives to develop the site in a way that aligns with the General Plan, DSAP, and Downtown Strategy 2040 goals to encourage ambitious job creation in close proximity to transit, or to advance the Diridon Station Area as a world-class transit hub and key transportation center for Northern California.

In addition, with less than half of the office program as that of the proposed project, the Reduced Office Alternative would have a proportionally reduced community benefits program, as described in the MOU—including affordable housing, which would similarly be anticipated to be

less than half of the amount to be delivered in the proposed project, and would provide reduced economic benefits and property tax revenue to the City.

With nearly 60 percent less office space than the proposed project, the alternative would not meet the applicant's core objective to accommodate the long-term expansion of its workforce and business operations in a Bay Area location anchored by public transportation. The Reduced Office Alternative, like the Historic Preservation Alternative, would not include certain large floorplate office buildings, given the substantial reduction in office space compared to the project, especially to the extent that this alternative would preserve one or more of the historic resources proposed for demolition with the proposed project. This could result in lesser workplace flexibility, contiguity, and operational efficiencies than would the proposed project. This alternative could also reduce the environmental performance and economic viability of district infrastructure systems, compared to the proposed project, reducing this alternative's ability to meet the project objective to achieve outstanding environmental performance.

5.5.6 Alternative 5: Reduced Intensity Alternative

As explained in Section 5.4, *Alternatives Evaluated but Rejected*, the scale of the project would need to be reduced by nearly 90 percent to avoid all of the project's significant and unavoidable impacts related to operational emissions of criteria air pollutants. Such an alternative was deemed infeasible. However, the Reduced Intensity Alternative was developed to reduce project operational emissions in a meaningful way, while maintaining a similar proportional mix of office, residential, and active uses as the proposed project. Like the Reduced Office Alternative, this alternative would reduce office uses to approximately 3 million square feet, but unlike the Reduced Office Alternative, it would also reduce residential (and other) uses in a similar proportion. This alternative would thus reduce, but not avoid the project's significant impact with respect to operational emissions of criteria air pollutants.

Compared to the proposed project, the Reduced Intensity Alternative would include approximately 58 percent less overall development, measured by building floor area, as shown in Table 5-1. Specifically, this alternative would include a maximum of 3.0 million gsf of office space, up to 2,655 dwelling units, a maximum of 150,000 gsf of active uses (e.g., commercial retail/restaurant, cultural, live entertainment, community center, institutional, childcare, and education), up to 135 hotel rooms, up to 320 units of limited-term corporate accommodation, a maximum of 45,000 gsf of event/conference space, and up to 127,000 gsf of infrastructure-related building space, as estimated by the project applicant. Given the substantial reduction in the development program compared to the proposed project, this alternative would likely not include demolition or substantial alteration of at least some of the historical resources that would be adversely affected under the proposed project.

This alternative could be developed in such a way as to spread the uses over the project site, thus resulting in less dense development, or could be developed at comparable density but not use as much land as the proposed project. Under the smaller footprint scenario, one or more other projects could be proposed for the remainder of the site, potentially by other developers; the

effects of this other development could be anticipated to be comparable to those of Alternative 1, the No Project/DSAP Development Alternative.

Comparison of Environmental Impacts

Air Quality

With just over 40 percent of the total square footage of the proposed project and an even greater reduction of 70 percent in active uses, including retail and restaurant space, the Reduced Intensity Alternative would result in substantially lower total emissions of criteria pollutants and TACs than the proposed project because it would include far less construction and total development at build-out (see **Table 5-7**). This alternative would reduce operational ROG, NO_X, and PM_{10} emissions compared to those of the project; however, as shown in Table 5-7, the impact would remain significant and unavoidable, as under the project. On the other hand, the volume of $PM_{2.5}$ emissions would be less than significant, unlike the case with the project. Criteria pollutant emissions from construction would also be reduced, but NOx emissions could remain significant and unavoidable even with mitigation, depending on construction phasing.

TABLE 5-7
UNMITIGATED OPERATIONAL EMISSIONS OF CRITERIA POLLUTANTS—
COMPARISON OF ALTERNATIVE 5 TO THE PROPOSED PROJECT

	ROG	NO_X	PM_{10}	$PM_{2.5}$
Total Annual Emissions (tons per year)				
Significance Threshold	10	10	15	10
Proposed Project	**83**	**49**	**52**	**12**
Alternative 5: Reduced Intensity Alternative	**35**	**18**	**22**	5
Average Daily Emissions (pounds per day)				
Significance Threshold	54	54	82	54
Proposed Project	**471**	**306**	**327**	**77**
Alternative 5: Reduced Intensity Alternative	**198**	**115**	**138**	31

NOTES:
DSAP = Diridon Station Area Plan; NO_X = oxides of nitrogen; ROG = reactive organic gases; $PM_{2.5}$ = particulate matter 2.5 microns or less in diameter; PM_{10} = particulate matter 10 microns or less in diameter

Mitigation measures included in the proposed project with mitigation include the following: MM AQ-2d: Super-Compliant VOC Architectural Coatings during Operations; MM AQ-2e: Best Available Emission Controls for Stationary Emergency Generators; MM AQ-2f: Operational Diesel Truck Emissions Reduction; MM AQ-2g: Electric Vehicle Charging; MM AQ-2h: Enhanced Transportation Demand Management Program.

SOURCE: Data compiled by Environmental Science Associates in 2020.

TAC and $PM_{2.5}$ emissions during construction and operation of development occurring under the Reduced Intensity Alternative would also be less than those with the proposed project, as would pollutant concentrations at sensitive receptors. It is conservatively assumed that increased cancer risk and non-cancer chronic health effects would remain significant and unavoidable, even with mitigation, under this alternative, although the severity of this impact would be reduced compared to that of the project. This is because no health risk assessment has been prepared for this alternative, and therefore it is not possible to state with certainty that the reduction in emissions of

cancer-causing toxic air contaminants, compared to emissions with the project, would be sufficient to reduce this impact to a less-than significant level. Health risk does not correlate to pollutant emissions in a linear fashion; instead, health risks depend on factors such as location and timing of emissions, particularly peak construction emissions. It is also anticipated that the impact related to localized annual average $PM_{2.5}$ concentrations for on-site receptors would remain significant and unavoidable with mitigation, like the proposed project, although this alternative's impact would be reduced in severity due to lesser vehicular emissions during project operations.

Biological Resources

Development under the Reduced Intensity Alternative would involve construction on the project site, although at lower densities than under the proposed project, and without the coordinated development of site improvements and on-site utility systems. With less activity on the site, potential impacts on biological resources would be reduced; however, development would still occur and special-status bird, bat, and aquatic species could be affected, as could riparian habitat and wetlands along Los Gatos Creek, the creeping wild rye sensitive natural community, and fish habitat in the creek. As with the proposed project, mitigation measures recommended for the project would reduce these impacts to a less-than-significant level.

Cultural Resources and Tribal Cultural Resources

Like the proposed project, the Reduced Intensity Alternative would involve development on a site that contains historic architectural resources. Because this alternative would result in approximately 58 percent less development that the proposed project and nearly 50 percent less development than the Historic Preservation Alternative, which would avoid all significant impacts on historic architectural resources on the project site, it is likely that this alternative could also be designed to avoid such impacts. However, unlike the Preservation Alternative, preservation of historic resources is not an objective of this alternative, and the specific reductions in gross square footage have not been identified in a detailed plan. In the absence of a detailed development plan for this alternative and without an explicit historic preservation objective, it is assumed that one or more historic architectural resources on the project site could be demolished and/or altered such that its historic importance would be substantially impaired. Therefore, this analysis concludes that the impact would potentially be significant, both individually and cumulatively. As with the proposed project, mitigation measures recommended for the project could reduce the severity of this impact, but not to a less-than-significant level. Although these impacts would likely be less substantial than with the proposed project, they are conservatively assumed to remain significant and unavoidable, both individually and cumulatively. Similar to the proposed project, effects of this alternative on archaeological resources and tribal cultural resources would be less than significant with mitigation.

Energy

With substantially less development than the proposed project, the Reduce Intensity Alternative would use less energy for construction and operations, although it would likely not benefit as much from the project's energy efficiency that would be achieved through district utility systems. Effects would be less than significant, as with the project.

Geology, Soils, Mineral Resources, and Paleontological Resources; Hazardous Materials

Because development would occur in the same area and on many of the same sites as under the project, the Reduced Intensity Alternative would have similar effects as the proposed project. Impacts would be less than significant with the same mitigation measures as required under the proposed project.

Greenhouse Gas Emissions

The Reduced Intensity Alternative would result in fewer construction-related and operational GHG emissions than the proposed project because less overall construction and less development would occur on the site. With these reduced emissions, it is likely that this alternative would meet the City's efficiency metric thresholds for 2030 and 2040, similar to the proposed project, given the transit-accessible location of the site. However, it should be noted that a robust Transportation Demand Management program, similar to the project's, would likely be needed for this alternative to comply with the efficiency metric. The Reduced Intensity Alternative is materially different from the proposed project as certified under AB 900, and therefore would not be anticipated to meet AB 900's "no net additional" emissions requirement. As a result, although GHG impacts would remain less than significant, this alternative would likely result in greater GHG impacts than the proposed project.

Hydrology and Water Quality

Although the Reduced Intensity Alternative would result in substantially less development than the proposed project, development would occur in the same area and on many of the same sites as under the project. Therefore, effects related to hydrology and water quality, including flooding impacts and effects on Los Gatos Creek and the Guadalupe River, would be somewhat less substantial than those of the proposed project. Impacts would be less than significant with the same mitigation measures as required under the proposed project.

Land Use

The mix of land uses under the Reduced Intensity Alternative would be the same as those under the proposed project, although they would be developed at lower densities, and likely in smaller buildings. The alternative could consist of infill development, intensifying the use of an underused site, and with similar land uses to the proposed project, would not physically divide an established community. Development under the Reduced Intensity Alternative would be generally consistent with the General Plan, and would therefore not conflict with land use plans and policies. With less overall development and smaller buildings, shading on Downtown parks by the buildings proposed under this alternative could be less than under the proposed project; as under the project, the impact of new shadow on Downtown parks would also be less than significant. Like the project, this alternative would have a significant unavoidable impact with respect to non-compliance with the CLUP airport noise exposure policy because it would include residential units that could have outdoor recreational space within the 65 dBA CNEL airport noise contour.

Noise and Vibration

The Reduced Intensity Alternative would result in less overall development than the proposed project. Therefore, this alternative would therefore result in less construction noise, less noise from stationary sources like backup generators, and less noise from traffic along area roadways than would result from the proposed project. However, under the Reduced Intensity Alternative, traffic noise would still affect sensitive receptors along three corridors. As under the project, this impact would be significant and unavoidable, because traffic volumes would still increase substantially above existing volumes, assuming a uniform proportional reduction in traffic noise on all local streets. Even with less construction than under the proposed project, construction noise would contribute to cumulative significant and unavoidable construction noise impacts associated with BART construction near the project site, because even with substantially less development under this alternative, this alternative would still constitute large-scale redevelopment of the project site that would likely involve many years of ongoing construction. Like the project, this alternative would have a significant unavoidable impact with respect to non-compliance with the CLUP airport noise exposure policy, as explained above under Land Use. Other noise and vibration impacts would be less than significant with mitigation, as under the proposed project.

Population and Housing

Like the proposed project, the Reduced Intensity Alternative would not displace substantial numbers of people, because the site currently has very few residents. The Reduced Intensity Alternative would, however, add less additional housing to the site than would the project, and would result in a smaller increase in population and employment. Similar to the proposed project, this increase would not conflict with adopted plans or policies, but it could have a cumulatively considerable contribution to the cumulative significant and unavoidable jobs/housing impact projected by 2040 under the General Plan.

Public Services, Recreation, and Utilities

Implementing the Reduced Intensity Alternative would result in fewer residents and employees on site than under the proposed project, and thus a lower demand for public services, recreational facilities, and utilities. Like the project, this alternative would not result in significant impacts related to the need for new facilities or infrastructure for public services, recreational facilities, or utilities; mitigation applicable to the proposed project would also apply.

Transportation

With substantially less overall development than the proposed project, the Reduced Intensity Alternative would generate about 60 percent less vehicle traffic. The alternative likely would not include the street network changes and pedestrian/bicycle improvements proposed by the project, or at least not all such improvements; however, proposals included in the DSAP could be funded and implemented over time. With the proximity of the site to Diridon Station and excellent access to transit, the Reduced Intensity Alternative, like the proposed project, would not result in a significant impact related to vehicle miles traveled. Also like the proposed project, the Reduced Intensity Alternative would result in less-than-significant impacts along transit corridors and in adjacent jurisdictions with implementation of TDM mitigation.

Ability to Meet Project Objectives

The Reduced Intensity Alternative would achieve many of the objectives for the project site, although to a lesser degree than the proposed project. It would not advance, to the same degree, the City's objectives to develop the site in a way that aligns with the General Plan, DSAP, and Downtown Strategy 2040 goals to encourage ambitious job creation in close proximity to transit, or to advance the Diridon Station Area as a world-class transit hub and key transportation center for Northern California.

This alternative would not substantially address the stated objectives of either the project applicant or the City for the project site, as memorialized in the MOU dated December 4, 2018. This MOU called for creating a vibrant, welcoming, and accessible urban destination on the project site, and envisioned substantial new employment and housing, with the City "collaborating with the project applicant to innovate in the development of an urban destination that will bring opportunity to the local community and create new models for urban and workplace design and development." In addition, like the Historic Preservation Alternative and the Reduced Office Alternative, the Reduced Intensity Alternative would generate less in the way of community benefits, including affordable housing, and would provide reduced economic benefits and property tax revenue to the City than would the proposed project.

With nearly 60 percent less office space than the proposed project, the alternative would not meet the applicant's core objective to accommodate the long-term expansion of its workforce and business operations in a Bay Area location anchored by public transportation. Similarly, it would reduce the applicant's ability to create a dense commercial center and construct housing with sufficient density to maintain day and evening, weekday and weekend activity on the project site while offering a mix of unit types, sizes, and levels of affordability to accommodate a range of potential residents.

The Reduced Intensity Alternative, like the Historic Preservation Alternative and Reduced Office Alternative, would remove certain large floorplate office buildings, given the substantial reduction in office space compared to the project and preservation of some historic resources that would be demolished for the proposed project. This could result in lesser workplace flexibility, contiguity, and operational efficiencies than would the proposed project. This alternative could also reduce the environmental performance and economic viability of district infrastructure systems, compared to the proposed project, reducing this alternative's ability to meet the project objective to achieve outstanding environmental performance.

5.6 Comparison of Alternatives

CEQA requires a comparison of the alternatives to the project (presented above), and suggests that a matrix may be used to summarize the comparison. Accordingly, **Table 5-8** includes an overview of each alternative analyzed above and shows how the results of the analyses compare to the results of the analysis of the proposed project in Chapter 3.

TABLE 5-8
COMPARISON OF THE IMPACTS OF THE PROJECT AND ALTERNATIVES

Impact Statement	Project	Alternative 1: No Project/DSAP Development Alternative	Alternative 2A: Historic Preservation Alternative	Alternative 2B: Historic Preservation/ CLUP Noise Compliance Alternative	Alternative 3: 150 S. Montgomery Street Preservation Alternative	Alternative 4: Reduced Office Alternative	Alternative 5: Reduced Intensity Alternative
3.1 Air Quality							
Impact AQ-1: The project would not conflict with or obstruct implementation of the applicable air quality plan.	LTSM	LTSM ⇓	LTSM ⇓	LTSM ⇓	LTSM ⇔	LTSM ⇓	LTSM ⇓
Impact AQ-2: The proposed project would result in a cumulatively considerable net increase of a criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard.	SU	SU ⇓	SU ⇓	SU ⇓	SU ⇔	SU ⇓	SU ⇓
Impact AQ-3: The proposed project would expose sensitive receptors to substantial pollutant concentrations.	SU	SU ⇓	SU ⇓	SU ⇓	SU ⇔	SU ⇓	SU ⇓
Impact AQ-4: Traffic associated with the development of the proposed project would not contribute to carbon monoxide concentrations exceeding the California ambient air quality standards of 9 parts per million averaged over eight hours and 20 parts per million for one hour.	LTS	LTS ⇓	LTS ⇓	LTS ⇓	LTS ⇔	LTS ⇓	LTS ⇓
Impact AQ-5: The proposed project would not result in other emissions (such as those leading to odors) adversely affecting a substantial number of people.	LTSM	LTSM ⇓	LTSM ⇓	LTSM ⇓	LTSM ⇔	LTSM ⇓	LTSM ⇓

IMPACT CODES:

NI = no impact
LTS = less than significant or negligible impact; no mitigation required
LTSM = less than significant or negligible impact, after mitigation
SU = significant and unavoidable adverse impact, after mitigation (where applicable)

COMPARISON:

⇔ Impact similar to that of project
⇑ Impact greater than that of project
⇓ Impact less than that of project

TABLE 5-8
COMPARISON OF THE IMPACTS OF THE PROJECT AND ALTERNATIVES

Impact Statement	Project	Alternative 1: No Project/DSAP Development Alternative	Alternative 2A: Historic Preservation Alternative	Alternative 2B: Historic Preservation/ CLUP Noise Compliance Alternative	Alternative 3: 150 S. Montgomery Street Preservation Alternative	Alternative 4: Reduced Office Alternative	Alternative 5: Reduced Intensity Alternative
Impact C-AQ-1: The proposed project, in combination with past, present, and reasonably foreseeable future development in the project area, would result in a cumulatively considerable contribution to significant cumulative regional air quality impacts.	SU	SU ⇓	SU ⇓	SU ⇓	SU ⇔	SU ⇓	SU ⇓
Impact C-AQ-2: The proposed project, in combination with past, present, and reasonably foreseeable future development in the project area, would result in a cumulatively considerable contribution to significant cumulative health risk impacts on sensitive receptors.	SU	SU ⇓	SU ⇓	SU ⇓	SU ⇔	SU ⇓	SU ⇓
3.2 Biological Resources							
Impact BI-1: The proposed project could have a substantial adverse effect, either directly, indirectly, or through habitat modifications, on a species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by CDFW or USFWS (western pond turtle, central California coast steelhead distinct population segment, nesting birds, special-status bats).	LTSM	LTSM ⇓	LTSM ⇓	LTSM ⇓	LTSM ⇔	LTSM ⇓	LTSM ⇓

IMPACT CODES:

NI = no impact
LTS = less than significant or negligible impact; no mitigation required
LTSM = less than significant or negligible impact, after mitigation
SU = significant and unavoidable adverse impact, after mitigation (where applicable)

COMPARISON:

⇔ Impact similar to that of project
⇑ Impact greater than that of project
⇓ Impact less than that of project

TABLE 5-8
COMPARISON OF THE IMPACTS OF THE PROJECT AND ALTERNATIVES

Impact Statement	Project	Alternative 1: No Project/DSAP Development Alternative	Alternative 2A: Historic Preservation Alternative	Alternative 2B: Historic Preservation/ CLUP Noise Compliance Alternative	Alternative 3: 150 S. Montgomery Street Preservation Alternative	Alternative 4: Reduced Office Alternative	Alternative 5: Reduced Intensity Alternative
Impact BI-2: The proposed project could have a substantial adverse effect on riparian habitat or other sensitive natural communities identified in local or regional plans, policies, regulations, or by CDFW or USFWS.	LTSM	LTSM ⇓	LTSM ⇓	LTSM ⇓	LTSM ⇔	LTSM ⇓	LTSM ⇓
Impact BI-3: The proposed project could have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means.	LTSM	LTSM ⇓	LTSM ⇓	LTSM ⇓	LTSM ⇔	LTSM ⇓	LTSM ⇓
Impact BI-4: The proposed project could interfere substantially with the movement of a native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites.	LTSM	LTSM ⇓	LTSM ⇓	LTSM ⇓	LTSM ⇔	LTSM ⇓	LTSM ⇓
Impact BI-5: The proposed project would not conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance.	LTS	LTS ⇔	LTS ⇔	LTS ⇔	LTS ⇔	LTS ⇔	LTS ⇔

IMPACT CODES:

NI = no impact
LTS = less than significant or negligible impact; no mitigation required
LTSM = less than significant or negligible impact, after mitigation
SU = significant and unavoidable adverse impact, after mitigation (where applicable)

COMPARISON:

⇔ Impact similar to that of project
⇑ Impact greater than that of project
⇓ Impact less than that of project

TABLE 5-8
COMPARISON OF THE IMPACTS OF THE PROJECT AND ALTERNATIVES

Impact Statement	Project	Alternative 1: No Project/DSAP Development Alternative	Alternative 2A: Historic Preservation Alternative	Alternative 2B: Historic Preservation/ CLUP Noise Compliance Alternative	Alternative 3: 150 S. Montgomery Street Preservation Alternative	Alternative 4: Reduced Office Alternative	Alternative 5: Reduced Intensity Alternative
Impact BI-6: The proposed project would not conflict with the provisions of an adopted habitat conservation plan, natural community conservation plan, or other approved local, regional, or state habitat conservation plan.	LTSM	LTSM ⇔	LTSM ⇔	LTSM ⇔	LTSM ⇔	LTSM ⇔	LTSM ⇔
Impact C-BI-1: The proposed project, in conjunction with other past, current, or foreseeable development in the project vicinity, could result in cumulative impacts on biological resources.	LTSM	LTSM ⇓	LTSM ⇓	LTSM ⇓	LTSM ⇔	LTSM ⇓	LTSM ⇓
3.3 Cultural Resources and Tribal Cultural Resources							
Impact CU-1: The proposed project would demolish historic architectural resources, resulting in a substantial adverse change in the significance of a historical resource as defined in CEQA Guidelines Section 15064.5.	SU	SU ⇓	LTS ⇓	LTS ⇓	SU ⇓	SU ⇓	SU ⇓
Impact CU-2: The proposed project would relocate, construct an addition to, and adaptively reuse the historic portions of 40 South Montgomery Street (Kearney Pattern Works and Foundry). This could result in a substantial adverse change in the significance of a historical resource as defined in CEQA Guidelines Section 15064.5.	LTSM	LTSM ⇔	LTSM ⇔	LTSM ⇔	LTSM ⇔	LTSM ⇔	LTSM ⇔

IMPACT CODES:

NI = no impact
LTS = less than significant or negligible impact; no mitigation required
LTSM = less than significant or negligible impact, after mitigation
SU = significant and unavoidable adverse impact, after mitigation (where applicable)

COMPARISON:

⇔ Impact similar to that of project
⇑ Impact greater than that of project
⇓ Impact less than that of project

TABLE 5-8
COMPARISON OF THE IMPACTS OF THE PROJECT AND ALTERNATIVES

Impact Statement	Project	Alternative 1: No Project/DSAP Development Alternative	Alternative 2A: Historic Preservation Alternative	Alternative 2B: Historic Preservation/ CLUP Noise Compliance Alternative	Alternative 3: 150 S. Montgomery Street Preservation Alternative	Alternative 4: Reduced Office Alternative	Alternative 5: Reduced Intensity Alternative
Impact CU-3: The proposed project would construct one or more additions to and adaptively reuse 150 South Montgomery Street (Hellwig Ironworks). The proposed additions and modifications would result in a substantial adverse change in the significance of a historical resource as defined in CEQA Guidelines Section 15064.5.	SU	SU ⇔	LTSM ⇓	LTSM ⇓	LTSM ⇓	SU ⇔	SU ⇔
Impact CU-4: The proposed project could result in significant impacts on historical resources resulting from construction-related vibrations.	LTSM	LTSM ⇓	LTSM ⇓	LTSM ⇓	LTSM ⇔	LTSM ⇓	LTSM ⇓
Impact CU-5: The proposed project would not result in significant impacts on 374 West Santa Clara Street (San Jose Water Works) or the Southern Pacific Depot Historic District from modifications to the City Landmark designation boundaries.	LTS	LTS ⇔	LTS ⇔	LTS ⇔	LTS ⇔	LTS ⇔	LTS ⇔

IMPACT CODES:

NI = no impact
LTS = less than significant or negligible impact; no mitigation required
LTSM = less than significant or negligible impact, after mitigation
SU = significant and unavoidable adverse impact, after mitigation (where applicable)

COMPARISON:

⇔ Impact similar to that of project
⇑ Impact greater than that of project
⇓ Impact less than that of project

TABLE 5-8
COMPARISON OF THE IMPACTS OF THE PROJECT AND ALTERNATIVES

Impact Statement	Project	Alternative 1: No Project/DSAP Development Alternative	Alternative 2A: Historic Preservation Alternative	Alternative 2B: Historic Preservation/ CLUP Noise Compliance Alternative	Alternative 3: 150 S. Montgomery Street Preservation Alternative	Alternative 4: Reduced Office Alternative	Alternative 5: Reduced Intensity Alternative
Impact CU-6: The proposed project would not result in significant impacts on 374 West Santa Clara Street (San Jose Water Works), 65 Cahill Street (the Southern Pacific Depot Historic District), the 19th century residences between North Montgomery and North Autumn Streets (160 North Montgomery Street and 195, 199, and 203 North Autumn Street), 237 North Autumn Street (Dennis Residence), 40 South Montgomery Street (Kearney Pattern Works and Foundry), and/or contributors to the Lakehouse Historic District including the individual historic architectural resources under CEQA of 396, 398, 416, and 454 West San Fernando Street and 124 Delmas Avenue from increased density of surrounding development, changes in adjacent land use, or changes in circulation patterns.	LTS	LTS ⇓	LTS ⇓	LTS ⇓	LTS ⇔	LTS ⇓	LTS ⇓
Impact CU-7: The proposed project could result in significant impacts at 105 South Montgomery Street (Stephen's Meat Projects sign), a historic resource, as a result of its removal, storage, and relocation within the project site.	LTSM	LTSM ⇔	LTSM ⇔	LTSM ⇔	LTSM ⇔	LTSM ⇔	LTSM ⇔

IMPACT CODES:

NI = no impact
LTS = less than significant or negligible impact; no mitigation required
LTSM = less than significant or negligible impact, after mitigation
SU = significant and unavoidable adverse impact, after mitigation (where applicable)

COMPARISON:

⇔ Impact similar to that of project
⇑ Impact greater than that of project
⇓ Impact less than that of project

TABLE 5-8
COMPARISON OF THE IMPACTS OF THE PROJECT AND ALTERNATIVES

Impact Statement	Project	Alternative 1: No Project/DSAP Development Alternative	Alternative 2A: Historic Preservation Alternative	Alternative 2B: Historic Preservation/ CLUP Noise Compliance Alternative	Alternative 3: 150 S. Montgomery Street Preservation Alternative	Alternative 4: Reduced Office Alternative	Alternative 5: Reduced Intensity Alternative
Impact CU-8: The proposed project could cause a substantial adverse change in the significance of an archaeological resource as defined in CEQA Guidelines Section 15064.5.	LTSM	LTSM ⇔	LTSM ⇔	LTSM ⇔	LTSM ⇔	LTSM ⇔	LTSM ⇓
Impact CU-9: The proposed project would disturb human remains, including those interred outside of formal cemeteries.	LTSM	LTSM ⇔	LTSM ⇔	LTSM ⇔	LTSM ⇔	LTSM ⇔	LTSM ⇓
Impact CU-10: The proposed project could cause a substantial adverse change in the significance of a tribal cultural resource as defined in Public Resources Code Section 21074.	LTSM	LTSM ⇔	LTSM ⇔	LTSM ⇔	LTSM ⇔	LTSM ⇔	LTSM ⇓
Impact C-CU-1: The proposed project would make a cumulatively considerable contribution to previously identified significant cumulative adverse impacts on Downtown historical resources as defined in CEQA Guidelines Section 15064.5.	SU	SU ⇓	LTS ⇓	LTS ⇓	SU ⇓	SU ⇓	SU ⇓
Impact C-CU-2: The proposed project would not make a cumulatively considerable contribution to previously identified significant impacts on the Southern Pacific Depot historic district.	LTS	LTS ⇔	LTS ⇓	LTS ⇓	LTS ⇔	LTS ⇔	LTS ⇓

IMPACT CODES:

NI = no impact
LTS = less than significant or negligible impact; no mitigation required
LTSM = less than significant or negligible impact, after mitigation
SU = significant and unavoidable adverse impact, after mitigation (where applicable)

COMPARISON:

⇔ Impact similar to that of project
⇑ Impact greater than that of project
⇓ Impact less than that of project

TABLE 5-8
COMPARISON OF THE IMPACTS OF THE PROJECT AND ALTERNATIVES

Impact Statement	Project	Alternative 1: No Project/DSAP Development Alternative	Alternative 2A: Historic Preservation Alternative	Alternative 2B: Historic Preservation/ CLUP Noise Compliance Alternative	Alternative 3: 150 S. Montgomery Street Preservation Alternative	Alternative 4: Reduced Office Alternative	Alternative 5: Reduced Intensity Alternative
Impact C-CU-3: The proposed project, in combination with past and foreseeable future projects, would not result in a cumulative adverse impact on 374 West Santa Clara Street (San Jose Water Works), a historic architectural resource as defined in CEQA Guidelines Section 15064.5.	LTS	LTS ⇔	LTS ⇔	LTS ⇔	LTS ⇔	LTS ⇔	LTS ⇔
Impact C-CU-4: The proposed project would combine with other projects to result in significant cumulative effects on archaeological resources as defined in CEQA Guidelines Section 15064.5; human remains, including those interred outside of formal cemeteries; and tribal cultural resources as defined in Public Resources Code Section 21074.	LTSM	LTSM ⇔	LTSM ⇔	LTSM ⇔	LTSM ⇔	LTSM ⇔	LTSM ⇔
3.4 Energy							
Impact EN-1: The proposed project would not result in potentially significant environmental impacts due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation.	LTS	LTS ⇓	LTS ⇓	LTS ⇓	LTS ⇔	LTS ⇓	LTS ⇓

IMPACT CODES:

NI = no impact
LTS = less than significant or negligible impact; no mitigation required
LTSM = less than significant or negligible impact, after mitigation
SU = significant and unavoidable adverse impact, after mitigation (where applicable)

COMPARISON:

⇔ Impact similar to that of project
⇑ Impact greater than that of project
⇓ Impact less than that of project

TABLE 5-8
COMPARISON OF THE IMPACTS OF THE PROJECT AND ALTERNATIVES

Impact Statement	Project	Alternative 1: No Project/DSAP Development Alternative	Alternative 2A: Historic Preservation Alternative	Alternative 2B: Historic Preservation/ CLUP Noise Compliance Alternative	Alternative 3: 150 S. Montgomery Street Preservation Alternative	Alternative 4: Reduced Office Alternative	Alternative 5: Reduced Intensity Alternative
Impact EN-2: The proposed project would not conflict with or obstruct a state or local plan for renewable energy or energy efficiency.	LTS	LTS ⇓	LTS ⇓	LTS ⇓	LTS ⇔	LTS ⇓	LTS ⇓
Impact C-EN-1: The proposed project would not result in a cumulatively considerable contribution to a significant energy impact.	LTS	LTS ⇓	LTS ⇓	LTS ⇓	LTS ⇔	LTS ⇓	LTS ⇓
3.5 Geology, Soils, Mineral Resources, and Paleontological Resources							
Impact GE-1: The proposed project could directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving strong seismic ground shaking; or seismic-related ground failure, including liquefaction.	LTSM	LTSM ⇔	LTSM ⇔	LTSM ⇔	LTSM ⇔	LTSM ⇔	LTSM ⇔
Impact GE-2: The proposed project would not result in substantial soil erosion or the loss of topsoil.	LTS	LTS ⇔	LTS ⇔	LTS ⇔	LTS ⇔	LTS ⇔	LTS ⇔
Impact GE-3: The proposed project would not be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse.	LTSM	LTSM ⇔	LTSM ⇔	LTSM ⇔	LTSM ⇔	LTSM ⇔	LTSM ⇔

IMPACT CODES:

NI = no impact
LTS = less than significant or negligible impact; no mitigation required
LTSM = less than significant or negligible impact, after mitigation
SU = significant and unavoidable adverse impact, after mitigation (where applicable)

COMPARISON:

⇔ Impact similar to that of project
⇑ Impact greater than that of project
⇓ Impact less than that of project

TABLE 5-8
COMPARISON OF THE IMPACTS OF THE PROJECT AND ALTERNATIVES

Impact Statement	Project	Alternative 1: No Project/DSAP Development Alternative	Alternative 2A: Historic Preservation Alternative	Alternative 2B: Historic Preservation/ CLUP Noise Compliance Alternative	Alternative 3: 150 S. Montgomery Street Preservation Alternative	Alternative 4: Reduced Office Alternative	Alternative 5: Reduced Intensity Alternative
Impact GE-4: The proposed project would not be located on expansive soil, as defined in Section 1803.5.3 of the California Building Code (2019), that would create substantial direct or indirect risks to life or property.	LTS	LTS ⇔	LTS ⇔	LTS ⇔	LTS ⇔	LTS ⇔	LTS ⇔
Impact GE-5: The proposed project could directly or indirectly destroy a unique paleontological resource or site or unique geologic feature.	LTSM	LTSM ⇔	LTSM ⇔	LTSM ⇔	LTSM ⇔	LTSM ⇔	LTSM ⇓
Impact C-GE-1: The proposed project, in combination with past, present, and reasonably foreseeable future projects, could result in significant cumulative impacts related to geology, soils, or paleontology.	LTSM	LTSM ⇔	LTSM ⇔	LTSM ⇔	LTSM ⇔	LTSM ⇔	LTSM ⇓
3.6 Greenhouse Gas Emissions							
Impact GR-1: The proposed project could generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment.	LTS	LTS ⇓	LTS ⇓	LTS ⇓	LTS ⇔	LTS ⇓	LTS ⇓
Impact GR-2: The proposed project would not conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases.	LTSM	LTSM ⇔	LTSM ⇔	LTSM ⇔	LTSM ⇔	LTSM ⇔	LTSM ⇔

IMPACT CODES:

NI = no impact
LTS = less than significant or negligible impact; no mitigation required
LTSM = less than significant or negligible impact, after mitigation
SU = significant and unavoidable adverse impact, after mitigation (where applicable)

COMPARISON:

⇔ Impact similar to that of project
⇑ Impact greater than that of project
⇓ Impact less than that of project

TABLE 5-8
COMPARISON OF THE IMPACTS OF THE PROJECT AND ALTERNATIVES

Impact Statement	Project	Alternative 1: No Project/DSAP Development Alternative	Alternative 2A: Historic Preservation Alternative	Alternative 2B: Historic Preservation/ CLUP Noise Compliance Alternative	Alternative 3: 150 S. Montgomery Street Preservation Alternative	Alternative 4: Reduced Office Alternative	Alternative 5: Reduced Intensity Alternative
3.7 Hazardous and Hazardous Materials							
Impact HA-1: The proposed project would not create a significant hazard to the public or the environment through the routine transport, use, or disposal, or through reasonably foreseeable upset and accidental release of hazardous materials.	LTS	LTS ⇓	LTS ⇓	LTS ⇓	LTS ⇔	LTS ⇓	LTS ⇓
Impact HA-2: The proposed project would not emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school.	LTSM	LTSM ⇓	LTSM ⇓	LTSM ⇓	LTSM ⇔	LTSM ⇓	LTSM ⇓
Impact HA-3: The proposed project is located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would create a significant hazard to the public or the environment.	LTSM	LTSM ⇔	LTSM ⇔	LTSM ⇔	LTSM ⇔	LTSM ⇔	LTSM ⇔
Impact HA-4: The proposed project is located within 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, but would not result in a safety hazard or excessive noise for people residing or working in the project area.	LTSM	LTSM ⇔	LTSM ⇔	LTSM ⇔	LTSM ⇔	LTSM ⇔	LTSM ⇔

IMPACT CODES:

NI = no impact
LTS = less than significant or negligible impact; no mitigation required
LTSM = less than significant or negligible impact, after mitigation
SU = significant and unavoidable adverse impact, after mitigation (where applicable)

COMPARISON:

⇔ Impact similar to that of project
⇑ Impact greater than that of project
⇓ Impact less than that of project

TABLE 5-8
COMPARISON OF THE IMPACTS OF THE PROJECT AND ALTERNATIVES

Impact Statement	Project	Alternative 1: No Project/DSAP Development Alternative	Alternative 2A: Historic Preservation Alternative	Alternative 2B: Historic Preservation/ CLUP Noise Compliance Alternative	Alternative 3: 150 S. Montgomery Street Preservation Alternative	Alternative 4: Reduced Office Alternative	Alternative 5: Reduced Intensity Alternative
Impact HA-5: The proposed project would not impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan.	LTS	LTS ⇔	LTS ⇔	LTS ⇔	LTS ⇔	LTS ⇔	LTS ⇔
Impact C-HA-1: The proposed project would not combine with other projects to result in significant cumulative impacts related to hazardous materials.	LTSM	LTSM ⇓	LTSM ⇓	LTSM ⇓	LTSM ⇔	LTSM ⇓	LTSM ⇓
Impact C-HA-2: The proposed project would not combine with other projects to result in significant cumulative impacts related to proximity to airports.	LTSM	LTSM ⇔	LTSM ⇔	LTSM ⇔	LTSM ⇔	LTSM ⇔	LTSM ⇔
Impact C-HA-3: The proposed project would not combine with other projects to result in significant cumulative impacts related to impairment of implementation of or physical interference with adopted emergency response or evacuation plans.	LTS	LTS ⇔	LTS ⇔	LTS ⇔	LTS ⇔	LTS ⇔	LTS ⇔
3.8 Hydrology and Water Quality							
Impact HY-1: The proposed project could violate a water quality standard or waste discharge requirement or otherwise substantially degrade surface or groundwater quality.	LTSM	LTSM ⇔	LTSM ⇓	LTSM ⇓	LTSM ⇔	LTSM ⇓	LTSM ⇓

IMPACT CODES:

NI = no impact
LTS = less than significant or negligible impact; no mitigation required
LTSM = less than significant or negligible impact, after mitigation
SU = significant and unavoidable adverse impact, after mitigation (where applicable)

COMPARISON:

⇔ Impact similar to that of project
⇑ Impact greater than that of project
⇓ Impact less than that of project

TABLE 5-8
COMPARISON OF THE IMPACTS OF THE PROJECT AND ALTERNATIVES

Impact Statement	Project	Alternative 1: No Project/DSAP Development Alternative	Alternative 2A: Historic Preservation Alternative	Alternative 2B: Historic Preservation/ CLUP Noise Compliance Alternative	Alternative 3: 150 S. Montgomery Street Preservation Alternative	Alternative 4: Reduced Office Alternative	Alternative 5: Reduced Intensity Alternative
Impact HY-2: The proposed project would not substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin.	LTS	LTS ⇔	LTS ⇓	LTS ⇓	LTS ⇔	LTS ⇓	LTS ⇓
Impact HY-3: The proposed project could substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would result in substantial erosion or siltation on- or off-site; or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site.	LTSM	LTSM ⇔	LTSM ⇔	LTSM ⇔	LTSM ⇔	LTSM ⇔	LTSM ⇓
Impact HY-4: The proposed project could create or contribute runoff water that could exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff, or impede or redirect flood flows.	LTSM	LTSM ⇔	LTSM ⇔	LTSM ⇔	LTSM ⇔	LTSM ⇔	LTSM ⇓
Impact HY-5: The proposed project could risk release of pollutants in a flood hazard, tsunami, or seiche zone due to project inundation.	LTSM	LTSM ⇔	LTSM ⇓	LTSM ⇓	LTSM ⇔	LTSM ⇓	LTSM ⇓

IMPACT CODES:

NI = no impact
LTS = less than significant or negligible impact; no mitigation required
LTSM = less than significant or negligible impact, after mitigation
SU = significant and unavoidable adverse impact, after mitigation (where applicable)

COMPARISON:

⇔ Impact similar to that of project
⇑ Impact greater than that of project
⇓ Impact less than that of project

TABLE 5-8
COMPARISON OF THE IMPACTS OF THE PROJECT AND ALTERNATIVES

Impact Statement	Project	Alternative 1: No Project/DSAP Development Alternative	Alternative 2A: Historic Preservation Alternative	Alternative 2B: Historic Preservation/ CLUP Noise Compliance Alternative	Alternative 3: 150 S. Montgomery Street Preservation Alternative	Alternative 4: Reduced Office Alternative	Alternative 5: Reduced Intensity Alternative
Impact HY-6: The proposed project could conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan.	LTSM	LTSM ⇔	LTSM ⇔	LTSM ⇔	LTSM ⇔	LTSM ⇔	LTSM ⇔
Impact C-HY-1: The proposed project, in combination with past, present, and reasonably foreseeable future projects in the site vicinity, could result in a considerable contribution to cumulative impacts on hydrology and water quality.	LTSM	LTSM ⇔	LTSM ⇓	LTSM ⇓	LTSM ⇔	LTSM ⇓	LTSM ⇓
Impact C-HY-2: The proposed project, in combination with past, present, and reasonably foreseeable future projects in the site vicinity, could result in a considerable contribution to cumulative impacts related to potentially substantial decreases in groundwater supplies.	LTS	LTS ⇔	LTS ⇓	LTS ⇓	LTS ⇔	LTS ⇓	LTS ⇓
Impact C-HY-3: The proposed project, in combination with past, present, and reasonably foreseeable future projects in the site vicinity, could result in a considerable contribution to cumulative impacts related to flood hazards.	LTSM	LTSM ⇔	LTSM ⇓	LTSM ⇓	LTSM ⇔	LTSM ⇓	LTSM ⇓
3.9 Land Use and Planning							
Impact LU-1: The proposed project would not physically divide an established community.	LTS	LTS ⇔	LTS ⇔	LTS ⇔	LTS ⇔	LTS ⇔	LTS ⇔

IMPACT CODES:

NI = no impact
LTS = less than significant or negligible impact; no mitigation required
LTSM = less than significant or negligible impact, after mitigation
SU = significant and unavoidable adverse impact, after mitigation (where applicable)

COMPARISON:

⇔ Impact similar to that of project
⇑ Impact greater than that of project
⇓ Impact less than that of project

TABLE 5-8
COMPARISON OF THE IMPACTS OF THE PROJECT AND ALTERNATIVES

Impact Statement	Project	Alternative 1: No Project/DSAP Development Alternative	Alternative 2A: Historic Preservation Alternative	Alternative 2B: Historic Preservation/ CLUP Noise Compliance Alternative	Alternative 3: 150 S. Montgomery Street Preservation Alternative	Alternative 4: Reduced Office Alternative	Alternative 5: Reduced Intensity Alternative
Impact LU-2: The proposed project would cause a significant environmental impact due to a conflict with a land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect.	SU	SU ⇔	SU ⇔	LTSM ⇓	SU ⇔	SU ⇔	SU ⇔
Impact LU-3: The proposed project would not result in 10 percent or more of the area of any one of the six major open space areas in the Downtown San José area (St. James Park, Plaza of Palms, Plaza de Cesar Chavez, Paseo de San Antonio, Guadalupe River Park, McEnery Park) being newly shaded by the project.	LTS	LTS ⇓	LTS ⇔	LTS ⇔	LTS ⇔	LTS ⇔	LTS ⇓
Impact C-LU-1: The proposed project, in combination with past, present, existing, approved, pending, and reasonably foreseeable future projects within and in the vicinity of the project site, would not physically divide an established community.	LTS	LTS ⇔	LTS ⇔	LTS ⇔	LTS ⇔	LTS ⇔	LTS ⇔

IMPACT CODES:

NI = no impact
LTS = less than significant or negligible impact; no mitigation required
LTSM = less than significant or negligible impact, after mitigation
SU = significant and unavoidable adverse impact, after mitigation (where applicable)

COMPARISON:

⇔ Impact similar to that of project
⇑ Impact greater than that of project
⇓ Impact less than that of project

TABLE 5-8
COMPARISON OF THE IMPACTS OF THE PROJECT AND ALTERNATIVES

Impact Statement	Project	Alternative 1: No Project/DSAP Development Alternative	Alternative 2A: Historic Preservation Alternative	Alternative 2B: Historic Preservation/ CLUP Noise Compliance Alternative	Alternative 3: 150 S. Montgomery Street Preservation Alternative	Alternative 4: Reduced Office Alternative	Alternative 5: Reduced Intensity Alternative
Impact C-LU-2: The proposed project, in combination with past, present, and reasonably foreseeable future projects in the vicinity of the project site, would result in a significant cumulative impact due to a conflict with a land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect.	SU	SU ⇔	SU ⇔	LTSM ⇓	SU ⇔	SU ⇔	SU ⇔
Impact C-LU-3: The proposed project, in combination with past, present, existing, approved, pending, and reasonably foreseeable future projects within and in the vicinity of the project site, would not result in significant cumulative impacts related to shadow.	LTS	LTS ⇔	LTS ⇔	LTS ⇔	LTS ⇔	LTS ⇔	LTS ⇔
3.10 Noise and Vibration							
Impact NO-1a: Stationary sources associated with operation of the proposed project could result in generation of a 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.	LTSM	LTSM ⇓	LTSM ⇓	LTSM ⇓	LTSM ⇔	LTSM ⇓	LTSM ⇓

IMPACT CODES:

NI = no impact
LTS = less than significant or negligible impact; no mitigation required
LTSM = less than significant or negligible impact, after mitigation
SU = significant and unavoidable adverse impact, after mitigation (where applicable)

COMPARISON:

⇔ Impact similar to that of project
⇑ Impact greater than that of project
⇓ Impact less than that of project

TABLE 5-8
COMPARISON OF THE IMPACTS OF THE PROJECT AND ALTERNATIVES

Impact Statement	Project	Alternative 1: No Project/DSAP Development Alternative	Alternative 2A: Historic Preservation Alternative	Alternative 2B: Historic Preservation/ CLUP Noise Compliance Alternative	Alternative 3: 150 S. Montgomery Street Preservation Alternative	Alternative 4: Reduced Office Alternative	Alternative 5: Reduced Intensity Alternative
Impact NO-1b: Project-generated traffic noise would result in permanent increases 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.	SU	SU ⇓	SU ⇓	SU ⇓	SU ⇔	SU ⇓	SU ⇓
Impact NO-1c: Construction of the proposed project could result in temporary increases 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.	SU	SU ⇓	SU ⇓	SU ⇓	SU ⇔	SU ⇓	SU ⇓
Impact NO-2: The proposed project could result in the generation of excessive groundborne vibration or groundborne noise levels.	LTSM	LTSM ⇓	LTSM ⇓	LTSM ⇓	LTSM ⇔	LTSM ⇓	LTSM ⇓
Impact NO-3: 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, the proposed project could expose people residing or working in the project area to excessive noise levels.	SU	SU ⇔	SU ⇔	LTSM ⇓	SU ⇔	SU ⇔	SU ⇔

IMPACT CODES:

NI = no impact
LTS = less than significant or negligible impact; no mitigation required
LTSM = less than significant or negligible impact, after mitigation
SU = significant and unavoidable adverse impact, after mitigation (where applicable)

COMPARISON:

⇔ Impact similar to that of project
⇑ Impact greater than that of project
⇓ Impact less than that of project

TABLE 5-8
COMPARISON OF THE IMPACTS OF THE PROJECT AND ALTERNATIVES

Impact Statement	Project	Alternative 1: No Project/DSAP Development Alternative	Alternative 2A: Historic Preservation Alternative	Alternative 2B: Historic Preservation/ CLUP Noise Compliance Alternative	Alternative 3: 150 S. Montgomery Street Preservation Alternative	Alternative 4: Reduced Office Alternative	Alternative 5: Reduced Intensity Alternative
Impact NO-4 *(Non-CEQA noise impacts of the environment on the project)*: The project would not expose people residing or working within the project area to excessive noise levels.	NI	NI ⇓	NI ⇓	NI ⇓	NI ⇔	NI ⇓	NI ⇓
Impact NO-5 *(Non-CEQA vibration impacts of the environment on the project)*: The project could expose people residing or working within the project area to excessive groundborne vibration levels.	NI	NI ⇓	NI ⇓	NI ⇓	NI ⇔	NI ⇓	NI ⇓
Impact C-NO-1: Construction activities for the proposed project combined with cumulative construction noise in the project area would result in a substantial temporary or periodic increase in ambient noise levels in excess of standards established in the General Plan or Noise Ordinance.	SU	SU ⇓	SU ⇓	SU ⇓	SU ⇔	SU ⇓	SU ⇓
Impact C-NO-2: Operation of the proposed project when considered with other cumulative development would cause a substantial permanent increase in ambient noise levels in excess of standards established in the General Plan or Noise Ordinance.	SU	SU ⇓	SU ⇓	SU ⇓	SU ⇔	SU ⇓	SU ⇓
Impact C-NO-3: The proposed project would make a considerable contribution to exposure of people to excessive airport noise levels.	SU	SU ⇔	SU ⇔	LTSM ⇓	SU ⇔	SU ⇔	SU ⇔

IMPACT CODES:

NI = no impact
LTS = less than significant or negligible impact; no mitigation required
LTSM = less than significant or negligible impact, after mitigation
SU = significant and unavoidable adverse impact, after mitigation (where applicable)

COMPARISON:

⇔ Impact similar to that of project
⇑ Impact greater than that of project
⇓ Impact less than that of project

TABLE 5-8
COMPARISON OF THE IMPACTS OF THE PROJECT AND ALTERNATIVES

Impact Statement	Project	Alternative 1: No Project/DSAP Development Alternative	Alternative 2A: Historic Preservation Alternative	Alternative 2B: Historic Preservation/ CLUP Noise Compliance Alternative	Alternative 3: 150 S. Montgomery Street Preservation Alternative	Alternative 4: Reduced Office Alternative	Alternative 5: Reduced Intensity Alternative
3.11 Population and Housing							
Impact PH-1: The proposed project would not induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure).	LTS	LTS ⇓	LTS ⇓	LTS ⇓	LTS ⇔	LTS ⇓	LTS ⇓
Impact PH-2: The proposed project would not displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere.	LTS	LTS ⇔	LTS ⇔	LTS ⇔	LTS ⇔	LTS ⇔	LTS ⇔
Impact C-PH-1: The proposed project would result in a cumulatively considerable contribution to the citywide significant and unavoidable cumulative impact related to the jobs/housing imbalance identified in the 2040 General Plan EIR.	SU	SU ⇑	SU ⇓	SU ⇓	SU ⇔	LTS ⇓	SU ⇔

IMPACT CODES:

NI = no impact
LTS = less than significant or negligible impact; no mitigation required
LTSM = less than significant or negligible impact, after mitigation
SU = significant and unavoidable adverse impact, after mitigation (where applicable)

COMPARISON:

⇔ Impact similar to that of project
⇑ Impact greater than that of project
⇓ Impact less than that of project

TABLE 5-8
COMPARISON OF THE IMPACTS OF THE PROJECT AND ALTERNATIVES

Impact Statement	Project	Alternative 1: No Project/DSAP Development Alternative	Alternative 2A: Historic Preservation Alternative	Alternative 2B: Historic Preservation/ CLUP Noise Compliance Alternative	Alternative 3: 150 S. Montgomery Street Preservation Alternative	Alternative 4: Reduced Office Alternative	Alternative 5: Reduced Intensity Alternative
3.12 Public Services and Recreation							
Impact PS-1: The proposed project would not result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, or the need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for fire protection and emergency services.	LTS	LTS ⇓	LTS ⇓	LTS ⇓	LTS ⇔	LTS ⇓	LTS ⇓
Impact PS-2: The proposed project would not result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, or the need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for police protection.	LTS	LTS ⇓	LTS ⇓	LTS ⇓	LTS ⇔	LTS ⇓	LTS ⇓

IMPACT CODES:

NI = no impact
LTS = less than significant or negligible impact; no mitigation required
LTSM = less than significant or negligible impact, after mitigation
SU = significant and unavoidable adverse impact, after mitigation (where applicable)

COMPARISON:

⇔ Impact similar to that of project
⇑ Impact greater than that of project
⇓ Impact less than that of project

TABLE 5-8
COMPARISON OF THE IMPACTS OF THE PROJECT AND ALTERNATIVES

Impact Statement	Project	Alternative 1: No Project/DSAP Development Alternative	Alternative 2A: Historic Preservation Alternative	Alternative 2B: Historic Preservation/ CLUP Noise Compliance Alternative	Alternative 3: 150 S. Montgomery Street Preservation Alternative	Alternative 4: Reduced Office Alternative	Alternative 5: Reduced Intensity Alternative
Impact PS-3: The proposed project would not result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, or the need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios or other performance objectives for schools.	LTS	LTS ⇓	LTS ⇓	LTS ⇓	LTS ⇔	LTS ⇓	LTS ⇓
Impact PS-4: The proposed project would not result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, or the need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios or other performance objectives for libraries.	LTS	LTS ⇓	LTS ⇓	LTS ⇓	LTS ⇔	LTS ⇓	LTS ⇓

IMPACT CODES:

NI = no impact
LTS = less than significant or negligible impact; no mitigation required
LTSM = less than significant or negligible impact, after mitigation
SU = significant and unavoidable adverse impact, after mitigation (where applicable)

COMPARISON:

⇔ Impact similar to that of project
⇑ Impact greater than that of project
⇓ Impact less than that of project

TABLE 5-8
COMPARISON OF THE IMPACTS OF THE PROJECT AND ALTERNATIVES

Impact Statement	Project	Alternative 1: No Project/DSAP Development Alternative	Alternative 2A: Historic Preservation Alternative	Alternative 2B: Historic Preservation/ CLUP Noise Compliance Alternative	Alternative 3: 150 S. Montgomery Street Preservation Alternative	Alternative 4: Reduced Office Alternative	Alternative 5: Reduced Intensity Alternative
Impact PS-5: The proposed project would not result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, or the need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios or other performance objectives for parks and community centers.	LTS	LTS ⇓	LTS ⇓	LTS ⇓	LTS ⇔	LTS ⇓	LTS ⇓
Impact PS-6: The proposed project would not increase the use of existing neighborhood- and regional serving parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated.	LTS	LTS ⇓	LTS ⇓	LTS ⇓	LTS ⇔	LTS ⇓	LTS ⇓
Impact PS-7: The proposed project would not include recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment.	LTSM	LTSM ⇓	LTSM ⇓	LTSM ⇓	LTSM ⇔	LTSM ⇓	LTSM ⇓

IMPACT CODES:

NI = no impact
LTS = less than significant or negligible impact; no mitigation required
LTSM = less than significant or negligible impact, after mitigation
SU = significant and unavoidable adverse impact, after mitigation (where applicable)

COMPARISON:

⇔ Impact similar to that of project
⇑ Impact greater than that of project
⇓ Impact less than that of project

TABLE 5-8
COMPARISON OF THE IMPACTS OF THE PROJECT AND ALTERNATIVES

Impact Statement	Project	Alternative 1: No Project/DSAP Development Alternative	Alternative 2A: Historic Preservation Alternative	Alternative 2B: Historic Preservation/ CLUP Noise Compliance Alternative	Alternative 3: 150 S. Montgomery Street Preservation Alternative	Alternative 4: Reduced Office Alternative	Alternative 5: Reduced Intensity Alternative
Impact C-PS-1: The proposed project, combined with cumulative development in the project vicinity and citywide, would contribute to a cumulative increase in demand for fire protection and emergency services but would not result in significant environmental impacts due to the construction of new facilities.	LTS	LTS ⇓	LTS ⇓	LTS ⇓	LTS ⇔	LTS ⇓	LTS ⇓
Impact C-PS-2: The proposed project, combined with cumulative development in the project vicinity and citywide, would not result in an adverse cumulative increase in demand for police protection.	LTS	LTS ⇓	LTS ⇓	LTS ⇓	LTS ⇔	LTS ⇓	LTS ⇓
Impact C-PS-3: The proposed project, combined with cumulative development in the project vicinity and citywide, would not result in an adverse cumulative increase in demand for schools.	LTS	LTS ⇓	LTS ⇓	LTS ⇓	LTS ⇔	LTS ⇓	LTS ⇓
Impact C-PS-4: The proposed project, combined with cumulative development in the project vicinity and citywide, would not result in an adverse cumulative increase in demand for library services.	LTS	LTS ⇓	LTS ⇓	LTS ⇓	LTS ⇔	LTS ⇓	LTS ⇓

IMPACT CODES:

NI = no impact
LTS = less than significant or negligible impact; no mitigation required
LTSM = less than significant or negligible impact, after mitigation
SU = significant and unavoidable adverse impact, after mitigation (where applicable)

COMPARISON:

⇔ Impact similar to that of project
⇑ Impact greater than that of project
⇓ Impact less than that of project

TABLE 5-8
COMPARISON OF THE IMPACTS OF THE PROJECT AND ALTERNATIVES

Impact Statement	Project	Alternative 1: No Project/DSAP Development Alternative	Alternative 2A: Historic Preservation Alternative	Alternative 2B: Historic Preservation/ CLUP Noise Compliance Alternative	Alternative 3: 150 S. Montgomery Street Preservation Alternative	Alternative 4: Reduced Office Alternative	Alternative 5: Reduced Intensity Alternative
Impact C-PS-5: The proposed project, combined with cumulative development in the project vicinity and citywide, would not result in an adverse cumulative increase in demand for parks and recreation services.	LTS	LTS ⇓	LTS ⇓	LTS ⇓	LTS ⇔	LTS ⇓	LTS ⇓
3.13 Transportation							
Impact TR-1: The proposed project would not conflict with a program plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities.	LTS	LTS ⇔	LTS ⇔	LTS ⇔	LTS ⇔	LTS ⇔	LTS ⇔
Impact TR-2: The proposed project would not conflict or be inconsistent with CEQA Guidelines Section 15064.3(b) regarding the use of VMT for analysis of land use projects.	LTS	LTS ⇓	LTS ⇓	LTS ⇓	LTS ⇔	LTS ⇓	LTS ⇓
Impact TR-3: The proposed project would not substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment).	LTS	LTS ⇓	LTS ⇓	LTS ⇓	LTS ⇔	LTS ⇓	LTS ⇓
Impact TR-4: The proposed project would not result in inadequate emergency access.	LTS	LTS ⇔	LTS ⇔	LTS ⇔	LTS ⇔	LTS ⇔	LTS ⇔

IMPACT CODES:

NI = no impact
LTS = less than significant or negligible impact; no mitigation required
LTSM = less than significant or negligible impact, after mitigation
SU = significant and unavoidable adverse impact, after mitigation (where applicable)

COMPARISON:

⇔ Impact similar to that of project
⇑ Impact greater than that of project
⇓ Impact less than that of project

TABLE 5-8
COMPARISON OF THE IMPACTS OF THE PROJECT AND ALTERNATIVES

Impact Statement	Project	Alternative 1: No Project/DSAP Development Alternative	Alternative 2A: Historic Preservation Alternative	Alternative 2B: Historic Preservation/ CLUP Noise Compliance Alternative	Alternative 3: 150 S. Montgomery Street Preservation Alternative	Alternative 4: Reduced Office Alternative	Alternative 5: Reduced Intensity Alternative
Impact TR-5: The proposed project would not cause an increase in VMT per service population over Year 2040 Cumulative No Project conditions.	LTS	LTS ⇔	LTS ⇔	LTS ⇔	LTS ⇔	LTS ⇔	LTS ⇔
Impact TR-6: The proposed project would not cause an increase in journey-to-work drive-alone mode share over Year 2040 Cumulative No Project conditions.	LTS	LTS ⇔	LTS ⇔	LTS ⇔	LTS ⇔	LTS ⇔	LTS ⇔
Impact TR-7: The proposed project would cause a decrease in average travel speed on a transit corridor below Year 2040 Cumulative No Project conditions in the 1-hour a.m. peak period when the average speed drops below 15 mph or decreases by 25 percent or more; OR when the average speed drops by 1 mph or more for a transit corridor with average speed below 15 mph.	LTSM	LTSM ⇓	LTSM ⇓	LTSM ⇓	LTSM ⇔	LTSM ⇓	LTSM ⇓
Impact C-TR-1: The proposed project would result in a cumulatively considerable contribution to a significant transportation impact.	LTSM	LTSM ⇓	LTSM ⇓	LTSM ⇓	LTSM ⇔	LTSM ⇓	LTSM ⇓

IMPACT CODES:

NI = no impact
LTS = less than significant or negligible impact; no mitigation required
LTSM = less than significant or negligible impact, after mitigation
SU = significant and unavoidable adverse impact, after mitigation (where applicable)

COMPARISON:

⇔ Impact similar to that of project
⇑ Impact greater than that of project
⇓ Impact less than that of project

TABLE 5-8
COMPARISON OF THE IMPACTS OF THE PROJECT AND ALTERNATIVES

Impact Statement	Project	Alternative 1: No Project/DSAP Development Alternative	Alternative 2A: Historic Preservation Alternative	Alternative 2B: Historic Preservation/ CLUP Noise Compliance Alternative	Alternative 3: 150 S. Montgomery Street Preservation Alternative	Alternative 4: Reduced Office Alternative	Alternative 5: Reduced Intensity Alternative
3.14 Utilities and Service Systems							
Impact UT-1: The proposed project would not require or result in the relocation or construction of new or expanded water facilities, the construction or relocation of which could cause significant environmental effects.	LTSM	LTSM ⇓	LTSM ⇓	LTSM ⇓	LTSM ⇔	LTSM ⇓	LTSM ⇓
Impact UT-2: The proposed project would have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry, and multiple dry years.	LTS	LTS ⇓	LTS ⇓	LTS ⇓	LTS ⇔	LTS ⇓	LTS ⇓
Impact UT-3: The proposed project would not require or result in the relocation or construction of new or expanded wastewater treatment facilities, the construction or relocation of which could cause significant environmental effects.	LTSM	LTSM ⇓	LTSM ⇓	LTSM ⇓	LTSM ⇔	LTSM ⇓	LTSM ⇓
Impact UT-4: The proposed project would not result in a determination by the wastewater treatment provider that serves or may serve the project that it does not have adequate capacity to serve the project's projected demand in addition to the provider's existing commitments.	LTS	LTS ⇓	LTS ⇓	LTS ⇓	LTS ⇔	LTS ⇓	LTS ⇓

IMPACT CODES:

NI = no impact
LTS = less than significant or negligible impact; no mitigation required
LTSM = less than significant or negligible impact, after mitigation
SU = significant and unavoidable adverse impact, after mitigation (where applicable)

COMPARISON:

⇔ Impact similar to that of project
⇑ Impact greater than that of project
⇓ Impact less than that of project

TABLE 5-8
COMPARISON OF THE IMPACTS OF THE PROJECT AND ALTERNATIVES

Impact Statement	Project	Alternative 1: No Project/DSAP Development Alternative	Alternative 2A: Historic Preservation Alternative	Alternative 2B: Historic Preservation/ CLUP Noise Compliance Alternative	Alternative 3: 150 S. Montgomery Street Preservation Alternative	Alternative 4: Reduced Office Alternative	Alternative 5: Reduced Intensity Alternative
Impact UT-5: The proposed project would not require or result in the relocation or construction of new or expanded stormwater drainage facilities, the construction or relocation of which could cause significant environmental effects.	LTSM	LTSM ⇓	LTSM ⇓	LTSM ⇓	LTSM ⇔	LTSM ⇓	LTSM ⇓
Impact UT-6: The proposed project would not require or result in the relocation or construction of new or expanded electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects.	LTSM	LTSM ⇓	LTSM ⇓	LTSM ⇓	LTSM ⇔	LTSM ⇓	LTSM ⇓
Impact UT-7: The proposed project would not generate solid waste in excess of state or local standards or of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals.	LTS	LTS ⇓	LTS ⇓	LTS ⇓	LTS ⇔	LTS ⇓	LTS ⇓
Impact UT-8: The proposed project would comply with federal, state, and local management and reduction statutes and regulations related to solid waste.	LTS	LTS ⇓	LTS ⇓	LTS ⇓	LTS ⇔	LTS ⇓	LTS ⇓

IMPACT CODES:

NI = no impact
LTS = less than significant or negligible impact; no mitigation required
LTSM = less than significant or negligible impact, after mitigation
SU = significant and unavoidable adverse impact, after mitigation (where applicable)

COMPARISON:

⇔ Impact similar to that of project
⇑ Impact greater than that of project
⇓ Impact less than that of project

TABLE 5-8
COMPARISON OF THE IMPACTS OF THE PROJECT AND ALTERNATIVES

Impact Statement	Project	Alternative 1: No Project/DSAP Development Alternative	Alternative 2A: Historic Preservation Alternative	Alternative 2B: Historic Preservation/ CLUP Noise Compliance Alternative	Alternative 3: 150 S. Montgomery Street Preservation Alternative	Alternative 4: Reduced Office Alternative	Alternative 5: Reduced Intensity Alternative
Impact C-UT-1: The proposed project, in combination with past, present, existing, approved, pending, and reasonably foreseeable future projects in the vicinity, would not contribute considerably to cumulative impacts on water utility systems or water supply.	LTS	LTS ⇓	LTS ⇓	LTS ⇓	LTS ⇔	LTS ⇓	LTS ⇓
Impact C-UT-2: The proposed project, in combination with past, present, existing, approved, pending, and reasonably foreseeable future projects in the vicinity, would not contribute considerably to cumulative impacts on wastewater utility systems.	LTS	LTS ⇓	LTS ⇓	LTS ⇓	LTS ⇔	LTS ⇓	LTS ⇓
Impact C-UT-3: The proposed project, in combination with past, present, existing, approved, pending, and reasonably foreseeable future projects in the vicinity, would not contribute considerably to cumulative impacts on stormwater utility systems.	LTS	LTS ⇓	LTS ⇓	LTS ⇓	LTS ⇔	LTS ⇓	LTS ⇓
Impact C-UT-4: The proposed project, in combination with past, present, existing, approved, pending, and reasonably foreseeable future projects in the vicinity, would not contribute considerably to cumulative impacts on electric power, natural gas, or telecommunications systems.	LTS	LTS ⇓	LTS ⇓	LTS ⇓	LTS ⇔	LTS ⇓	LTS ⇓

IMPACT CODES:

NI = no impact
LTS = less than significant or negligible impact; no mitigation required
LTSM = less than significant or negligible impact, after mitigation
SU = significant and unavoidable adverse impact, after mitigation (where applicable)

COMPARISON:

⇔ Impact similar to that of project
⇑ Impact greater than that of project
⇓ Impact less than that of project

TABLE 5-8
COMPARISON OF THE IMPACTS OF THE PROJECT AND ALTERNATIVES

Impact Statement	Project	Alternative 1: No Project/DSAP Development Alternative	Alternative 2A: Historic Preservation Alternative	Alternative 2B: Historic Preservation/ CLUP Noise Compliance Alternative	Alternative 3: 150 S. Montgomery Street Preservation Alternative	Alternative 4: Reduced Office Alternative	Alternative 5: Reduced Intensity Alternative
Impact C-UT-5: The proposed project, in combination with past, present, existing, approved, pending, and reasonably foreseeable future projects in the vicinity, would not contribute considerably to cumulative impacts related to solid waste.	LTS	LTS ⇓	LTS ⇓	LTS ⇓	LTS ⇔	LTS ⇓	LTS ⇓

IMPACT CODES:

NI = no impact
LTS = less than significant or negligible impact; no mitigation required
LTSM = less than significant or negligible impact, after mitigation
SU = significant and unavoidable adverse impact, after mitigation (where applicable)

COMPARISON:

⇔ Impact similar to that of project
⇑ Impact greater than that of project
⇓ Impact less than that of project

5.7 Environmentally Superior Alternative

Tables 5-2 through 5-8 contain comparisons of the impacts of the proposed project and the alternatives selected for analysis, demonstrating that each of the alternatives would have different and somewhat lesser impacts than the project, although each would continue to have significant and unavoidable impacts.

The CEQA Guidelines specify that an EIR must identify the environmentally superior alternative among those discussed. If the environmentally superior alternative is the "No Project" alternative, the EIR shall also identify an environmentally superior alternative among the other alternatives. (CEQA Guidelines Section 15126.6(e)(2)).

In this case, the Reduced Intensity Alternative is the environmentally superior alternative because it would substantially reduce the project's significant air quality impacts (Impacts AQ-2, AQ-3, C-AQ-1, and C-AQ-2) and would substantially reduce noise impacts (Impacts NO-1b, NO-1c, C-NO-1, and C-NO-2). In addition, the Reduced Intensity Alternative would most likely reduce, and could potentially avoid, the project's significant unavoidable impacts due to demolition and substantial alteration of cultural resources (Impacts CU-1, CU-3, and C-CU-1). On the whole, due to the overall reduced scale of development, this alternative was found to provide a greater decrease in significant environmental impacts, compared to those of the proposed project, than the other alternatives considered. It should be noted, however, that to the extent that the demand for additional developed space that would otherwise be built pursuant to the proposed project would be met elsewhere in the Bay Area, employees in and residents of such development could potentially generate greater impacts on transportation systems (including vehicle miles traveled), air quality, and greenhouse gases than would be the case for development on the more compact and better-served-by-transit project site. This would be particularly likely for development in more outlying parts of the region where fewer services and less transit access is provided. While it would be speculative to attempt to quantify or specify the location where such development would occur and the subsequent impacts thereof, it is acknowledged that the Reduced Intensity Alternative would incrementally reduce local impacts in and around the project site and in Downtown San José, while potentially increasing regional emissions of criteria air pollutants and greenhouse gases, as well as regional traffic congestion. Per capita GHG emissions could also be higher under the Reduced Intensity Alternative because it would not be subject to the "no net additional" commitment of AB 900, as the proposed project is; however overall GHG emissions would be substantially lower and the impact would be less than significant due to the still relatively high density of this alternative and the availability of transit. This alternative could also incrementally increase impacts related to "greenfield" development on previously undeveloped locations in the Bay Area and, possibly, beyond.

This page intentionally left blank

CHAPTER 6
Lead Agency and Preparers

This chapter identifies the CEQA lead agency and preparers of this EIR, as well as the agencies, organizations, and individuals consulted during preparation of the Draft EIR. The project applicant and their team are also listed.

6.1 Lead Agency

City of San José, Department of Planning, Building, and Code Enforcement

Rosalynn Hughey, Director
Robert Manford, Deputy Director–Planning
David Keyon, Principal Planner
Shannon Hill, Planner

City of San José, Other Departments

Office of the City Attorney
Environmental Services
Office of Economic Development
Parks, Recreation and Neighborhood Services
Public Works
San José Fire
San José Police
Transportation

6.2 EIR Consultants

Environmental Science Associates

Hillary Gitelman, Project Director
Linda Peters, Project Director
Karl Heisler, Project Manager
Pete Choi, Project Manager
Meryka Dirks, Deputy Project Manager
Heidi Rous, Senior Air Quality, Senior Greenhouse Gas, Senior Energy
Victoria Hsu, Air Quality, Greenhouse Gas
Brian Schuster, Air Quality, Greenhouse Gas
Sarah Patterson, Air Quality
Michael Stewart, Air Quality
Cheri Velzey, Air Quality
Chris Easter, Air Quality
Breanna Sewell, Air Quality, Greenhouse Gas
Alan Sako, Air Quality
Heather Dubois, Air Quality
Bailey Setzler, Air Quality
Brian Pittman, Senior Biology
John Bourgeois, Senior Biology
Erika Walther, Biology

Garrett Leidy, Biology
Alexandra Sung-Jereczek, Biology
Joe Sanders, Biology
Amber Grady, Senior Cultural (Historic)
Becky Urbano, Cultural (Historic)
Johanna Kahn, Cultural (Historic)
Matt Russell, Senior Cultural (Archaeological)
Heidi Koenig, Cultural (Archaeological)
Paul Zimmer, Cultural (Archaeological)
Tim Witwer, Energy
Michael Burns, Senior Geology, Senior Hazards, Senior Hydrology and Water Quality
Justine Minyard, Hazards
Brandon Carroll, Geology
Maria Hensel, Hydrology and Water Quality
Elliot Schwimmer, Land Use and Planning, Population and Housing
Chris Jones, Land Use and Planning
Tony Chung, Senior Noise
Chris Sanchez, Noise
Jill Feyk-Miney, Public Services and Recreation, Utilities and Service Systems
Shadde Rosenblum, Transportation
Ron Teitel, Graphics
Eryn Pimentel, Graphics/GIS
James Songco, Graphics
Stephan Geissler, GIS
Suzanne Goldstein, GIS
Mike Leech, GIS
Joel Miller, Word Processing and Document Composition
Lisa Bautista, Word Processing
Gary Gick, Word Processing
Julie Nichols, Technical Editing
Megan Rhode, Technical Editing
Peter Carr, Technical Editing
Susan Yogi, Technical Editing
Doug Brown, Technical Editing
Karen Lancelle, Administrative Record
Diane Levine, Administrative Record
Jessie O'Dell, Administrative Record
Anthony Padilla, Document Production
Logan Sakai, Document Production

Fehr & Peers (Transportation)

Eric Womeldorff, Principal
Franziska Church, Senior Associate

Architectural Resources Group (Historic Resources)

Charles Chase, Principal
Sarah Hahn, Architectural Historian/Preservation Planner
Erica Schultz, Architectural Historian/Preservation Planner

BlueScape Environmental (Health Impact Assessment)

James Westbrook, Project Director

6.3 Project Applicant

Google/Lendlease

Bhavesh Parikh, Director
Andy Wang, Senior Development Manager
Amanda Wolf, Development Manager
Anton Walker, Development Manager
Victoria Lehman, Development Manager

Attorneys

Allen Matkins
Coblentz Patch Duffy & Bass LLP

Consultants

ARUP
David J. Powers & Associates
HMH
H.T. Harvey & Associates
Integral Group
Schaaf & Wheeler
Sherwood Design Engineers
SITELAB Urban Studio

6.4 Agencies, Organizations, and Individuals Consulted

The City consulted with agencies, organizations, and individuals by preparing and disseminating a notice of preparation (NOP) for this EIR. The NOP was circulated to federal, state, and local agencies and other interested parties for 30 days to solicit input on the scope and contents of this EIR and is provided in Appendix A, along with comments received in response to the NOP.

Chapter 7, *References*, includes a comprehensive list of agencies, organizations, and individuals who provided information or analysis that was used in the preparation of the EIR. As indicated in that list, agencies and organizations consulted included the following:

Amah Mutsun Tribal Band (AB 52 letter sent October 23, 2020)
California Geological Survey
California Historical Resources Information System
California Native American Heritage Commission
California Office of Historic Preservation
Indian Canyon Mutsun Band of Costanoan (AB 52 letter sent October 23, 2020)
Muwekma Ohlone Tribe (AB 52 letter sent October 23, 2020)
North Valley Yokuts Tribe (AB 52 letter sent October 23, 2020)
San José Clean Energy
San José Unified School District
San José Water
Santa Clara Valley Transportation Authority
Santa Clara Valley Water District
Society of Vertebrate Paleontology
Sonoma State University Northwest Information Center
University of California Museum of Paleontology
U.S. Geological Survey
U.S. Natural Resources Conservation Service

This page intentionally left blank

CHAPTER 7
References

7.1 Chapter S, Summary

American Society of Heating, Refrigeration, and Air Conditioning Engineers, Technical Committee on Sound and Vibration. *Generator Noise Control—An Overview*, 2006.

Environmental Science Associates, *301 Mission Street, Millennium Tower Perimeter Pile Upgrade Project, Preliminary Mitigated Negative Declaration and Initial Study*, November 2019. Page 102.

Garden City Construction, "Downtown West Mixed Use Plan – Historic Resource Move Feasibility," memo, prepared for Google/Lendlease, June 29, 2020.

Governor's Office of Planning and Research, *California Jobs (AB 900): Submitted Applications, 2019080493, Downtown West Mixed-Use Project*. Available at http://opr.ca.gov/ceqa/california-jobs.html. Accessed November 2, 2019.

———, *Downtown West Mixed Use Plan*. Available at http://opr.ca.gov/ceqa/california-jobs.html. Accessed February 4, 2020.

7.2 Chapter 1, Introduction

California Air Resources Board, *Executive Order G-19-154 Relating to Determination of No Net Additional Greenhouse Gas Emissions Under Public Resources Code Section 21183(c) for Downtown West Mixed-Use Plan*, December 19, 2019.

Governor's Office of Planning and Research, *California Jobs (AB 900): Governor's Guidelines for Streamlining Judicial Review Under the California Environmental Quality Act Pursuant to AB 900*. Available at http://opr.ca.gov/ceqa/california-jobs.html. Accessed November 2, 2019.

———, *California Jobs (AB 900): Submitted Applications, 2019080493, Downtown West Mixed-Use Project*. Available at http://opr.ca.gov/ceqa/california-jobs.html. Accessed November 2, 2019.

Walesh, Kim, Deputy City Manager, Update on AB 900 and Proposed Google Mixed-Use Development, Memorandum to Mayor and City Council, September 11, 2020.

7.3 Chapter 2, Project Description

Arup, Lendlease & Sherwood Design Engineers, *Google Downtown West Infrastructure Plan*, October 7, 2020.

Association of Bay Area Governments, PDA—Priority Development Areas, 2020. Available at https://abag.ca.gov/our-work/land-use/pda-priority-development-areas.

California High-Speed Rail Authority, *California High-Speed Rail Project, San Jose to Merced Project Section, Draft Environmental Impact Report/Environmental Impact Statement*, April 2020. Available at https://hsr.ca.gov/programs/environmental/eis_eir/draft_san_jose_merced.aspx.

City of San José, *Diridon Station Area Infrastructure Analysis*, January 31, 2017.

———, *Memorandum of Understanding between the City of San José and Google LLC*, December 4, 2018. Available at https://www.diridonsj.org/s/Final-MOU-98jt.pdf.

Han, James, Project Manager, San José Planning, Building and Code Enforcement, letter to Alexa Arena, Google LLC, November 8, 2019. Available at https://www.sanjoseca.gov/home/showdocument?id=44992. Accessed May 10, 2020.

Metropolitan Transportation Commission, Priority Development Areas. Available at https://mtc.ca.gov/our-work/plans-projects/focused-growth-livable-communities/priority-development-areas. PDA map available at http://opendata.mtc.ca.gov/datasets/56ee3b41d6a242e5a5871b043ae84dc1_0. Accessed October 2019.

———, Transit Priority Areas. Available at http://opendata.mtc.ca.gov/datasets/d97b4f72543a40b2b85d59ac085e01a0_0. Accessed October 2019.

———, *Value Pricing Pivot Parking Regional Analysis: Research, Findings, and Policy Recommendations*, September 2015. Available at https://mtc.ca.gov/sites/default/files/VPP%20Parking%20Regional%20Analysis%20Sept.%202015.pdf. Accessed August 27, 2020.

San Diego Association of Governments, *Parking Strategies for Smart Growth: Planning Tools for the San Diego Region*, June 2010. Available at https://www.sandag.org/uploads/publicationid/publicationid_1499_11603.pdf. Accessed August 27, 2020.

Santa Clara Valley Transportation Authority, VTA's BART Silicon Valley Phase II Extension Project: Downtown-Diridon Community Working Group presentation, November 12, 2019. Accessed May 2020.

Strategic Economics, *San José Market Overview and Employment Lands Analysis*, 2016. Prepared for the City of San José Four-Year General Plan Review.

7.4 Chapter 3, Environmental Setting, Impacts, and Mitigation

California Department of Conservation, Santa Clara County Important Farmland 2016, 2018. Available at ftp://ftp.consrv.ca.gov/pub/dlrp/FMMP/pdf/2016/scl16.pdf. Accessed September 10, 2019.

California High-Speed Rail Authority, *2020 Business Plan: Delivering the Vision*, February 2020. Available at https://www.hsr.ca.gov/docs/about/business_plans/2020_Business_Plan.pdf. Accessed March 20, 2020.

———, *California High-Speed Rail Project, San Jose to Merced Project Section, Draft Environmental Impact Report/Environmental Impact Statement*, April 2020. Available at https://hsr.ca.gov/programs/environmental/eis_eir/draft_san_jose_merced.aspx. Accessed July 7, 2020.

City of San José, City Council Meeting Minutes, February 4, 2020. Available at https://sanjose.legistar.com/MeetingDetail.aspx?ID=712175&GUID=42B7D295-2384-4896-AA46-B400D3F914C6&Options=info&Search=. Accessed March 20, 2020.

U.S. Geological Survey, Mineral Resources Data System database, 2019.

7.5 Section 3.1, Air Quality

Allen, Carol, Assistant Manager, Engineering Division, Bay Area Air Quality Management District, email correspondence with Environmental Science Associates on November 29, 2018.

American Cancer Society, Lifetime Risk of Developing or Dying from Cancer, last updated January 13, 2020. Available at https://www.cancer.org/cancer/cancer-basics/lifetime-probability-of-developing-or-dying-from-cancer.html. Accessed March 2020.

American Society of Heating, Refrigerating, and Air-Conditioning Engineers, Inc., *Method of Testing General Ventilation Air-Cleaning Devices for Removal Efficiency by Particle Size*, 2007. ANSI/ASHRAE Addendum b to Standard 52.2-2007.

Asthma and Allergy Foundation of America, Air Pollution, October 2015. Available at https://www.aafa.org/air-pollution-smog-asthma/. Accessed May 2020.

Bay Area Air Quality Management District, *2018 Air Monitoring Network Plan*, July 1, 2019. Available at https://www.baaqmd.gov/~/media/files/technical-services/2018_network_plan-pdf.pdf?la=en. Accessed January 14, 2020.

———, *Air Quality Standards and Attainment Status*, updated January 5, 2017. Available at https://www.baaqmd.gov/about-air-quality/research-and-data/air-quality-standards-and-attainment-status. Accessed January 2, 2020.

———, *Air Toxics NSR Program Health Risk Assessment Guidelines*, December 2016. Available at https://www.baaqmd.gov/~/media/files/planning-and-research/permit-modeling/hra_guidelines_12_7_2016_clean-pdf.pdf. Accessed March 2020.

———, *BAAQMD CEQA Air Quality Guidelines*, adopted May 2011, updated May 2012, pages 7-3 to 7-4. Available at https://www.baaqmd.gov/~/media/files/planning-and-research/ceqa/baaqmd-ceqa-guidelines_final_may-2012.pdf?la=en. Accessed July 2020.

———, BAAQMD Health Risk Calculator (Beta 4.0), 2020. Available at https://www.baaqmd.gov/~/media/files/planning-and-research/ceqa/tools/baaqmd-health-risk-calculator-beta-4-0-xlsx.xlsx?la=en.

———, *Bay Area Air Pollution Summary—2014*, February 2020. Available at https://www.baaqmd.gov/~/media/Files/Communications%20and%20Outreach/Annual%20Bay%20Area%20Air%20Quality%20Summaries/pollsum2014.ashx?la=en. Accessed February 7, 2020.

———, *Bay Area Air Pollution Summary—2015*, May 2016. Available at https://www.baaqmd.gov/~/media/files/communications-and-outreach/annual-bay-area-air-quality-summaries/pollsum2015-pdf.pdf?la=en. Accessed February 7, 2020.

———, *Bay Area Air Pollution Summary—2016*, May 2017. Available at https://www.baaqmd.gov/~/media/files/communications-and-outreach/annual-bay-area-air-quality-summaries/pollsum2016-pdf.pdf?la=en. Accessed February 7, 2020.

———, *Bay Area Air Pollution Summary—2017*, May 2018. Available at https://www.baaqmd.gov/~/media/files/communications-and-outreach/annual-bay-area-air-quality-summaries/pollsum2017-pdf.pdf?la=en. Accessed February 7, 2020.

———, *Bay Area Air Pollution Summary—2018*, May 2019. Available at Https://Www.Baaqmd.Gov/~/Media/Files/Communications-And-Outreach/Annual-Bay-Area-Air-Quality-Summaries/Pollsum2018-Pdf.Pdf?La=En. Accessed February 7, 2020.

———, *California Environmental Quality Act Air Quality Guidelines*, May 2017. Available at http://www.baaqmd.gov/~/media/files/planning-and-research/ceqa/ceqa_guidelines_may2017-pdf.pdf?la=en. Accessed February 6, 2020.

———, CARE Program, 2014. Available at http://www.baaqmd.gov/plans-and-climate/community-air-risk-evaluation-care-program. Accessed January 21, 2020.

———, *CEQA Air Quality Guidelines*, May 2017. Available at https://www.baaqmd.gov/~/media/files/planning-and-research/ceqa/ceqa_guidelines_may2017-pdf.pdf?la=en. Accessed February 7, 2020.

———, *Clean Air Plan, Spare the Air, Cool the Climate*, April 19, 2017. Available at https://www.baaqmd.gov/~/media/files/planning-and-research/plans/2017-clean-air-plan/attachment-a_-proposed-final-cap-vol-1-pdf.pdf?la=en. Accessed January 16 and 21, 2020.

———, Community Air Risk Evaluation Program, 2020. Available at https://www.baaqmd.gov/community-health/community-health-protection-program/community-air-risk-evaluation-care-program. Accessed February 3, 2020.

———, *Health Risk Calculator with Distance Multipliers*, 2020. Available at https://www.baaqmd.gov/~/media/files/planning-and-research/ceqa/tools/baaqmd-health-risk-calculator-beta-4-0-xlsx.xlsx?la=en. Accessed June 2020.

———, *Identifying Areas with Cumulative Impacts from Air Pollution in the San Francisco Bay Area, Version 2*, March 2014. Available at http://www.baaqmd.gov/~/media/Files/Planning%20and%20Research/CARE%20Program/Documents/ImpactCommunities_2_Methodology.ashx?la=en. Accessed January 21, 2020.

———, *Ozone Modeling and Data Analysis During CCOS*, September 2009. Available at http://www.baaqmd.gov/~/media/Files/Planning%20and%20Research/Research%20and%20Modeling/CCOS%20modeling%20report.ashx. Accessed December 2019.

———, *Permit Handbook*, 11.4 Cooling Towers, October 23, 2018.

———, *Planning Healthy Places: A Guidebook for addressing local sources of air pollutants in community planning*, May 2016. Available at: http://www.baaqmd.gov/~/media/files/planning-and-research/planning-healthy-places/php_may20_2016-pdf.pdf?la=en. Accessed August 2020.

———, Planning Healthy Places. Interactive Map of Location of Communities and Places Estimated to *Have Elevated Levels of Fine Particulates and/or Toxic Air Contaminants*, May 20, 2016. Available at https://www.arcgis.com/home/webmap/viewer.html?webmap=9b240e706e6545e0996be9df227a5b8c&extent=-122.5158,37.5806,-122.0087,37.8427. Accessed January 21, 2020.

———, *Recommended Methods for Screening and Modeling Local Risks and Hazards*, May 2012. Available at http://www.baaqmd.gov/~/media/files/planning-and-research/ceqa/risk-modeling-approach-may-2012.pdf?la=en. Accessed January 14, 2020.

———, *Regulation 2 Permits Rule 5 New Source Review of Toxic Air Contaminants*, December 7, 2016. Available at http://www.baaqmd.gov/~/media/dotgov/files/rules/reg-2-rule-5-new-source-review-of-toxic-air-contaminants/documents/rg0205_120716-pdf.pdf?la=en. Accessed May 2019 and February 5, 2020.

———, *Revised Draft Options and Justification Report, California Environmental Quality Act Thresholds of Significance*, June 2, 2010.

———, Tools and Methodologies, 2012. Available at https://www.baaqmd.gov/plans-and-climate/california-environmental-quality-act-ceqa/ceqa-tools. Accessed February 5, 2020.

Bay Area Air Quality Management District and West Oakland Environmental Indicators Project, *Final Environmental Impact Report: The West Oakland Community Action Plan*, September 2019, Appendix C, AB 617 Owning Our Air: The West Oakland Community Action Plan Technical Support Document Base Year Emissions Inventory and Air Pollutant Dispersion Modeling. Available at http://www.baaqmd.gov/community-health/community-health-protection-program/west-oakland-community-action-plan. Accessed December 2019.

California Air Pollution Control Officers Association, California Emissions Estimator Model, 2017. Available at http://www.aqmd.gov/caleemod/. Accessed April 25, 2019.

———, *California Emissions Estimator Model User's Guide*, 2017. Available at http://www.aqmd.gov/docs/default-source/caleemod/01_user-39-s-guide2016-3-2_15november2017.pdf?sfvrsn=4. Accessed May 2020.

California Air Resources Board, 2018 UP Locomotive Summary, 2018. Available at https://ww2.arb.ca.gov/resources/documents/rail-emission-reduction-agreements. Accessed February 2020.

———, *Air Quality and Land Use Handbook: A Community Health Perspective*, April 2005. Available at http://www.arb.ca.gov/ch/handbook.pdf. Accessed April 2019 and January 14, 2020.

———, *California Almanac of Emissions and Air Quality—2009 Edition*, 2009, Table 5-44 and Figure 5-12. Available at https://www.cityofdavis.org/home/showdocument?id=4101. Accessed February 3, 2020.

———, California Ambient Air Quality Standards (CAAQS), 2019. Available at https://www.arb.ca.gov/research/aaqs/caaqs/caaqs.htm. Accessed December 2019.

———, Carbon Monoxide & Health, 2019. Available at https://ww2.arb.ca.gov/resources/carbon-monoxide-and-health. Accessed April 2019.

———, Consolidated Table of OEHHA/ARB Approved Risk Assessment Health Values, September 19, 2019. Available at https://ww3.arb.ca.gov/toxics/healthval/contable.pdf. Accessed February 5, 2020.

———, *Draft 2019 Update to Emissions Inventory for Transport Refrigeration Units*, October 2019. Available at https://ww3.arb.ca.gov/cc/cold-storage/documents/hra_emissioninventory2019.pdf. Accessed July 2020.

———, EMFAC Off-Model Adjustment Factors to Account for the Safe Vehicle Rule Part One. Available at https://ww3.arb.ca.gov/msei/emfac_off_model_adjustment_factors_final_draft.pdf?_ga=2.128974668.1790635815.1579730169-1794392908.1559174732. Accessed February 7, 2020.

———, *Final Regulation Order: Amendments to the Airborne Toxic Control Measure for Stationary Compression Ignition Engines*, California Code of Regulations Title 17, Section 93115, May 19, 2011. Table 4. Available at https://www.arb.ca.gov/diesel/documents/FinalReg2011.pdf. Accessed June 2020.

———, *Final Regulation Order: Regulation for In-Use Off-Road Diesel-Fueled Fleets*, December 2011. Available at https://ww3.arb.ca.gov/msprog/offroadzone/landing/offroad.htm. Accessed April 2020.

———, *Frequently Asked Questions: Regulation for In-Use Off-Road Diesel-Fueled Fleets (Off-Road Regulation); Verified Diesel Emission Control Strategy (VDECS)*, December 2015. Available at https://www.arb.ca.gov/msprog/ordiesel/faq/vdecsfaq.pdfw. Accessed May 2020.

———, *HARP Air Dispersion Modeling and Risk Tool*, May 1, 2019. Available at https://ww2.arb.ca.gov/resources/documents/harp-air-dispersion-modeling-and-risk-tool. Accessed July 2020.

———, Hydrogen Sulfide and Health. Available at https://ww2.arb.ca.gov/resources/hydrogen-sulfide-and-health. Accessed July 9, 2020.

———, Inhalable Particulate Matter and Health ($PM_{2.5}$ and PM_{10}), last reviewed August 10, 2017. Available at https://www.arb.ca.gov/research/aaqs/common-pollutants/pm/pm.htm. Accessed April 2019.

———, Lead & Health, 2019. Available at https://ww2.arb.ca.gov/resources/lead-and-health. Accessed April 2019.

———, *Miscellaneous Process Methodology 7.9: Entrained Road Travel, Paved Road Dust*, March 2018. Available at https://ww3.arb.ca.gov/ei/areasrc/fullpdf/full7-9_2018.pdf. Accessed May 2020.

———, Nitrogen Dioxide & Health, 2019. Available at https://ww2.arb.ca.gov/resources/nitrogen-dioxide-and-health. Accessed April 2019 and January 13, 2020.

———, Overview: Diesel Exhaust and Health, n.d. Available at https://ww2.arb.ca.gov/resources/overview-diesel-exhaust-and-health. Accessed January 14, 2020.

———, Ozone & Health, Health Effects of Ozone, 2019. Available at https://ww2.arb.ca.gov/resources/ozone-and-health. Accessed April 2019.

———, *Risk Reduction Plan to Reduce Particulate Matter Emissions from Diesel-Fueled Engines and Vehicles*, 2000. Available at https://www.arb.ca.gov/diesel/documents/rrpfinal.pdf. Accessed January 14, 2020.

———, *SB 375 Regional Greenhouse Gas Emissions Reduction Targets*, 2018. Available at https://www.arb.ca.gov/cc/sb375/finaltargets2018.pdf. Accessed June 2020.

———, Speciation Profiles Used in ARB Modeling. Available at https://ww3.arb.ca.gov/ei/speciate/speciate.htm.

———, *Staff Report: Multimedia Evaluation of Renewable Diesel*, May 2015. Available at https://calepa.ca.gov/wp-content/uploads/sites/6/2016/10/CEPC-2015yr-RenDieselRpt.pdf. Accessed April 2020.

———, Sulfate & Health. Available at https://ww2.arb.ca.gov/resources/sulfate-and-health. Accessed July 9, 2020.

———, Sulfur Dioxide & Health, 2019. Available at https://ww2.arb.ca.gov/resources/sulfur-dioxide-and-health. Accessed April 2019.

———, Toxic Air Contaminant Identification List, July 2011. Available at https://www.arb.ca.gov/toxics/id/taclist.htm. Accessed January 13, 2020.

———, *Transport Refrigeration Unit Regulation: Draft Regulatory Language for Stakeholder Review*, March 12, 2020. Available at https://ww2.arb.ca.gov/sites/default/files/classic//diesel/tru/documents/Draft%20TRU%20Regulatory%20Language_03122020.pdf. Accessed July 2020.

———, *Vinyl Chloride and Health*. Available at https://ww2.arb.ca.gov/resources/vinyl-chloride-and-health. Accessed July 9, 2020.

———, Visibility Reducing Particles and Health, October 2016. Available at https://ww2.arb.ca.gov/resources/vinyl-chloride-and-health. Accessed December 2019.

California Building Industry Association v. Bay Area Air Quality Management District (December 17, 2015) 62 Cal.4th 369.

California Energy Commission, *California's 2016 Building Energy Efficiency Standards for Residential and Nonresidential Buildings*, 2016. Available at http://www.energy.ca.gov/2015publications/CEC-400-2015-037/CEC-400-2015-037-CMF.pdf. Accessed March 5, 2019.

California Environmental Protection Agency, Office of Health Hazard Assessment, *Air Toxics Hot Spots Program, Guidance Manual for Preparation of Health Risk Assessments*, February 2015. Available at https://oehha.ca.gov/air/crnr/notice-adoption-air-toxics-hot-spots-program-guidance-manual-preparation-health-risk-0. Accessed May 2020.

Cancer Prevention Institute of California, *The Greater Bay Area Cancer Registry Annual Report: Incidence and Mortality Review, 1988–2016*, 2019. Available at https://cancerregistry.ucsf.edu/sites/g/files/tkssra1781/f/wysiwyg/Cancer%20Incidence%20and%20Mortality%20in%20the%20Greater%20Bay%20Area%202019_v6.21.2019.pdf. Accessed March 2020.

Capitol Corridor Joint Powers Authority, Capitol Corridor Schedule, 2020. Available at https://www.capitolcorridor.org/schedules/, . Accessed January 2, 2020.

Centers for Disease Control and Prevention, *2018 National Health Interview Survey (NHIS) Data*, December 2019. Available at https://www.cdc.gov/asthma/nhis/2018/table4-1.htm. Accessed May 2020.

Chargepoint, *Level Up Your EV Charging Knowledge*, March 2017. Available at https://www.chargepoint.com/blog/level-your-ev-charging-knowledge/. Accessed May 2020.

City of San José, *Draft Environmental Impact Report: Amendment to Norman Y. Mineta San Jose International Airport Master Plan*, Chapter 4.3 Air Quality, pp. 92-93, November 2019. Available at https://www.sanjoseca.gov/your-government/department-directory/planning-building-code-enforcement/planning-division/environmental-planning/environmental-review/active-eirs/sjc-airport-master-plan-update. Accessed August 2020.

———. Ordinance No. 30330, 2019. Available at https://records.sanjoseca.gov/Ordinances/ORD30330.pdf.

———, *San José Municipal Code*, Chapter 17.84, Green Building Regulations for Private Development. Available at https://library.municode.com/ca/san_jose/codes/code_of_ordinances?nodeId=TIT17BUCO_CH17.84GRBUREPRDE.

Dockery, D.W., and C.A. Pope III, Health Effects of Fine Particulate Air Pollution: Lines that Connect, *Journal of the Air & Waste Management Association*, June 2006, pp. 30–37.

Federal Register, 40 CFR Parts 51 and 52, September 21, 2007.

———, Vol. 84, No. 188, pp. 51310–51363, Friday, September 27, 2019.

Fehr & Peers, Spreadsheet, email to Environmental Science Associates, December 20, 2019.

Flores, Areana, Environmental Planner, Bay Area Air Quality Management District, electronic communication to Sarah Patterson, Environmental Science Associates, January 22, 2020.

Gladstein, Neandross & Associates, *Renewable Diesel as a Major Heavy-Duty Transportation Fuel in California: Opportunities, Benefits, and Challenges*, August 2017. Available at https://www.gladstein.org/gna_whitepapers/renewable-diesel-as-a-major-transportation-fuel-in-california-opportunities-benefits-challenges/. Accessed May 2019.

Google LLC, Updated excavation quantities by phase, email to Environmental Science Associates, December 16, 2019.

Governor's Office of Planning and Research, *Downtown West Mixed-Use Plan*, 2019. Available at http://opr.ca.gov/ceqa/california-jobs.html. Accessed February 4, 2020.

———, *Senate Bill 375 CEQA Provision Flow Charts*, February 2011.

ICF, *Peninsula Corridor Electrification Project EIR*, prepared for Peninsula Corridor Joint Powers Board, December 2014. Available at http://www.caltrain.com/Assets/Caltrain+Modernization+Program/FEIR/3.2+Air+Quality.pdf.

Loomis, D., W. Huang, and G. Chen, The International Agency for Research on Cancer (IARC) Evaluation of the Carcinogenicity of Outdoor Air Pollution: Focus on China, *Chinese Journal of Cancer* 33(4):189–196. Available at https://www.ncbi.nlm.nih.gov/pubmed/24694836. Accessed March 2020.

Metropolitan Transportation Commission and Association of Bay Area Governments, *Plan Bay Area: Strategy for a Sustainable Region*, adopted July 18, 2013. Available at http://files.mtc.ca.gov/pdf/Plan_Bay_Area_FINAL/Plan_Bay_Area.pdf, accessed June 2020.

———, *Plan Bay Area 2040*, adopted July 26, 2017. Available at https://www.planbayarea.org/, accessed March 6, 2019. Accessed June 2020.

National Cancer Institute, Cancer Stat Facts: Cancer of Any Site, 2010. Available at https://seer.cancer.gov/statfacts/html/all.html. Accessed March 2020.

National Renewable Energy Laboratory, *California Plug-In Electric Vehicle Infrastructure Projections: 2017–2025* (Table C.1), August 2018. Available at https://www.nrel.gov/docs/fy18osti/70893.pdf. Accessed May 2020.

Office of Environmental Health Hazard Assessment, *Air Toxics Hot Spots Program Guidance Manual for the Preparation of Health Risk Assessments*, February 2015. Available at http://oehha.ca.gov/air/hot_spots/hotspots2015.html. Accessed February 5, 2020.

Peninsula Corridor Joint Powers Board, *Peninsula Corridor Electrification Project EIR*, 2014, Section 3.2, Air Quality. Available at http://www.caltrain.com/Assets/Caltrain+Modernization+Program/FEIR/3.2+Air+Quality.pdf.

Pollution Engineering, New Clean Diesel Fuel Rules Start, July 2006.

San Francisco Department of Public Health, San Francisco Planning Department, and Ramboll, *Draft San Francisco Citywide Health Risk Assessment: Technical Support Documentation*, February 2020. Available at https://www.sfdph.org/dph/files/EHSdocs/AirQuality/Air_Pollutant_Exposure_Zone_Technical_Documentation_2020.pdf. Accessed March 2020.

San Francisco Planning Department, *2017 Update—In-Use, Off-Road Construction Equipment Emissions Tiers*, April 2018.

San Francisco Water Power Sewer, Sewer System Improvement Program—Odor Control Fact Sheet, December 2014.

San Joaquin Valley Air Pollution Control District, *Final Draft Staff Report: Rule 4692 (Commercial Charbroiling)*, 2002. Available at https://planning.lacity.org/eir/8150Sunset/References/4.B.%20Air%20Quality/AQ.14_SJVAPCD%20Charbroiling%20EF%20by%20Meat.pdf. Accessed March 2020.

Santa Clara County Public Health Department, *Health Status Statistics–Cities*, last updated June 29, 2018. Available at https://data-sccphd.opendata.arcgis.com/datasets/health-status-statistics-cities?geometry=-123.594%2C36.842%2C-120.125%2C37.607. Accessed July 9, 2020.

———, *San Jose Profile 2016*, 2016. Available at https://www.sccgov.org/sites/phd/hi/hd/Pages/san-jose.aspx. Accessed May 2020.

———, *Santa Clara County 2010 Health Profile Report*, August 2010. Available at https://www.sccgov.org/sites/phd/hi/hd/Documents/Health%20Profile%20Report%202010/SCC_Health_Profile_Report_online_final_092410.pdf. Accessed in May 2020.

Sherwood Design Engineers, *Water Reuse Basis of Design at Downtown West*, January 20, 2020.

Sierra Club v. County of Fresno (*Friant Ranch*), S219783, Fifth Appellate District, F066798, Fresno County Superior Court (2018) 6 Cal.5th 502.

South Coast Air Quality Management District, *Guidelines for Calculating Emissions from Cooling Towers*, November 2019. Available at https://www.aqmd.gov/docs/default-source/planning/annual-emission-reporting/guidelines-for-calculating-emissions-from-cooling-towers---november-2017-final.pdf?sfvrsn=12. Accessed May 2020.

———, *Super-Compliant Architectural Coatings*, 2019. Available at http://www.aqmd.gov/home/rules-compliance/compliance/vocs/architectural-coatings/super-compliant-coatings. Accessed April 2020.

U.S. Department of Health and Human Services, *National Vital Statistics Reports*, Volume 68, Number 9, Deaths: Final Data for 2017, June 24, 2019. Available at https://www.cdc.gov/nchs/data/nvsr/nvsr68/nvsr68_09-508.pdf. Accessed July 9, 2020.

U.S. Environmental Protection Agency, *AP 42, Fifth Edition, Volume I, Chapter 13: Miscellaneous Sources, Section 13.4 Wet Cooling Towers*, January 1995. Available at https://www3.epa.gov/ttn/chief/ap42/ch13/index.html. Accessed May 2020.

———, *Asthma Triggers: Gain Control*. Available at https://www.epa.gov/asthma/asthma-triggers-gain-control. Accessed February 19, 2019.

———, *BenMAP-Community Edition User's Manual*. Appendix E: Core Particulate Matter Health Impact Functions in U.S. Setup, Section E.1.2 Krewski et al. (2009). Available at: https://www.epa.gov/sites/production/files/2015-04/documents/benmap-ce_user_manual_march_2015.pdf. Accessed August 2020.

———, Carbon Monoxide (CO) Pollution in Outdoor Air, 2016. Available at https://www.epa.gov/co-pollution/basic-information-about-carbon-monoxide-co-outdoor-air-pollution. Accessed April 2019.

———, CMAQ: The Community Multiscale Air Quality Modeling System, last updated March 18, 2019. Available at https://www.epa.gov/cmaq. Accessed July 22, 2019.

———, Environmental Benefits Mapping and Analysis Program – Community Edition (BenMAP-CE), last updated August 17, 2017. Available at https://www.epa.gov/benmap/benmap-ce-manual-and-appendices. Accessed July 22, 2019.

———, *Environmental Health Effects Research Series: Hydrogen Sulfide*, February 1978. Available at https://nepis.epa.gov/Exe/ZyPDF.cgi/9100B2YD.PDF?Dockey=9100B2YD.PDF. Accessed July 9, 2020.

———, Health Effects of Ozone in the General Population, last updated September 12, 2016. Available at https://www.epa.gov/ozone-pollution-and-your-patients-health/health-effects-ozone-general-population.

———, Health Effects of Ozone Pollution, October 10, 2018. Available at https://www.epa.gov/ground-level-ozone-pollution/health-effects-ozone-pollution. Accessed April 2019.

———, *Integrated Science Assessment (ISA) For Particulate Matter (Final Report)*, December 2009, EPA/600/R-08/139F. Available at https://cfpub.epa.gov/ncea/risk/recordisplay.cfm?deid=216546. Accessed October 2019.

———, Lead Air Pollution, last updated November 29, 2017. Available at https://www.epa.gov/lead-air-pollution/basic-information-about-lead-air-pollution. Accessed April 2019.

———, Nitrogen Dioxide (NO_2) Pollution, September 8, 2016. Available at https://www.epa.gov/no2-pollution/basic-information-about-no2. Accessed April 2019.

———, *Quantitative Health Risk Assessment for Particulate Matter*, EPA-452/R-10-005, June 2010. Available at https://www3.epa.gov/ttn/naaqs/standards/pm/data/PM_RA_FINAL_June_2010.pdf. Accessed September 2019.

———, Residential Air Cleaners: A Technical Summary, 3rd edition, August 2018. U.S. EPA 402-F-09-002. Available at https://www.epa.gov/sites/production/files/2018-07/documents/residential_air_cleaners_-_a_technical_summary_3rd_edition.pdf. Accessed August 2020.

———, Sulfur Dioxide (SO_2) Pollution, June 28, 2018. Available at https://www.epa.gov/so2-pollution/sulfur-dioxide-basics. Accessed April 2019.

———, Support Center for Regulatory Atmospheric Modeling (SCRAM), Air Quality Dispersion Modeling—Preferred and Recommended Models, 2019. Available at https://www.epa.gov/scram/air-quality-dispersion-modeling-preferred-and-recommended-models. Accessed February 5, 2020.

———, *Vinyl Chloride*. Available at https://19january2017snapshot.epa.gov/sites/production/files/2016-09/documents/vinyl-chloride.pdf. Last updated January 2000. Accessed July 9, 2020.

U.S. Environmental Protection Agency and National Highway Traffic Safety Administration, *Light-Duty Vehicle Greenhouse Gas Emission Standards and Corporate Average Fuel Economy Standards; Final Rule*, May 5, 2010. Available at https://www.govinfo.gov/content/pkg/FR-2010-05-07/pdf/2010-8159.pdf. Accessed January 10, 2020.

U.S. National Library of Medicine, Dose Response, https://toxtutor.nlm.nih.gov/02-002.html. Accessed August 17, 2020.

Wu, X., R. C. Nethery, B. M. Sabath, D. Braun, and F. Dominici, *Exposure to Air Pollution and COVID-19 Mortality in the United States*, April 24, 2020, medRxiv 2020.04.05.20054502. Available at https://doi.org/10.1101/2020.04.05.20054502.

7.6 Section 3.2, Biological Resources

Bay Nature, *These Beavers Know the Way to San Jose*, June 3, 2013.

California Department of Fish and Wildlife, California Natural Diversity Database printout for U.S. Geological Survey 7.5-minute topographic quadrangles: San José, Milpitas, Calaveras Reservoir, Cupertino, San José East, Castle Rock Ridge, Los Gatos, and Santa Teresa Hills, 2019. Accessed September 17, 2019.

———, California Natural Diversity Database special-status species locations in GIS file format. Version: June 4, 2019.

———, California Natural Diversity Database special-status species locations in GIS file format, version: September 4, 2019. Available at https://www.wildlife.ca.gov/Data/CNDDB/Data-Updates.

———, *CDFW and California Attorney General Xavier Becerra Advisory Affirming California's Protections for Migratory Birds*, November 29, 2018. Available at https://oag.ca.gov/system/files/attachments/press-docs/20181129mbta-advisory3.pdf.

———, Natural Communities–Natural Communities List Arranged Alphabetically by Life Form, November 2019. Available at https://www.wildlife.ca.gov/Data/VegCAMP/Natural-Communities/List. Accessed in July 2020.

California Native Plant Society, Online Inventory of Rare, Threatened, and Endangered Plants of California, 2019. Available at http://www.rareplants.cnps.org/. Accessed in September 2019.

City of San José, *City of San José Municipal Code* Chapter 13.28, Street Trees, Hedges and Shrubs. Available at https://library.municode.com/ca/san_jose/codes/code_of_ordinances?nodeId=TIT13STSIPUPL_CH13.28STTRHESH. Accessed January 13, 2020.

———, *City of San José Municipal Code* Chapter 13.32, Tree Removal Controls. Available at https://library.municode.com/ca/san_jose/codes/code_of_ordinances?nodeId=TIT13STSIPUPL_CH13.32TRRECO. Accessed January 13, 2020.

———, *City of San José Municipal Code* Section 13.32.020, Definitions.

———, *City of San José Municipal Code* Title 20, Zoning. Available at https://library.municode.com/ca/san_jose/codes/code_of_ordinances?nodeId=TIT20ZO. Accessed January 13, 2020.

———, *City of San José Municipal Code* Section 13.32.080—Development Permit Combined. Available at https://library.municode.com/ca/san_jose/codes/code_of_ordinances?nodeId=TIT13STSIPUPL_CH13.32TRRECO_13.32.080DEPECO. Accessed May 11, 2020.

———, *Diridon Station Area Plan EIR*. Final EIR certified June 17, 2014. Available at: https://www.sanjoseca.gov/your-government/departments/planning-building-code-enforcement/planning-division/environmental-planning/environmental-review/completed-eirs/diridon-station-area-plan. Accessed August 24, 2020.

———, *Downtown Strategy 2040 Integrated Final EIR*, December 2018. Available at: https://www.sanjoseca.gov/your-government/departments/planning-building-code-enforcement/planning-division/environmental-planning/environmental-review/active-eirs/downtown-strategy-2040. Accessed August 24, 2020.

———, *Downtown Strategy 2000 Plan EIR*, adopted in June 2005. Available at https://www.sanjoseca.gov/your-government/departments/planning-building-code-enforcement/planning-division/environmental-planning/environmental-review/completed-eirs/downtown-strategy-2000.

———, *Envision San José 2040 General Plan*, adopted November 1, 2011 (amended March 16, 2020). Available at https://www.sanjoseca.gov/home/showdocument?id=22359. Accessed January 16, 2020.

———, Heritage Tree Map. Available at https://www.sanjoseca.gov/your-government/departments/transportation/roads/landscaping/trees/heritage-trees. Accessed January 16, 2020.

———, *Los Gatos Creek Trail—Reach 5 Master Plan*, June 20, 2008.

———, *Riparian Corridor Policy Study*. Approved by City Council May 17, 1994; revised March 1999. Available at https://www.sanjoseca.gov/home/showdocument?id=15579. Accessed August 24, 2020.

———, *Riparian Corridor Protection and Bird-Safe Design* (Policy 6-34), approved August 23, 2016. Available at https://www.sanjoseca.gov/home/showdocument?id=12815.

———, *San José Downtown Design Guidelines and Standards*, adopted April 23, 2019 (amended May 21, 2019). Available at https://www.sanjoseca.gov/home/showdocument?id=38775.

———, Tree Removal Permits webpage. Available at https://www.sanjoseca.gov/your-government/departments/planning-building-code-enforcement/planning-division/tree-removal-permits. Accessed January 13, 2020.

Environmental Science Associates, personal observations during field surveys, September 27, 2019, and January 3, 2020.

Gauthreaux, S. A., and C. G. Belser, Effects of Artificial Night Lighting on Migrating Birds, in *Ecological Consequences of Night Lighting*, eds. C. Rich and T. Longcore. Covelo, CA: Island Press, 2006.

Hobbs, J., J. Cook, and F. La Luz, *Steelhead Smolt Outmigration and Survival Study: Pond A8, A7, & A5 Entrainment and Escapement: Final Report,* Department of Wildlife, Fish and Conservation Biology, University of California, Davis, prepared for National Marine Fisheries Service and the South Bay Salt Pond Recreation Program/Don Edwards San Francisco Bay Wildlife Refuge, 2015.

Holland, R. F., *Preliminary Descriptions of the Terrestrial Natural Communities of California*, California Department of Fish and Game, 1986.

H. T. Harvey and Associates, *Google Downtown San José Los Gatos Creek Enhancement Project Site Assessment Summary Report*, March 5, 2020.

Johnston, Dave, Wildlife Ecologist and Bat Biologist, H. T. Harvey & Associates, telephone conversation, March 10, 2020.

Leidy, R. A., *Ecology*, *Assemblage Structure, Distribution, and Status of Steelhead/Rainbow Trout (*Oncorhynchus mykiss*) in Streams of the San Francisco Estuary, California*. Center for Ecosystem Management and Restoration, Oakland, CA, 2007.

Leidy, R. A., G. S. Becker, and B. N. Harvey, *Historical Distribution and Current Status of Steelhead/Rainbow Trout (*Oncorhynchus mykiss*) in Streams of the San Francisco Estuary, California*, Center for Ecosystem Management and Restoration, Oakland, CA, 2005.

Mayer, K. R., and W. F. Laudenslayer Jr. (eds.), *A Guide to Wildlife Habitats of California, 1988*.

Moyle, P. B., *Inland Fishes of California – Revised and Expanded*. University of California Press, 2002.

Ogden, L. E., *Collision Course: The Hazards of Lighted Structures and Windows to Migrating Birds, Special Report for the World Wildlife Fund Canada and the Fatal Light Awareness Program*, September 1996. Available at https://digitalcommons.unl.edu/cgi/viewcontent.cgi?article=1002&context=flap.

Pacific Fishery Management Council, *Pacific Coast Salmon Fishery Management Plan: for Commercial and Recreational Salmon Fisheries off the Coasts of Washington, Oregon, and California as Revised through Amendment 19*, effective March 2016. Available at https://www.pcouncil.org/documents/2016/03/salmon-fmp-through-amendment-19.pdf/.

Potter, D., H. Bartosh, G. Dangl, J. Yang, R. Bittman, and J. Preece. Clarifying the Conservation Status of Northern California Black Walnut (*Juglans hindsii*) Using Microsatellite Markers. *Madroño* 65(3):131–140. 2018.

Riparian Habitat Joint Venture, *The Riparian Bird Conservation Plan: A Strategy for Reversing the Decline of Riparian Associated Birds in California*, Version 2.0, California Partners in Flight, 2004. Available at http://www.rhjv.org/.

San Francisco Bay Regional Water Quality Control Board, *San Francisco Bay Basin (Region 2) Water Quality Control Plan (Basin Plan)*, incorporating all amendments approved by the Office of Administrative Law as of May 4, 2017. Available at https://www.waterboards.ca.gov/sanfranciscobay/water_issues/programs/planningtmdls/basinplan/web/docs/BP_all_chapters.pdf.

San Francisco Planning Department, *Standards for Bird-Safe Buildings*, adopted July 14, 2011.

Santa Clara Basin Watershed Management Initiative, *Watershed Management Plan, Volume 1– Watershed Characteristics Report*, 2010.

Santa Clara Valley Habitat Agency Geobrowser. Available at http://www.hcpmaps.com/habitat/. Accessed January 13, 2020.

———, Santa Clara Valley Habitat Plan. Available at: https://scv-habitatagency.org/178/Santa-Clara-Valley-Habitat-Plan. Accessed August 19, 2020.

Santa Clara Valley Water District, *Water Year 2018—Juvenile* Oncorhynchus mykiss *Rearing Monitoring in the Guadalupe River Watershed*. Prepared by the Santa Clara Valley Water District Environmental Migration and Monitoring Unit, March 26, 2019.

Sawyer, J., T. Keeler-Wolf, and J. M. Evens. *A Manual of California Vegetation*, 2009. Available at http://vegetation.cnps.org/.

Smith, J., *Northern Santa Clara County Fish Resources*, Department of Biological Science, San José State University, July 25, 2013.

Tuttle, M., How North America Bats Are at Their Most Vulnerable during Hibernation and Migration, *BATS Magazine* 9(3), fall 1991. Available at http://www.batcon.org/resources/media-education/bats-magazine/bat_article/492. Accessed January 5, 2018.

U.S. Fish and Wildlife Service, ECOS Environmental Conservation Online System Critical Habitat Mapper, 2010. Available at https://ecos.fws.gov/ecp/report/table/critical-habitat.html. Accessed September 23, 2019.

Verheijen, F. J., Bird Kills at Lighted Man-Made Structures: Not on Nights Close to a Full Moon, *American Birds* 35(3):251–254, 1981.

Western Bat Working Group Western Bat Species Regional Priority Matrix, 2017. Available at http://wbwg.org/matrices/species-matrix/. Accessed March 12, 2020.

Willdan Financial Services with Urban Economics, *Santa Clara Valley Habitat Plan Development Fee Nexus Study*, June 30, 2012.

7.7 Section 3.3, Cultural Resources and Tribal Cultural Resources

Arbuckle, C., *History of San José*, San José, California: Memorabilia of San Jose, 1986.

Architectural Resources Group, DPR 523B: 124 Delmas Avenue, 2006.

———, DPR 523B: 416 W. San Fernando Street, 2006.

———, DPR 523B: 454 W. San Fernando Street, 2006.

———, DPR form-set for 145 South Montgomery Street, January 2020.

———, DPR form-set for 150 South Montgomery Street, January 2020.

———, DPR form-set for 343 North Montgomery Street, January 2020.

———, DPR form-set for 345 North Montgomery Street, January 2020.

———, DPR form-set for 40 S. Montgomery and 43–57 S. Autumn Streets, January 2020.

———, DPR form-set for 40 South Montgomery Street, 43–55 South Autumn Street, and 57 South Autumn Street, January 2020.

———, DPR form-set for 559 West Julian Street, January 2020.

———, DPR form-set for 563 West Julian Street, January 2020.

———, DPR form-set for 567 West Julian Street, January 2020.

———, DPR form-set for 580 Lorraine Avenue, January 2020.

———, DPR form-set for Stephen's Meat Products Neon Sign, January 2020.

———, DPR: Kearney Pattern Works and Foundry, January 2020.

———, *Historical Resources Technical Report, Downtown West Mixed-Use Plan, San José, California*, March 2020.

———, *Preliminary Draft Historic Context: Downtown West Mixed-Use Plan*, June 2020.

———, Primary: 398 W. San Fernando, 1999.

Archives & Architecture, DPR A and B: 396 San Fernando, West, 1999/2006.

———, DPR A and B: 398 San Fernando, West, 1999/2006.

———, *Historic Landmark Designation for the Dennis House, Located at 237 North Autumn Street*, 2005.

———, *Primary Record: 396 San Fernando, West*, prepared for the City of San José, 1999/2006.

———, *Primary Record: 398 San Fernando, West*, prepared for the City of San José, 1999/2006.

———, *State of California Department of Parks and Recreation District Record: Lake House Neighborhood*, May 2006.

Arroyo, Juliet, (former) Historic Preservation Officer, City of San José, email, March 2, 2020.

Bay Area Census, City of San Jose, Santa Clara County. Available at http://www.bayareacensus.ca.gov/cities/SanJose70.htm. Accessed December 30, 2019.

California Office of Historic Preservation, *Technical Assistance Series #1: California Environmental Quality Act (CEQA) and Historical Resources*, 2001.

City of San José, *City of San José Historic Landmarks Commission, Memorandum: Add Qualifying Properties to the Historic Resources Inventory, Attachment 3*, February 5, 2020.

———, City of San José, *San Jose Downtown Design Guidelines and Standards*, 2019.

———, *City of San José Municipal Code* Section 13.48.020(A).

———, *Coleman Avenue/Autumn Street Improvement Project, Final Integrated Focused EIR*, January 2008.

———, *Delmas Avenue Mixed-Use Development Final Environmental Impact Report Addendum*, SCH #2002062017, 2016.

———, *Diridon Station Area Plan Integrated Final Program Environmental Impact Report*, State Clearinghouse No. 2011092022, August 2014.

———, *Envision San José 2040 General Plan*, adopted November 1, 2011 (amended March 16, 2020). Available at https://www.sanjoseca.gov/home/showdocument?id=22359. Accessed January 16, 2020.

———, *San Jose Downtown Design Guidelines and Standards*, 2019,

———, *SJW Land Company Planned Development Rezoning Final Integrated Environmental Impact Report*, April 2004.

———, *SJW Land Company Planned Development Rezoning Final Integrated Environmental Impact Report: Addendum*, April 2016.

Garden City Construction, "Downtown West Mixed Use Plan – Historic Resource Move Feasibility," memo, prepared for Google/Lendlease, June 29, 2020.

———, *Downtown West Mixed Use Plan – 40 South Montgomery – Kearny [sic] Pattern Works Move Feasibility*, memo, prepared for Google/Lendlease, August 7, 2020.

Levy, R. S., Costanoan, in *California*, ed. R. F. Heizer, 485–495. *Handbook of North American Indians*, Vol. 8, gen. ed. W. C. Sturtevant. Washington, D.C.: Smithsonian Institution, 1978.

LSA Associates, Inc., *Baseball Stadium in the Diridon/Arena Area Draft Environmental Impact Report*, prepared for the City of San José, February 2006.

McKee, E. A., California Department of Transportation, *National Register of Historic Places Registration Form: Southern Pacific Depot*, December 1992.

Meyer, J., and J. Rosenthal, *Geoarchaeological Overview of the Nine Bay Area Counties in Caltrans District 4*. Prepared for California Department of Transportation, District 4, Oakland, June 2007.

Milliken, R., R. Fitzgerald, M. Hylkema, R. Groza, T. Origer, D. Bieling, A. Leventhal, R. Wiberg, A. Gottsfield, D. Gillette, V. Bellifemine, E. Strother, R. Cartier, and D. A. Fredrickson, Punctuated Culture Change in the San Francisco Bay Area, in *California Prehistory: Colonization, Culture, and Complexity*, ed. T. L. Jones and K. A. Klar, Chapter 8, Lanham, MD: Altamira Press, 2007.

Milliken, R. T., *A Time of Little Choice: The Disintegration of Tribal Culture in the San Francisco Bay Area 1769–1810*. Ballena Press Anthropological Papers, No. 43. Menlo Park, CA: Ballena Press, 1995.

Minor, W. C., Basin Research Associates, *National Register of Historic Places Registration Form: San Jose Water Works Building*, September 1989.

Moratto, M. J., *California Archaeology.* New York: Academic Press, 1984.

National Park Service, Technical Preservation Services website. Available at https://www.nps.gov/tps/standards.htm. Accessed March 30, 2020.

Peninsula Corridor Joint Powers Board, *Staff Report: Update on the San Jose Diridon Integrated Station Concept Plan*, June 6, 2019.

San Jose Water Company, About San Jose Water: Who We Are. Available at www.sjwater.com/our-company. Accessed January 7, 2020.

Sanborn, Fire Insurance Maps. Available at http://sanborn.umi.com.

Thompson & West, *City of San Jose, First Ward*. San Francisco, CA: Thompson & West, 1876.

Wentworth, C. M., M. C. Blake Jr., R. J. McLaughlin, and R. W. Graymer, *Preliminary Geologic Map of the San José 30x60-Minute Quadrangle, California: A Digital Database*. U.S. Geological Survey, Open-File Report 98-795, Menlo Park, CA, 2002.

7.8 Section 3.4, Energy

BP Global, Oil Reserves. Available at https://www.bp.com/en/global/corporate/energy-economics/statistical-review-of-world-energy/oil.html. Accessed January 2020.

California Air Resources Board, *CalEEMod Users Guide*, 2016, Appendix E, Section 5.

———, *In-Use Off-Road Diesel-Fueled Fleets Regulation*, 2011, revised October 2016.

———, Clean Car Standards—Pavley, Assembly Bill 1493. Available at http://www.arb.ca.gov/cc/ccms/ccms.htm. Last reviewed January 11, 2017. Accessed March 27, 2019.

———, *Off-Road Diesel Emission Factor Update for NO_X and PM*, 2017.

———, *SB 375 Regional Greenhouse Gas Emissions Reduction Targets*. Available at https://www.arb.ca.gov/cc/sb375/finaltargets2018.pdf. Accessed January 2020.

———, Advanced Clean Trucks Rule Fact Sheet, 2020. Available at https://ww2.arb.ca.gov/resources/fact-sheets/advanced-clean-trucks-fact-sheet. Accessed July 2020.

California Building Standards Commission, *Guide to the 2016 California Green Building Standards Code Nonresidential*, 2017.

California Energy Commission, *Refining Estimates of Water-Related Energy Use in California, PIER Final Project Report*, CEC-500-2006-118, December 2006.

———, *2016–2017 Investment Plan Update for the Alternative and Renewable Fuel and Vehicle Technology Program*, CDC-600-2015-014-CMF, May 2016. Available at https://ww2.energy.ca.gov/2015publications/CEC-600-2015-014/CEC-600-2015-014-CMF.pdf.

———, *California Energy Demand 2018–2030 Revised Forecast*, January 2018.

———, *2017 Integrated Energy Policy Report*, CEC-100-2017-001-CMF, February 2018, p. 213. Available at https://efiling.energy.ca.gov/getdocument.aspx?tn=223205.

———, California Energy Consumption Database, 2019. Available at https://ecdms.energy.ca.gov/.

———, 2018 California Retail Fuel Outlet Annual Reporting (CEC-A15) Results, 2019. Available at https://ww2.energy.ca.gov/almanac/transportation_data/gasoline/piira_retail_survey.html. Accessed January 2020.

———, 2019 Building Energy Efficiency Standards, 2020. Available at https://www.energy.ca.gov/programs-and-topics/programs/building-energy-efficiency-standards/2019-building-energy-efficiency. Accessed January 2020.

———, California Total Electricity System Power. Available at https://www.energy.ca.gov/almanac/electricity_data/total_system_power.html. Accessed January 2020.

———, *Final 2019 Integrated Energy Policy Report*, January 2020, p. 42. Available at file:///C:/Users/jmiller/Downloads/TN231883_20200131T140541_Final%20 2019%20Integrated%20Energy%20Policy%20Report-%20Clean%20Version.pdf. Based on the transportation sector accounting for 41.1 percent of the state's GHG emissions in 2017.

California Gas and Electric Utilities, *2018 California Gas Report*.

California Independent System Operator, *2018–2019 Transmission Plan*, March 29, 2019. Available at http://www.caiso.com/Documents/ISO_BoardApproved-2018-2019_Transmission_Plan.pdf. Accessed January 2020.

California Public Utilities Commission, California Public Utilities Commission website. Available at http://www.cpuc.ca.gov/. Accessed January 2020.

———, RPS Program Overview, 2020. Available at http://www.cpuc.ca.gov/RPS_Overview/. Accessed January 2020.

City of San José, Ordinance No. 30330, 2019. Available at https://records.sanjoseca.gov/Ordinances/ORD30330.pdf.

Cummins Inc., *Cummins Tier-4-Final Field Test Showed 10% Lower Fuel Consumption*, 2014. Available at https://cumminsengines.com/cummins-tier-4-final-field-test-program. Accessed January 2020.

Iowa State University, *Energy Measurements and Conversions*, 2008.

Metropolitan Transportation Commission and Association of Bay Area Governments, *Plan Bay Area*, adopted July 18, 2013. Available at http://files.mtc.ca.gov/pdf/Plan_Bay_Area_FINAL/Plan_Bay_Area.pdf. Accessed January 2020.

Pacific Gas and Electric Company, *2018 Integrated Resource Plan*, August 1, 2018, p. 45. Available at https://www.pge.com/pge_global/common/pdfs/for-our-business-partners/energy-supply/integrated-resource-planning/2018-PGE-Integrated-Resource-Plan.pdf. Accessed January 2020.

———, *2018 Power Content Label*, 2019. Available at https://www.pge.com/pge_global/common/pdfs/your-account/your-bill/understand-your-bill/bill-inserts/2019/1019-Power-Content-Label.pdf. Accessed January 2020.

———, Company Profile. Available at https://www.pge.com/en_US/about-pge/company-information/profile/profile.page. Accessed January 2020.

———, Supply and Demand Archives. Available at https://www.pge.com/pipeline/operations/cgt_supplydemand_search.page.

San Jose Community Energy, 2018 Power Content Label, 2019. Available at https://www.energy.ca.gov/sites/default/files/2020-01/2018_PCL_San_Jose_Clean_Energy.pdf.

South Coast Air Quality Management District, *CalEEMod Users Guide Appendix D: Default Data Tables*, October 2017.

U.S. Energy Information Administration, California State Profile and Energy Estimates, updated February 21, 2019. Available at http://www.eia.gov/state/data.cfm?sid=CA#ConsumptionExpenditures. Accessed January 2020.

U.S. Environmental Protection Agency, *EPA and NHTSA Set Standards to Reduce Greenhouse Gases and Improve Fuel Economy for Model Years 2017–2025 Cars and Light Trucks*, August 2012.

———, *Fact Sheet: EPA and NHTSA Adopt First-Ever Program to Reduce Greenhouse Gas Emissions and Improve Fuel Efficiency of Medium- and Heavy-Duty Vehicles,* 2011.

———, *Federal Register*/Vol. 81, No. 206/Tuesday, *Greenhouse Gas Emissions and Fuel Efficiency Standards for Medium- and Heavy-Duty Engines and Vehicles—Phase 2*, October 25, 2016. Available at https://www.govinfo.gov/content/pkg/FR-2016-10-25/pdf/2016-21203.pdf.

U.S. Environmental Protection Agency and National Highway Traffic Safety Administration, *One National Program Rule on Federal Preemption of State Fuel Economy Standards*, 2019. Available at https://nepis.epa.gov/Exe/ZyPDF.cgi?Dockey=P100XI4W.pdf. Accessed January 16, 2020.

7.9 Section 3.5, Geology, Soils, and Paleontological Resources

California Department of Conservation, *Seismic Hazards Mapping Act 1990*, *California Public Resources Code* Division 2, Geology, Mines, and Mapping, 2007.

California Geological Survey, *Guidelines for Evaluating and Mitigation Seismic Hazards*, CGS Special Publication 117A, 2008.

———, Hayward Fault Fact Sheet, 2008.

———, Fault Activity Map of California interactive map, 2010. Available at https://maps.conservation.ca.gov/cgs/fam/app/. Accessed September 25, 2019.

Dundas, R. G., F. J. Harmsen, and J. Wakabayashi, *Mammuthus and Camelops from Pleistocene Strata along the Caltrans State Route 180 West Project, Fresno, California*, Geological Society of America Annual Meeting, Portland, Paper No. 32–49, 2009.

ENGEO, *Diridon Station—Project Spartan, Preliminary Geotechnical Assessment for Lots A, B, and C*, 2018.

———, *Diridon Station—Project Spartan, Preliminary Geotechnical Exploration for Lot D*, 2018.

Field, E. H., G. P. Biasi, P. Bird, T. E. Dawson, K. R. Felzer, D. D. Jackson, K. M. Johnson, T. H. Jordan, C. Madden, A. J. Michael, K. R. Milner, M. T. Page, T. Parsons, P. M. Powers, B. E. Shaw, W. R. Thatcher, R. J. Weldon II, and Y. Zeng, Long-Term Time-Dependent Probabilities for the Third Uniform California Earthquake Rupture Forecast (UCERF3), *Bulletin of the Seismological Society of America* 105(2A):511–543, April 2015. doi: 10.1785/0120140093.

Graham, R. W., and E. L. Lundelius, FAUNMAP: A Database Documenting the Late Quaternary Distributions of Mammal Species in the United States, *Illinois State Museum Scientific Papers* XXV (1).

Hudson, D., and B. Brattstrom, A Small Herpetofauna from the Late Pleistocene of Newport Beach Mesa, Orange County, California, *Bulletin of the Southern California Academy of Sciences* 76:16–20, 1977.

Jefferson, G. T., A Catalogue of Late Quaternary Vertebrates from California: Part One, Nonmarine Lower Vertebrate and Avian Taxa, *Natural History Museum of Los Angeles County Technical Reports* No. 5, 1991.

———, A Catalogue of Late Quaternary Vertebrates from California: Part Two, Mammals, *Natural History Museum of Los Angeles County Technical Reports* No. 7, 1991.

Maguire, K., and P. Holroyd, Pleistocene Vertebrates of Silicon Valley (Santa Clara County, California), *PaleoBios* 33, 2016.

Moore Twining Associates Inc., *Geotechnical Engineering Investigation, Proposed Orchard Supply Hardware Store, 720 West San Carlos Street, San Jose, California*, 2013.

Natural Resources Conservation Service, *National Soil Survey Handbook*, 2018. Title 430-VI; Part 618, Soil Properties and Qualities; Subpart B, Exhibits; Section 618.80, Guides for Estimating Risk of Corrosion Potential for Uncoated Steel, p. 618-B.1.

Ngo, M. M., J. A. Canchola, and R. G. Dundas, Avifaunas of the Middle Pleistocene Irvingtonian and Fairmead Landfill Localities in California, *Geological Society of America Cordilleran Section Meeting* 45:10, 2013.

Silicon Valley Soil Engineering, *Proposed Mixed-Use Development, 138 Stockton Avenue, San Jose, California Geotechnical Investigation*, October 2016.

Society of Vertebrate Paleontology, *Standard Procedures for the Assessment and Mitigation of Adverse Impacts to Paleontological Resources*, prepared by SVP Impact Mitigation Guidelines Revision Committee, 2010.

University of California Museum of Paleontology (UCMP), UCMP fossil locality database, 2019.

U.S. Geological Survey, *Preliminary Geologic Map of the San José 30x60-Minute Quadrangle, California: A Digital Database*, compiled by C. Wentworth, M. Blake R. McLaughlin, and R. Graymer, Open-File Report 98-795, 1999. Map Scale 1:100000.

———, *Maps of Quaternary Deposits and Liquefaction Susceptibility in the Central San Francisco Bay Region, California—Liquefaction Susceptibility*, 2006. Scale 1:200,000.

———, *20 Largest Earthquakes in the World*, 2012.

———, Earthquake Planning Scenario (M 6.4 Scenario Earthquake—Calaveras Central—ShakeMap, 2016. Scale unknown. Accessed September 30, 2019.

———, Earthquake Planning Scenario (M 6.8 Scenario Earthquake—Hayward-Rodgers Creek; Hayward S.—ShakeMap, 2016. Scale unknown. Accessed September 30, 2019.

———, Earthquake Planning Scenario (M 7.2 Scenario Earthquake—N. San Andreas Peninsula—ShakeMap, 2016. Scale unknown. Accessed September 30, 2019.

———, Earthquake Hazards Program—ShakeMap and Earthquake Scenarios. Available at https://earthquake.usgs.gov/scenarios/. Accessed March 6, 2020.

Weigers, M. O., *Landslide Inventory Map of the San Jose West Quadrangle, Santa Clara County, California*, 2011. Scale 1:24,000.

7.10 Section 3.6, Greenhouse Gas Emissions

Association of Environmental Professionals, *Comments on CARB's January 20, 2017, Draft 2017 Climate Change Scoping Plan Update, The Proposed Strategy for Achieving California's 2030 Greenhouse Gas Target*, April 2017. Available at https://califaep.org/docs/AEP_Comments_on_ARB_Scoping_Plan_4.7.17.pdf. Accessed in May 2019.

———, *Final White Paper—Beyond 2020 and Newhall: A Field Guide to New CEQA Greenhouse Gas Thresholds and Climate Action Plan Targets for California*, October 18, 2016. Available at https://califaep.org/docs/AEP-2016_Final_White_Paper.pdf. Accessed January 2020.

Bay Area Air Quality Management District, *2017 Final Clean Air Plan*, 2017. Available at https://www.baaqmd.gov/~/media/files/planning-and-research/plans/2017-clean-air-plan/attachment-a_-proposed-final-cap-vol-1-pdf.pdf?la=en. Accessed February 10, 2020.

———, *California Environmental Quality Act Air Quality Guidelines*, 2017. Available at https://www.baaqmd.gov/~/media/files/planning-and-research/ceqa/ceqa_guidelines_may2017-pdf.pdf?la=en. Accessed January 13, 2020.

———, Tools and Methodologies. Available at https://www.baaqmd.gov/plans-and-climate/california-environmental-quality-act-ceqa/ceqa-tools. Accessed February 4, 2020.

Cal-Adapt. Available at http://cal-adapt.org. Accessed August 6, 2020.

California Air Pollution Control Officers Association, California Emissions Estimator Model, 2017. Available at http://www.aqmd.gov/caleemod/. Accessed April 25, 2019.

———, *California Emissions Estimator Model User's Guide*, Version 2016.3.2, November 2017. Available at http://www.aqmd.gov/docs/default-source/caleemod/01_user-39-s-guide2016-3-2_15november2017.pdf?sfvrsn=4. Accessed in May 2020.

California Air Resources Board, 1990 to 2004 Inventory Data and Documentation, 2017. Available at https://www.arb.ca.gov/cc/inventory/1990level/1990data.htm. Accessed March 11, 2019.

———, 2016 Mobile Source Strategy, May 2016. Available at https://www.arb.ca.gov/planning/sip/2016sip/2016mobsrc.htm. Accessed March 10, 2019.

———, *California Air Resources Board 2017 Scoping Plan-Identified VMT Reductions and Relationship to State Climate Goals*, January 2019. Available at https://ww2.arb.ca.gov/resources/documents/carb-2017-scoping-plan-identified-vmt-reductions-and-relationship-state-climate. Accessed August 2020.

———, California Greenhouse Gas 2000–2016 Inventory by Scoping Plan Category—Summary, June 22, 2018. Available at https://www.arb.ca.gov/cc/inventory/data/tables/ghg_inventory_scopingplan_sum_2000-16.pdf. Accessed March 10, 2019.

———, *California's 2017 Climate Change Scoping Plan: The Strategy for Achieving California's 2030 Greenhouse Gas Target*, 2017. Available at https://ww3.arb.ca.gov/cc/scopingplan/scoping_plan_2017.pdf. Accessed January 13, 2020.

———, *Climate Change Scoping Plan: A Framework for Change*, 2008. Available at https://ww3.arb.ca.gov/cc/scopingplan/document/adopted_scoping_plan.pdf. Accessed January 13, 2020.

———, Executive Order G-19-154, *Downtown Mixed Use Plan AB 900 Application and Supporting Documentation*, Attachment 2, p. 10, Table 2 (construction), and Attachment 1, pp. 11–12, Table 4.

———, *GHG Current California Emission Inventory Data*, 2019. Available at https://ww2.arb.ca.gov/ghg-inventory-data. Accessed January 13, 2020.

———, *OFFROAD Modeling Change Technical Memo: Change in Population and Activity Factors for Lawn and Garden Equipment*, June 13, 2003. Available at https://ww3.arb.ca.gov/msei/2001_residential_lawn_and_garden_changes_in_eqpt_pop_and_act.pdf. Accessed April 5, 2019.

———, *Resolution 18-12: Proposed Update to Senate Bill 375 Greenhouse Gas Emissions Reduction Targets*, March 22, 2018. Available at https://ww3.arb.ca.gov/board/res/2018/res18-12.pdf. Accessed May 2020.

———, *SB 375 Regional Greenhouse Gas Emissions Reduction Targets*, 2018. Available at https://www.arb.ca.gov/cc/sb375/finaltargets2018.pdf. Accessed March 11, 2019.

California Building Standards Commission, *CALGreen*, 2019. Available at https://www.dgs.ca.gov/BSC/Resources/Page-Content/Building-Standards-Commission-Resources-List-Folder/CALGreen#@ViewBag.JumpTo. Accessed January 13, 2020.

California Department of Finance, Gross State Product, 2020. Available at http://www.dof.ca.gov/Forecasting/Economics/Indicators/Gross_State_Product/. Accessed July 2020.

———, E-4 Historical Population Estimates for Cities, Counties, and the State and E-5 Population and Housing Estimates for Cities, Counties, and the State, 2020. Available at http://www.dof.ca.gov/Forecasting/Demographics/Estimates/. Accessed July 12, 2020.

California Department of Food and Agriculture (CDFA), California Agricultural Production Statistics. Available at https://www.cdfa.ca.gov/statistics/. Accessed August 6, 2020.

California Department of Resources Recycling and Recovery, *California's 75 Percent Initiative Defining the Future*, 2019. Available at https://www.calrecycle.ca.gov/75percent. Accessed January 13, 2020.

California Energy Commission, *2019 Building Energy Efficiency Standards*, 2019. Available at https://www.energy.ca.gov/programs-and-topics/programs/building-energy-efficiency-standards/2019-building-energy-efficiency. Accessed January 13, 2020.

California Governor's Office of Planning and Research, Scripps Institution of Oceanography, CEC, California Public Utilities Commission, *California's Fourth Climate Change Assessment: Statewide Summary Report*, Publication no. SUMCCCA4-2018-013, August 2018. Available at https://www.energy.ca.gov/sites/default/files/2019-11/Statewide_Reports-SUM-CCCA4-2018-013_Statewide_Summary_Report_ADA.pdf. Accessed August 6, 2020.

California Natural Resources Agency, *2009 California Climate Adaptation Strategy*, 2009. Available at https://resources.ca.gov/CNRALegacyFiles/docs/climate/Statewide_Adaptation_Strategy.pdf. Accessed March 10, 2019.

———. *California Adaptation Planning Guide: Planning for Adaptive Communities*, 2012. Available at http://resources.ca.gov/docs/climate/01APG_Planning_for_Adaptive_Communities.pdf. Accessed January 13, 2020.

———, *Final Statement of Reasons for Regulatory Action*, December 2009. Available at http://resources.ca.gov/ceqa/docs/Final_Statement_of_Reasons.pdf. Accessed in March 2019.

———, Safeguarding California: Reducing Climate Risk, an Update to the 2009 California Climate Adaptation Strategy, 2014. Available at https://files.resources.ca.gov/climate/safeguarding/. Accessed March 10, 2019.

———, *Safeguarding California: Implementation Action Plans*, 2016. Available at https://www.adaptationclearinghouse.org/resources/safeguarding-california-implementation-action-plans.html#:~:text=The%20new%20report%2C%20%E2%80%9CSafeguarding%20California,impacts%20of%20a%20changing%20climate. Accessed August 6, 2020.

———, *Safeguarding California Plan: 2018 Update*, January 2018. Available at http://resources.ca.gov/climate/safeguarding/. Accessed March 10, 2019.

Center for Biological Diversity v. California Department of Fish and Wildlife (2015) 62 Cal.4th 204, 221. Available at https://www.leagle.com/decision/incaco20151130023. Accessed July 2020.

City of San José, *2017 Inventory of Community Greenhouse Gas Emissions*, April 2019. Available at https://www.sanjoseca.gov/your-government/environment/climate-smart-san-jos. Accessed January 13, 2020.

———, *2030 Greenhouse Gas Reduction Strategy*, August 2020. Available at https://www.sanjoseca.gov/your-government/department-directory/planning-building-code-enforcement/planning-division/environmental-planning/greenhouse-gas-reduction-strategy. Accessed September 23, 2020.

———, *Climate Smart San José*, 2018. Available at https://www.sanjoseca.gov/home/showdocument?id=32171. Accessed January 13, 2020.

———, *Envision San José 2040 General Plan*, adopted November 1, 2011 (amended March 16, 2020). Available at https://www.sanjoseca.gov/home/showdocument?id=22359. Accessed January 16, 2020.

———, *Greenhouse Gas Reduction Strategy*, 2015. Available at https://www.sanjoseca.gov/home/showdocument?id=28213. Accessed January 13, 2020.

———, *Integrated Final EIR: Downtown Strategy 2040*, 2018. Available at https://www.sanjoseca.gov/Home/ShowDocument?id=44054. Accessed January 2020.

———, Ordinance No. 30330, 2019. Available at https://records.sanjoseca.gov/Ordinances/ORD30330.pdf.

———*, Policy 6-32, City of San José Private Sector Green Building Policy*, 2008. Available at https://openei.org/wiki/City_of_San_Jose_-_Private_Sector_Green_Building_Policy_(California). Accessed in January 2020.

———, *San José Reach Code*, 2019. Available at https://www.sanjoseca.gov/your-government/departments-offices/environmental-services/climate-smart-san-jos/2019-reach-code-initiative. Accessed February 2020.

Climate Central, February 6, 2019. Available at https://www.climatecentral.org/gallery/maps/2018-global-temp-review-landocean. Accessed April 25, 2019.

Cook, J., et al, 2016. Consensus on consensus: a synthesis of consensus estimates on human-caused global warming. *Environmental Research Letters* Vol. 11 No. 4. DOI:10.1088/1748-9326/11/4/048002, April 13.

Corey, Richard W., Executive Officer, California Air Resources Board, Letter to Kate Gordon regarding CARB AB 900 Determination, Director, Governor's Office of Planning and Research, December 19, 2019.

Energy + Environmental Economics (E3), *Summary of the California State Agencies' PATHWAYS Project: Long-term Greenhouse Gas Reduction Scenarios*, 2015. Available at https://www.ethree.com/public_proceedings/summary-california-state-agencies-pathways-project-long-term-greenhouse-gas-reduction-scenarios/. Accessed in May 2020.

Environmental Leadership, *Development Project Application for the Downtown West Mixed-Use Plan*, August 23, 2019.

Environmental Science Associates, *Environmental Leadership Development Project Application Downtown West Mixed Use Plan in San José, California*, August 2019.

Fehr & Peers Transportation Consultants, "Total VMT" Spreadsheet, as adjusted by Environmental Science Associates, January 22, 2020.

Google LLC, "Updated excavation quantities by phase." Email to Heidi Rous, Hillary Gitelman, Karl Heisler, Pete Choi, and Victoria Hsu of Environmental Science Associates, December 16, 2019.

Governor's Office of Planning and Research, *CEQA and Climate Change Advisory Discussion Draft*, December 2018. Accessed March 2019.

———, *Downtown West Mixed-Use Plan*, 2019. Available at http://opr.ca.gov/ceqa/california-jobs.html. Accessed February 4, 2020.

———, *Technical Advisory on Evaluating Transportation Impacts in CEQA*, 2018. Available at http://opr.ca.gov/docs/20190122-743_Technical_Advisory.pdf. Accessed January 13, 2020.

Intergovernmental Panel on Climate Change, *Climate Change 2014: Synthesis Report, Contribution of Working Groups I, II and III to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change*, Core Writing Team, R.K. Pachauri and L.A. Meyer (eds.), Geneva, Switzerland: IPCC, 151 pp, 2014. Available at www.ipcc.ch/report/ar5/syrhttps:/. Accessed March 10, 2019.

Metropolitan Transportation Commission, *Plan Bay Area: Strategy for a Sustainable Region*, 2013. Available at http://files.mtc.ca.gov/pdf/Plan_Bay_Area_FINAL/Plan_Bay_Area.pdf. Accessed January 13, 2020.

Metropolitan Transportation Commission and Association of Bay Area Governments, *Plan Bay Area 2040*, adopted July 26, 2017. Available at https://www.planbayarea.org/plan-bay-area-2040. Accessed May 2020.

National Oceanic and Atmospheric Association (NOAA), Assessing the US Climate in 2018, published February 6, 2019. Available at https://www.ncei.noaa.gov/news/national-climate-201812. Accessed April 25, 2019.

———, Climate Change: Global Sea Level, November 19, 2019. Available at https://www.climate.gov/news-features/understanding-climate/climate-change-global-sea-level. Accessed August 6, 2020.

———, Fact Sheets: Wildfires/ FIREX Mission, 2020. Available at https://www.esrl.noaa.gov/csl/factsheets/csdWildfiresFIREX.pdf. Accessed August 6, 2020.

Red Cross Red Crescent Climate Centre (RCCC), *Heatwave Guide for Cities*, July 2019. Available at https://toolkit.climate.gov/reports/preparing-california-extreme-heat-guidance-andrecommendations. Accessed August 6, 2020.

San Jose Water Company, *Downtown West Mixed-Use Project (Google Project) Water Supply Assessment*, January 2020.

U.S. Environmental Protection Agency, Emission Factors for Greenhouse Gas Inventories, March 9, 2018. Available at https://www.epa.gov/sites/production/files/2018-03/documents/emission-factors_mar_2018_0.pdf. Accessed April 25, 2019.

———, *Federal Register* Title 84, pages 41717–41720, August 15, 2019.

———, *e Sinks: 1990–2017*, April 11, 2019. Available at https://www.epa.gov/ghgemissions/inventory-us-greenhouse-gas-emissions-and-sinks-1990-2017. Accessed April 25, 2019.

U.S. Environmental Protection Agency and National Highway Traffic Safety Administration, *Light-Duty Vehicle Greenhouse Gas Emission Standards and Corporate Average Fuel Economy Standards; Final Rule*, May 5, 2010. Available at https://www.govinfo.gov/content/pkg/FR-2010-05-07/pdf/2010-8159.pdf. Accessed January 10, 2020.

———, *One National Program Rule on Federal Preemption of State Fuel Economy Standards*, 2019. Available at https://nepis.epa.gov/Exe/ZyPDF.cgi?Dockey=P100XI4W.pdf. Accessed January 16, 2020.

Westerling, Anthony LeRoy, *Wildfire Simulations for the Fourth California Climate Assessment: Projecting Changes in Extreme Wildfire Events with a Warming Climate*, California's Fourth Climate Change Assessment, California Energy Commission, Publication no. CCCA4-CEC-2018-014, 2018.

7.11 Section 3.7, Hazards and Hazardous Materials

Bureau Veritas, *Limited Subsurface Investigation, Commercial Property at 106-138 Stockton Avenue, San José, Santa Clara County, California*, September 25, 2013.

City of San José, *Emergency Operations Plan, Base Plan*, January 24, 2019.

———, Environmental Services Department, *Heating Oil UST Info Request*, March 5, 2020.

Cornerstone Earth Group, *Phase I Environmental Site Assessment, 255 South Montgomery Street, San José, California*, July 27, 2018.

———, *Phase I Environmental Site Assessment, 645 Park Avenue, San José, California*, July 27, 2018.

———, *Phase I Environmental Site Assessment, 105 South Montgomery Street, San José, California*, August 3, 2018.

———, *Phase I Environmental Site Assessment, 150 South Montgomery Street, San José, California*, August 3, 2018.

———, *Phase I Environmental Site Assessment, 510 West Fernando Street and 102 South Montgomery Street, San José, California*, August 3, 2018.

———, *Phase II Soil and Ground Water Quality Evaluation, 255 South Montgomery Street, San José, California*, December 11, 2018.

———, *Phase I Environmental Site Assessment, 93 South Autumn Street, San José, California*, December 31, 2019.

EKI Environment & Water, *Phase I Environmental Site Assessment, West Santa Clara Street and Delmas Avenue, San José, California*, January 23, 2018.

Elevate Environmental Consultants, *Phase I Environmental Site Assessment, 311 North Montgomery Street, San José, California*, February 10, 2020.

———, *Assessment of Environmental Concerns of Select Parcels within the Diridon Project*, February 11, 2020.

———, *Phase I Environmental Site Assessment, West San Carlos Street, San José, California*, February 11, 2020.

Elevate Environmental Consulting, *Assessment of Environmental Concerns of Select Parcels within the Diridon Project*, February 11, 2020.

———, *Phase I Environmental Site Assessment 145 South Montgomery Street and 327 Otterson Street, San Jose, California*, March 30, 2020.

ENGEO, *Phase I Environmental Site Assessment, 50 South Montgomery Street, San José, California*, January 24, 2018.

———, *Phase II Environmental Site Assessment, 501 Cinnabar Street, San José, California*, January 26, 2018.

———, *Phase I Environmental Site Assessment, 282 South Montgomery Street, San José, California*, February 28, 2018.

———, *Phase I Environmental Site Assessment, 345–351 N. Autumn Street and 344-350 N. Montgomery Street, San José, California*, March 9, 2018.

———, *Updated Phase II Environmental Site Assessment, 282 South Montgomery Street, San José, California*, April 12, 2018.

———, *Phase I Environmental Site Assessment, 580 Lorraine Avenue, San José, California,* April 17, 2018.

———, *Phase I Environmental Site Assessment, 56 South Montgomery Street, San José, California*, April 19, 2018.

———, *Phase II Environmental Site Assessment, Diridon Station Lot D, 8 South Montgomery, San José, California*, May 14, 2018.

———, *Phase II Environmental Site Assessment, Diridon Station–Project Spartan, Lots A, B, and C, San José, California*, May 15, 2018.

———, *Updated Phase II Environmental Site Assessment, 580 Lorraine Avenue, San José, California,* August 21, 2018.

———, *Phase II Environmental Site Assessment, 655 W. San Carlos Street, San José, California*, August 29, 2018.

———, *Phase I Environmental Site Assessment, Google Diridon Station–Lots A, B, and C, San José, California*, September 21, 2018.

———, *Phase I Environmental Site Assessment, Google Diridon Station–Lot D, 8 South Montgomery, San José, California*, September 25, 2018.

———, *Phase I Environmental Site Assessment, 720 W. San Carlos Street, San José, California*, April 1, 2019.

———, *Phase I Environmental Site Assessment, 87 S. Autumn Street, San José, California*, September 27, 2018.

———, *Phase I Environmental Site Assessment, 91 S. Autumn Street, San José, California*, September 27, 2018.

———, *Phase I Environmental Site Assessment, 82 S. Montgomery Street, San José, California*, September 28, 2018.

———, *Phase II Environmental Site Assessment, 260 N. Montgomery Street and 255 N. Autumn Street, San José, California*, September 28, 2018.

———, *Phase I Environmental Site Assessment, 357 N. Montgomery Street, San José, California*, October 1, 2018.

———, *Limited Phase II Environmental Site Assessment, 357 N. Montgomery Street, San José, California*, October 30, 2018.

———, *Estimated Quantity of Impacted Material and Remedial Cost, 260 N. Montgomery and 255 N. Autumn Street, San José, California*, October 31, 2018.

———, *Phase II Environmental Site Assessment, 354–358 Royal Avenue & 365 Bird Avenue, San José, California*, December 20, 2018.

———, *Phase I Environmental Site Assessment, 333 North Montgomery Street, San José, California*, February 25, 2019.

———, *Phase I Environmental Site Assessment Update, 260 N. Montgomery and 255 N. Autumn Street, San José, California*, March 13, 2019.

———, *Phase I Environmental Site Assessment Update, 357 N. Montgomery St, San José, California*, March 18, 2019.

———, *Phase I Environmental Site Assessment, 501 Cinnabar Street, San José, California*, March 25, 2019.

———, *Phase I Environmental Site Assessment Update, 82 S. Montgomery Street, San José, California*, March 26, 2019.

———, *Phase I Environmental Site Assessment Update, 91 S. Autumn Street, San José, California*, March 26, 2019.

———, *Phase I Environmental Site Assessment Update, 87 S. Autumn Street, San José, California*, March 28, 2019.

———————, *Phase I Environmental Site Assessment Update, 333 North Montgomery Street, San José, California,* October 30, 2019.

GeoRestoration, *Remediation Progress Report—Third Quarter 2019*, October 31, 2019.

Haley & Aldrich Inc., *Site Management Plan, Delmas Avenue Redevelopment Project, San Jose, California*, August 10, 2016.

———, *Confidential Information: Phase I Environmental Site Assessment, 75 South Autumn Street, San José, California*, November 23, 2016.

———, *Phase I Environmental Site Assessment, 50 and 52 South Autumn Street, San José, California*, January 12, 2017.

———, *Phase I Environmental Site Assessment, 24 and 34 South Autumn Street, San José, California*, January 30, 2017.

———, *Confidential Information: Phase I Environmental Site Assessment, 35 South Autumn Street, San José, California*, January 30, 2017.

———, *Phase I Environmental Site Assessment, 450 West Santa Clara Street, San José, California*, January 30, 2017.

———, *Phase I Environmental Site Assessment, 40 South Montgomery Street and 55 South Autumn Street, San José, California*, February 17, 2017.

———, *Limited Phase II Environmental Site Assessment, 40 South Montgomery and 55 South Autumn Street, San José, California*, February 21, 2017.

———, *Phase I Environmental Site Assessment, 57 and 59 South Autumn Street, San José, California*, March 14, 2017.

———, *Phase I Environmental Site Assessment, 74 South Autumn Street, San José, California*, March 14, 2017.

———, *Limited Phase II Environmental Site Assessment, 59 South Autumn Street, San José, California*, March 21, 2017.

———, *Limited Phase II Environmental Site Assessment, 74 South Autumn Street, San José, California*, March 21, 2017.

———, *Phase I Environmental Site Assessment, 587 Cinnabar Street, San José, California*, April 6, 2017.

———, *Phase I Environmental Site Assessment, 20 South Autumn Street, San José, California*, April 25, 2017.

———, *Phase I Environmental Site Assessment, 56 & 58 South Autumn Street, San José, California*, May 1, 2017.

———, *Phase I Environmental Site Assessment, 559 and 573 West Julian Street, San José, California*, May 10, 2017.

———, *Phase I Environmental Site Assessment, 140 South Montgomery Street, San José, California*, May 23, 2017.

———, *Phase I Environmental Site Assessment, 655 West San Carlos Street, San José, California*, June 2, 2017.

———, *Phase I Environmental Site Assessment, 92 South Montgomery Street, San José, California*, June 12, 2019.

———, *Phase I Environmental Site Assessment, 695 West San Carlos Street, San José, California*, July 6, 2017.

———, *Phase I Environmental Site Assessment, 691 West Carlos Street, San José, California*, July 7, 2017.

———, *Phase I Environmental Site Assessment, 551 West Julian Street, San José, California*, July 14, 2017.

———, *Draft Phase I Environmental Site Assessment, 345–347 North Montgomery Street, San José, California*, August 15, 2017.

———, *Draft Report on Limited Phase II Investigation, 345–347 North Montgomery Street, San José, California*, September 14, 2017.

Landrum & Brown, *Downtown Airspace Development Capacity Study (DADCS)*. August 2019.

Lowney Associates, *Soil Management Plan, Cahill Block North, Del Monte Plant 51, San José, California*, February 28, 2005.

Phases Environmental, *Phase II Environmental Site Assessment, 333 Montgomery Street, San José, California,* March 27, 1995.

RMD Environmental Solutions, *Remedial Investigation Work Plan, Former True Drive-In Cleaners, 282 South Montgomery Street, San José, California*, March 22, 2019.

RPS Iris Environmental, *Phase I Environmental Site Assessment, 145 South Montgomery Street and 327 Otterson Street, San José, California*, October 25, 2016.

———, *Summary Report of Limited Phase II Subsurface Site Investigation, 145 South Montgomery Street, San José, California*, November 18, 2016.

———, *Sampling and Analysis Report for Limited Phase II Subsurface Site Investigation, 345 North Montgomery Street, San José, California*, December 14, 2017.

San Francisco Bay Regional Water Quality Control Board, *No Further Action, 645 Park Avenue, San Jose, Santa Clara County*, June 20, 2008.

———, *PFAs ESL Memorandum, Interim Final Environmental Screening Levels (ESLs) for Perfluorooctane Sulfonate (PFOS) and Perfluorooctanoate (PFOA)*, May 27, 2020.

———, *Diridon Caltrain Station San Jose—Well Destructions*, September 27, 2017.

Santa Clara County Airport Land Use Commission, *Comprehensive Land Use Plan, Norman Y. Mineta San José International Airport*, amended November 16, 2016.

Santa Clara County Department of Environmental Health, *Site Cleanup Program—138 Stockton Development, SCP Case No. 2017-03s, 138 Stockton Ave., San José, California*, June 27, 2019.

State Water Resources Control Board, *Case Summary, Diridon Caltrain Station*, 2019.

Trammell Crow Company, *Submittal of Site History Information, 35 Delmas Avenue, San Jose, Santa Clara County, California*, April 17, 2017.

U.S. Environmental Protection Agency, *Information on Levels of Environmental Noise Requisite to Protect Public Health and Welfare with an Adequate Margin of Safety*, March 1974. Available at https://nepis.epa.gov/Exe/ZyPDF.cgi/2000L3LN.PDF?Dockey=2000L3LN.PDF.

7.12 Section 3.8, Hydrology and Water Quality

Arup, Lendlease & Sherwood Design Engineers, *Google Downtown West Infrastructure Plan*, October 7, 2020.

California Code of Regulations, Title 22, Section 60301.230, Disinfected Tertiary Recycled Water. Available at https://govt.westlaw.com/calregs/. Accessed May 4, 2020.

California Department of Fish and Wildlife, Lake and Streambed Alteration Program. Available at https://wildlife.ca.gov/Conservation/LSA. Accessed March 11, 2020.

California Department of Water Resources, Alternatives to Groundwater Sustainability Plans. Available at https://water.ca.gov/Programs/Groundwater-Management/SGMA-Groundwater-Management/Alternatives. Accessed December 20, 2019.

———, *Sustainable Groundwater Management Act 2019 Basin Prioritization: Process and Results*, May 2020. Available at https://water.ca.gov/Programs/Groundwater-Management/Basin-Prioritization. Accessed May 14, 2020.

California Governor's Office of Emergency Services, My Hazards Mapping Tool. Available at http://myhazards.caloes.ca.gov/. Accessed September 27, 2019.

City of San José, City Council Policy No. 8-14, Post-construction Hydromodification Management, effective October 18, 2005 (revised February 23, 2010). Available at https://www.sanjoseca.gov/home/showdocument?id=12743. Accessed October 30, 2019.

———, Resolution Number 73644. February 12, 2007.

———, *Envision San José 2040 General Plan*, adopted November 1, 2011 (amended March 16, 2020). Available at https://www.sanjoseca.gov/home/showdocument?id=22359. Accessed January 16, 2020.

———, City Council Policy No. 6-34, Riparian Corridor Protection and Bird Safe Design, effective August 23, 2016. Available at https://www.sanjoseca.gov/home/showdocument?id=12815. Accessed January 27, 2020.

———, *San José Arena (SAP Center) Third Five Year Review*, Appendix B, Groundwater Monitoring Report, August 2018.

———, *City of San José Green Stormwater Infrastructure Plan*, September 2019.

———, *City of San José Standard Conditions for Hydrology and Water Quality*, Construction-Related Water Quality, October 7, 2019.

———, *City of San José Code of Ordinances*, Title 17, Buildings and Construction; Chapter 17.08, Special Flood Hazard Areas; Part 5, Requirements; Section 17.08.640, New Developments. Available at https://library.municode.com/ca/san_jose/codes/code_of_ordinances?nodeId=TIT17BUCO_CH17.08SPFLHAARRE_PT5RESPFLHAAR_17.08.640NEDE. Accessed January 15, 2020.

Federal Emergency Management Agency, *Flood Insurance Mapping Program*, map revisions through March 7, 2019; FEMA Flood Zone designations; mapped areas compiled from the National Flood Hazard Layer (NFHL). Available at http://www.fema.gov/national-flood-hazard-layer-nfhl. Accessed October 9, 2019.

———, *Letter of Map Revision Determination Document, Community No. 060349. North Autumn Street; Case Number 18-09-1360P*, effective March 7, 2019. Available at https://msc.fema.gov/portal/search?AddressQuery=Santa%20Clara%20County#searchresultsanchor. Accessed September 12, 2019.

———, *National Flood Insurance Program Flood Insurance Rate Map, Santa Clara County, California, and Incorporated Areas*, Panel 234, effective May 18, 2009. Available at https://msc.fema.gov/portal/search?AddressQuery=Santa%20Clara%20County#searchresultsanchor. Accessed September 2019.

Georestoration Inc., *Remediation Progress Report First Quarter 2019, 638 Auzerais Avenue San José*, SCCDEH Case No. 12-023, April 30, 2019.

San Francisco Bay Regional Water Quality Control Board, *Waste Discharge Requirements and Water Quality Certification (Order Number R2-2014-0015) for the Santa Clara Valley Water District Stream Maintenance Program, Santa Clara County*, 2014. Available at https://s3.us-west-2.amazonaws.com/assets.valleywater.org/SMP%20Permit%20San%20Francisco%20Regional%20Water%20Quality%20Control%20Board.pdf. Accessed March 23, 2020.

———, *California Regional Water Quality Control Board San Francisco Bay Region Municipal Regional Stormwater NPDES Permit*, Order No. R2-2015-0049, NPDES Permit No. CAS612008, November 19, 2015. Available at https://www.waterboards.ca.gov/sanfranciscobay/water_issues/programs/stormwater/Municipal/R2-2015-0049.pdf. Accessed September 12, 2019.

———, *Water Quality Control Plan (Basin Plan) for the San Francisco Bay Basin*, amendments adopted through May 4, 2017. Available at https://www.waterboards.ca.gov/sanfranciscobay/basin_planning.html. Accessed September 12, 2019.

San Jose Water Company, *Downtown West Mixed-Use Project (Google Project) Water Supply Assessment*, January 2020.

Santa Clara County Parks, Los Gatos Creek County Park. Available at https://www.sccgov.org/sites/parks/parkfinder/Pages/LosGatosCreek.aspx. Accessed October 17, 2019.

Santa Clara Valley Urban Runoff Pollution Prevention Program, *Santa Clara Basin Stormwater Resource Plan*, August 2019. Available at https://scvurppp.org/wp-content/uploads/2019/08/SCB_SWRP_FINAL_8-20-19.pdf.

———, About SCVURPPP. Available at https://scvurppp.org/about-scvurppp/. Accessed December 23, 2019.

Santa Clara Valley Water District, *2016 Groundwater Management Plan: Santa Clara and Llagas Subbasins*, November 2016. Available at https://s3.us-west-2.amazonaws.com/assets.valleywater.org/2016%20Groundwater%20Management%20Plan.pdf. Accessed December 20, 2019.

———, *Annual Groundwater Report for Calendar Year 2018*, 2018. Available at https://www.valleywater.org/sites/default/files/2020-03/2018%20Annual%20Groundwater%20Report_Final-Web%20Version.pdf. Accessed September 9, 2019.

———, Anderson Dam Seismic Retrofit Project: About this Project. Available at https://www.valleywater.org/anderson-dam-project. Accessed April 30, 2020.

———, *Seismic Stability Evaluations of Chesbro, Lenihan, Stevens Creek, and Uvas Dams (SSE2)*, Compilation Report No. SSE2A-LN, December 2012. Available at https://www.valleywater.org/sites/default/files/Compilation%20Report_Dec%202012.pdf. Accessed December 23, 2019.

———, Dam Failure Inundation Maps, Leroy Anderson Dam, scale 1" = 40,000', April 2016. Available at https://www.valleywater.org//sites//default//files//Anderson%20Dam%20Inundation%20Maps%202016.pdf. Accessed October 2, 2019.

Santa Clara Valley Water Resources Protection Collaborative, *Guidelines & Standards for Land Use near Streams*, August 2005 (revised July 2006). Available at https://www.valleywater.org/contractors/doing-businesses-with-the-district/permits-for-working-on-district-land-or-easement/guidelines-and-standards-for-land-use-near-streams. Accessed December 23, 2019.

Schaaf & Wheeler, *Los Gatos Independent QC and Revisions to Final HEC-RAS Model*, December 2019.

———, *Google San Jose Storm System Analysis*, August 2020.

———, *Google San Jose Hydrology and Flood Control Measures*, August 2020.

State Water Resources Control Board, *National Pollutant Discharge Elimination System (NPDES) General Permit Fact Sheet for Stormwater Discharges Associated with Industrial Activities*, NPDES Case No. CAS000001, updated January 2015. Available at https://www.waterboards.ca.gov/water_issues/programs/stormwater/docs/industrial/2014indgenpermit/factsheet.pdf. Accessed January 27, 2020.

———, Order WQ 2016-0068, Water Reclamation Requirements for Recycled Water Use, adopted June 7, 2016. Available at https://www.waterboards.ca.gov/board_decisions/adopted_orders/water_quality/2016/wqo2016_0068_ddw.pdf. Accessed January 22, 2020.

Western Regional Climate Center, Period of Record Monthly Climate Summary, San Jose, California (047821), January 1, 1893, to June 6, 2016. Available at https://wrcc.dri.edu/cgi-bin/cliRECtM.pl?ca7821. Accessed September 9, 2019.

7.13 Section 3.9, Land Use

Archives & Architecture LLC, *St. James Park Historical Evaluation*, 2016. Available at https://www.sanjoseca.gov/home/showdocument?id=9563. Accessed September 23, 2019.

Association of Bay Area Governments, *Plan Bay Area 2040*, Final, adopted July 26, 2017.

California Department of Transportation, Division of Aeronautics, *California Airport Land Use Planning Handbook*, October 2011.

Cathay Mortuary, Inc. v. San Francisco Planning Commission, No. A039937, 207 Cal. App. 3d 275; 254 Cal. Rptr. 778; 1989 Cal. App. LEXIS 22, January 20, 1989.

City of San José, *Envision San José 2040 General Plan*, adopted November 1, 2011 (amended March 16, 2020). Available at https://www.sanjoseca.gov/home/showdocument?id=22359. Accessed January 16, 2020.

———, data download, available at https://www.sanjoseca.gov/index.aspx?NID=3308. Accessed September 9, 2019.

———, San José History, 2019. Available at https://www.sanjoseca.gov/index.aspx?NID=126. Accessed September 23, 2019.

———, data download, available at https://www.sanjoseca.gov/home/showdocument?id=38013. Accessed January 6, 2020.

Federal Aviation Administration, Form FAA 7460-1, *Notice of Proposed Construction or Alteration*, Section 77.9, Construction or Alteration Requiring Notice, 2017. Available at https://www.faa.gov/documentLibrary/media/Form/FAA_Form_7460-1_042020.pdf. Accessed September 2018.

H. T. Harvey & Associates, *Envision San José 2040 General Plan Update Biological Resources Report*, August 18, 2010.

Integral Group, parks GIS mapping data from San José Parks, Recreation, and Neighborhood Services Department, March 24, 2020.

Metropolitan Transportation Commission, Priority Development Areas, MTC Open Data Layer Library, 2018.

San José data download, available at https://www.sanjoseca.gov/your-government/departments-offices/public-works/resources/gis-data-downloads. Accessed September 9, 2019, and January 6, 2020.

Santa Clara County Airport Land Use Commission, *Norman Y. Mineta San José International Airport: Comprehensive Land Use Plan Santa Clara County*, prepared by Walter B. Windus, PE, adopted May 25, 2011 (amended 2016). Available at https://www.sccgov.org/sites/dpd/DocsForms/Documents/ALUC_SJC_CLUP.pdf. Accessed September 12, 2019.

———, *Bylaws of the Airport Land Use Commission of Santa Clara County*, adopted November 18, 2015. Available at https://www.sccgov.org/sites/dpd/DocsForms/Documents/ALUC_ByLaws.pdf. Accessed October 1, 2019.

U.S. Census Bureau, 2013–2017 American Community Survey 5-Year Estimates. Available at https://data.census.gov/cedsci/table?t=Populations%20and%20People&tid=ACSDP5Y2017.DP05&hidePreview=true&vintage=2017&layer=VT_2018_050_00_PY_D1&cid=S0101_C01_001E&g=1600000US0668000_0500000US06085. Accessed September 9, 2019.

7.14 Section 3.10, Noise and Vibration

American Society of Heating, Refrigeration, and Air Conditioning Engineers, Technical Committee on Sound and Vibration, *Generator Noise Control—An Overview*, 2006.

BPTunnel, *B&P Tunnel Facts: Understanding Vibration Fact Sheet*, 2016.

California Department of Transportation, *Technical Noise Supplement to the Traffic Noise Analysis Protocol*, September 2013.

———, *Transportation and Construction Vibration Guidance Manual*, September 2013.

City of San José, *Downtown Strategy 2040 Integrated Final EIR*, December 2018.

———, *Envision San José 2040 General Plan*, adopted November 1, 2011 (amended March 16, 2020). Available at https://www.sanjoseca.gov/home/showdocument?id=22359. Accessed January 16, 2020.

Cummins Power Generation, *Sound Attenuated and Weather Protective Enclosures*, 2008.

Environmental Science Associates, *Stanford University 2018 General Use Permit Draft Environmental Impact Report*, October 2017.

———, *301 Mission Street, Millennium Tower Perimeter Pile Upgrade Project, Preliminary Mitigated Negative Declaration and Initial Study*, November 2019.

Federal Highway Administration, *Roadway Construction Noise Model User Guide*, 2006.

Federal Interagency Committee on Noise, *Federal Agency Review of Selected Airport Noise Analysis Issues*, August 1992.

Federal Transit Administration, *Transit Noise and Vibration Impact Assessment Manual*, September 2018.

Governor's Office of Planning and Research, *State of California General Plan Guidelines*, Appendix D, 2017.

Illingworth and Rodkin, *Santana Row Parking Structure Project Noise Assessment, San José, California*, 2014.

Santa Clara County Airport Land Use Commission, *Norman Y. Mineta San José International Airport: Comprehensive Land Use Plan, Santa Clara County*, prepared by Walter B. Windus, PE, adopted May 25, 2011 (amended November 16, 2016). Available at https://www.sccgov.org/sites/dpd/DocsForms/Documents/ALUC_SJC_CLUP.pdf. Accessed September 12, 2019.

Trane, *Sound Data and Application Guide*, 2002.

Urban Crossroads, *Moreno Valley Walmart Noise Impact Analysis*, 2015.

U.S. Department of Housing and Urban Development, *The Noise Guidebook*, prepared by The Environmental Planning Division, Office of Environment and Energy, March 2009.

U.S. Environmental Protection Agency, *Information on Levels of Environmental Noise Requisite to Protect Public Health and Welfare with an Adequate Margin of Safety*, March 1974. Available at https://nepis.epa.gov/Exe/ZyPDF.cgi/2000L3LN.PDF?Dockey=2000L3LN.PDF. Accessed March 14, 2019.

Valley Transportation Authority, *VTA's BART Silicon Valley—Phase II Extension Project Final SEIS/SEIR*, February 2018.

7.15 Section 3.11, Population and Housing

Applied Development Economics, Preliminary Fiscal/Economic Impact Analysis of Development Capacity on Google and City Lands, Memorandum to Kim Walesh, Deputy City Manager, November 21, 2018.

Association of Bay Area Governments, *Final Regional Housing Need Plan, San Francisco Bay Area: 2014–2023*, 2013.

———, *Projections 2040*, 2018 (last updated in 2019). Available at https://data.bayareametro.gov/Demography/Projections-2040-by-Jurisdiction/grqz-amra. Accessed May 7, 2020.

California Department of Finance, E-5 Population and Housing Estimates for Cities, Counties, and the State—January 1, 2011–2019, Sacramento, CA, May 2019. Available at www.dof.ca.gov/Forecasting/Demographics/Estimates/e-5/.

California Employment Development Department, Labor Force and Unemployment Rate for Cities and Census Designated Places, September 2019. Available at www.labormarketinfo.edd.ca.gov/data/labor-force-and-unemployment-for-cities-and-census-areas.html. Accessed September 26, 2019.

California Employment Development Department: Labor Market Information Division. San Jose–Sunnyvale–Santa Clara Metropolitan Statistical Area (MSA) (San Benito and Santa Clara Counties). Construction Reported the best job improvement. Available at https://www.labormarketinfo.edd.ca.gov/file/lfmonth/sjos$pds.pdf.

———, Santa Clara County. Historical Civilian Labor Force. July 17, 2020. Available at https://www.labormarketinfo.edd.ca.gov/file/lfhist/santchlf.xls. Accessed August 14, 2020.

———, San Jose–Sunnyvale–Santa Clara Metropolitan Statistical Area (MSA) (San Benito and Santa Clara Counties). Construction Reported the best job improvement. Available at https://www.labormarketinfo.edd.ca.gov/file/lfmonth/sjos$pds.pdf.

Chapple, K., and M. Zuk, Miriam. Forewarned: The Use of Neighborhood Early Warning Systems for Gentrification and Displacement. *Cityscape: A Journal of Policy Development and Research* 18(3), 2016. Available at https://www.huduser.gov/portal/periodicals/cityscpe/vol18num3/ch5.pdf.

Chapple, Dr. Karen, "Methodology to Attribute Market Effects," email, March 1, 2020. As cited in HR&A Advisors, Inc., Response to Law Foundation Letter regarding Displacement and the Google Project, Memorandum to Environmental Science Associates, June 26, 2020.

City of San José, *City of San José 2014–2023 Housing Element*, adopted January 27, 2015. Map V-1, p. Chapter V-4.

———, *Downtown Strategy 2040 Integrated Final EIR*, December 2018.

———, *Envision San José 2018 General Plan Annual Performance Review*, October 2018.

———, *Envision San José 2019 General Plan Annual Performance Review*, October 2019.

———, *Envision San José 2040, 2019 Annual General Plan Performance Review, Executive Summary*, 2019.

———, *Envision San José 2040 General Plan Draft Program EIR*, June 2011.

———, Housing. Available at https://www.sanjoseca.gov/your-government/departments-offices/city-council/members/mayor-s-office/our-work/housing. Accessed August 14, 2020.

Environmental Science Associates, *Downtown West Mixed-Use Plan Draft EIR—Employment Density and Persons per Household Assumptions*, memorandum to David Keyon, City of San José, September 16, 2019.

Fracassa, D., and R. Swan. Bay Area Cities Face Grim Financial Outlook amid Budget Slashing. Here's What They Are Planning to Cut. *San Francisco Chronicle*, May 10, 2020. Available at https://www.sfchronicle.com/bayarea/article/Bay-Area-cities-face-grim-financial-outlook-amid-15259394.php.

Hart, Jared, City of San José, email communication regarding the number of housing units in Downtown San José, December 19, 2019.

HR&A Advisors, Inc., Response to Law Foundation Letter regarding Displacement and the Google Project, Memorandum to Environmental Science Associates, June 26, 2020.

Hughey, Rosalynn, Memorandum to Planning Commission regarding General Plan amendments, November 6, 2019.

Keyser Marston Associates Inc., *Commercial Linkage Fee Nexus Analysis*, July 2020.

Manford, Robert, Deputy Director–Planning, City of San José, email communication, October 3, 2019.

Metropolitan Transportation Commission and Association of Bay Area Governments, *Plan Bay Area 2040*, Final, adopted July 26, 2017. Available at http://2040.planbayarea.org/cdn/ff/buje2Q801oUV3Vpib-FoJ6mkOfWC9S9sgrSgJrwFBgo/1510696833/public/2017-11/Final_Plan_Bay_Area_2040.pdf.

Silicon Valley Rising, *Envisioning Community: Our Community's Expectations for the San José Google Mega-Campus*, April 2018.

Strategic Economics, *San Jose Market Overview and Employment Lands Analysis*, prepared for the City of San José Four-Year General Plan Review, January 20, 2016.

U.S. Census Bureau, 2013–2017 American Community Survey 5-Year Estimates, Table DP04. Available at https://factfinder.census.gov/faces/nav/jsf/pages/index.xhtml. Accessed September 13, 2019.

———, 2006–2010 American Community Survey 5-Year Estimates, Table S1901. Available at https://data.census.gov/cedsci/table?g=1600000US0668000&hidePreview=false&tid=ACSST5Y2010.S1901&t=Income%20%28Households,%20Families,%20Individuals%29%3AHousehold%20and%20Family&vintage=2018&layer=VT_2018_160_00_PY_D1&cid=S1901_C01_001E. Accessed May 4, 2020.

———, 2013–2017, American Community Survey 5-Year Estimates, Table S1901. Available at https://data.census.gov/cedsci/table?q=san%20jose%20city%20median%20household%20income&g=0100000US_1600000US0668000&tid=ACSST5Y2017.S1901&vintage=2018&t=Income%20%28Households,%20Families,%20Individuals%29%3AHousehold%20and%20Family&hidePreview=false&layer=VT_2018_160_00_PY_D1&cid=S1901_C01_001E. Accessed May 4, 2020.

———, 2006–2010, American Community Survey 5-Year Estimates, Table S1903. Available at https://data.census.gov/cedsci/table?g=1600000US0668000_1400000US06085500300,06085500800,06085501900&t=Income%20%28Households,%20Families,%20Individuals%29&layer=VT_2010_140_00_PY_D1&cid=S1903_C01_001E&text=2010%20median%20income&tid=ACSST5Y2010.S1903&hidePreview=false&vintage=2010&mode=selection. Accessed May 4, 2020.

———, American Community Survey (ACS), Table S2405: Industry by Occupation for the Civilian Employed Population 16 Years and Over, 2017 American Community Survey 5-Year Estimates. Available at https://data.census.gov/cedsci/table?q=San%20Jose%20City%20Industry%20by%20Occupation%20S2405&g=1600000US0668000&tid=ACSST5Y2017.S2405&t=Occupation%3AIndustry&layer=VT_2018_160_00_PY_D1&vintage=2018. Accessed May 4, 2020.

———, American FactFinder, 2000 and 2010 Census. Available at factfinder.census.gov/faces/nav/jsf/pages/index.xhtml. Accessed September 24, 2019.

———, American FactFinder, 2006–2010, American Community Survey 5-Year Estimates, Table DP03. Available at https://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=ACS_10_5YR_DP03&prodType=table. Accessed March 11, 2020.

———, American FactFinder, 2013–2017, American Community Survey 5-Year Estimates, Table DP03. Available at https://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=ACS_17_5YR_DP03&prodType=table. Accessed March 11, 2020.

———, 2000 Census. Available at https://data.census.gov/cedsci/table?q=population&g=1600000US0668000&hidePreview=false&tid=DECENNIALSF12000.P001&vintage=2000&y=2000. Accessed April 28, 2020.

Working Partnerships USA, *The Google Rent Hike: What Google's San José Mega-Campus Could Cost Renting Families—and What Google Can Do About It*, June 2019.

Zillow, San José Home Prices & Values. Available at https://www.zillow.com/san-jose-ca/home-values/. Accessed August 20, 2020.

Zuk, M., A.H. Bierbaum, K. Chapple, K. Gorska, and A. Loukaitou-Sideris. Gentrification, Displacement, and the Role of Public Investment. *Journal of Planning Literature*, 33(I), 2018. Available at https://journals.sagepub.com/doi/abs/10.1177/0885412217716439.

7.16 Section 3.12, Public Services and Recreation

California Department of Education, *2018–19 Enrollment by Grade*, San Jose Unified Report (43-69666). Available at http://dq.cde.ca.gov/dataquest/dqcensus/EnrGrdLevels.aspx?cds=4369666andagglevel=districtandyear=2018-19. Accessed October 8, 2019.

———, *Enrollment Multi-Year Summary by Grade*, San Jose Unified Report (43-69666). Available at http://dq.cde.ca.gov/dataquest/dqcensus/EnrGrdYears.aspx?cds=4369666andagglevel=districtandyear=2018-19. Accessed October 8, 2019.

City of San José, 2019–2020 Adopted Operating Budget. Available at https://www.sanjoseca.gov/home/showdocument?id=45411. Accessed May 6, 2020.

———, *ActivateSJ Strategic Plan (2020–2040)*, August 20, 2019. Available at https://www.sanjoseca.gov//home/showdocument?id=43503. Accessed October 9, 2019.

———, *City of San José Annual Report on City Services 2018–19*, December 2019. Available at https://www.sanjoseca.gov/home/showdocument?id=49148. Accessed January 16, 2020.

———, *City of San José Branch Library Bond Projects Fund (A Fund of the City of San José), Reports of Independent Certified Public Accountants, Financial Statements and Other Supplementary Information, for the Year Ended June 30, 2017*.

———, *Diridon Station Area Plan Draft PEIR*, December 2013.

———, *Downtown Strategy 2040 Integrated Final EIR*, December 2018.

———, *Envision San José 2040 General Plan*, adopted November 1, 2011 (amended March 16, 2020). Available at https://www.sanjoseca.gov/home/showdocument?id=22359. Accessed January 16, 2020.

———, *Envision San José 2040 General Plan Draft Program EIR*, June 2011.

———, *Measure T—New Fire Station Placement Prioritization*, June 6, 2019.

———, *Parks and Community Facilities Development, 2020–2024 Adopted Capital Improvement Program Overview*. Available at https://www.sanjoseca.gov/home/showdocument?id=44958. Accessed January 13, 2020.

———, Resolution No. 78474, December 15, 2017. Available at https://records.sanjoseca.gov/Resolutions/78474.pdf. Accessed October 7, 2019.

———, *San José Parks, Recreation & Neighborhood Services, Fast Facts*, October 8, 2019.

———, San José Trail Network. Available at https://www.sanjoseca.gov/your-government/departments/parks-recreation-neighborhood-services/outdoor-activities/trail-network. Accessed March 6, 2020.

———, SJFD Response Time Measurements, 2019.

———, *Status Report On Measure T—The Disaster Preparedness, Public Safety and Infrastructure General Obligation Bond and Related Appropriation Ordinance Amendments*, November 27, 2019.

———, Trail Systems. Available at https://www.sanjoseca.gov/your-government/departments/parks-recreation-neighborhood-services/outdoor-activities/trail-network/trail-systems. Accessed October 17, 2019.

Friends of Guadalupe River Park and Gardens and City of San José, *Guadalupe Gardens Design Guidelines and Implementation Strategy*, June 2008. Available at http://www.grpg.org/Files/GuadalupeGardensDesignGuidelines.pdf. Accessed October 5, 2019.

San Francisco Bay Area Planning and Urban Research Association, *White Paper: Re-envisioning the Guadalupe River Park, How San Jose Can Transform Its Greatest Natural Resource into a Community Gathering Place for All*, April 2019. Available at https://www.spur.org/sites/default/files/publications_pdfs/SPUR_Re-envisioning_the_Guadalupe_River_Park.pdf. Accessed October 4, 2019.

San Francisco Bay Trail, Alviso to Newark. Available at https://baytrail.org/get-on-the-trail/map-by-number/alviso-to-newark/. Accessed January 13, 2020.

San José Fire Department, *Fire Department Call Volume Report*, March 4, 2020.

———, *Fire Information Response, Downtown West Mixed Use Plan EIR*, December 26, 2019.

———, *Fire Information Response,* April 10, 2020.

———*, San José Fire Department Strategic Business Plan, "20/20 Vision Plan,"* April 16, 2015.

———, Stations, 2020. Available at https://www.sanjoseca.gov/your-government/departments-offices/fire/stations/-npage-2. Accessed January 17, 2020.

———, Statistics, 2019. Available at https://www.sanjoseca.gov/your-government/departments/fire-department/statistics. Accessed September 13, 2019.

San José Parks, Recreation and Neighborhood Services Department, Parks and Trails. Available at https://www.sanjoseca.gov/your-government/departments/parks-recreation-neighborhood-services/outdoor-activities. Accessed January 17, 2020.

San José Police Department, Answers to Frequently Asked Questions. Available at http://www.sjpd.org/faq.html. Accessed October 4, 2019.

———, Bureau of Field Operations. Available at http://www.sjpd.org/bfo/. Accessed October 2, 2019.

———, Coffee with the Chief Q&A, Hosted by Councilmember Sergio Jimenez, Saturday, February 10, 2018.

———, Inside SJPD—Department Information, 2019. Available at http://www.sjpd.org/insidesjpd/. Accessed October 3, 2019.

———, *Police Information Response, Downtown West Mixed Use Plan EIR*, December 20, 2019.

———, San José Police Department Use of Force Analysis, Interactive Dashboard. Available at http://www.sjpd.org/crimestats/forceanalysis.asp. Accessed October 4, 2019.

San José Public Library, Library Parcel Tax website. Available at https://www.sjpl.org/parcel-tax. Accessed January 13, 2020.

———, Locations and Hours. Available at https://www.sjpl.org/locations-map-search. Accessed October 3, 2019.

San José Unified School District, *7-Year Student Population Projections by Residence, Fall 2017–2023*, June 5, 2017.

———, Community Resources, Pay Development Fees. Available at https://www.sjusd.org/your-resources/community-resources/#pay-development-fees. Accessed October 8, 2019.

———, Information Guide. Available at https://www.sjusd.org/docs/district_information/2018_Info_Guide_ENG.pdf. Accessed October 4, 2019.

———, *Looking Toward the Future: San José Unified's Employee Housing Initiative*. Available at https://www.sjusd.org/who-we-are/employee-housing/. Accessed October 8, 2019.

———, Recommendation to the Board of Education RE: current enrollment, enrollment projections, and utilization of District facilities, October 10, 2017.

———, Response to Downtown West Mixed Use Plan Draft EIR: Request for School Enrollment Information, email communication on March 13, 2020.

———, School Site Locator. Available at http://apps.schoolsitelocator.com/?districtcode=25499. Accessed October 8, 2019.

Santa Clara County, *Santa Clara County Trails Master Plan Update*, adopted November 14, 1995. Available at https://www.sccgov.org/sites/parks/PlansProjects/Documents/TrailsMasterPlan/Entire_Countywide_Trails_Master_Plan_Searchable.pdf. Accessed October 9, 2019.

The Mercury News, "Google Buys Downtown San Jose Fire Training Site Needed for Transit Village," June 12, 2019. Available at https://www.mercurynews.com/2019/06/12/google-buys-downtown-san-jose-fire-training-site-needed-for-transit-village/. Accessed October 1, 2019.

7.17 Section 3.13, Transportation

California Department of Transportation, *Guide for the Preparation of Traffic Impact Studies*, 2002. Available at https://nacto.org/docs/usdg/guide_preparation_traffic_impact_studies_caltrans.pdf. Accessed July 15, 2019.

California High-Speed Rail Authority, *2020 Business Plan: Delivering the Vision*, February 2020. Available at https://www.hsr.ca.gov/docs/about/business_plans/2020_Business_Plan.pdf. Accessed March 20, 2020.

California High-Speed Rail Authority, *California High-Speed Rail Project, San Francisco to San José Project Section, Draft Environmental Impact Report/Environmental Impact Statement*, July 2020. Available at https://hsr.ca.gov/programs/environmental/eis_eir/draft_san_francisco_san_jose.aspx.

———, *California High-Speed Rail Project, San Jose to Merced Project Section, Draft Environmental Impact Report/Environmental Impact Statement*, April 2020. Available at https://hsr.ca.gov/programs/environmental/eis_eir/draft_san_jose_merced.aspx.

Caltrain Modernization (CalMod), Project Benefits, Rider Benefits, 2020. Available at https://calmod.org/project-benefits/rider-benefits/. Accessed February 22, 2020.

City of San José, *City of San José Recommended Temporary Traffic Control Plans*, undated. Available at https://www.sanjoseca.gov/home/showdocument?id=19947

———, *Envision San José 2040 General Plan*, adopted November 1, 2011 (amended March 16, 2020). Available at https://www.sanjoseca.gov/home/showdocument?id=22359. Accessed January 16, 2020.

———, *San Jose Complete Streets Design Standards & Guidelines*, May 2018. Available at https://www.sanjoseca.gov/home/showdocument?id=33113.

———, *San José Downtown Streetscape Master Plan*, October 2003. Prepared for the Redevelopment Agency of the City of San José [now defunct].

———, *San José Bike Plan 2020*, November 17, 2009. Available at http://www3.sanjoseca.gov/clerk/Agenda/20091117/20091117_0602att.pdf. Accessed September 23, 2019.

———, *Diridon Station Area Plan*, Final Plan Report, June 2014. Available at https://www.sanjoseca.gov/Home/ShowDocument?id=15739. Accessed September 23, 2019.

———, *Transportation Analysis Handbook*, April 2018. Available at https://www.sanjoseca.gov/home/showdocument?id=28461. Accessed July 15, 2019.

———, *Downtown Strategy 2040, Integrated Final EIR*, December 2018. Available at https://www.sanjoseca.gov/Home/ShowDocument?id=44054.

———, City Council Meeting Minutes, February 4, 2020. Available at https://sanjose.legistar.com/MeetingDetail.aspx?ID=712175&GUID=42B7D295-2384-4896-AA46-B400D3F914C6&Options=info&Search=. Accessed March 20, 2020.

Fehr & Peers, *Use of the City of San José Model and Ridehail Services*, May 2020.

Metropolitan Transportation Commission and Association of Bay Area Governments, *Plan Bay Area 2040*, Final, adopted July 26, 2017. Available at http://2040.planbayarea.org/cdn/ff/buje2Q801oUV3Vpib-FoJ6mkOfWC9S9sgrSgJrwFBgo/1510696833/public/2017-11/Final_Plan_Bay_Area_2040.pdf. Accessed September 22, 2019.

Santa Clara Valley Transportation Authority, *Congestion Management Program Deficiency Plan Requirements*, September 2010. Available at https://www.vta.org/sites/default/files/documents/deficieny_plan_requirements.pdf.

———, *Pedestrian Access to Transit Plan*, Draft Final Plan, 2017. Available at http://vtaorgcontent.s3-us-west-1.amazonaws.com/Site_Content/PedestrianPlan-07-17-2017FINALDRAFT.pdf. Accessed September 23, 2019.

———, *Santa Clara Congestion Management Program (CMP) Document*, December 2017. Available at http://vtaorgcontent.s3-us-west-1.amazonaws.com/Site_Content/2017_CMP_Document.pdf.

———, *Santa Clara Countywide Bicycle Plan*, Final Draft, May 2018. Available at https://www.vta.org/sites/default/files/2019-05/SCCBP_Final%20Plan%20_05.23.2018.pdf.

———, *Transit Service Guidelines*, April 2018. Available at https://www.vta.org/sites/default/files/2019-06/Transit%20Service%20Guidelines%202018%20FINAL.pdf.

———, *Transportation Impact Analysis Guidelines*, adopted October 2014. Available at https://www.vta.org/sites/default/files/documents/VTA_TIA_Guidelines_2014_Full_FINAL.pdf. Accessed July 15, 2019.

———, *VTP2040: The Long-Range Transportation Plan for Santa Clara County*, Available at http://vtaorgcontent.s3-us-west-1.amazonaws.com/Site_Content/VTP2040_final_hi%20res_030315.pdf. Accessed September 23, 2019.

Santa Clara Valley Transportation Authority and City of San José, *Story–Keyes Corridor Complete Streets Study*, February 2018. Available at https://www.vta.org/sites/default/files/documents/Story%2520Keyes%2520Attachment%2520B.pdf.

7.18 Section 3.14, Utilities and Service Systems

Arup, Lendlease & Sherwood Design Engineers, *Google Downtown West Infrastructure Plan*, October 7, 2020.

California Department of Resources Recycling and Recovery, *Revised Solid Waste Facility Permit, Zanker Material Processing Facility*, January 6, 2015. Available at https://www2.calrecycle.ca.gov/swfacilities/Directory/43-AN-0001/Document. Accessed October 11, 2019.

———, *Guadalupe Landfill, City of San José (43-AN-0015), Preliminary Closure & Postclosure Maintenance Plan Technical Adequacy*, June 19, 2017. Available at https://www2.calrecycle.ca.gov/swfacilities/Directory/43-AN-0015/Document. Accessed October 11, 2019.

———, *Kirby Canyon Landfill, City of San José (43-AN-0008), Preliminary Closure and Postclosure Maintenance Plans Review Comments*, August 9, 2019. Available at https://www2.calrecycle.ca.gov/swfacilities/Directory/43-AN-0008/Document. Accessed October 11, 2019.

———, SWIS Facility Detail: Guadalupe Sanitary Landfill (43-AN-0015). Available at https://www2.calrecycle.ca.gov/swfacilities/Directory/43-AN-0015. Accessed October 11, 2019.

———, SWIS Facility Detail: Kirby Canyon Recycl. & Disp. Facility (43-AN-0008). Available at https://www2.calrecycle.ca.gov/swfacilities/Directory/43-AN-0008. Accessed October 11, 2019.

———, SWIS Facility Detail: Newby Island Sanitary Landfill (43-AN-0003). Available at https://www2.calrecycle.ca.gov/SWFacilities/Directory/43-AN-0003/Detail. Accessed October 11, 2019.

———, SWIS Facility Detail: Zanker Material Processing Facility (43-AN-0001). Available at https://www2.calrecycle.ca.gov/swfacilities/Directory/43-AN-0001. Accessed October 11, 2019.

City of San José, *Envision San José 2040 General Plan Draft Program EIR*, June 2011.

———, *Diridon Station Area Plan Draft PEIR*, December 2013.

———, *Diridon Station Area Infrastructure Analysis*, January 31, 2017.

———, *Status Report on Zero Waste Strategic Plan 2022*, February 15, 2017. Available at http://sanjose.granicus.com/MetaViewer.php?meta_id=619657. Accessed October 10, 2019.

———, Staff Memorandum: Status Report on Zero Waste Strategic Plan 2022, February 15, 2017. Available at http://sanjose.granicus.com/metaviewer.php?meta_id=619657.

———, *City of San José Annual Report on City Services 2017–18*, December 2018. Available at https://www.sanjoseca.gov/Home/ShowDocument?id=38849. Accessed October 3, 2019.

———, *City of San José Annual Report on City Services 2018–19*, December 2019. Available at https://www.sanjoseca.gov/home/showdocument?id=49148. Accessed January 16, 2020.

———, *Climate Smart San José: A People-Centered Plan for a Low-Carbon City*. Available at https://www.sanjoseca.gov/your-government/environment/climate-smart-san-jos. Accessed January 23, 2020.

———, *Downtown Strategy 2040 Integrated Final EIR*, December 2018.

———, Green Vision Goals, Zero Waste. Available at https://www.sanjoseca.gov/home/showdocument?id=21999. Accessed January 23, 2020.

———, *Green Vision 2012 Annual Report*. Available at https://www.sanjoseca.gov/Home/ShowDocument?id=658. Accessed January 31, 2020.

Google, *Development Project Application for the Downtown West Mixed-Use Plan*, Appendix C1, *Analysis of GHG Impacts for the Downtown West Mixed-Use Plan*, Table 22, *Solid Waste Landfill Annual Generation*, Final Draft, August 23, 2019. Available at http://opr.ca.gov/ceqa/docs/ab900/20190903-DWSJ_AB900_Application_Appendices.pdf.

Horning, Peggy, personal communication with Environmental Services Department District Systems, City of San José, December 17, 2019.

San José Clean Energy, FAQ. Available at https://www.sanjosecleanenergy.org/faq. Accessed October 12, 2019.

———, The Choice is Yours. Available at https://www.sanjosecleanenergy.org/your-choices. Accessed October 12, 2019.

San Jose Water Company, *2015 Urban Water Management Plan*, Final Report, June 2016. Available at http://wuedata.water.ca.gov/public/uwmp_attachments/5545697867/2015%20UWMP%20with%20Appendices.pdf. Accessed October 23, 2019.

———, *Water Supply Assessment, Downtown West Mixed-Use Project (Google Project)*, January 2020.

San José/Santa Clara Water Pollution Control Plant, *The Plant Master Plan*, November 2013. Available at https://www.sanjoseca.gov/home/showdocument?id=206. Accessed October 23, 2019.

Schaaf & Wheeler, *Google San Jose Storm System Analysis*, January 2020.

Sherwood Design Engineers, *Downtown West Technical Memorandum: Water Reuse Basis of Design*, January 20, 2020.

———, *Downtown West Technical Memorandum: Wastewater Treatment Residuals Management*, January 20, 2020.

———, *Technical Memorandum, Downtown West Mixed-Use Project Water Demands*, March 18, 2020.

SJW Group, *Source to Tap: 2019 Sustainability Report*, undated. Available at: https://www.sjwater.com/sites/default/files/2019-12/SJW-Sustainability-Report-WEB.pdf. Accessed August 11, 2020.

SWT Engineering, *Newby Island Sanitary Landfill Partial Final Closure/Post-Closure Maintenance Plan*, November 2015. Available at https://www2.calrecycle.ca.gov/swfacilities/Document/GetDocument/299964. Accessed October 11, 2019.

7.19 Chapter 4, Other CEQA Issues

Economic & Planning Systems, Inc., Economic Impact of Operations at Downtown West, EPS #201019, Memorandum to Lendlease at Google, July 14, 2020.

7.20 Chapter 5, Alternatives

City of San Jose, *Riparian Corridor Protection and Bird-Safe Design* (Policy 6-34), approved August 23, 2016. Available at https://www.sanjoseca.gov/home/showdocument?id=12815.