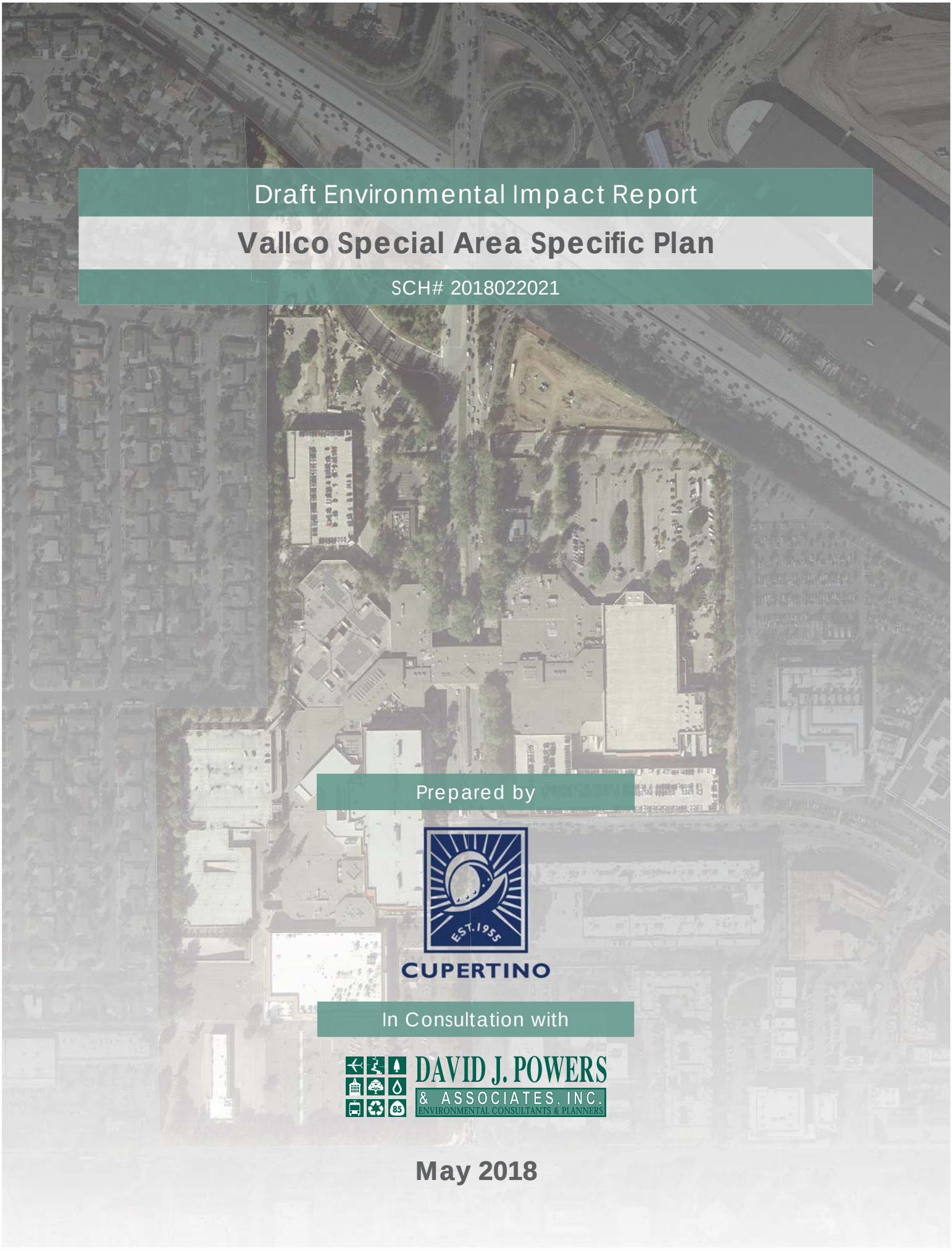

Draft Environmental Impact Report

Vallco Special Area Specific Plan

SCH# 2018022021

Prepared by

CUPERTINO

In Consultation with

DAVID J. POWERS & ASSOCIATES, INC.
ENVIRONMENTAL CONSULTANTS & PLANNERS

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ACRONYMS AND ABBREVIATIONS

Acronym/Abbreviation	Definition
AB	Assembly Bill
ABAG	Association of Bay Area Governments
ACM	Asbestos containing material
ADA	Americans with Disabilities Act
AFY	acre-feet per year
BAAQMD	Bay Area Air Quality Management District
BART	Bay Area Rapid Transit
BMP	Best Management Practices
Btu	British thermal unit
C&D	Construction and demolition
Cal/OSHA	California Occupational Safety and Health Administration
CalARP	California Accidental Release Prevention
CalEPA	California Environmental Protection Agency
CALGreen	California Green Building Standards Code
Caltrans	California Department of Transportation
CAP	Clean Air Plan
CARB	California Air Resources Board
CBC	California Building Code
CBSC	California Building Standards Code
CDFW	California Department of Fish and Wildlife
CEQA	California Environmental Quality Act
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CFR	Code of Federal Regulations
CH_4	Methane
CHMIRS	California Hazardous Material Incident Report System
CIWMB	California Integrated Waste Management Board
CMP	Congestion Management Program
CNEL	Community Noise Equivalent Level
CO	Carbon monoxide
CO_2	Carbon dioxide

Acronym/Abbreviation	Definition
CO_2e	Carbon dioxide equivalent
CRHR	California Register of Historical Resources
CUPA	Certified Unified Program Agency
CuSD	Cupertino Sanitary District
CUSD`	Cupertino Union School District
CVP	San Felipe Division of the Federal Central Valley Project
dB	Decibel
dBA	A-weight decibel
DNL	Day-Night Level
DPM	Diesel Particulate Matter
DTSC	Department of Toxic Substances Control
du/ac	Dwelling units per acre
EIR	Environmental Impact Report
EMI	Emissions Inventory
EPA	Environmental Protection Agency
ERNS	Emergency Response Notification System
ESL	Environmental Screening Levels
FEMA	Federal Emergency Management Agency
FIRM	Flood Insurance Rate Maps
FMMP	Farmland Mapping and Monitoring Program
FUHSD	Fremont Union High School District
General Plan EIR	Cupertino General Plan Community Vision 2015-2040 Final EIR
GHG	Greenhouse gas
GWDR	General Waste Discharge Requirements
GWh	Gigawatt-hours
HCM	Highway Capacity Manual
HI	Hazard Index
HMP	Hydromodification Program
HOV	High-Occupancy Vehicle
in/sec	Inches per second
ITE	Institute of Transportation Engineers
IWMP	Integrated Waste Management Plan

Acronym/Abbreviation	Definition
kW	kilowatt
kWh	kilowatt hour
LAS District	Los Altos Suburban District
LEED	Leadership in Energy and Environmental Design
L_{eq}	Noise Equivalent Level
LID	Low Impact Development
L_{max}	maximum A-weighted noise level
LOS	Level of Service
LUST	Leaking Underground Storage Tank
MBTA	Migratory Bird Treaty Act
MEI	Maximum Exposed Individual
mm/sec	Millimeters per second
$MMTCO_2e$	Million metric tons of carbon dioxide equivalent
mph	miles per hour
MRP	Municipal Regional Permit
MT	metric tons
MTC	Metropolitan Transportation Commission
$MTCO_2e$	Metric tons of carbon dioxide equivalent
N_2O	Nitrous oxide
NAHC	Native American Heritage Commission
NESHAP	National Emissions Standards for Hazardous Air Pollutants
NFIP	National Flood Insurance Program
NISL	Newby Island Sanitary Landfill
NOD	Notice of Determination
NOI	Notice of Intent
NOP	Notice of Preparation
NO_x	nitrogen oxides
NPDES	National Pollutant Discharge Elimination System
NRHP	National Register of Historic Places
O_3	Ozone
OITC	Outdoor-Indoor Transmission Class
PDA	Priority Development Area

Acronym/Abbreviation	Definition
PG&E	Pacific Gas & Electric
PM_{10}	particulate matter
$PM_{2.5}$	fine particulate matter
PPV	Peak Particle Velocity
R&D	Research and Development
RCRA	Resource Conservation and Recovery Act
RHNA	Regional Housing Needs Allocation
RPS	Renewables Portfolio Standard
RWF	San José-Santa Clara Regional Wastewater Facility
RWQCB	Regional Water Quality Control Board
SB	Senate Bill
SCCDEH	Santa Clara County Department of Environmental Health
SCCFD	Santa Clara County Fire Department
SCCLD	Santa Clara County Library District
SCVWD	Santa Clara Valley Water District
SFHA	Special Flood Hazard Areas
SGR	Student generation rate
SHMA	Seismic Hazards Mapping Act
SHPO	State Office of Historic Preservation
SMP	Site Management Plan
SO_x	Sulfur oxides
SR	State Route
SSMP	Sewer System Management Plan
STC	Sound Transmission Class
STEM	Science Technology Engineering and Mathematics
SVCE	Silicon Valley Clean Energy
SWP	State Water Project
SWPPP	Stormwater Pollution Prevention Plan
SWRCB	State Water Resources Control Board
TAC	Toxic Air Contaminants
TDM	Transportation Demand Management
US	United States

Acronym/Abbreviation	Definition
USACE	United States Army Corps of Engineers
USFWS	United States Fish and Wildlife Service
Vallco Special Area	Vallco Shopping District Special Area
VOC	Volatile Organic Compounds
vphpl	vehicles per hour per lane
VTA	Valley Transportation Authority
VTA/-C/CAG	City/County Association of Governments of San Mateo County travel demand model
WCMP	Water Conservation Master Plan
WPCP	Water Pollution Control Plant
WSA	Water Supply Assessment

SUMMARY

The City of Cupertino, as the Lead Agency, has prepared this Draft Environmental Impact Report (EIR) for the Vallco Special Area Specific Plan project in compliance with the California Environmental Quality Act (CEQA) and the CEQA Guidelines.

As the CEQA Lead Agency for this project, the City of Cupertino 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, significant environmental impacts including growth-inducing impacts, cumulative impacts, mitigation measures, and alternatives. It is not the intent of an EIR to recommend either approval or denial of a project.

Summary of the Project

The Vallco Special Area Specific Plan (project site) comprises approximately 70 acres, approximately 58 acres of which is currently available for development. The developable area consists of multiple parcels and is located on both sides of North Wolfe Road – between Vallco Parkway and Interstate 280 (I-280) on the east side of North Wolfe Road and between Stevens Creek Boulevard and Vallco Parkway on the west side of North Wolfe Road – in the City of Cupertino. Approximately 51 acres of the project site is currently developed with the Vallco Shopping Mall (approximately 1.2 million square feet) and associated parking facilities, and the remaining areas are developed with roadways, a 148-room hotel (Hyatt House Hotel, currently under construction), and a surface parking lot (Simeon property).

The City is currently undertaking a community-based planning process to develop a Specific Plan for the Vallco Special Area. The proposed project is the adoption of the community-developed Vallco Special Area Specific Plan and associated General Plan and Zoning Code amendments. The EIR evaluates the development parameters of the proposed Specific Plan to disclose the significant environmental effects of its implementation.

Consistent with the adopted General Plan, the proposed Specific Plan would facilitate development of a minimum of 600,000 square feet of commercial uses, up to 2.0 million square feet of office uses, up to 339 hotel rooms, and up to 800 residential dwelling units on-site. The proposed Specific Plan development reflects the buildout assumptions (including the adopted residential allocation available) for the site in the City's adopted General Plan. In addition, the project includes up to 65,000 square feet of civic spaces in the form of governmental office space, meeting rooms and community rooms and a Science Technology Engineering and Mathematics (STEM) lab, as well as a 30-acre green roof.

Summary of the Project Alternatives

As a result of the planning process and scoping for environmental review, which is described in Sections 1.2 (EIR Process), 7.1 (Factors in Selecting and Evaluating Alternatives), and 7.2 (Selection of Alternatives), the City identified the following three project alternatives to the proposed project for review in the EIR, in addition to the No Project alternative required by CEQA:

- General Plan Buildout with Maximum Residential,
- Retail and Residential, and
- Occupied/Re-Tenanted Mall.

The impacts of the project, the three project alternatives, and the No Project alternative are described and evaluated in Sections 7.2.2 and 7.2.3are evaluated in this EIR. The table below summarizes the development assumptions for the project and each of the three project alternatives.

Summary of Project and Project Alternative Development

	Land Uses					
	Commercial (square footage)	**Office** (square footage)	**Hotel** (rooms)	**Residential** (dwelling units)	**Civic Space** (square feet)	**Green Roof** (acres)
Proposed Specific Plan	600,000	2,000,000	339	800	65,000	30
Project Alternatives						
General Plan Buildout with Maximum Residential Alternative	600,000	1,000,000	339	2,640	65,000	30
Retail and Residential Alternative	600,000	0	339	4,000	0	0
Occupied/Re-Tenanted Mall Alternative	1,207,774	0	148	0	0	0

Summary of Significant Impacts and Mitigation Measures

The following table is a brief summary of the significant environmental impacts of the project and project alternatives identified and discussed in the EIR, and the mitigation measures proposed to avoid or reduce those impacts. Refer to the main body of the EIR for detailed discussions of the existing setting, impacts, and mitigation measures.

Summary of Impacts and Mitigation Measures	
Impact	**Mitigation Measures**
Air Quality	
Impact AQ-2: The construction of the project (and General Plan Buildout with Maximum Residential Alternative and Retail and Residential Alternative) would violate air quality standard or contribute substantially to an existing or projected air quality violation. **Significant and Unavoidable Impact with Mitigation Incorporated**	**MM AQ-2.1:** Future development under the proposed project (and General Plan Buildout with Maximum Residential Alternative or Retail and Residential Alternative) shall implement the following BAAQMD-recommended measures to control dust, particulate matter, and diesel emissions during construction: *Basic Measures* 1. All exposed surfaces (e.g., parking areas, staging areas, soil piles, graded areas, and unpaved access roads) shall be watered two times per day. 2. All haul trucks transporting soil, sand, or other loose material off-site shall be covered. 3. 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. 4. All vehicle speeds on unpaved roads shall be limited to 15 miles per hour (mph). 5. 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. 6. Idling times shall be minimized either by shutting equipment off when not in use or reducing the maximum idling time to five minutes (as required by the California airborne toxics control measure Title 13, Section 2485 of California Code of Regulations [CCR]). Clear signage shall be provided for construction workers at all access points. 7. All construction equipment shall be maintained and properly tuned in accordance with manufacturer's specifications. All equipment shall be checked by a certified mechanic and determined to be running in proper condition prior to operation. 8. Post a publicly visible sign with the telephone number and person to contact at the Lead Agency regarding dust complaints. This person shall respond and take corrective action within 48 hours. The Air District's phone number shall also be visible to ensure compliance with applicable regulations. *Applicable Enhanced Control Measures* 9. All exposed surfaces shall be watered at a frequency adequate to maintain minimum soil moisture of 12 percent. Moisture content can be verified by lab samples or moisture probe.

Summary of Impacts and Mitigation Measures	
Impact	**Mitigation Measures**
	10. All excavation, grading, and/or demolition activities shall be suspended when average wind speeds exceed 20 mph and visible dust extends beyond site boundaries. 11. Wind breaks (e.g., trees, fences) shall be installed on the windward side(s) of actively disturbed areas of construction adjacent to sensitive receptors. Wind breaks should have at maximum 50 percent air porosity. 12. 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. 13. The simultaneous occurrence of excavation, grading, and ground-disturbing construction activities on the same area at any one time shall be limited. Activities shall be phased to reduce the amount of disturbed surfaces at any one time. 14. Avoid tracking of visible soil material on to public roadways by employing the following measures if necessary: (1) Site accesses to a distance of 100 feet from public paved roads shall be treated with a 6 to 12 inch compacted layer of wood chips, mulch, or gravel and (2) washing truck tires and construction equipment of prior to leaving the site. 15. Sandbags or other erosion control measures shall be installed to prevent silt runoff to public roadways from sites with a slope greater than one percent. 16. Minimizing the idling time of diesel powered construction equipment to two minutes. *Exhaust Control Measures* 17. The project shall develop a plan demonstrating that the off-road equipment (more than 25 horsepower) to be used in the construction project (i.e., owned, leased, and subcontractor vehicles) would achieve a project wide fleet-average 25 percent NO_x reduction and 65 percent PM (particulate matter) exhaust reduction compared to the CalEEMod modeled average used in this report. Acceptable options for reducing emissions include the use of late model engines, low-emission diesel products, alternative fuels, engine retrofit technology, after-treatment products, add-on devices such as particulate filters, and/or other options as such become available. The following are feasible methods: • All construction equipment larger than 25 horsepower used at the site for more than two continuous days or 20 hours total shall meet EPA Tier 4 emission standards for NO_x and PM, where feasible. • All construction equipment larger than 25 horsepower used at the site for more than two continuous days or 20 hours total shall meet EPA emission standards for Tier 3 engines and

Summary of Impacts and Mitigation Measures	
Impact	**Mitigation Measures**
	include particulate matter emissions control equivalent to CARB Level 3 verifiable diesel emission control devices that altogether achieve an 85 percent reduction in particulate matter exhaust. • Use of alternatively-fueled equipment with lower NO_x emissions that meet the NO_x and PM reduction requirements above. • Diesel engines, whether for off-road equipment or on-road vehicles, shall not be left idling for more than two minutes, except as provided in exceptions to the applicable state regulations (e.g., traffic conditions, safe operating conditions). The construction sites shall have posted legible and visible signs in designated queuing areas and at the construction site to clearly notify operators of idling limit. • All on-road heavy-duty diesel trucks with a gross vehicle weight rating of 33,000 pounds or greater (EMFAC Category HDDT) used at the project site (such as haul trucks, water trucks, dump trucks, and concrete trucks) shall be model year 2010 or newer. • Develop a Transportation Demand Management program for construction worker travel to reduce worker trips by 10 percent. • Provide line power to the site during the early phases of construction to minimize the use of diesel powered stationary equipment, such as generators. • Enforce idling limit of two minutes unless subject to state law exemptions (e.g., safety issues).
Impact AQ-3: The operation of the project (and General Plan Buildout with Maximum Residential Alternative and Retail and Residential Alternative) would violate air quality standard or contribute substantially to an existing or projected air quality violation. **Significant and Unavoidable Impact with Mitigation Incorporated**	**MM AQ-3.1:** Future development under the proposed project (and General Plan Buildout with Maximum Residential Alternative or Retail and Residential Alternative) shall use low-VOC paint (i.e., 50 g/L or less) on operational architectural coatings and no hearths or fireplaces (including natural gas-powered) shall be installed in the residential units.

Summary of Impacts and Mitigation Measures	
Impact	**Mitigation Measures**
Impact AQ-4: The proposed project (and General Plan Buildout with Maximum Residential Alternative and Retail and Residential Alternative) would result in a cumulatively considerable net increase of criteria pollutants (ROG, NOx, PM_{10}, and/or $PM_{2.5}$) for which the project region is non-attainment under an applicable federal or state ambient air quality standard. **Significant and Unavoidable Impact with Mitigation Incorporated**	**MM AQ-4.1:** Implement MM AQ-3.1.
Impact AQ-6: The proposed project (and General Plan Buildout with Maximum Residential Alternative and Retail and Residential Alternative) would expose sensitive receptors to substantial construction dust and diesel exhaust emissions concentrations. **Significant and Unavoidable Impact with Mitigation Incorporated**	**MM AQ-6.1:** Implement MM AQ-2.1 and -2.2.

Summary of Impacts and Mitigation Measures	
Impact	**Mitigation Measures**
Impact AQ-7: The proposed project (and General Plan Buildout with Maximum Residential Alternative and Retail and Residential Alternative) would expose sensitive receptors to substantial TAC pollutant concentrations. **Less than Significant Impact with Mitigation Incorporated**	**MM AQ-7.1:** Future development under the proposed project (and General Plan Buildout with Maximum Residential Alternative and Retail and Residential Alternative) shall implement mitigation measure MM AQ-2.1 to reduce on-site diesel exhaust emissions, which would thereby reduce the maximum cancer risk due to construction of the project (and General Plan Buildout with Maximum Residential Alternative and Retail and Residential Alternative).
Impact AQ-9: Implementation of the proposed project (and General Plan Buildout with Maximum Residential Alternative and Retail and Residential Alternative) would cumulatively contribute to cumulatively significant air quality impacts in the San Francisco Bay Area Air Basin. **Significant and Unavoidable Impact with Mitigation Incorporated**	**MM AQ-9.1:** Implement MM AQ-3.1.
Cultural Resources	
Impact CR-2: The project (and General Plan Buildout with Maximum Residential Alternative and Retail and Residential Alternative) would not significantly impact archaeological resources, human remains, or tribal cultural resources.	**MM CR-2.1:** A qualified archaeological monitor shall be retained by the project proponent for future development under the proposed project (or General Plan Buildout with Maximum Residential Alternative or Retail and Residential Alternative) to inspect the ground surface at the completion of demolition activities as they occur to search for archaeological site indicators. In the event that any indicators are discovered, work shall be halted within a sensitivity zone to be determined by the archaeologist. The archaeologist shall prepare a plan for the evaluation of the

Summary of Impacts and Mitigation Measures	
Impact	**Mitigation Measures**
Less than Significant Impact with Mitigation Incorporated	resource to the CRHP and submit the plan to the Cupertino Planning Department for review and approval prior to any construction related earthmoving within the identified zone of archaeological sensitivity. The plan shall also include appropriate recommendations regarding the significance of the find and the appropriate mitigation. The identified mitigation shall be implemented and can take the form of limited data retrieval through hand excavation coupled with continued archaeological monitoring inside of the archaeologically sensitive zone to ensure that significant data and materials are recorded and/or removed for analysis. Monitoring also serves to identify and thus limit damage to human remains and associated grave goods. **MM CR-2.2:** Pursuant to Section 7050.5 of the Health and Safety Code and Section 5097.94 of the Public Resources Code of the State of California, in the event of the discovery of human remains during construction of the proposed project (or General Plan Buildout with Maximum Residential Alternative or Retail and Residential Alternative), there shall be no further excavation or disturbance of the site within a 100-foot radius of the remains or any nearby area reasonably suspected to overlie adjacent remains. The Santa Clara County Coroner shall be notified and shall make a determination as to whether the remains are Native American. If the Coroner determines that the remains are not subject to his authority, he shall notify the NAHC within 24 hours. The NAHC shall attempt to identify descendants of the deceased Native American. If no satisfactory agreement can be reached as to the disposition of the remains pursuant to this State law, then the land owner shall re-inter the human remains and items associated with Native American burials on the property in a location not subject to further subsurface disturbance. **MM CR-2.3:** If archaeological resources are identified during construction of the proposed project (or General Plan Buildout with Maximum Residential Alternative or Retail and Residential Alternative), a final report summarizing the discovery of cultural materials shall be submitted to the City's Project Planner prior to issuance of building permits. This report shall contain a description of the mitigation program that was implemented and its results, including a description of the monitoring and testing program, a list of the resources found and conclusion, and a description of the disposition/curation of the resources. **MM CR-2.4:** The City of Cupertino shall coordinate with the applicable Native American tribal representatives following approval of a development on-site under the proposed project (or General Plan

Summary of Impacts and Mitigation Measures	
Impact	**Mitigation Measures**
	Buildout with Maximum Residential Alternative or Retail and Residential Alternative). Cultural sensitivity training shall be provided to all contractors prior to the start of ground-disturbing activities.
Impact CR-4: The project (and General Plan Buildout with Maximum Residential Alternative and Retail and Residential Alternative) would not result in a considerable contribution to a significant cumulative cultural resources impact. **Less than Significant Impact with Mitigation Incorporated**	**MM CR-4:** Implement mitigation measures MM CR-2.1 through -2.4.
Greenhouse Gas	
Impact GHG-1: The project (and General Plan Buildout with Maximum Residential Alternative) would not generate cumulatively considerable GHG emissions that would result in a significant cumulative impact to the environment. **Less than Significant Cumulative Impact with Mitigation Incorporated**	**MM GHG-1.1:** Under the proposed project (and General Plan Buildout with Maximum Residential Alternative and Retail and Residential Alternative), the project proponent shall prepare and implement a GHG Reduction Plan to offset the project (or General Plan Buildout with Maximum Residential Alternative)-related incremental increase of greenhouse gas emissions resulting in the exceedance of the significance threshold of 2.6 $MTCO_2e$/year/service population. Refinement of the estimated GHG emissions from the project (or General Plan Buildout with Maximum Residential Alternative) shall be completed as part of the GHG Reduction Plan in order to reflect the most current and accurate data available regarding the project's estimated emissions (including emission rates). The GHG Reduction Plan shall include the implementation of a qualifying TDM program reduce mobile GHG emissions. Additional offsets may include, but are not limited to, the following: • Construct on-site or fund off-site carbon sequestration projects (such as a forestry or wetlands projects for which inventory and reporting protocols have been adopted). If the project (or General Plan Buildout with Maximum Residential Alternative) develops an off-site project, it must be registered with the Climate Action Reserve or otherwise approved by BAAQMD in order to be used to offset project (or General Plan Buildout with Maximum Residential Alternative) emissions; and/or • Purchase of carbon credits to offset project (or General Plan Buildout with Maximum Residential Alternative) annual emissions. Carbon offset credits shall be verified and registered with The Climate Registry, the Climate Action Reserve, or another source approved by CARB or

Summary of Impacts and Mitigation Measures	
Impact	**Mitigation Measures**
	BAAQMD. The preference for offset carbon credit purchases include those that can be achieved as follows: 1) within the City; 2) within the San Francisco Bay Area Air Basin; 3) within the State of California; then 4) elsewhere in the United States. Provisions of evidence of payments, and funding of an escrow-type account or endowment fund would be overseen by the City.
Hazards and Hazardous Materials	
Impact HAZ-1: The project (and General Plan Buildout with Maximum Residential Alternative and Retail and Residential Alternative) would not create a significant hazard to the public or the environment through routine transport, use, disposal, or foreseeable upset of hazardous materials; or emit hazardous emissions or hazardous materials within one-quarter mile of an existing or proposed school. **Less than Significant with Mitigation Incorporated**	**MM HAZ-1.1:** A Site Management Plan (SMP) and Health and Safety Plan (HSP) shall be prepared and implemented for demolition and redevelopment activities under the proposed project (and the General Plan Buildout with Maximum Residential Alternative and Retail and Residential Alternative). The purpose of the SMP and HSP is to establish appropriate management practices for handling impacted soil, soil vapor, and groundwater or other materials that may potentially be encountered during construction activities, especially in areas of former hazardous materials storage and use, and the profiling of soil planned for off-site disposal and/or reuse on-site. The SMP shall document former and suspect UST locations, hazardous materials transfer lines, oil-water separators, neutralization chambers, and hydraulic lifts, etc. The SMP shall also identify the protocols for accepting imported fill materials, if needed. The SMP shall be submitted to the City and CCDEH for approval prior to commencement of construction (including demolition) activities. **MM HAZ-1.2:** The site contains equipment and facilities associated with past activities that are known to or may contain residual hazardous materials. The following measures shall be implemented under the proposed project (and the General Plan Buildout with Maximum Residential Alternative and Retail and Residential Alternative) during building demolition and shall be indicated on demolition plans: • Sears and JC Penney Automotive Centers: – Sears: Remnant piping that appears to have formerly distributed grease, oil and transmission fluid from storage locations to the service bays located along interior building walls, ceilings and within the basement shall be properly removed and disposed, and stains and residual oil shall be cleaned from the interior building surfaces. This work shall be coordinated with the SCCFD. – Sears: The below ground oil-water separator (connected to floor drains within the building) and an acid neutralization chamber (connected to drains within a former battery storage room) shall be cleaned and removed. This work shall be coordinated with the SCCFD and

Summary of Impacts and Mitigation Measures	
Impact	**Mitigation Measures**
	SCCDEH. Soil quality below each of the structures shall be evaluated via sampling and laboratory analyses. – Sears: The potential presence of a waste oil UST shall be further investigation by removing the access cover and, if uncertainty remains, the subsequent performance of a geophysical survey. If a UST is identified, it shall be removed in coordination with the SCCFD and SCCDEH, and underlying soil quality shall be evaluated. If no UST is identified, soil quality at the location of the waste oil UST, as depicted on the 1969 building plan, shall be evaluated via the collection of soil samples from borings for laboratory analyses. – Sears and JC Penney: Each of the below-ground lift casings and any associated hydraulic fluid piping and reservoirs from hydraulic lifts shall be removed and properly disposed. An Environmental Professional shall be retained to observe the removal activities and, if evidence of leakage is identified, soil sampling and laboratory analyses shall be conducted. – JC Penney: The 750 gallon oil-water separator shall be properly removed and appropriately disposed during redevelopment activities. • Existing staining and spilled oil on-site, including at the Sears Automotive Center and Cupertino Ice Center, shall be properly cleaned. When these facilities are demolished, an Environmental Professional shall be present to observe underlying soil for evidence of potential impacts and, if observed, collect soil samples for laboratory analyses. • If the lead-based paint on-site is flaking, peeling, or blistering, it shall be removed prior to demolition. Applicable OSHA regulations shall be followed; these include requirements for worker training and air monitoring and dust control. Any debris containing lead shall be disposed appropriately. • An asbestos survey shall be completed of the buildings prior to their demolition in accordance with the National Emissions Standards for Hazardous Air Pollutants (NESHAP) guidelines. NESHAP guidelines require the removal of potentially friable ACMs prior to building demolition or renovation that may disturb the ACM. • Once existing buildings and improvements are removed, soil sampling shall be completed to evaluate if agricultural chemicals and lead are present. The agricultural pesticide sampling shall focus on former orchard and row crop areas, as well as in the vicinity of outbuilding (barns and sheds) that were formerly located of the southeast portion of the site. Testing for lead contamination shall be completed at the former structure locations. The sampling, which shall follow commonly accepted environmental protocols, shall be performed prior to soil excavation activities in order to appropriately profile the soil for off-haul to a disposal facility. The

Summary of Impacts and Mitigation Measures	
Impact	**Mitigation Measures**
	analytical data shall be compared to either residential screening levels and/or the specific acceptance criteria of the accepting facility. If this soil is planned to be reused on-site, it shall be compared to residential screening levels and/or natural background levels of metals. **MM HAZ-1.3:** Prior to issuance of demolition and/or grading permits, groundwater monitoring wells shall be properly destroyed in accordance with the SCVWD Ordinance 90-1. **MM HAZ-1.4:** As part of the facility closure process for occupants that use and/or store hazardous materials, the SCCFD and SCCDEH typically require that a closure plan be submitted by the occupant that describes required closure activities, such as removal of remaining hazardous materials, cleaning of hazardous material handling equipment, decontamination of building surfaces, and waste disposal practices, among others. Facility closures shall be coordinated with the Fire Department and SCCDEH to ensure that required closure activities are completed prior to issuance of demolition and/or grading permits.
Impact HAZ-6: The project (and General Plan Buildout with Maximum Residential Alternative and Retail and Residential Alternative) would not have a considerable contribution to a significant cumulative hazardous materials impact. **Less than Significant Cumulative Impact with Mitigation Incorporated**	**MM HAZ-6.1:** Implement MM HAZ-1.1 through -1.4.
Noise and Vibration	
Impact NOI-1: The project (and General Plan Buildout with Maximum Residential Alternative and Retail and Residential Alternative) would not expose persons to or generation of noise levels in excess of standards established in the General Plan	**Construction Noise** **MM NOI-1.1:** Construction activities under the proposed project (or General Plan Buildout with Maximum Residential Alternative or Retail and Residential Alternative) shall be conducted in accordance with provisions of the City's Municipal Code which limit temporary construction work to daytime hours,[1] Monday through Friday. Construction is prohibited on weekends and all holidays. Further, the City requires that all equipment have high-quality noise mufflers and abatement devices

[1] Per Municipal Code Section 10.48.010, daytime is defined as the period from 7:00 AM to 8:00 PM weekdays.

Summary of Impacts and Mitigation Measures	
Impact	**Mitigation Measures**
Municipal Code, or applicable standard of other agencies. **Significant and Unavoidable Impact with Mitigation Incorporated**	installed and are in good condition. Additionally, the construction crew shall adhere to the following construction best management practices listed in MM NOI-1.2 below to reduce construction noise levels emanating from the site and minimize disruption and annoyance at existing noise-sensitive receptors in the project vicinity. **MM NOI-1.2:** Future development shall implement a construction noise control plan, including, but not limited to, the following available controls: • Construct temporary noise barriers, where feasible, to screen stationary noise-generating equipment. Temporary noise barrier fences would provide a five dBA noise reduction if the noise barrier interrupts the line-of-sight between the noise source and receptor and if the barrier is constructed in a manner that eliminates any cracks or gaps. • Equip all internal combustion engine-driven equipment with intake and exhaust mufflers that are in good condition and appropriate for the equipment. • Unnecessary idling of internal combustion engines shall be strictly prohibited. • Locate stationary noise-generating equipment, such as air compressors or portable power generators, as far as possible from sensitive receptors as feasible. If they must be located near receptors, adequate muffling (with enclosures where feasible and appropriate) shall be used to reduce noise levels at the adjacent sensitive receptors. Any enclosure openings or venting shall face away from sensitive receptors. • Utilize "quiet" air compressors and other stationary noise sources where technology exists. • Construction staging areas shall be established at locations that would create the greatest distance between the construction-related noise sources and noise-sensitive receptors nearest the project site during all project construction. • Locate material stockpiles, as well as maintenance/equipment staging and parking areas, as far as feasible from residential receptors. • Control noise from construction workers' radios to a point where they are not audible at existing residences bordering the project site. • If impact pile driving is proposed, temporary noise control blanket barriers shall shroud pile drivers or be erected in a manner to shield the adjacent land uses. • If impact pile driving is proposed, foundation pile holes shall be pre-drilled to minimize the number of impacts required to seat the pile. Pre-drilling foundation pile holes is a standard construction noise control technique. Pre-drilling reduces the number of blows required to seat the pile. Notify all adjacent land uses of the construction schedule in writing.

Summary of Impacts and Mitigation Measures	
Impact	**Mitigation Measures**
	• The contractor shall prepare a detailed construction schedule for major noise-generating construction activities and provide it to adjacent land uses. The construction plan shall identify a procedure for coordination with adjacent residential land uses so that construction activities can be scheduled to minimize noise disturbance. • Designate a "disturbance coordinator" who would be responsible for responding to any complaints about construction noise. The disturbance coordinator would determine the cause of the noise complaint (e.g., bad muffler, etc.) and would require that reasonable measures be implemented to correct the problem. The telephone number for the disturbance coordinator shall be conspicuously posted at the construction site and included in the notice sent to neighbors regarding the construction schedule. **Mechanical Equipment Noise** **MM NOI-1.3:** A qualified acoustical consultant shall be retained for development under the proposed project (and General Plan Buildout with Maximum Residential Alternative and Retail and Residential Alternative) to review mechanical noise, as these systems are selected, to determine specific noise reduction measures necessary to ensure noise complies with the City's noise level requirements. Mechanical equipment shall be selected and designed to reduce impacts on surrounding uses to meet the City's noise level requirements. Noise reduction measures could include, but are not limited to: • Selection of equipment that emits low noise levels; • Installation of noise barriers, such as enclosures and parapet walls, to block the line-of-sight between the noise source and the nearest receptors; • Locating equipment in less noise-sensitive areas, where feasible. **Truck Loading and Unloading** **MM NOI-1.4:** Section 10.48.062 prohibits deliveries between 8:00 PM and 8:00 AM on weekdays and between 6:00 PM and 9:00 AM on weekends and holidays, which shall be enforced as part of the proposed project and all project alternatives. Additionally, the effect of loading zone activities would be evaluated for noise impacts and help determine design decisions once project-specific information for the project (or General Plan Buildout with Maximum Residential Alternative or Retail and Residential Alternative), such as type and size of the commercial uses, hours of operation, frequency of deliveries,

Summary of Impacts and Mitigation Measures	
Impact	**Mitigation Measures**
	and location of loading zones, is available. Noise reduction measures could include, but are not limited to, the following: • Move loading zones inside (e.g., within parking structures), where possible, and as far from adjacent residential uses as possible. • Implement a no idling policy at all locations that requires engines to be turned off after five minutes. • Recess truck docks into the ground or locate them within parking structures. • Equip loading bay doors with rubberized gasket type seals to allow little loading noise to escape. **MM NOI-1.5:** Prior to issuance of building permits, a noise study shall be completed to determine noise levels due to truck deliveries at the proposed buildings, and the specific noise control that shall be implemented to reduce noise levels below the City's thresholds at adjacent residential property lines shall be identified.
Impact NOI-2: The project (and General Plan Buildout with Maximum Residential Alternative and Retail and Residential Alternative) would not expose persons to or generation of excessive groundborne vibration. **Less than Significant with Mitigation Incorporated**	**MM NOI-2.1:** Where vibration levels due to construction activities under the proposed project (or General Plan Buildout with Maximum Residential Alternative or Retail and Residential Alternative) would exceed 0.3 in/sec PPV at nearby sensitive uses, development shall: • Comply with the construction noise ordinance to limit hours of exposure. The City's Municipal Code allows construction noise to exceed limits discussed in Section 10.48.040 during daytime hours. No construction is permitted on Sundays or holidays. • In the event pile driving would be required, all receptors within 300 feet of the project site shall be notified of the schedule a minimum of one week prior to its commencement. The contractor shall implement "quiet" pile driving technology (such as pre-drilling of piles, the use of more than one pile driver to shorten the total pile driving duration, or the use of portable acoustical barriers), in consideration of geotechnical and structural requirements and conditions. • To the extent feasible, the project contractor shall phase high-vibration generating construction activities, such as pile driving/ground-impacting operations, so they do not occur at the same time with demolition and excavation activities in locations where the combined vibrations would potentially impact sensitive areas. • The project contractor shall select demolition methods not involving impact tools, where possible (for example, milling generates lower vibration levels than excavation using clam shell or chisel drops). • The project contractor shall avoid using vibratory rollers and packers near sensitive areas.

Summary of Impacts and Mitigation Measures	
Impact	**Mitigation Measures**
	• Impact pile driving shall be prohibited within 90 feet of an existing structure surrounding the project site. Vibratory pile driving shall be prohibited within 60 feet of an existing structure surrounding the project site. • Prohibit the use of heavy vibration-generating construction equipment, such as vibratory rollers or clam shovel, within 20 feet of any adjacent sensitive land use. • If pile driving is required in the vicinity of vibration-sensitive structures adjacent to the project site, survey conditions of existing structures and, when necessary, perform site-specific vibration studies to direct construction activities. Contractors shall continue to monitor effects of construction activities on surveyed sensitive structures and offer repair or compensation for damage. • Construction management plans for substantial construction projects, particularly those involving pile driving, shall include predefined vibration reduction measures, notification requirements for properties within 200 feet of scheduled construction activities, and contact information for on-site coordination and complaints.
Impact NOI-3: The project (and General Plan Buildout with Maximum Residential Alternative and Retail and Residential Alternative) would result in a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project. **Significant and Unavoidable Impact with Mitigation Incorporated**	**MM NOI-3.1:** Future development under the proposed project (and General Plan Buildout with Maximum Residential Alternative and Retail and Residential Alternative) shall implement available measures to reduce project-generated noise level increases from project traffic on Perimeter Road. The noise attenuation measures shall be studied on a case-by-case basis at receptors that would be significantly impacted. Noise reduction methods could include the following: • New or larger noise barriers or other noise reduction techniques constructed to protect existing residential land uses. Final design of such barriers shall be completed during project level review. • Alternative noise reduction techniques, such as re-paving Perimeter Road with "quieter" pavement types including Open-Grade Rubberized Asphaltic Concrete. The use of "quiet" pavement can reduce noise levels by two to five dBA, depending on the existing pavement type, traffic speed, traffic volumes, and other factors. • Traffic calming measures to slow traffic, such as speed bumps. • Building sound insulation for affected residences, such as sound-rated windows and doors, on a case-by-case basis as a method of reducing noise levels in interior spaces.
Impact NOI-4: The project (and General Plan Buildout with Maximum Residential Alternative and Retail and Residential Alternative) would result in a substantial temporary or periodic increase in ambient	**MM NOI-4:** Implement MM NOI-1.1 and -1.2.

Summary of Impacts and Mitigation Measures	
Impact	**Mitigation Measures**
noise levels in the project vicinity above levels existing without the project. **Significant and Unavoidable Impact with Mitigation Incorporated**	
Impact NOI-6: The project (and General Plan Buildout with Maximum Residential Alternative and Retail and Residential Alternative) would result in a cumulatively considerable permanent noise level increase at existing residential land uses. **Significant and Unavoidable Impact with Mitigation Incorporated**	**MM NOI-6.1:** Implement MM NOI-3.1 to reduce project-generated noise level increases on Perimeter Road north of Stevens Creek Boulevard and Vallco Parkway east of North Wolfe Road.
Transportation/Traffic	
Impact TRN-1: Under existing with project conditions, the project (and General Plan Buildout with Maximum Residential Alternative and Retail and Residential Alternative) would conflict with an applicable plan, ordinance, or policy establishing measures of effectiveness for the performance of the circulation system; and conflict with an applicable congestion management program, including standards established for designated roads or highways.	**MM TRN-1.1:** Develop and implement a TDM Program for office uses that achieves a 25 to 35 percent reduction in office vehicle trips. The required TDM reduction would vary depending on the amount of office development constructed and whether the office development has a single tenant or multiple tenants. Generally, the larger the office development, the greater the TDM reduction that can be achieved. Similarly, single-tenants office buildings can generally implement more effective TDM programs than multiple-tenant office buildings. The percentage reduction required shall be based on the characteristics of the office development (size, number of tenants, etc.) and shall be calculated based on Institute of Transportation Engineer's Office (ITE Land Use 710) average trip generation rates. As part of the TDM Program, the City shall require future development to implement the Specific Plan's TDM Monitoring Program to ensure that the TDM reduction goals are achieved. If future development is not able to meet the identified TDM goal, then the City would collect penalties, as specified the Specific Plan's TDM Monitoring Program.

Summary of Impacts and Mitigation Measures	
Impact	**Mitigation Measures**
Significant and Unavoidable Impact with Mitigation Incorporated	**MM TRN-1.2:** Intersection 12, De Anza Boulevard/McClellan Road, convert the shared left-turn/through lane on the eastbound approach of McClellan Road to a dedicated through lane (for a total of one left-turn lane, one through lane, and one right-turn lane). This would allow converting the phasing on the east-west approaches from split phasing to protected left-turn phasing. This improvement is included in the City's TIF Program and would improve intersection operations to an acceptable LOS D. Future development under the proposed project (or General Plan Buildout with Maximum Residential Alternative or Retail and Residential Alternative) shall pay transportation mitigation fees as calculated pursuant to the TIF program to mitigate this impact. **MM TRN-1.3:** A fair-share payment contribution to improvements identified in VTA's VTP 2040 for freeway segments on SR 85, I-280, and I-880 that the project (or project alternative) significantly impacts shall be paid by future development associated with the project (or General Plan Buildout with Maximum Residential Alternative or Retail and Residential Alternative).
Impact TRN-2: Under background with project conditions, the project (and General Plan Buildout with Maximum Residential Alternative and Retail and Residential Alternative) would conflict with an applicable plan, ordinance, or policy establishing measures of effectiveness for the performance of the circulation system; and conflict with an applicable congestion management program, including standards established for designated roads or highways. **Significant and Unavoidable Impact with Mitigation Incorporated**	**MM TRN-2.1:** Implement MM TRN-1.1. **MM TRN-2.2:** Intersection 12, De Anza Boulevard/McClellan Road: Implement MM TRN-1.1. Implementation of MM TRN-1.2 would improve intersection the average intersection delay to better than background (without project or project alternative) conditions. **MM TRN-2.3:** Intersection 31, Wolfe Road/Vallco Parkway: Provide an overlap phase for the westbound right-turn movement, which would provide for a green right-turn arrow while the southbound left-turn movement has its green phase. Southbound U-turns shall also be prohibited. Implementation of this mitigation measure would improve intersection level of service to an acceptable LOS D. **MM TRN-2.4:** Intersection 42, Stevens Creek Boulevard/Tantau Avenue: Provide a northbound left-turn lane (for a total of one left-turn lane and one shared through/right-turn lane). This would allow converting the phasing on the east-west approaches from split phasing to protected left-turn phasing. This improvement is included in the City's TIF Program and would improve intersection operations to an acceptable LOS D. Future development under the proposed project (or General Plan Buildout with

Summary of Impacts and Mitigation Measures	
Impact	**Mitigation Measures**
	Maximum Residential Alternative or Retail and Residential Alternative) shall pay transportation mitigation fees as calculated pursuant to the TIF program to mitigate this impact. **MM TRN-2.5:** Intersections 43-45, Contribute a fair-share to a traffic signal timing study and implementation of the revised timings on Stevens Creek Boulevard at Stern Avenue, Calvert Drive, and Agilent Driveway. **MM TRN-2.6:** Intersection 48, Lawrence Expressway/Homestead Road: Pay a fair-share contribution to the near-term improvement identified in the Santa Clara County's Expressway Plan 2040 Study for this intersection. The Expressway Plan 2040 Study identifies a near-term improvement of an additional eastbound through lane on Homestead Road. With this improvement, intersection operations would improve, but the intersection would continue to operate at LOS F with delays greater than under background conditions. **MM TRN-2.7:** Intersection 51, Lawrence Expressway/Calvert Drive-I-280 Southbound Ramp: Improvements to mitigate the impact would include providing a fourth northbound through lane (for a total of four through lanes and one right-turn lane). This would require four receiving lanes north of Calvert Drive-I-280 Southbound Ramps. With this improvement, the intersection would operate at acceptable LOS E or better. The widening of Lawrence Expressway from three to four lanes in each direction between Moorpark Avenue to south of Calvert Drive is included in the VTP 2040 as a constrained project (VTP 2040 Project# X10). The VTP 2040 does not include widening of Lawrence Expressway at or north of Calvert Drive, however. The fourth northbound through lane on Lawrence Expressway could potentially be provided with an added receiving lane that would connect directly to the off-ramp to Lawrence Expressway (also known as "trap" lane) just north of the I-280 overcrossing. The City shall coordinate with the County of Santa Clara to and Caltrans to determine if a fourth through lane could be provided. Future development under the proposed project shall be required to pay a fair-share contribution if the improvement is feasible. **MM TRN-2.8:** Intersection 53, Lawrence Expressway/Bollinger Road: Improvements to mitigate the project's (and General Plan Buildout with Maximum Residential Alternative) impact would include providing a fourth northbound through lane (for the PM peak hour impact) and fourth southbound

Summary of Impacts and Mitigation Measures	
Impact	**Mitigation Measures**
	through lane (for the AM peak hour impact). The widening of Lawrence Expressway from three to four lanes in each direction between Moorpark Avenue to south of Calvert Drive is included in the VTP 2040 as a constrained project (VTP 2040 Project# X10). This VTA project also includes the provision of an additional westbound through lane on Moorpark Avenue. Assuming that both the northbound and southbound approaches would be modified to accommodate four through lanes, the intersection would operate at or better than acceptable LOS E under the project and all project alternatives during the AM and PM peak hours. Future development under the proposed project (and General Plan Buildout with Maximum Residential Alternative) shall be required to pay a fair-share to VTP Project# X10. **MM TRN-2.9:** Implement MM TRN-1.2.
Impact TRN-7: The project (and General Plan Buildout with Maximum Residential Alternative and Retail and Residential Alternative) would result in a considerable contribution to a significant cumulative transportation impact. **Significant and Unavoidable Impact with Mitigation Incorporated**	**MM TRN-7.1:** Implement MM TRN-1.1. **MM TRN-7.2:** Intersection 2, Stevens Creek Boulevard/SR 85 northbound ramps: The City's TIF Program identifies the addition of an exclusive northbound left-turn lane from the SR 85 off-ramp onto westbound Stevens Creek Boulevard. This improvement would mitigate the project's (and General Plan Buildout with Maximum Residential Alternative and Retail and Residential Alternative) to a less than significant level. Future development under the proposed project (or General Plan Buildout with Maximum Residential Alternative or Retail and Residential Alternative) shall pay transportation mitigation fees as calculated pursuant to the TIF program to mitigate this impact. **MM TRN-7.3:** Intersection 8, De Anza Boulevard/Homestead Road: The City's TIF Program identifies the widening of De Anza Boulevard to four through lanes between the I-280 interchange and Homestead Road. This improvement would mitigate the project's (and General Plan Buildout with Maximum Residential Alternative and Retail and Residential Alternative) to a less than significant level. Future development under the proposed project (or General Plan Buildout with Maximum Residential Alternative or Retail and Residential Alternative) shall pay transportation mitigation fees as calculated pursuant to the TIF program to mitigate this impact.

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Impact	**Mitigation Measures**
	MM TRN-7.4: Intersection 12, De Anza Boulevard/McClellan Road: Implement MM TRN-1.2. Implementation of MM TRN-1.2 would improve intersection operations to better than cumulative (without) project (or project alternative) conditions. **MM TRN-7.5:** Intersection 23, Wolfe Road/Fremont Avenue: Provide a dedicated southbound right-turn lane from Wolfe Road onto westbound Fremont Avenue. This would improve operations to LOS D and reduce the project impact to a less than significant level under the proposed project and General Plan Buildout with Maximum Residential Alternative. The intersection would continue to operate at unacceptable LOS E under the Retail and Residential Alternative, but the delay would be reduced to a level lower than cumulative conditions. Thus, the impact would be mitigated to a less than significant level. The City of Sunnyvale recently approved improvements to the "Triangle" area of Wolfe Road/El Camino Real, Wolfe Road/Fremont Avenue, and El Camino Real/Fremont Avenue. The "Triangle" improvements include the provision of a southbound right-turn lane from Wolfe Road to Fremont Avenue. Thus, future development under the project (or General Plan Buildout with Maximum Residential Alternative or Retail and Residential Alternative) would be required to contribute their fair-share to the "Triangle" improvement project. **MM TRN-7.6:** Intersection 26, Wolfe Road/Homestead Road: Provide a dedicated southbound right-turn lane from Wolfe Road onto westbound Homestead Road. To minimize secondary impacts to pedestrian travel, the right-turn lanes would need to be signal controlled, right-turns on red would be prohibited, and pedestrians should have a leading pedestrian phase (i.e., a pedestrian walk indication is provided several seconds before the right-turning vehicle traffic). This mitigation measures would improve intersection operations but not to a less than significant level. The City's TIF Program includes the provision of the dedicated southbound right-turn lane. Future development under the proposed project (or General Plan Buildout with Maximum Residential Alternative or Retail and Residential Alternative) shall pay transportation mitigation fees as calculated pursuant to the TIF program to mitigate this impact.

Summary of Impacts and Mitigation Measures	
Impact	**Mitigation Measures**
	MM TRN-7.7: Intersection 31, Wolfe Road/Vallco Parkway: Implement MM TRN-2.3. **MM TRN-7.8:** Intersection 42, Stevens Creek Boulevard/Tantau Avenue: Implement MM TRN-2.4. **MM TRN-7.9:** Intersection 43-45: Implement MM TRN-2.5. **MM TRN-7.10:** Intersection 48, Lawrence Expressway/Homestead Road: Implement MM TRN-2.6. As discussed under MM TRN-2.6, the project (and General Plan Buildout with Maximum Residential Alternative and Retail and Residential Alternative) shall pay a fair-share contribution to the long-term improvement identified in the Santa Clara County's Expressway Plan 2040 Study for this intersection. **MM TRN-7.11:** Intersection 51, Lawrence Expressway/Calvert Drive-I-280 Southbound Ramp: Implement MM TRN-2.7. **MM TRN-7.12:** Intersection 53, Lawrence Expressway/Bollinger Road: Implement MM TRN-2.8. **MM TRN-7.13:** Intersection 60, Stevens Creek Boulevard/Cabot Avenue: Contribute a fair-share to a traffic signal timing study and implementation of the revised timings on Stevens Creek Boulevard at Cabot Avenue. The project (and General Plan with Maximum Residential Alternative and Retail and Residential Alternative) impacts would likely improve with modifications to the signal timings as traffic volumes change. **MM TRN-7.14:** Retail and Residential Alternative Only – Intersection 38, Tantau Avenue/Homestead Road: Restripe the southbound approach to provide a separate left-turn lane and shared through/right-turn lane (including removal of on-street parking). This improvement is included in the City's TIF Program and would improve intersection operations to an acceptable LOS D. Future development under the Retail and Residential Alternative shall pay transportation mitigation fees as calculated pursuant to the TIF program to mitigate this impact. However, because the TIF improvements are not fully funded and the timing of implementation is not known at this time, the impact is considered significant and unavoidable. **(Significant and Unavoidable Cumulative Impact with Mitigation Incorporated)**

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Impact	**Mitigation Measures**
	MM TRN-7.15: Implement MM TRN-1.3.
Utilities and Service Systems	
Impact UTL-2: The project (and General Plan Buildout with Maximum Residential Alternative and Retail and Residential Alternative) would require improvements to the existing sewer system, however, the construction of the improvements would not cause significant environmental effects. **Less than Significant with Mitigation Incorporated**	**MM UTIL-2.1:** Future development under the proposed project (or General Plan Buildout with Maximum Residential Alternative or Retail and Residential Alternative) shall replace the existing sewer mains in Wolfe Road with new mains of an adequate size as determined by CuSD, and shall install an 18- to 21-inch parallel pipe to the existing mains to accommodate existing and project flows. **MM UTIL-2.2:** Future development under the proposed project (or General Plan Buildout with Maximum Residential Alternative or Retail and Residential Alternative) shall replace the existing 27-inch sewer main in Wolfe Road and Homestead Road with new mains of an adequate size as determined by CuSD. **MM UTIL-2.3:** Developer shall complete improvements as designated in the City of Santa Clara's Sanitary Sewer Management Plan to allow for adequate downstream sewer capacity through the City of Santa Clara sewer system. No occupancies can occur on the project site that would exceed the current contractual permitted sewer flows through the City of Santa Clara until the contractual agreement between CuSD and the City of Santa Clara is amended to recognize and authorize this increased flow.

Areas of Concern

Environmental concerns from local residents, property owners, organizations, and/or agencies about the project related to:

- EIR process;
- Aesthetics;
- Air quality (including health risk);
- Biological resources (including tree preservation and incorporation of bird-safe building design);
- Energy consumption;
- Land use and General Plan consistency;
- Noise and vibration impacts;
- Public services impacts;
- Transportation/traffic congestion (including construction traffic and cut-through traffic) impacts;
- Growth impacts; and
- Alternatives to the project.

SECTION 1.0 INTRODUCTION

1.1 PURPOSE OF THE ENVIRONMENTAL IMPACT REPORT

The City of Cupertino, as the Lead Agency, has prepared this Draft Environmental Impact Report (EIR) for the Vallco Special Area Specific Plan project in compliance with the California Environmental Quality Act (CEQA) and the CEQA Guidelines.

As described in CEQA Guidelines Section 15121(a), an EIR is an informational document that assesses potential significant environmental impacts of a proposed project, as well as identifies mitigation measures and alternatives to the proposed project that could reduce or avoid adverse environmental impacts (CEQA Guidelines 15121[a]). As the CEQA Lead Agency for this project, the City of Cupertino 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, significant environmental impacts including growth-inducing impacts, cumulative impacts, mitigation measures, and alternatives. It is not the intent of an EIR to recommend either approval or denial of a project.

1.2 EIR PROCESS

1.2.1 Notice of Preparation and Scoping

In accordance with Section 15082 of the CEQA Guidelines, the City of Cupertino prepared a Notice of Preparation (NOP) for this EIR. The NOP was sent to state and local responsible and trustee agencies and federal agencies on February 9, 2018. The standard 30-day comment period concluded on March 12, 2018. The NOP provided a general description of the proposed project and identified possible environmental impacts that could result from implementation of the project. The City of Cupertino also held a public scoping meeting during the comment period on February 22, 2018 to discuss the project and solicit public input as to the scope and content of this EIR. The meeting was held at Cupertino Community Hall located at 10350 Torre Avenue. Appendix A of this EIR includes the NOP and comments received on the NOP.

1.2.2 Draft EIR Public Review and Comment Period

Publication of this Draft EIR will mark the beginning of a 45-day public review period. During this period, the Draft EIR will be available to the public and local, state, and federal agencies for review and comment. Notice of the availability and completion of this Draft EIR will be sent directly to every agency, person, and organization that commented on the NOP, as well as to the Office of Planning and Research. Written comments concerning the environmental review contained in this Draft EIR during the 45-day public review period should be sent to:

City of Cupertino, Community Development Department
Attention: Piu Ghosh, Principal Planner
10300 Torre Avenue
Cupertino, CA 95014
planning@cupertino.org

1.3 FINAL EIR/RESPONSES TO COMMENTS

Following the conclusion of the Draft EIR 45-day public review period, the City of Cupertino 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*;*
- List of individuals and agencies commenting on the DEIR;
- Responses to comments received on the DEIR, in accordance with CEQA Guidelines (Section 15088);
- Copies of written comments received on the DEIR.

Section 15091(a) of the CEQA Guidelines states that no public agency shall approve or carry out a project for which an EIR has been certified which identifies one or more significant environmental effects of the project unless the public agency makes one or more written findings. The possible findings are:

(1) Changes or alterations have been required in, or incorporated into, the project which avoid or substantially lessen the significant environmental effect as identified in the final EIR.
(2) Such changes or alterations are within the responsibility and jurisdiction of another public agency and not the agency making the finding. Such changes have been adopted by such other agency or can and should be adopted by such other agency.
(3) Specific economic, legal, social, technological, or other considerations, including provision of employment opportunities for highly trained workers, make infeasible the mitigation measures or project alternatives identified in the final EIR.

If the lead agency approves a project that will 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.

1.3.1 Notice of Determination

If the project is approved, the City of Cupertino will file a Notice of Determination (NOD), which will posted within 24 hours of receipt at the County Clerk's Office and available for public inspection for 30 days. The filing of the NOD starts a 30-day statute of limitations on court challenges to the approval under CEQA (CEQA Guidelines Section 15094[g]).

SECTION 2.0 PROJECT INFORMATION AND DESCRIPTION

2.1 PROJECT LOCATION AND EXISTING DEVELOPMENT

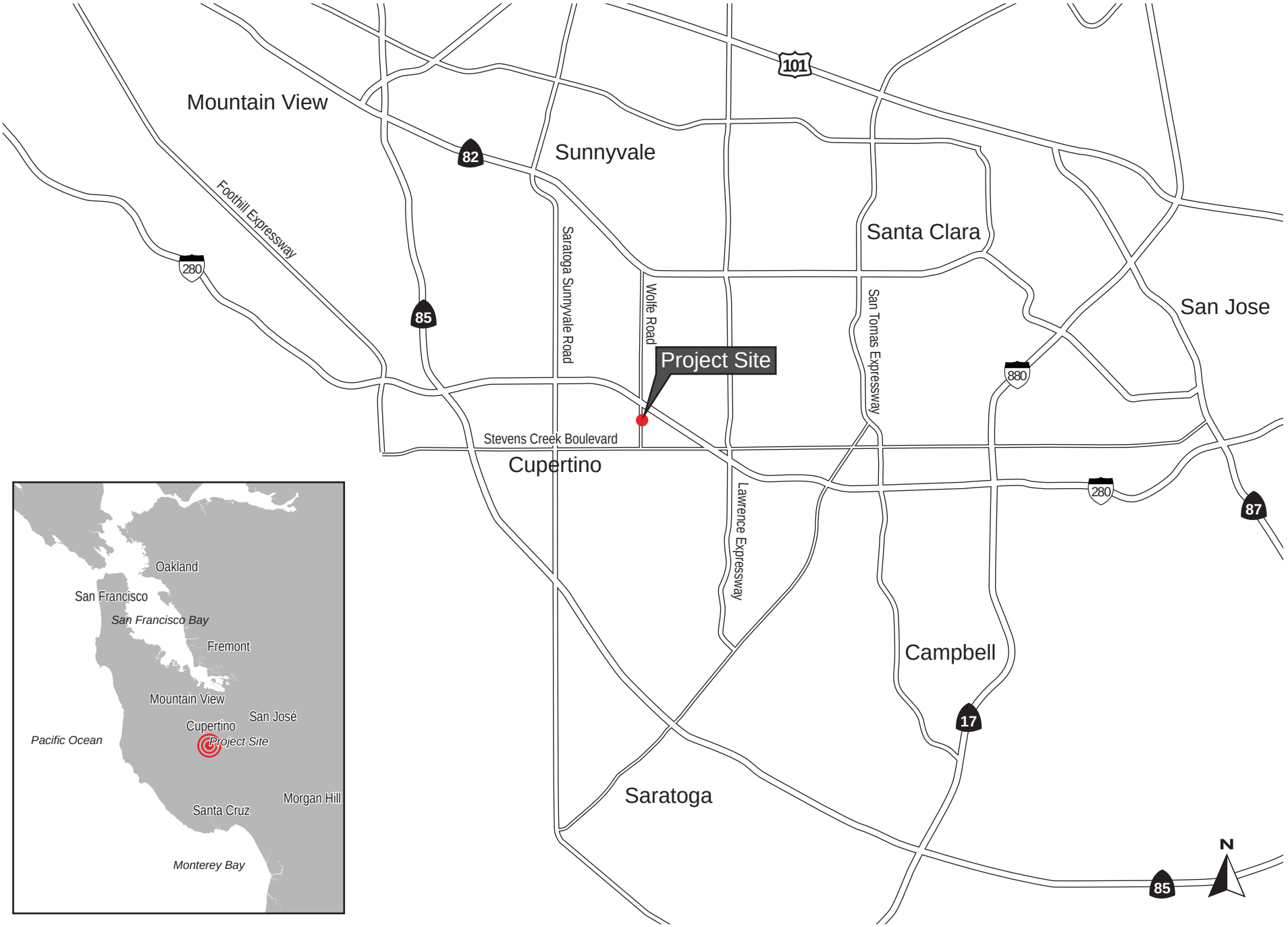
The Vallco Special Area Specific Plan (project site) comprises approximately 70 acres, approximately 58 acres of which is currently available for development. The developable area consists of multiple parcels[2] and is located on both sides of North Wolfe Road – between Vallco Parkway and Interstate 280 (I-280) on the east side of North Wolfe Road and between Stevens Creek Boulevard and Vallco Parkway on the west side of North Wolfe Road – in the City of Cupertino. Approximately 51 acres of the project site is currently developed with the Vallco Shopping Mall (approximately 1.2 million square feet) and associated parking facilities, and the remaining areas are developed with roadways, a 148-room hotel (Hyatt House Hotel, currently under construction), and a surface parking lot (Simeon property).

The western portion of the project site, west of North Wolfe Road, is developed with several buildings: a three-story (approximately 85 foot tall) mall building, two single-story (approximately 25 feet tall) satellite buildings, three multi-story (two- and four-level, up to 50 feet tall) parking structures, and surface parking lots. The eastern portion of the project site, east of North Wolfe Road, is developed with an additional two-story (approximately 60 foot tall) mall building, a single-story satellite restaurant building, a three-level (approximately 60 foot tall) parking structure, and surface parking lots. The two sides of the project site are connected by an enclosed, pedestrian bridge which includes shops on either side of a pedestrian walkway.

A five-story (60 foot tall), 148-room hotel is currently under construction at the north end of the eastern portion of the site (Hyatt House Hotel). Perimeter Road, a two-lane roadway, is located along the west, north, and east boundary of the site. Two landlocked lots (Hyatt House Hotel and the Simeon property) have public access to Wolfe Road via public access easements from Perimeter Road.

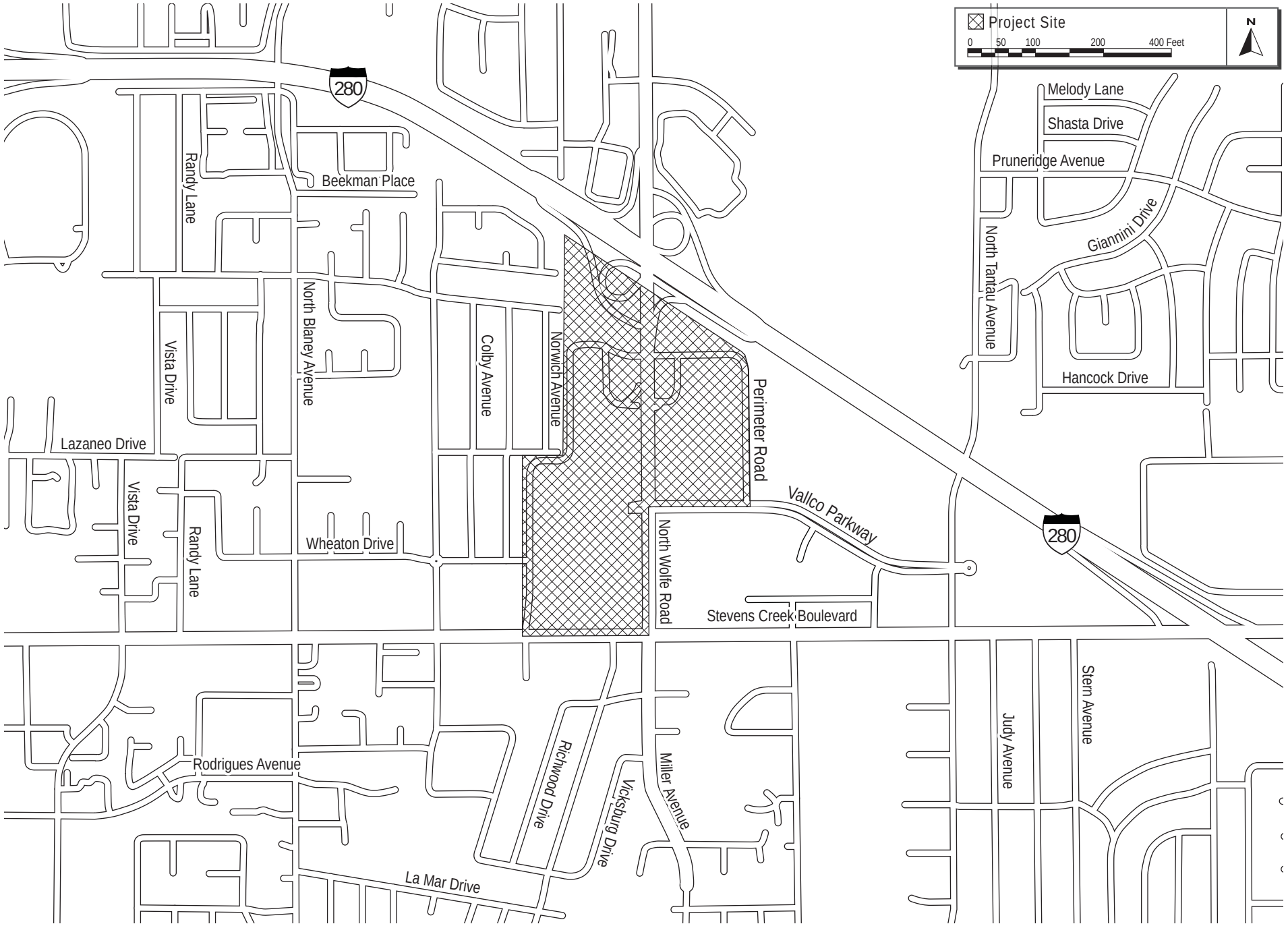
Regional and vicinity maps of the project site are shown in Figure 2.1-1 and Figure 2.1-2, respectively. An aerial photograph of the project site and the surrounding land uses is shown in Figure 2.1-3. The surrounding land uses include residential and commercial uses to the west; a freeway (I-280), hotel, residential, and office uses to the north; commercial, office, and residential mixed-uses to the east; and commercial uses to the south.

[2] Assessor Parcel Numbers: 316-20-080, -081, -082, -088, -092, -094, -095, -099, -100, -101, -103, -104, -105, -106, and -107.



REGIONAL MAP

FIGURE 2.1-1



VICINITY MAP

FIGURE 2.1-2

AERIAL PHOTOGRAPH AND SURROUNDING LAND USES FIGURE 2.1-3

2.2 EXISTING GENERAL PLAN AND ZONING DESIGNATIONS

In 2015, the City Council adopted *Community Vision 2015-2040*, which is the City's General Plan. The General Plan is a state-mandated long-term planning document and provides the vision for Cupertino's future. It establishes the City's development principles with regard to land use, mobility, housing, open space, infrastructure, public health and safety, and sustainability and other topics through specific goals, policies and strategies.

In the General Plan, the City is organized into 21 General Plan "Planning Areas," consisting of nine "Special Areas" and 12 "Neighborhoods." The project site is the Vallco Shopping District Special Area (Vallco Special Area) shown in General Plan Figure LU-2[3]. The Vallco Special Area is designated Commercial/Office/Residential, with a maximum residential density of 35 dwelling units per acre (du/ac) in the City's General Plan Land Use Map.[4] The Vallco Special Area is also identified as a Priority Housing Element Site (Site A2) in the General Plan Housing Element with a realistic capacity of 389 units at a minimum density of 20 du/ac. Both residential and non-residential development are subject to the numeric limits and other policies in the General Plan.

As shown in General Plan Table LU-1, the General Plan development allocation for the Vallco Special Area is as follows: up to a maximum of 1,207,774 square feet of commercial uses (i.e., retention of the existing mall) or redevelopment of the site with a minimum of 600,000 square feet of retail uses of which a maximum of 30 percent may be entertainment uses (pursuant to General Plan Strategy LU-19.1.4); up to 2.0 million square feet of office uses; up to 339 hotel rooms; and up to 389 residential dwelling units.[5] Pursuant to General Plan Strategy LU-1.2.1, development allocations may be transferred among Planning Areas, provided no significant environmental impacts are identified beyond those already studied in the *Cupertino General Plan Community Vision 2015-2040 Final EIR* (SCH#2014032007) (General Plan EIR).[6] Therefore, additional available, residential or other, development allocations may be transferred to the project site.

[3] The Vallco Shopping District Special Area is also referred to in the General Plan as the Vallco Shopping District. See, e.g., Goal LU-19.

[4] The Commercial/Office/Residential land use designation applies to mixed-use areas that are predominantly commercial and office uses. Supporting residential uses may be allowed to offset job growth in order to better balance the citywide jobs to housing ratio, and when they are compatible with the primarily non-residential character of the area (source: City of Cupertino. *Cupertino General Plan Community Vision 2015-2040*. Appendix A: Land Use Definitions, Page A-7. October 15, 2015.).

[5] City of Cupertino. *Cupertino General Plan Community Vision 2015-2040.* Table LU-1: Citywide Development Allocation Between 2014-2040. October 15, 2015. Page LU-13.

[6] The General Plan EIR analyzed the demolition of the existing 1,207,774 square foot mall and redevelopment of the site with up to 600,000 square feet of commercial uses, 2.0 million square feet of office uses, 339 hotel rooms, and 800 residential dwelling units within the Vallco Special Area. Because the Vallco Shopping Mall existed on the site when Community Vision 2015-2040 was adopted, and it was unclear when a project would be developed on the site, General Plan Table LU-2 indicates the square footage of the existing mall in the commercial development allocation to ensure that the mall did not become a non-conforming use at the site. Residential allocations that are available in other Planning Areas may be transferred to the Vallco Shopping District without the need to amend the General Plan.

A footnote to General Plan Table LU-1 states:

> Buildout totals for Office and Residential Allocation within the Vallco Shopping District are contingent upon a Specific Plan being adopted for this area by May 31, 2018. If a Specific Plan is not adopted by that date, City will consider removal of the Office and Residential allocations for Vallco Shopping District. See Housing Element (Chapter 4) for additional information and requirements within the Vallco Shopping District.

As discussed below, the proposed project involves consideration by the City of allocations in a specific plan for the Vallco Special Area, for which planning began in December 2017.

The Specific Plan area is zoned P(Regional Shopping) – Planned Development Regional Shopping north of Vallco Parkway, and P(CG) – Planned Development General Commercial south of Vallco Parkway (west of North Wolfe Road).

2.3 BACKGROUND INFORMATION

In the 1960s, 25 Cupertino families and property owners collaborated closely to develop the overall scheme for a 265-acre business park known as Vallco Park. The name "Vallco" was constructed from the first initials of each of the primary developers: Varian Associates and the Leonard, Lester, Craft, and Orlando families. This included properties to the north and south of I-280 – currently in both the North Vallco Park and South Vallco Park Special Areas, and the Vallco Shopping District.

Ten years later, Vallco Shopping Mall was established as an approximately 63-acre retail component within the larger 265-acre business park and encompassed the current Vallco Shopping District Special Area and the parcel in the southeast corner of the intersection of Vallco Parkway and North Wolfe Road (now developed with the "nineteen800" mixed use development, previously known as the Rosebowl site). Vallco Shopping Mall opened under the brand Vallco Fashion Park in September 1976. When it was opened, Vallco Fashion Park was one of the largest shopping malls in Silicon Valley, drawing visitors from throughout the region. Vallco Shopping Mall thrived from the mid-1970s to the mid-1980s.

By the mid-1980s, Vallco Shopping Mall had begun to suffer from the inability to respond to the changing demands of consumers and markets. Several constraining factors, including regional and sub-regional competition, fragmented ownership, reciprocal real estate agreements that restricted improvements unless agreed upon by all owners, outdated infrastructure, inefficient parking layout, and closure of anchor stores in the mid-1980s, led to the decline of the mall by the early 2000's.

Occupancy began to deteriorate at an accelerated rate in the 1990s and mall tenancy and quality of tenants continued steadily declining into the mid-2000s. The mall tried various strategies to increase mall occupancy between the mid-1990s and mid-2000s. These included adding tenant space in the basement of the mall structure in the late 1990's, a theater in the mid-2000's and attempting to add residential development in a mixed use format to the Simeon property (now the nineteen800 site) at the southeast corner of Vallco Parkway and North Wolfe Road. Due to the undesirability of the mall basement spaces, access to these areas of the mall were boarded off in the mid-2000s. Additionally, a referendum on the approved residential development at the Simeon property stalled any further investment in the mall.

During the economic recession of 2008, the property owners of the mall foreclosed on the mall properties. Following the foreclosure, six property owners owned the mall parcels: the three anchors (Macy's, JC Penney, and Sears), KCR Development (nineteen800 and the Hyatt House Hotel properties), Simeon (parking lot on the northwest side), and a Vietnamese investment group that acquired the mall building which connected the three anchors and associated parking structures. In October 2014, the City Council approved the development of a 148-room, five-story hotel (Hyatt House Hotel) on the KCR Development property.

By 2014, occupancy of the mall tenants had reduced to the point where vacant storefronts outnumbered active storefronts. This was further accelerated when two anchor stores, Sears and Macy's, closed in fall 2014 and spring 2015, respectively. The last anchor store, JC Penney, closed in spring 2016. A handful of mall tenants, including AMC Theater, continued to perform even throughout Vallco Shopping Mall's leanest years. The site occupancy as of February 2018, the date in which the NOP was circulated, was approximately 24 percent. However, in March 2018, AMC Theaters closed its Vallco Mall location and will relocate to a Sunnyvale Town Center location which is anticipated to open in 2019.

Sand Hill Property Company acquired approximately 51 acres within the Vallco Shopping District Special Area, in late 2014, while the City was in the process of planning for the revitalization of the mall area. In December 2014, after a two-year community outreach process, the City Council adopted new General Plan goals, policies, and strategies specifically relating to the newly created Vallco Shopping District Special Area, within which Vallco Shopping Mall is located. The General Plan envisions a complete redevelopment of Vallco Shopping Mall site into a "vibrant mixed-use town center" that is a focal point for regional visitors and the community.[7] To realize this community vision, the General Plan "requires a master developer in order to remove the obstacles to the development of a cohesive district" (Strategy LU-19.1.1).[8]

In late 2015, Sand Hill Property Company submitted an application for development of a project, The Hills at Vallco. This application was placed on hold because two initiative measures, described below, were placed on the November 2016 ballot which impacted the site and the project review process.

- Measure C, Cupertino Citizens' Sensible Growth Initiative: This initiative proposed to amend the City's General Plan to limit redevelopment of the Vallco Shopping District, limit building heights along major mixed-use corridors, increase the maximum building height to 45 feet in the Neighborhoods, limit lot coverages for large projects, establish new setbacks and building planes on major thoroughfares, and require voter approval for any changes to these provisions; and

- Measure D, Vallco Town Center Specific Plan Initiative: This initiative proposed the adoption of the Vallco Town Center Specific Plan for the 58-acre Vallco Shopping District Special Area including residential (approximately 389-800 units, including approximately 20 percent senior housing), office (2,000,000 square feet), commercial (640,000 square feet), hotel, park, and civic/educational uses; requiring funding/community benefits for transportation (approximately

[7] City of Cupertino. *Cupertino General Plan Community Vision 2015-2040.* October 15, 2015. Page LU-50.
[8] Ibid.

$30,000,000), schools (approximately $40,000,000), green roof (approximately 30 acres), recycled water; grant initial entitlements; establishing development standards and limit future approval process; and making related General Plan and Municipal Code amendments.

Both measures were rejected by the voters in November 2016. At that time, Sand Hill Property Company placed The Hills at Vallco project on hold. In October 2017, Sand Hill Property requested the City initiate a planning process to develop a Specific Plan for the Special Area. In November 2017, the City Council authorized contracts to prepare a Specific Plan and associated environmental studies.

On March 27, 2018, Sand Hill Property Company filed an application pursuant to SB 35 (Government Code section 65913.4) for approval of a project on approximately 51 acres of the specific plan area. The application is being reviewed by the City concurrently with the preparation of the Specific Plan at the applicant's request. Additional details about the SB 35 application is available online at: www.cupertino.org/vallcosb35.

2.4 PROJECT DESCRIPTION

The City is currently undertaking a community-based planning process to develop a Specific Plan for the Vallco Special Area. The proposed project is the adoption of the community-developed Vallco Special Area Specific Plan and associated General Plan and Zoning Code amendments. The EIR evaluates the development parameters of the proposed Specific Plan to disclose the significant environmental effects of its implementation.

2.4.1 Proposed Project

As defined by California Government Code section 65450, a specific plan is a tool for the systematic implementation of the general plan. It establishes a link between implementing policies of the general plan and the individual development proposal(s) in a defined area.

Consistent with the adopted General Plan, the proposed Specific Plan would facilitate development of a minimum of 600,000 square feet of commercial uses, up to 2.0 million square feet of office uses, up to 339 hotel rooms, and up to 800 residential dwelling units on-site. The proposed Specific Plan development reflects the buildout assumptions (including the adopted residential allocation available) for the site in the City's adopted General Plan.

The locations of the proposed land uses have not been finalized; therefore, for the purposes of this EIR it is assumed the uses could be placed anywhere within the site. The square footages of each land use within the proposed Specific Plan are shown in Table 2.4-1.

Centrally located open space, in a Town Square format, would be provided on the site. Up to 30 percent of the commercial space could be occupied by entertainment uses such as an ice skating rink, indoor sports facility, movie theater, performing arts center, and bowling alley. The balance of the commercial uses would consist of sales-tax generating uses, which include, among other uses, retail stores and restaurants. The residential component of the project would be multi-family attached units. It is possible that on-site commercial and residential amenities could include pools. The office development could be occupied by one large tenant or multiple smaller tenants.

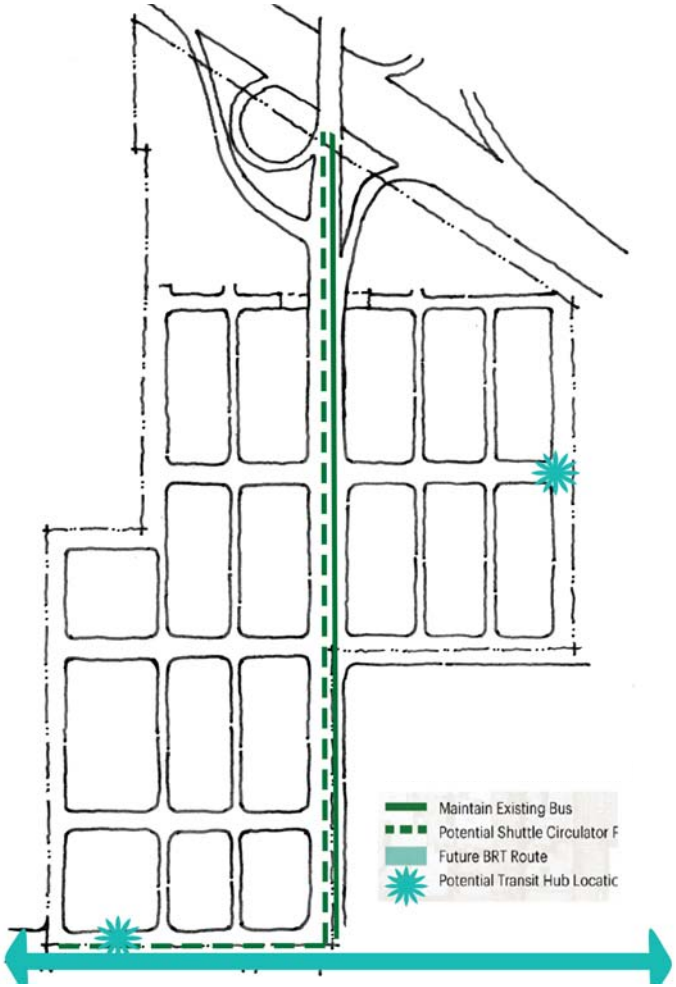
In addition, the project includes up to 65,000 square feet of civic spaces in the form of governmental office space, meeting rooms and community rooms and a Science Technology Engineering and Mathematics (STEM) lab, as well as a 30-acre green roof.[9] The green roof would include outdoor use areas such as outdoor dining, playgrounds, walking paths, and picnic areas. It is assumed that the green roof would not include active play fields or courts.

The development would also include residential amenities such as club houses, gymnasiums, private open space and pools, while any office development would include amenities such as high volume entry areas, fitness areas, anechoic chamber areas, unoccupied lab areas, server areas, or cafés. Amenities, such as cafés or gymnasiums, may be located on the rooftop and could add up to 20 feet to the height of the buildings so long as they are centrally located on the building.

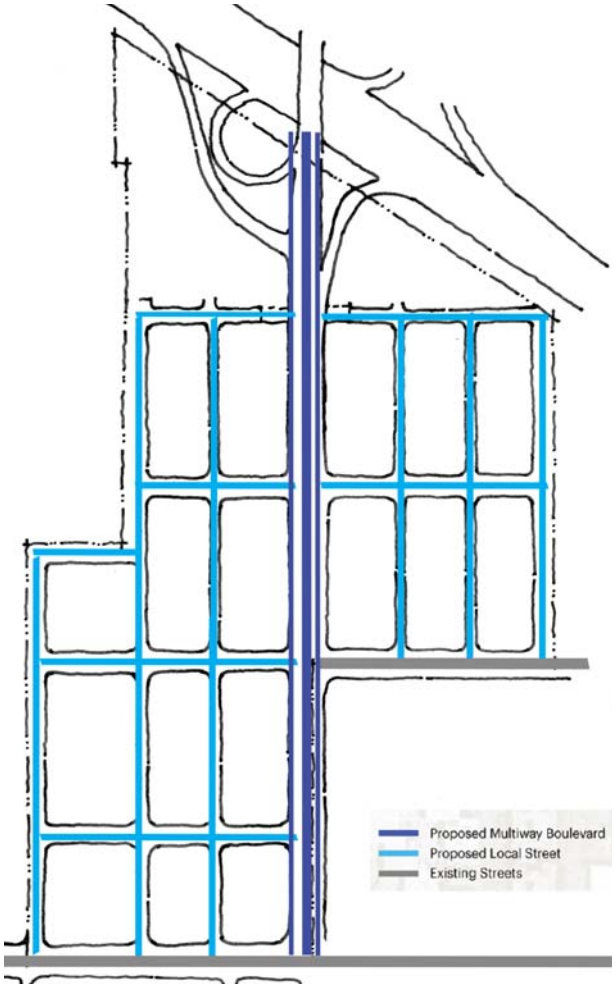
The maximum building height would be between 45 feet and 120 feet, with taller buildings anticipated to be located closer to North Wolfe Road, on the west side of North Wolfe Road and between 90 feet and 145 feet, with the taller buildings anticipated to be located away from North Wolfe Road and Vallco Parkway. Development would be set back a minimum of 35 feet from face of the curb along Stevens Creek Boulevard. Buildings would have to be setback one foot for every foot of height from the face of the curb established on North Wolfe Road. Under the Specific Plan, Perimeter Road and the existing sound wall along the western site boundary would remain.

Conceptual street layout, land use, and building heights for the proposed project are shown in Figure 2.4-1, Figure 2.4-2, and Figure 2.4-3.

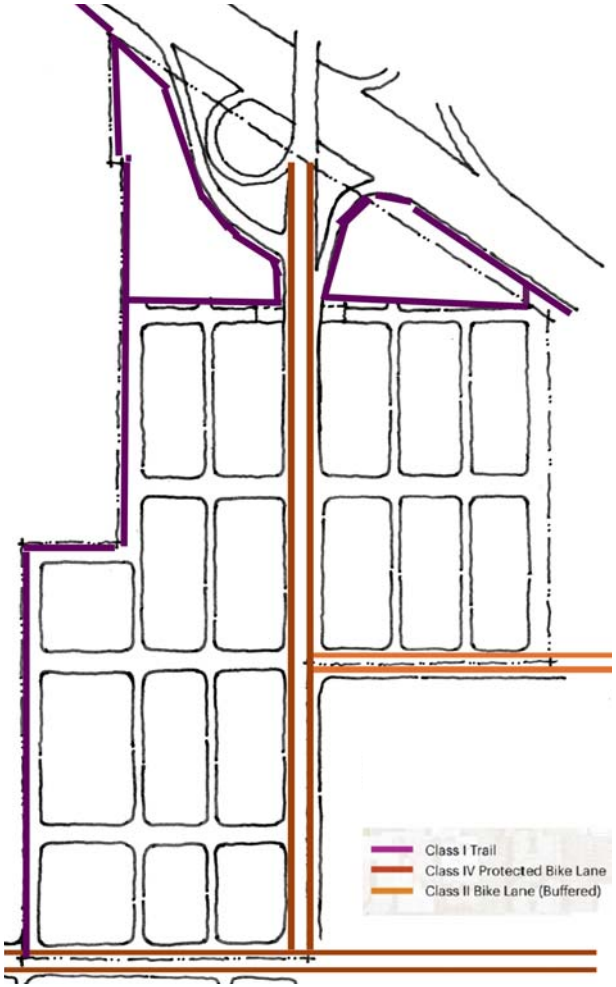
[9] During the scoping process for the project, interest in including a green roof and civic space (such as a school lab facility and office space for police and fire staff) was expressed by community members, local schools, Santa Clara County Sheriff's Office, and Santa Clara County Fire Department. As a result, the project was augmented to include a 30-acre green roof and 65,000 of civic space.



Public Transit Network

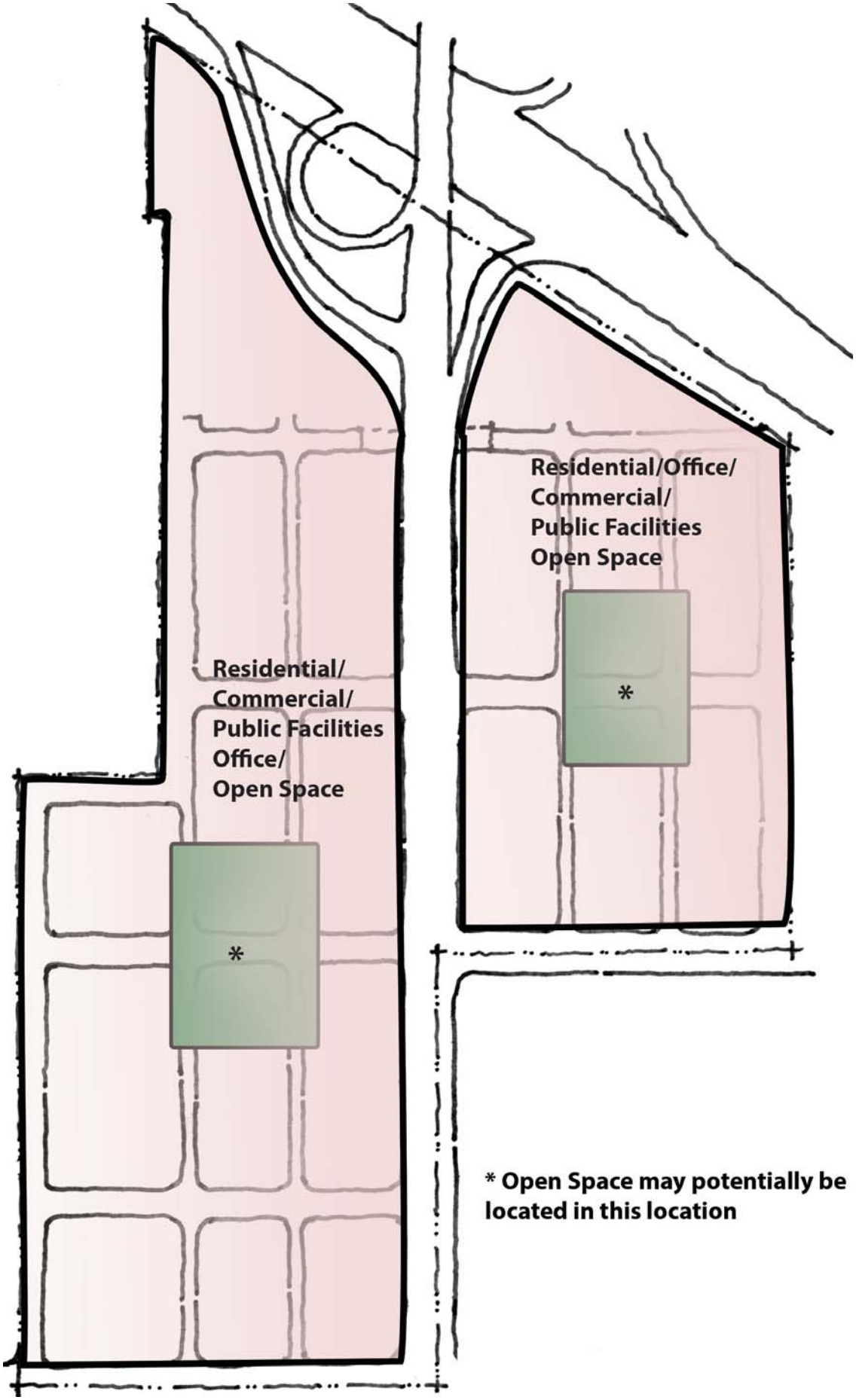


Street Network Layout

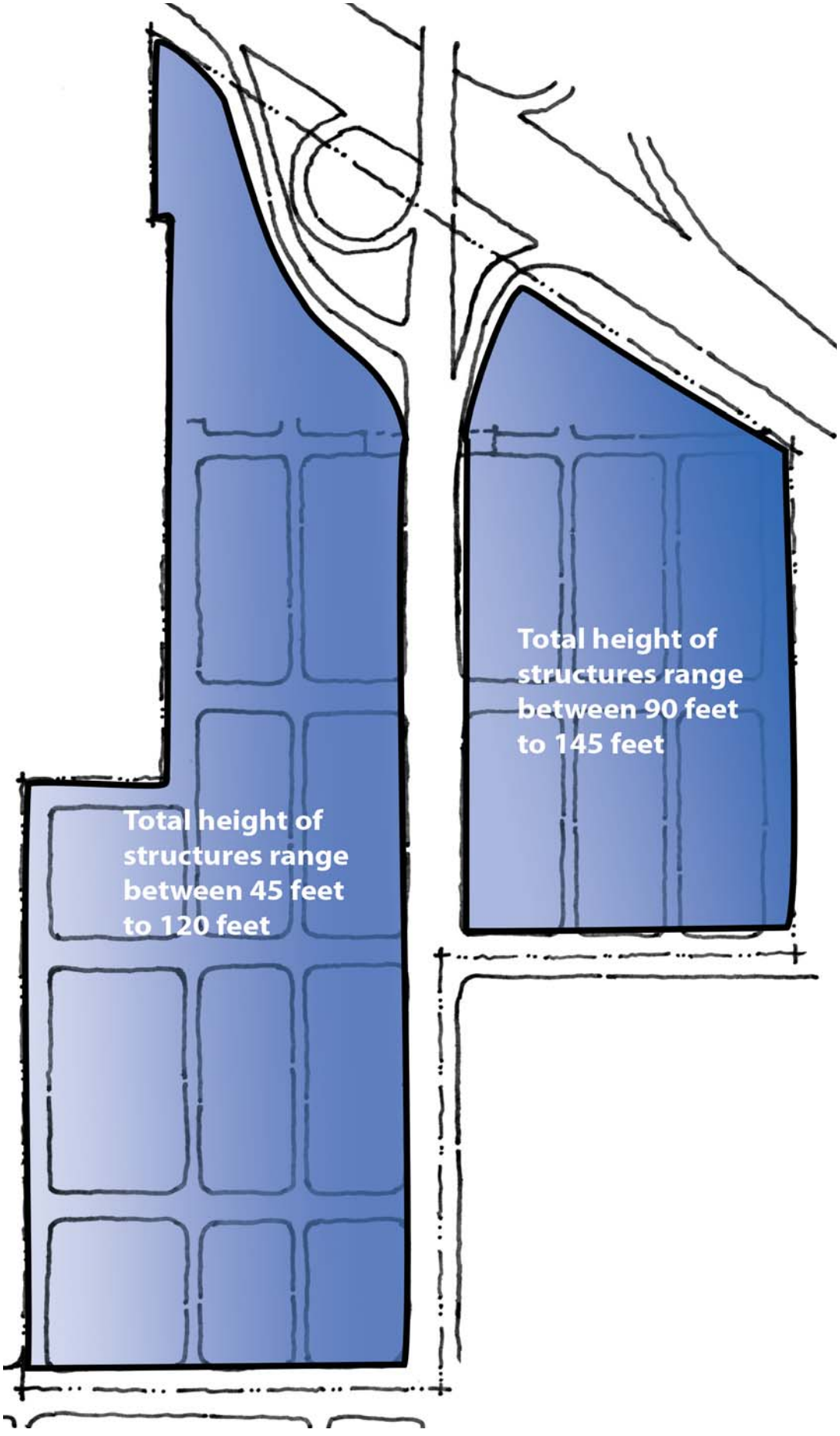


Bicycle Pedestrian Infrastructure

PROJECT: CONCEPTUAL STREET LAYOUT FIGURE 2.4-1



PROJECT: CONCEPTUAL LAND USE DIAGRAM FIGURE 2.4-2



PROJECT: CONCEPTUAL BUILDING HEIGHTS FIGURE 2.4-3

2.4.2 Alternatives

The development summary of the proposed project and project alternatives is provided in Table 2.4-1, below. The proposed Specific Plan described above is the proposed project. The City has also identified three alternatives to the proposed project (see Table 2.4-1), which are analyzed in the EIR along with the required No Project alternative[10]:

- General Plan Buildout with Maximum Residential,
- Retail and Residential, and
- Occupied/Re-Tenanted Mall.

Table 2.4-1: Summary of Project and Project Alternative Development

	Land Uses					
	Commercial (square footage)	**Office** (square footage)	**Hotel** (rooms)	**Residential** (dwelling units)	**Civic Space** (square feet)	**Green Roof** (acres)
Proposed Specific Plan	600,000	2,000,000	339	800	65,000	30
Project Alternatives						
General Plan Buildout with Maximum Residential Alternative	600,000	1,000,000	339	2,640	65,000	30
Retail and Residential Alternative	600,000	0	339	4,000	0	0
Occupied/Re-Tenanted Mall Alternative	1,207,774	0	148	0	0	0

The General Plan Buildout with Maximum Residential alternative consists of the potential development on the site if the residential portion of the project were developed at the General Plan maximum allowable density of up to 35 du/ac. The General Plan, however, controls residential development through an allocation system. This alternative assumes that there are no residential allocation controls in place and development can occur at the maximum density allowed by the General Plan. This alternative assumes the same amount of commercial, hotel, civic, and green roof development as the proposed project, and a smaller amount of office development (1.0 million square feet) than the proposed project.

[10] CEQA Guidelines Section 15126.6(e)(1).

The Retail and Residential alternative consists of developing the site without any office use. The retail commercial component is assumed to be 600,000 square feet (same as the proposed project), and the residential density is dependent on a preliminary economic feasibility analysis of constructing this alternative.[11]

The City identified the Occupied/Re-Tenanted Mall as a project alternative based on the desire by some members of the community to see the existing Vallco Shopping Mall remain and be successfully occupied/re-tenanted. It is assumed under this alternative that no new structures would be constructed on-site and no modifications to the existing building layout and heights would occur. Exterior and interior modifications would likely be made in order to update the mall to current standards for aesthetics and lighting and Americans with Disabilities Act (ADA) compliance. A discussion of this alternative is provided in the EIR for informational purposes only. This alternative is a permitted land use, and can be implemented without further discretionary approvals from the City or environmental review under CEQA. No mitigation measures or additional conditions of approval can be required.

Conceptual street layout, land use, and building height diagrams for the General Plan Buildout with Maximum Residential Alternative and Retail and Residential Alternative are shown in Figure 2.4-4 through Figure 2.4-15.

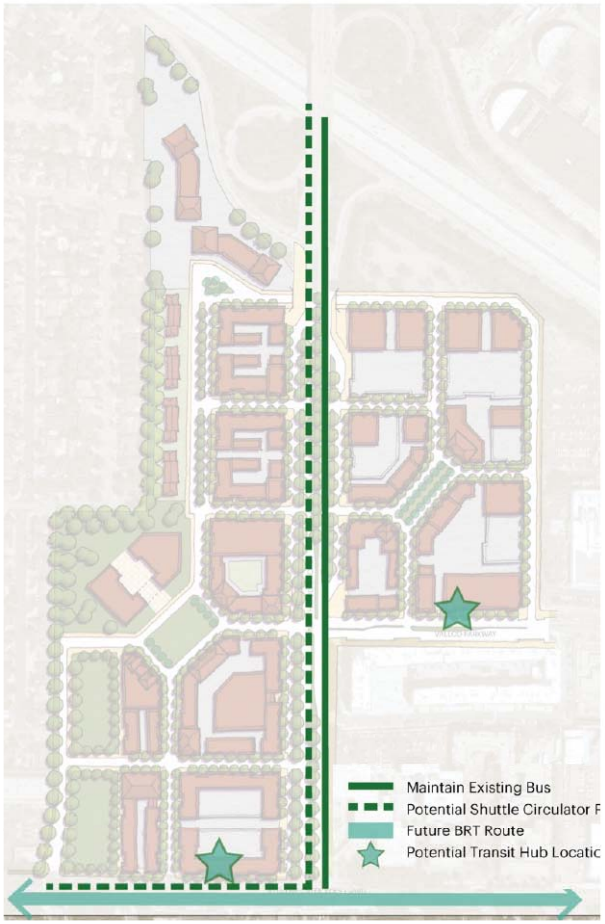
2.4.3 General Plan and Zoning Amendments

The proposed project, the General Plan Buildout with Maximum Residential Alternative, and the Retail and Residential Alternative would require General Plan amendments at the time of adoption of the Specific Plan so that both documents are consistent as of the date of adoption. The amendments would be as follows:

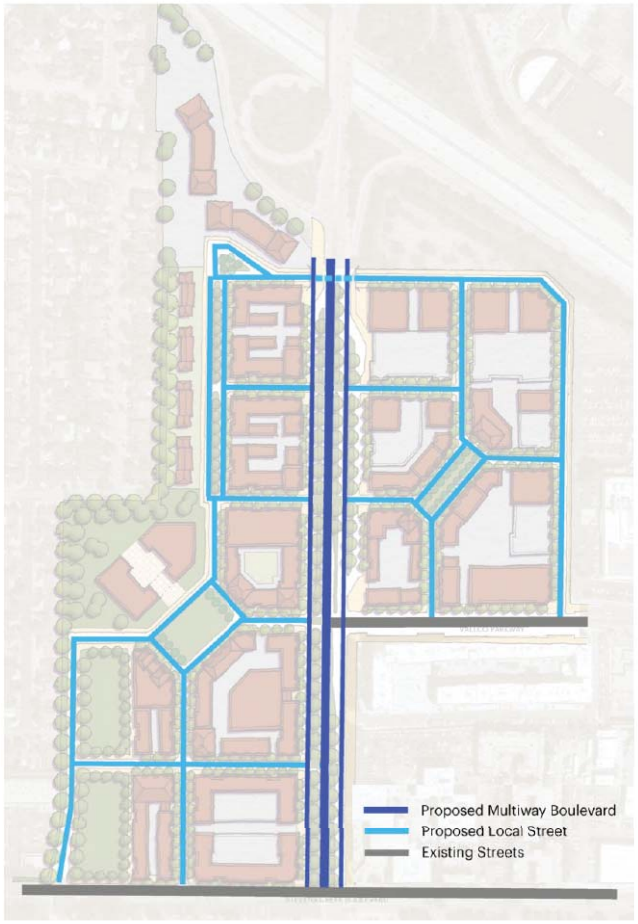
- The footnote to General Plan Table LU-1 would be removed, once the Specific Plan is adopted, because it will be obsolete.[12]
- If the approved Specific Plan would allow for an average residential density of greater than 35 units per acre plus any allowed state density bonus, the residential density for Vallco in the Land Use Element (Table LU-1 and Figure LU-2) and in the Housing Element would be amended to reflect the maximum residential density allowed on the site.
- The General Plan would be amended, as needed based on the alternative, to ensure that there are no inconsistencies between the General Plan and the development standards in the Specific Plan such as allowed land uses (e.g. civic uses), density, and building height.

[11] Economic & Planning Systems, Inc. *Economic Information in Support of Vallco Special Area Alternatives Memorandum.* February 1, 2018.

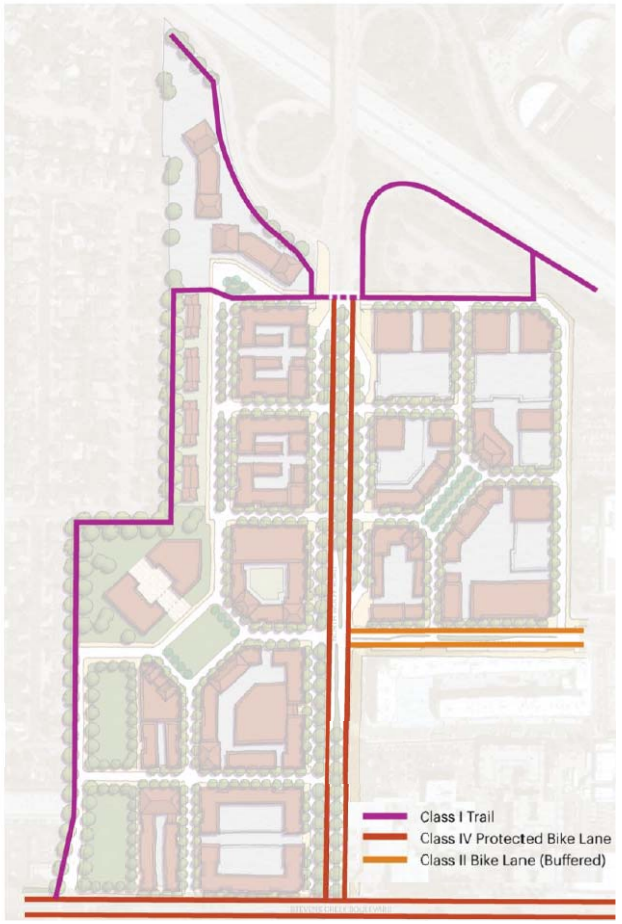
[12] The footnote in General Plan Table LU-1 states: "Buildout totals for Office and Residential allocation within the Vallco Shopping District are contingent upon a Specific Plan being adopted for this area by May 31, 2018. If a Specific Plan is not adopted by that date, City will consider the removal of the Office and Residential Allocations for Vallco Shopping District." Source: City of Cupertino. *Cupertino General Plan Community Vision 2015-2040.* October 15, 2015. Table LU-1, footnote**, Page LU-13.



Public Transit Network

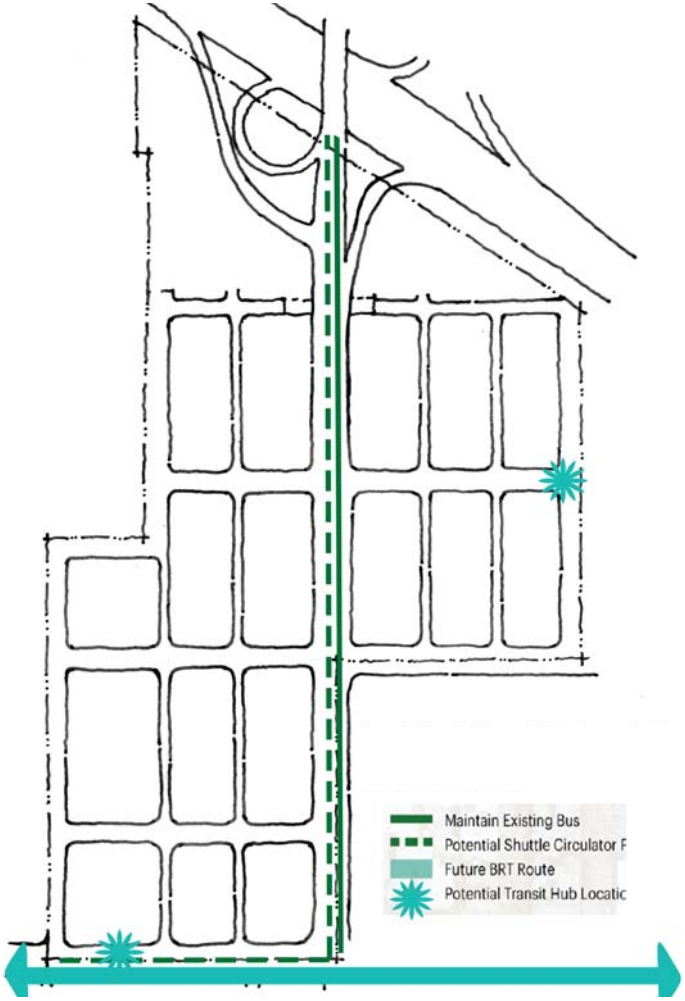


Street Network Layout



Bicycle Pedestrian Infrastructure

GENERAL PLAN BUILDOUT WITH MAXIMUM RESIDENTIAL ALTERNATIVE: CONCEPTUAL STREET LAYOUT 1 FIGURE 2.4-4



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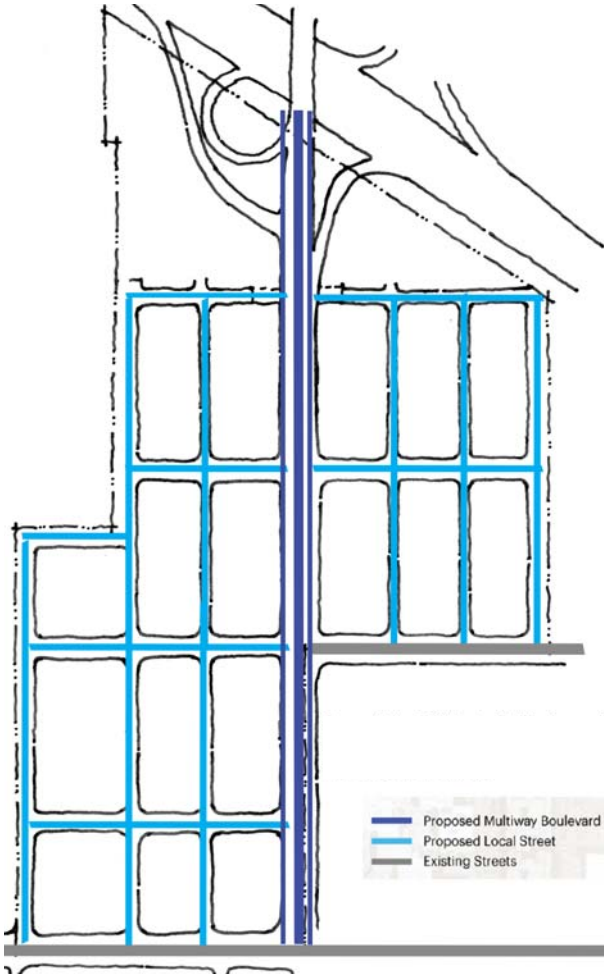
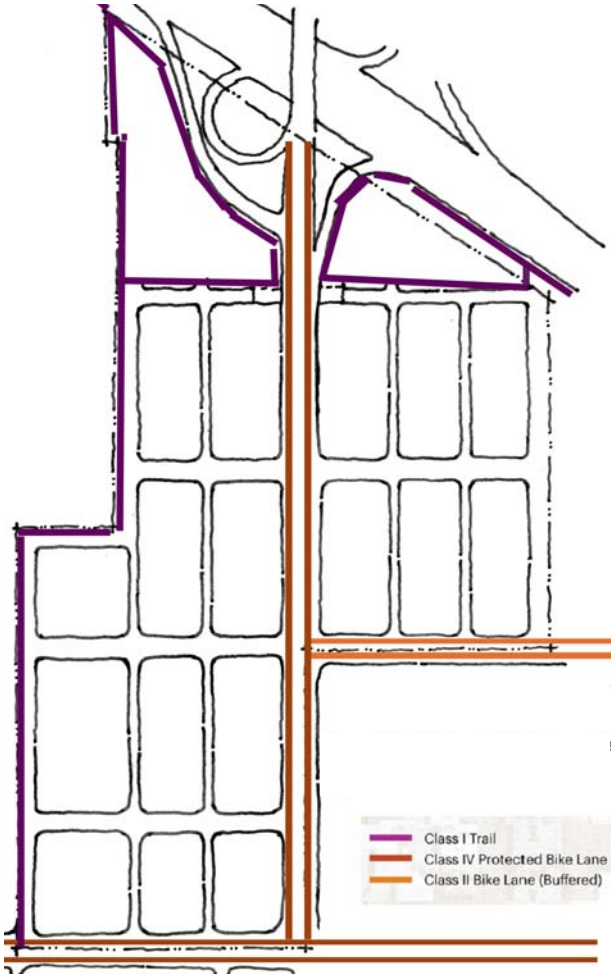
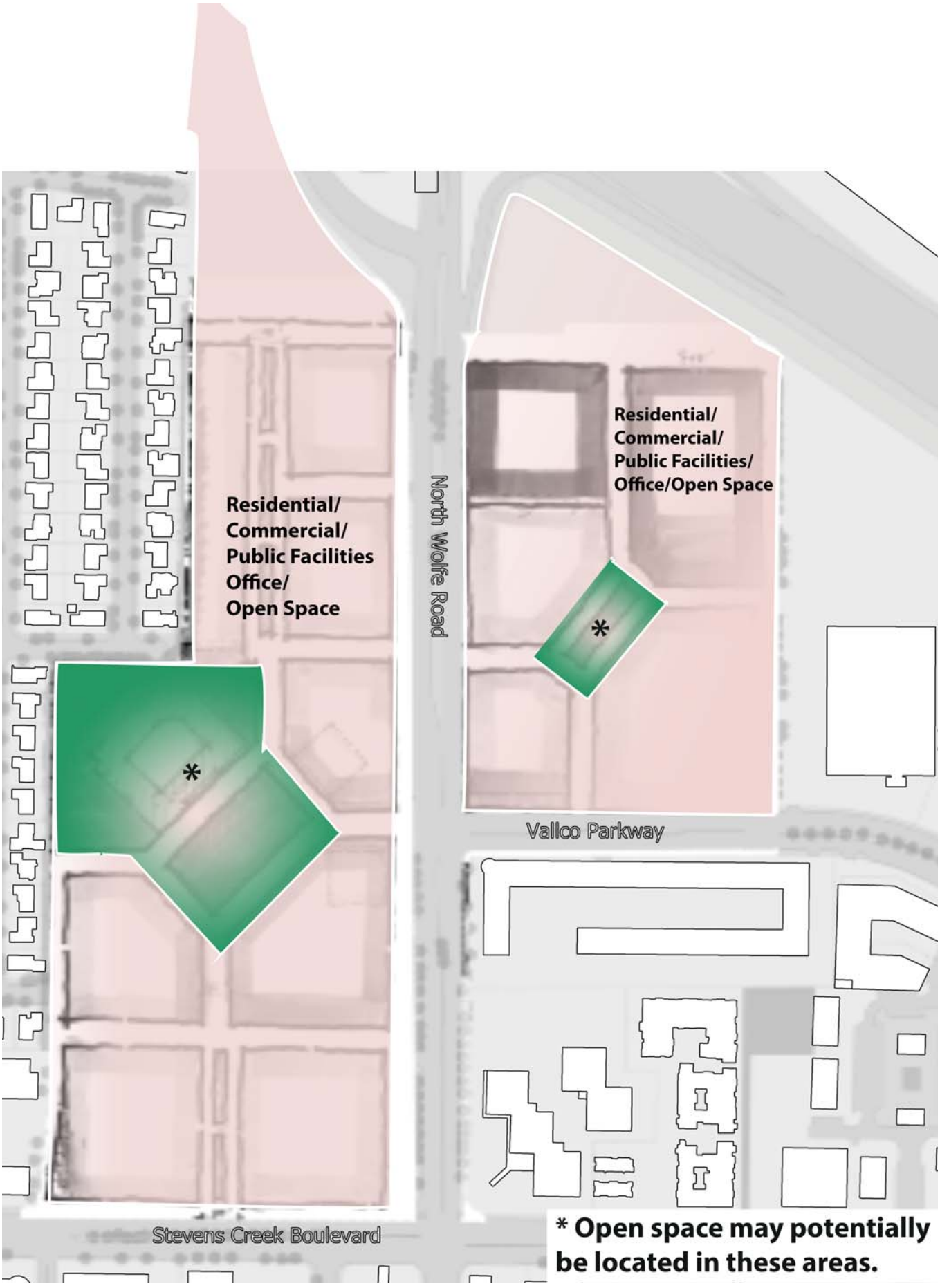


Street Network Layout



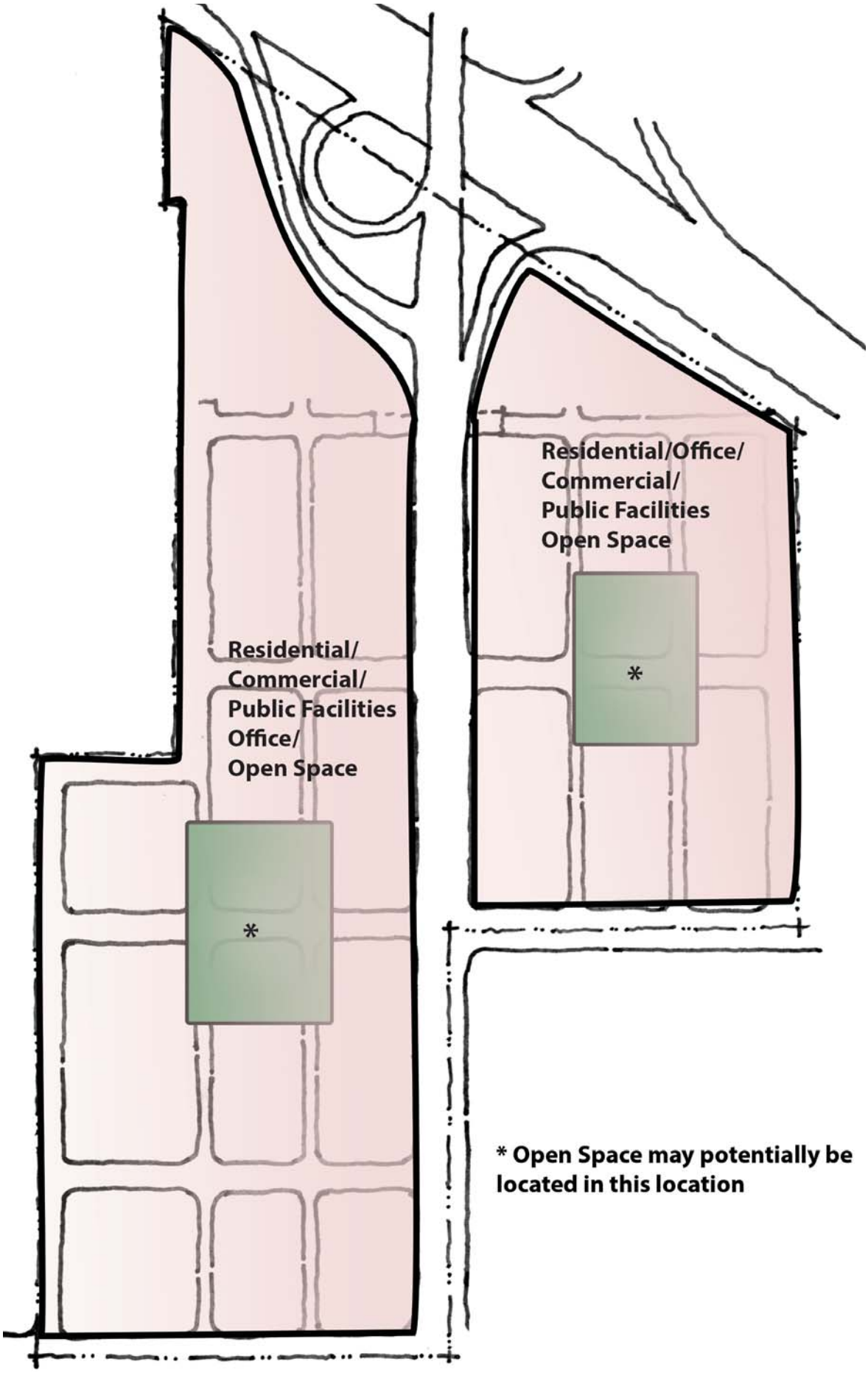
Bicycle Pedestrian Infrastructure

GENERAL PLAN BUILDOUT WITH MAXIMUM RESIDENTIAL ALTERNATIVE: CONCEPTUAL STREET LAYOUT 2 FIGURE 2.4-5



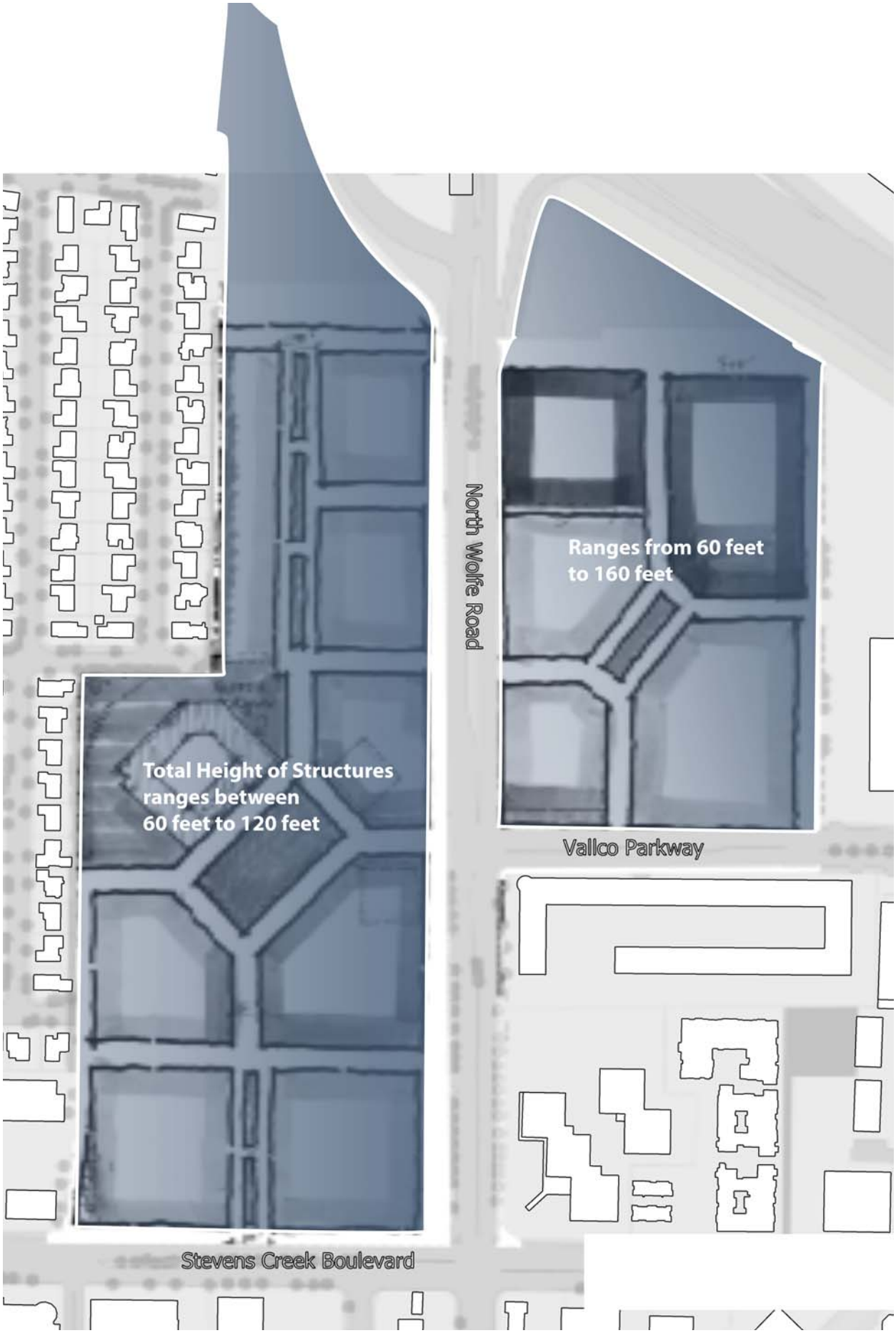
GENERAL PLAN BUILDOUT WITH MAXIMUM RESIDENTIAL ALTERNATIVE:
CONCEPTUAL LAND USE WITH STREET LAYOUT 1

FIGURE 2.4-6



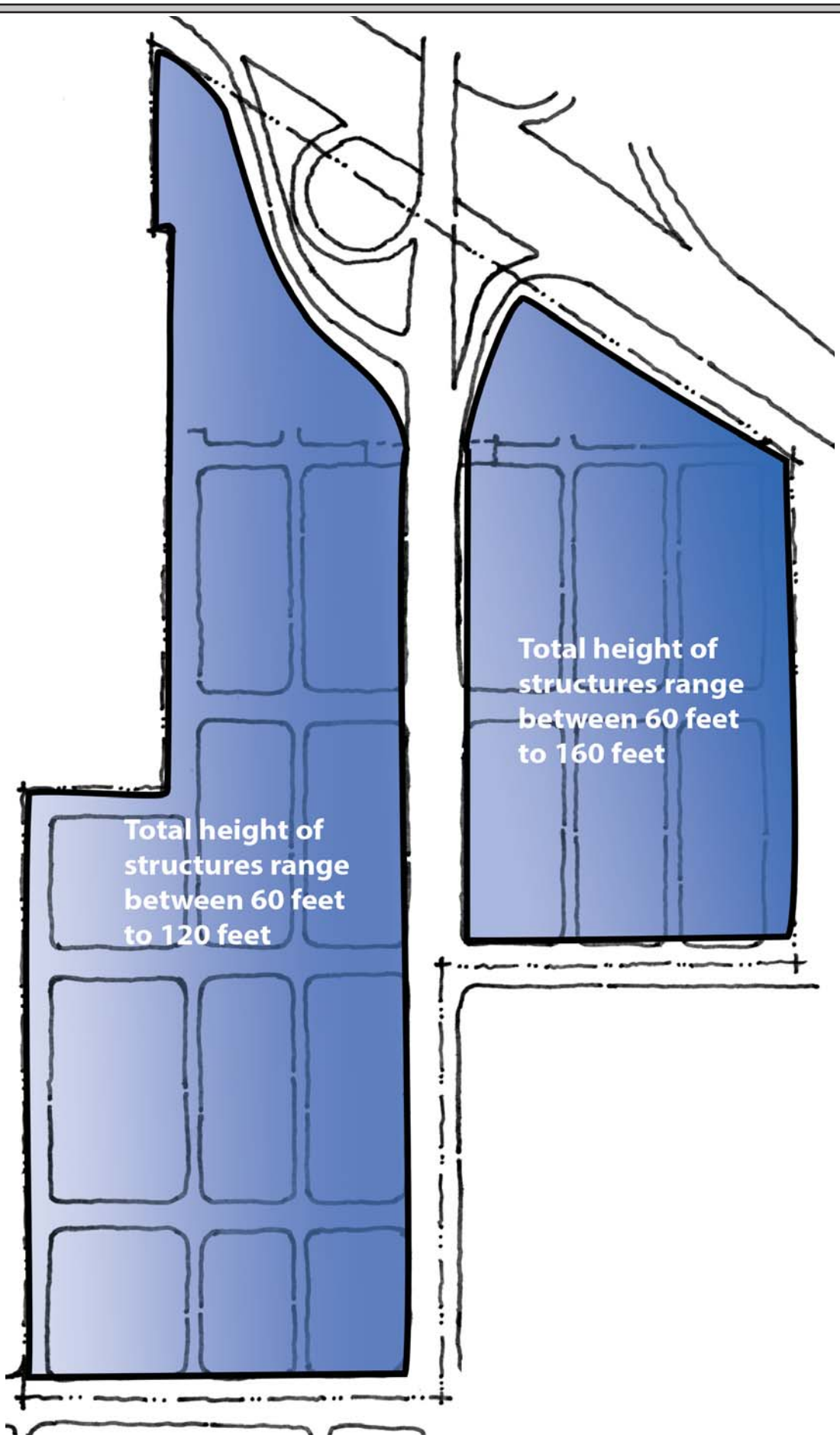
GENERAL PLAN BUILDOUT WITH MAXIMUM RESIDENTIAL ALTERNATIVE:
CONCEPTUAL LAND USE WITH STREET LAYOUT 2

FIGURE 2.4-7



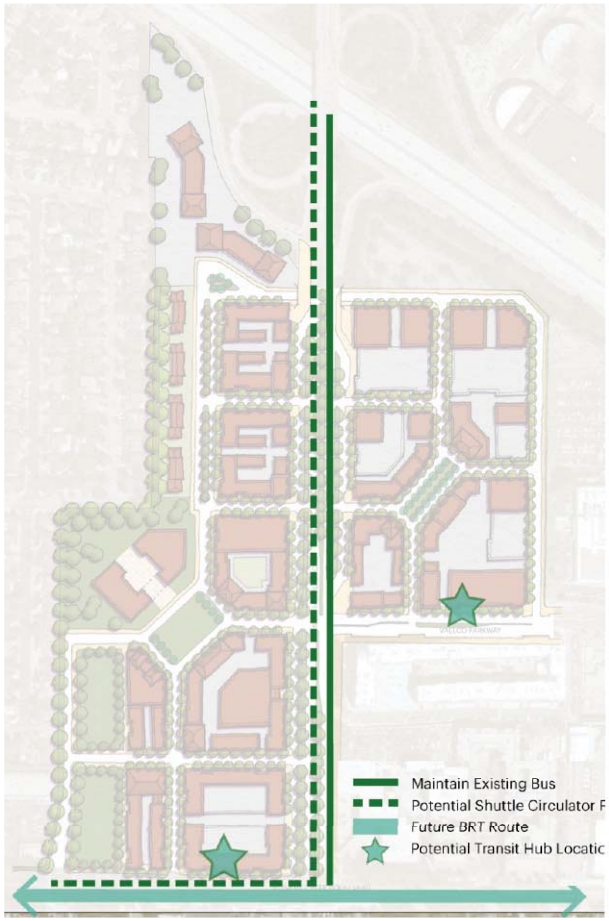
GENERAL PLAN BUILDOUT WITH MAXIMUM RESIDENTIAL ALTERNATIVE:
CONCEPTUAL BUILDING HEIGHTS WITH STREET LAYOUT 1

FIGURE 2.4-8

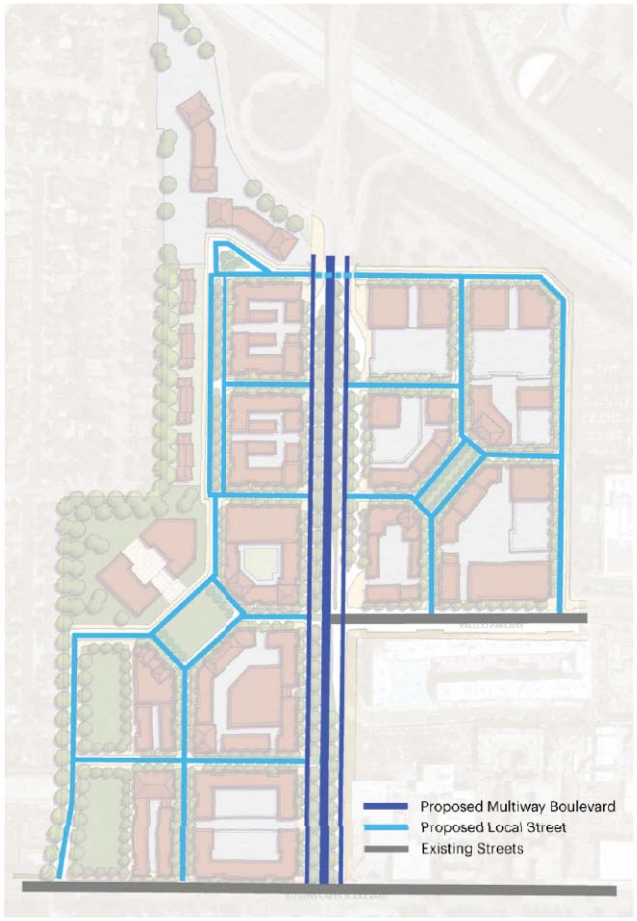


GENERAL PLAN BUILDOUT WITH MAXIMUM RESIDENTIAL ALTERNATIVE:
CONCEPTUAL BUILDING HEIGHTS WITH STREET LAYOUT 2

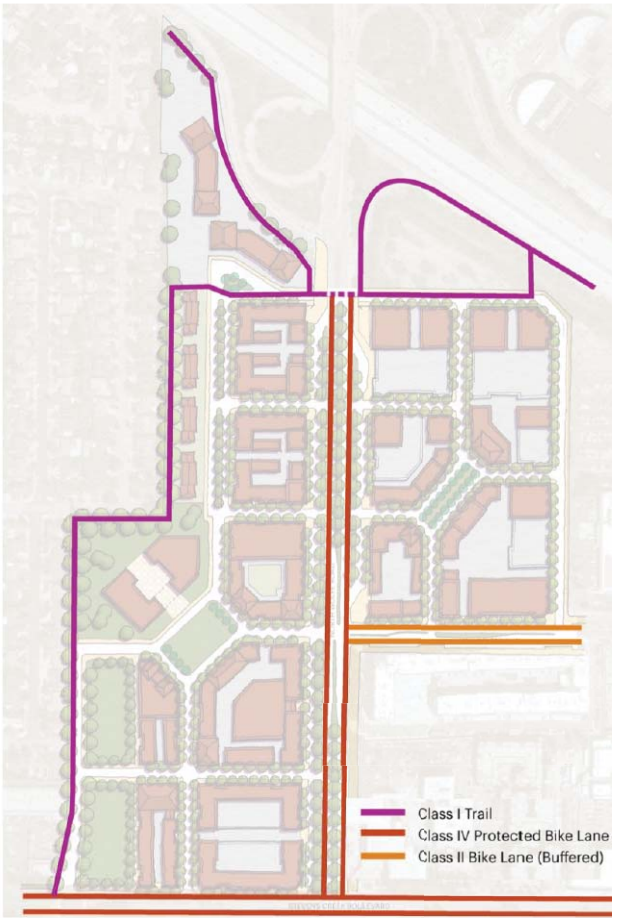
FIGURE 2.4-9



Public Transit Network

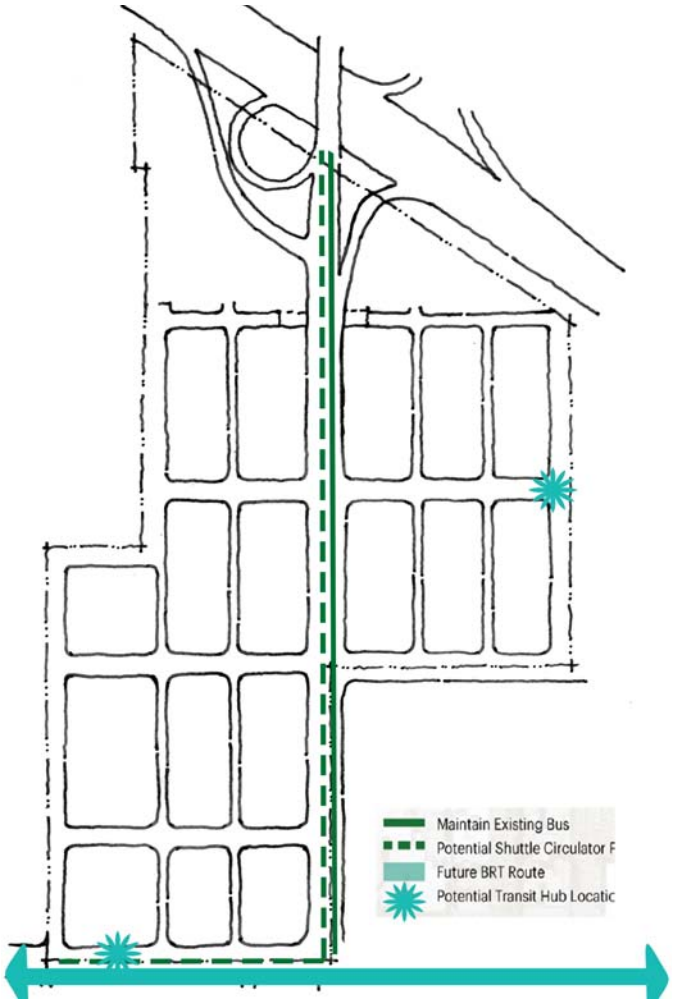


Street Network Layout

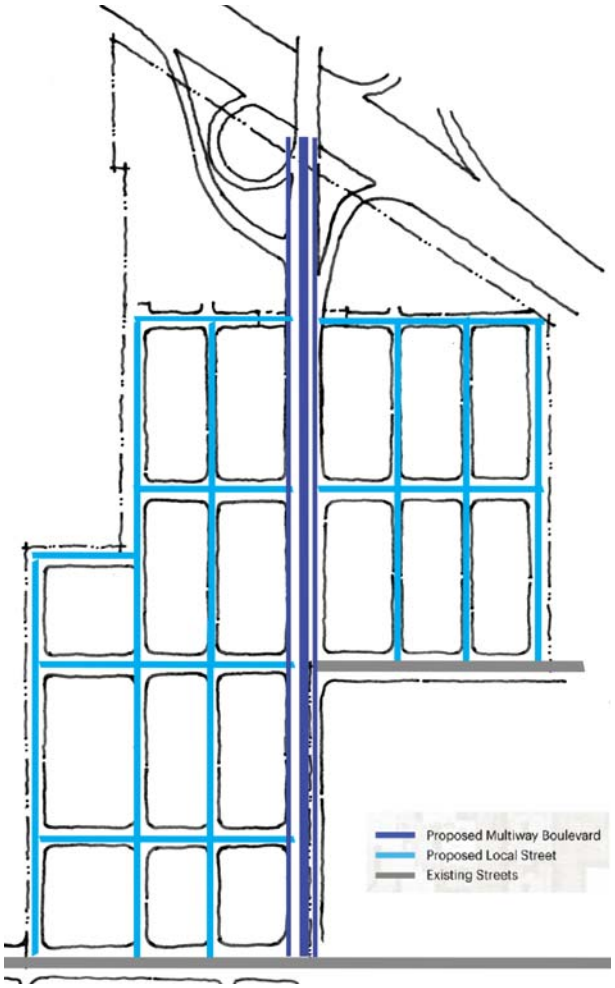


Bicycle Pedestrian Infrastructure

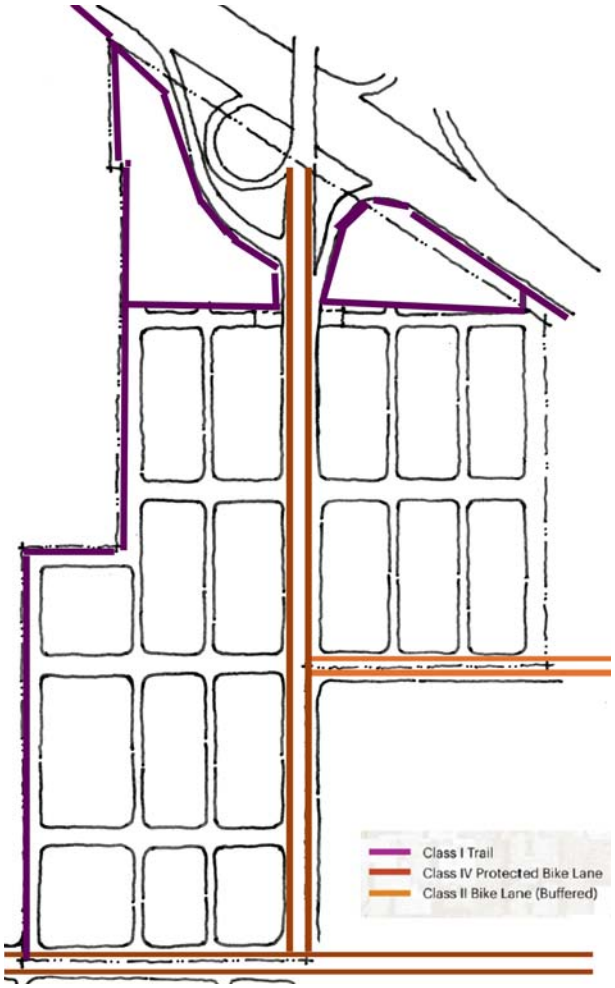
RETAIL AND RESIDENTIAL ALTERNATIVE: CONCEPTUAL STREET LAYOUT 1 FIGURE 2.4-10



Public Transit Network

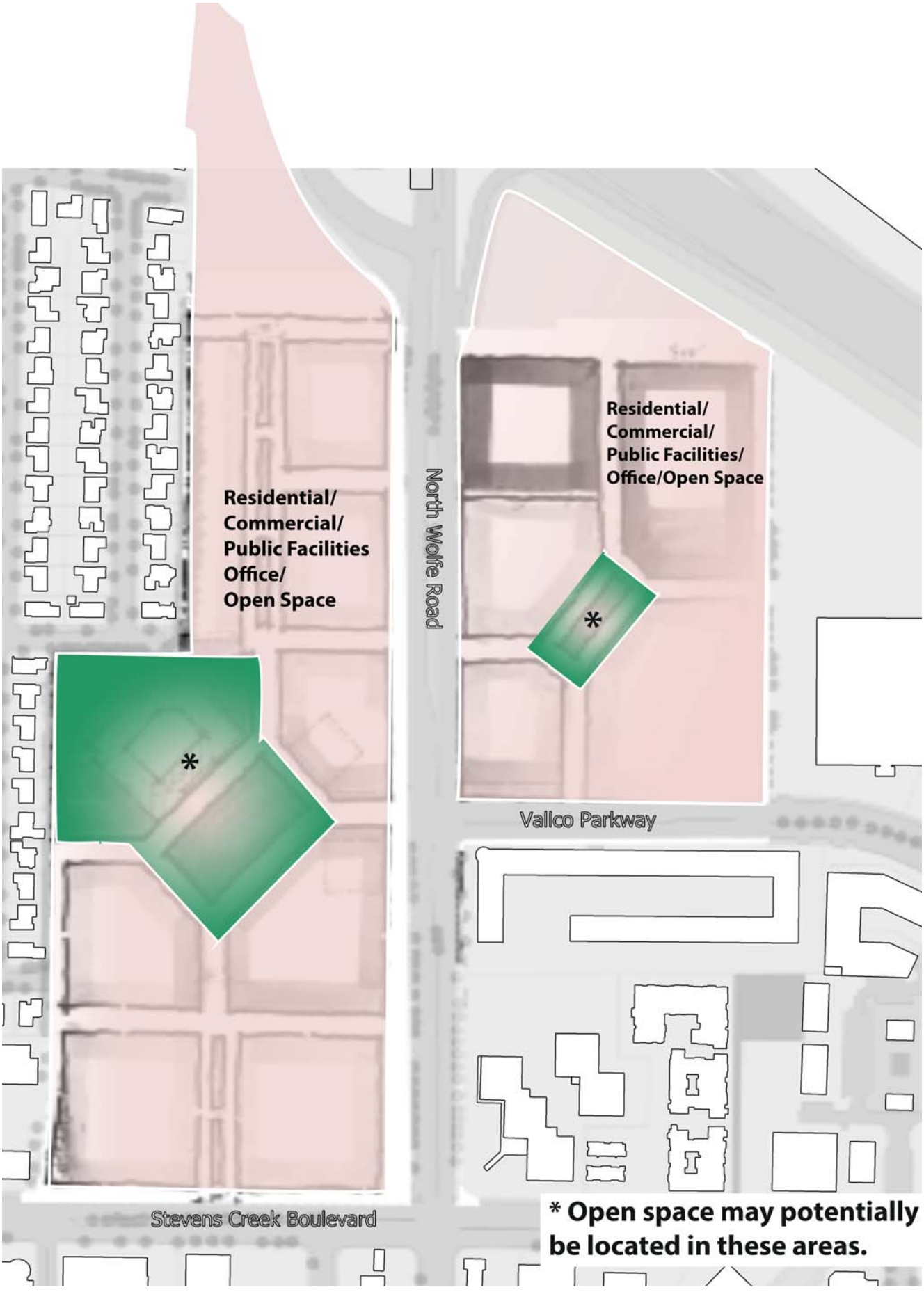


Street Network Layout

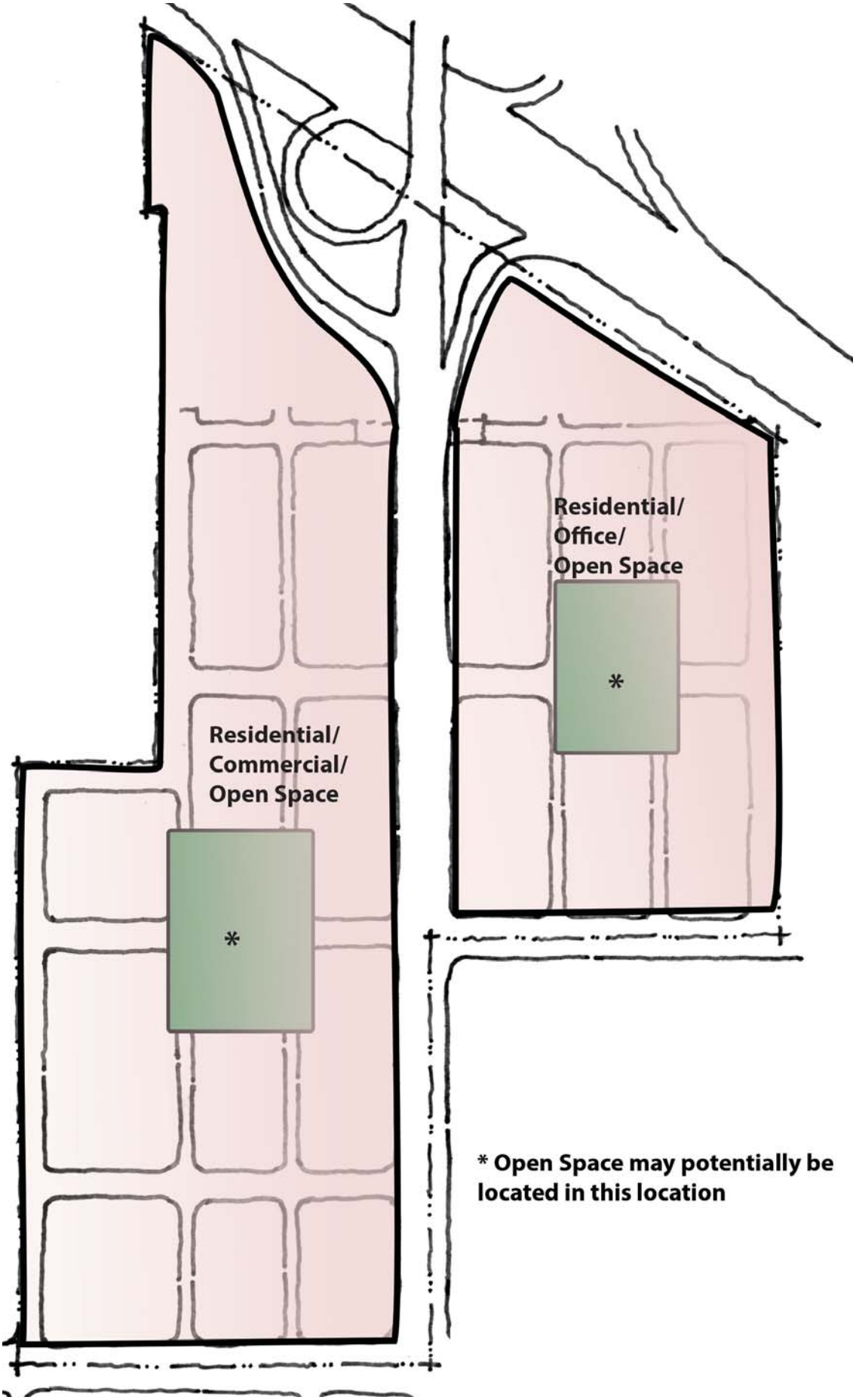


Bicycle Pedestrian Infrastructure

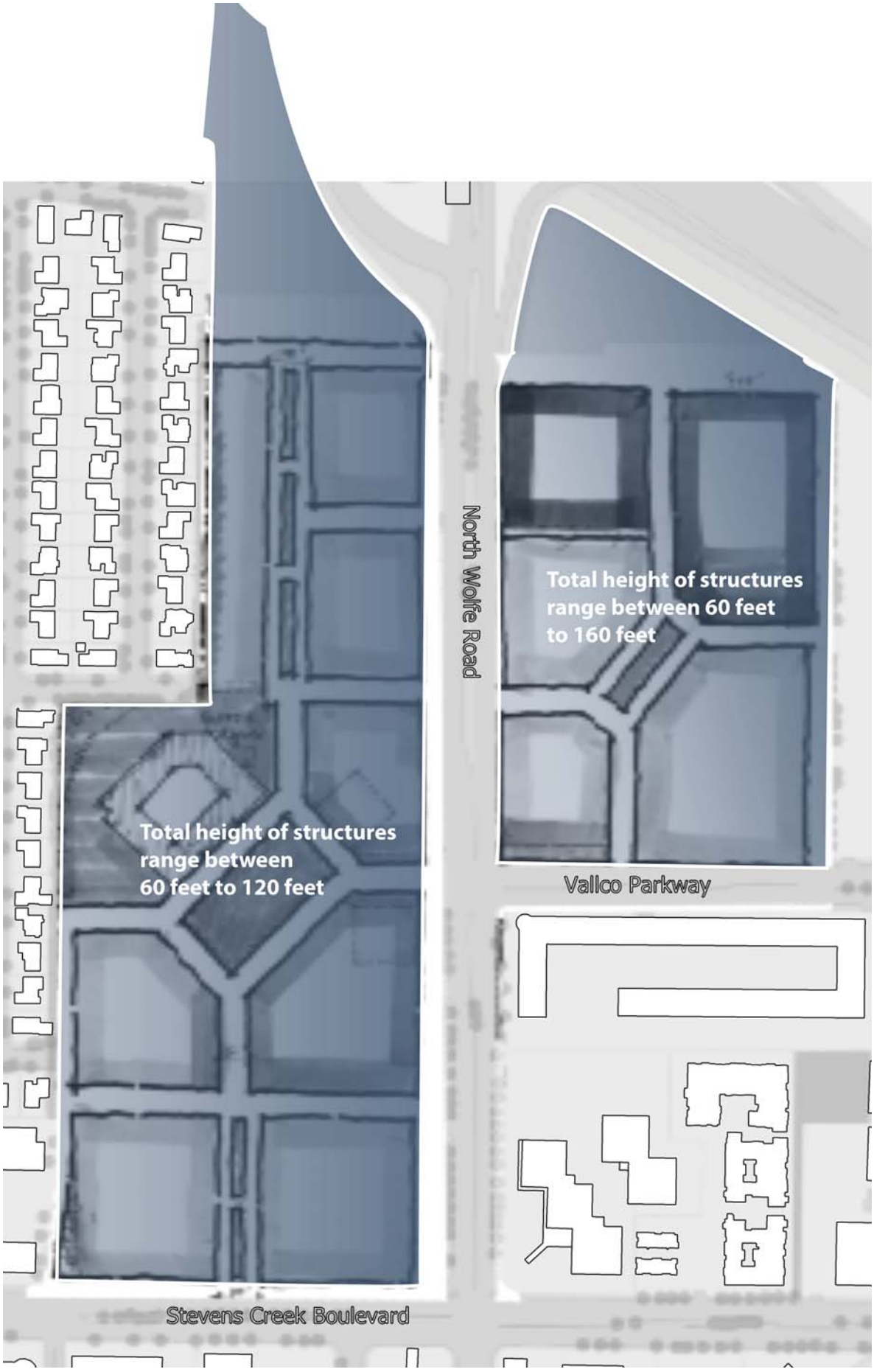
RETAIL AND RESIDENTIAL ALTERNATIVE: CONCEPTUAL STREET LAYOUT 2 FIGURE 2.4-11



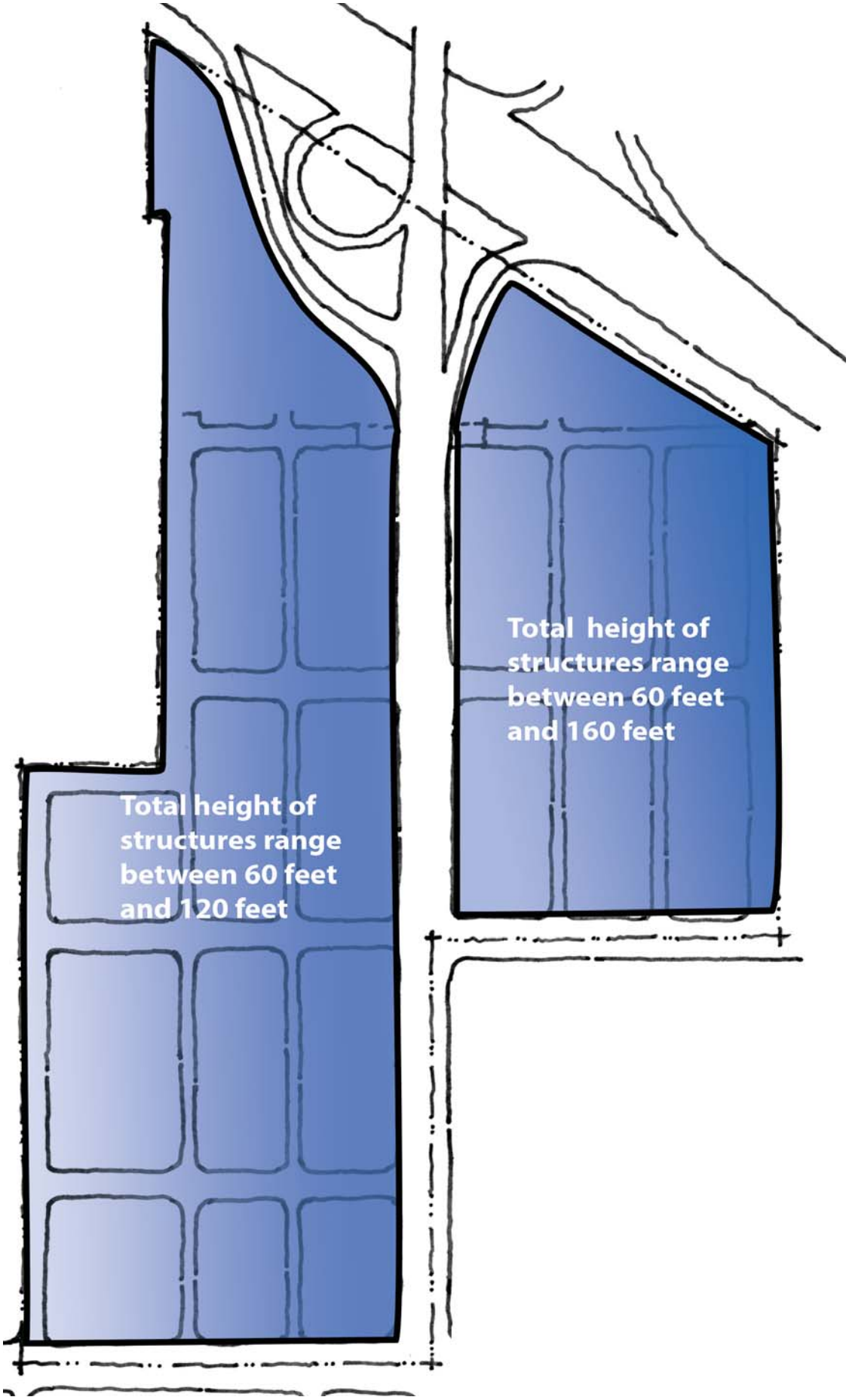
RETAIL AND RESIDENTIAL ALTERNATIVE: CONCEPTUAL LAND USE WITH STREET LAYOUT 1 FIGURE 2.4-12



RETAIL AND RESIDENTIAL ALTERNATIVE: CONCEPTUAL LAND USE WITH STREET LAYOUT 2 FIGURE 2.4-13



RETAIL AND RESIDENTIAL ALTERNATIVE: CONCEPTUAL BUILDING HEIGHTS WITH STREET LAYOUT 1 FIGURE 2.4-14



RETAIL AND RESIDENTIAL ALTERNATIVE: CONCEPTUAL BUILDING HEIGHTS WITH STREET LAYOUT 2 FIGURE 2.4-15

2.4.4 Programming Elements Common to the Proposed Project, General Plan Buildout with Maximum Residential Alternative, and Retail and Residential Alternative

2.4.4.1 *Common Open Space and Landscaping*

It is anticipated that 15 to 20 percent of the gross site area (which is approximately 10.5 to 14 acres) would be developed with open space, landscaping, and central town squares on the west and east side of the site. This is approximately the amount of space that mixed use projects of this size typically include based on Opticos Design's (the planning and urban design firm contracted to prepare the Specific Plan) prior experience in developing specific plans.[13] This includes pedestrian walkways, green ways, medians, stormwater management areas, programmed spaces, and other recreational areas. It is further anticipated that the 30-acre green roof (proposed to be part of the project and General Plan Buildout with Maximum Residential Alternative only) and between 2.8 and 5.6 acres of the open space and landscaped areas would be irrigated.

2.4.4.2 *Site Access, Circulation, and Parking*

The project site would be accessible from driveways on Stevens Creek Boulevard, Perimeter Road, Vallco Parkway, and North Wolfe Road. The Specific Plan would be designed with a grid street pattern of two-lane roadways, bike lanes, sidewalks, and/or multi-use paths within the site and possibly a frontage road on-site on the west side of North Wolfe Road. The possible frontage road along North Wolf Road would allow access into the site, and to allow pick up, drop off, and/or loading on-site. The possible frontage road would serve to separate active uses on-site from traffic on North Wolfe Road.

It is anticipated that parking for the Specific Plan development would be provided in a mix of below-ground and above-ground parking structures and parking along some of the streets within the development. Given the amount of development assumed for the project and project alternatives, most of the parking for the project would need to be provided below grade. The Specific Plan would provide parking in accordance with the City's parking regulations contained in Municipal Code Chapter 19.124. As required by the City's Municipal Code, and conservatively assuming no parking is shared between uses, the proposed project would require approximately 11,391 vehicle parking spaces. The Occupied/Re-Tenanted Mall alternative would require approximately 4,785 vehicle parking spaces; the General Plan Buildout with Maximum Residential Alternative would require approximately 11,562 vehicle parking spaces; and the Retail and Residential Alternative would require approximately 10,773 vehicle parking spaces.[14] Based on a conservative estimate of parking demand, it is estimated that two to three levels of below-ground parking across most of the site (51 acres) would be required. If any reductions in parking are allowed by state law, however, they would be applicable to the proposed Specific Plan and alternatives.

[13] Ganguly, Mitali. Associate, Opticos Design. Personal communications. March 11, 2018.
[14] Church, Franziska. Associate, Fehr & Peers. Personal communications. March 2, 2018.

2.4.4.3 *Transit Center and Transportation Demand Management Program*

The Specific Plan site is served by Santa Clara Valley Transportation Authority (VTA) bus routes and indirectly by Caltrain commuter rail service. The site acts as a transfer center for VTA bus routes and as a transit hub for private shuttles run by large employers (such as Google, Genentech, and Facebook). As part of the Specific Plan, the existing transit hub would be upgraded, and would include additional features such as an information center, drop-off point, and a bike sharing distribution point.

The Specific Plan would also include a Transportation Demand Management (TDM) program to reduce vehicle trips and vehicle miles traveled. The TDM program could include on-site transportation coordinator, ride-share marketing and promotion, unbundling parking, a transit incentive program, safe routes to school support programs, transit subsidy for employees, vanpool subsidy for employees, workplace parking pricing, employee parking cash-out, alternative work schedules and telecommute programs, and guaranteed ride home programs. Additional details about possible TDM measures are included in Table 28 in Appendix H. The TDM program for future development would be completed to the satisfaction of the City of Cupertino City's Project Planner prior to approval of a development permit. Future development would submit an annual monitoring report to the Project Planner to measure the effectiveness of the TDM plan. Additional TDM measures may be required by the City if the TDM measures are not effective.

2.4.4.4 *Utility Connections and Recycled Water Infrastructure Extension*

The Specific Plan would require connections to existing water, sanitary sewer, storm drain, communications, gas and electricity utility lines in the area. The Specific Plan includes the extension of existing Wolfe Road recycled water pipeline serving the Apple Park office campus (formerly called Apple Campus 2) approximately one mile from Homestead Road, under I-280, to the project site and possibly to Stevens Creek Boulevard. An additional pump to the existing booster pump station for the Wolfe Road recycled water pipeline may be required. Recycled water would be used on-site for landscape irrigation.

2.4.4.5 *Construction*

It is anticipated that the Specific Plan could be constructed over a period of 10 years.[15] All existing improvements on-site would be demolished. Demolition materials including concrete, asphalt, and base rock may be recycled and reused on-site. The site ground elevations would generally follow the existing topography of the site in order to minimize grading, excavation, and reworking of the existing roadways.

Two to three levels of below-ground parking over 51 acres would require a maximum excavation depth of 20 to 30 feet and result in approximately two million cubic yards of soil being excavated and hauled off-site.

Staging of construction equipment and vehicles would primarily be on-site with limited staging within the public right-of-way, as approved by the Director of Public Works.

[15] The estimated timeframe for buildout was based on projects of similar scale in the region.

2.4.4.6 *Specific Plan Assumptions*

The Specific Plan would include design policies that require the following:

- Future development shall be visually compatible (including minimizing noise, traffic, light, and visual intrusive effects) with adjacent residences by including appropriate buffers such as landscaping, screening, building transitions, and other privacy measures between the project site and adjacent residential land uses.
- Future development shall provide bicycle enhancements in the vicinity, including buffered bike lanes on Wolfe along the project site frontage.
- Future development shall reduce the heat island effect by implementing measures such cool surface treatments for parking facilities, cool roofs, cool paving, and landscaping to provide well-shaded areas.
- Future buildings shall install advanced meter infrastructure, commonly referred to as Smart Meters, to allow two-way communication between the utility company and the meter in order to more closely manage energy use and operating cost.
- Future buildings shall install solar photovoltaic power, where feasible.
- Future buildings with high hot water heating load shall install solar thermal (i.e., solar water heaters) to decrease natural gas use.
- Future development shall provide Electric Vehicle (EV) charging stations, infrastructure for EV charging, compressed natural gas charging stations, and/or preferential parking requirements for alternative-fuel vehicles.
- Future residential development shall pre-wire units to accommodate future installation of EV charging or provide EV charging systems.
- Future development shall install water-efficient fixtures, such as low-flow faucets, showerheads, and toilets, and water-efficient landscapes that utilize drought-tolerant plans and climate-sensitive/water efficient irrigation systems.
- Future development that generates substantial food waste and compostable paper (i.e., food soiled paper) shall support food waste collection services and/or provide collection bins for food waste.
- Future development under the proposed project (and General Plan Buildout with Maximum Residential Alternative and Retail and Residential Alternative) that includes sensitive receptors (such as residences or daycare centers) located within the setback distances identified in Section 3.3 and shown in Figure 3.3-1, Figure 3.3-2, and Figure 3.3-3 from I-280 and local roadways shall require site-specific analysis to quantify the level of TAC and $PM_{2.5}$ exposure. This analysis shall be conducted following procedures outlined by BAAQMD. If the site-specific analysis reveals significant exposures, such as cancer risk greater than 10 in one million acute or chronic hazards with a HI greater than 1.0, or annual $PM_{2.5}$ exposures greater than 0.3 $\mu g/m^3$, or a significant cumulative health risk in terms of excess cancer risk greater than 100 in one million, acute or chronic hazards with a HI greater than 10.0, or annual $PM_{2.5}$ exposures greater than 0.8 $\mu g/m^3$, additional measures such as those detailed below shall be implemented to reduce the risk to below the threshold. If this is not possible, the sensitive receptors shall be relocated.
  - For significant cancer risk exposure, as defined by BAAQMD, indoor air filtration systems shall be installed to effectively reduce particulate levels to below the significance threshold. Project sponsors shall submit performance specifications and

design details to demonstrate that lifetime residential exposures would result in less than significant cancer risks (less than 10 in one million chances or 100 in one million for cumulative sources), HI, and $PM_{2.5}$ concentration. To reduce significant community health risk exposure, future development shall implement the following measures:

  - Air filtration systems installed at significantly impacted sensitive receptor buildings shall be rated MERV-13 or higher and a maintenance plan for the air filtration system shall be implemented.
  - Trees and/or vegetation shall be planted between sensitive receptors and pollution sources, if feasible. Trees that are best suited to trapping particulate matter shall be planted, including the following: pine (*Pinus nigra var. maritime*), cypress *(X Cupressocyparis leylandii*), hybrid poplar (*Populus deltoids X trichocarpa*), and redwoods (*Sequoia sempervirens*).
  - Sites shall be designed to locate sensitive receptors as far as possible from any freeways, roadways, diesel generators, and distribution centers.
  - Operable windows, balconies, and building air intakes shall be located as far away from TAC sources as feasible. If future residences are located near a distribution center, residences shall not be located immediately adjacent to a loading dock or where trucks concentrate to deliver goods.

- Future development that would include TAC sources (such as diesel backup generators) would likely be evaluated through the CEQA environmental review process or BAAQMD permit process to ensure they do not cause a significant health risk in terms of excess cancer risk greater than 10 in one million, acute or chronic hazards with a HI greater than 1.0, or annual $PM_{2.5}$ exposures greater than 0.3 $\mu g/m^3$, or a significant cumulative health risk in terms of excess cancer risk greater than 100 in one million, acute or chronic hazards with a HI greater than 10.0, or annual $PM_{2.5}$ exposures greater than 0.8 $\mu g/m^3$.
- Future development shall incorporate bird safe building design measures such as the following:
  - Avoiding large, uninterrupted expanses of glass near open areas,
  - Prohibiting glass skyways and freestanding glass walls,
  - Avoiding transparent glass walls coming together at building corners,
  - Prohibiting up-lighting or spotlights,
  - Shielding outdoor lights,
  - Utilizing fritted, glazed, and/or low reflective glass.
- Consistent with General Plan Policy LU-6.3, future development shall provide a plaque, reader board and/or other educational tools on the site to explain the historic significance of the mall. The plaque shall include the city seal, name of resource (i.e., Vallco Shopping District), date it was built, a written description, and photograph. The plaque shall be placed in a location where the public can view the information.
- Outdoor dining areas located on the green roof with direct line-of-sight to the existing residences to the west of the site, opposite Perimeter Road, and to the southeast of the site, opposite Vallco Parkway and North Wolfe road, shall be setback a minimum distance of 310 feet from the nearest residential property line to meet the nighttime threshold of 55 dBA. Alternately, outdoor dining areas shall be acoustically shielded by noise barriers or buildings.
- Playgrounds proposed on the green roof shall be setback a minimum distance of 60 feet from the nearest residential property line or acoustically shielded by noise barriers.

In addition, the EIR analysis includes the following Specific Plan elements:

- Electricity for future development would be provided by Silicon Valley Clean Energy (SVCE) or another provider that sources electricity from 100 percent carbon free sources.

2.5 PROJECT OBJECTIVES

The City's objectives for the project are as follows:

- Create a distinct and memorable mixed use Town Center that is a regional destination and is a focal point for the community involving substantial redevelopment of the Vallco Special Area;
- Provide adequate development capacity on the project site to help achieve the City's Regional Housing Needs Allocation consistent with the Housing Element;
- Provide adequate development capacity for a mix of uses that will allow for the development of an economically feasible project;
- Provide the City with an avenue for generating additional sales tax revenue;
- Create a pedestrian, bike and transit-friendly environment that enhances mobility and connectivity; and
- Create a high-quality sustainable development with respect to energy, resources and ecosystems that meets the City's environmental goals and the City's Climate Action Plan.

2.6 USES OF THE EIR

This EIR provides decision makers in the City of Cupertino and the general public with environmental information to use in considering the proposed project. It is intended that this EIR be used for the discretionary approvals necessary to implement the project, as proposed. These discretionary actions may include, but are not limited to, the following:

<u>City of Cupertino</u>

- General Plan Amendments
- Rezoning
- Adoption of a Specific Plan
- Tentative Map
- Development Permits
- Architectural and Site Approvals
- Tree Removal Permits
- Development Agreement
- Encroachment permits

<u>California Department of Transportation</u>

- Encroachment permit

Ministerial permits from the City, such as grading permits, and building permits, would also be required.

SECTION 3.0 ENVIRONMENTAL SETTING, IMPACTS, AND MITIGATION

This section presents the discussion of impacts related to the following environmental subjects in their respective subsections:

3.1	Aesthetics	3.10	Hydrology and Water Quality
3.2	Agricultural and Forestry Resources	3.11	Land Use and Planning
3.3	Air Quality	3.12	Mineral Resources
3.4	Biological Resources	3.13	Noise and Vibration
3.5	Cultural Resources	3.14	Population and Housing
3.6	Energy	3.15	Public Services
3.7	Geology and Soils	3.16	Recreation
3.8	Greenhouse Gas Emissions	3.17	Transportation/Traffic
3.9	Hazards and Hazardous Materials	3.18	Utilities and Service Systems

The discussion for each environmental subject includes the following subsections:

ENVIRONMENTAL SETTING

This subsection: 1) provides a brief overview of relevant plans, policies, and regulations that compose the regulatory framework for the project and 2) describes the existing, physical environmental conditions at the project site and in the surrounding area, as relevant to the impact being evaluated. The environmental baseline, for purposes of this EIR, consists of the physical environmental conditions in the vicinity of the project as they exist at the time the Notice of Preparation was published, in addition to which a future environmental baseline based on approximately year 2028 is used to evaluate background traffic impacts and year 2040 is used to evaluate cumulative traffic impacts.

IMPACTS

This subsection: 1) includes thresholds of significance for determining impacts, 2) discusses the project's consistency with those thresholds, and 3) discusses the project's consistency with applicable plans. For significant impacts, feasible mitigation measures are identified. "Mitigation measures" are measures that will minimize, avoid, or eliminate a significant impact (CEQA Guidelines Section 15370). Each impact is numbered using an alphanumeric system that identifies the environmental issue. For example, **Impact HAZ-1** denotes the first potentially significant impact discussed in the Hazards and Hazardous Materials section. Mitigation measures are also numbered to correspond to the impact they address. For example, **MM NOI-2.3** refers to the third mitigation measure for the second impact in the Noise section.

Planning Considerations

In December 2015, the California Supreme Court ruled that CEQA, with several specific exceptions, is concerned with the impacts of a project on the environment, not the effects the existing environment may have on a project (*California Building Industry Association v. Bay Area Air Quality Management District* [2015] 62 Cal. 4th 369.). The court's ruling allowed for several exceptions to the general rule regarding when an analysis of the project on the environment is warranted: 1) if the project would exacerbate existing environmental hazards (such as exposing hazardous waste that is currently buried); 2) if the project qualifies for certain specific specified exemptions (certain housing projects and transportation priority projects PRC 21159.21 (f),(h); 21159.22 (a),(b),(3); 21159.23 (a)(2)(A); 21159.24 (a)(1),(3); or 21155.1(a)(4),(6)); 3) if the project is exposed to potential noise and safety impacts on the project occupants due to proximity to an airport (PRC 21096); and 4) school projects requiring specific assessment of certain environmental hazards (PRC 21151.8). Therefore, the evaluation of the significance of project impacts under CEQA in the following sections focuses on impacts of the project on the environment, including whether a project may exacerbate existing environmental hazards.

The City of Cupertino currently has policies that address existing conditions (e.g., air quality, noise, and hazards) affecting a proposed project. This is consistent with one of the primary objectives of CEQA and this document, which is to provide objective information to decision-makers and the public regarding a project as a whole. The CEQA Guidelines and the courts are clear that a CEQA document (e.g., EIR or Initial Study) can include information of interest even if such information is not an "environmental impact" as defined by CEQA.

Therefore, where applicable, in addition to describing the impacts of the project on the environment, this section will discuss planning considerations that relate to policies pertaining to existing conditions. Such examples include, but are not limited to, locating a project near sources of air emissions that can pose a health risk, in a floodplain, in a geologic hazard zone, in a high noise environment, or on/adjacent to sites involving hazardous substances.

Cumulative Impacts

The project's cumulative impact on the resource is also discussed. Cumulative impacts, as defined by CEQA, refer to two or more individual effects, which when combined, compound or increase other environmental impacts. Cumulative impacts may result from individually minor, but collectively significant effects taking place over a period of time. CEQA Guideline Section 15130 states that an EIR should discuss cumulative impacts "when the project's incremental effect is cumulatively considerable." The discussion does not need to be in as great detail as is necessary for project impacts, but is to be "guided by the standards of practicality and reasonableness." The purpose of the cumulative analysis is to allow decision makers to better understand the impacts that might result from approval of past, present, and reasonably foreseeable future projects, in conjunction with the proposed project addressed in this EIR.

The CEQA Guidelines advise that a discussion of cumulative impacts should reflect both their severity and the likelihood of their occurrence. CEQA Guidelines Section 15130(b). To accomplish these two objectives, the analysis should include either a list of past, present, and probable future

projects or a summary of projections from an adopted general plan or similar document. CEQA Guidelines Section 15130(b)(1). This EIR uses the list of projects approach.

The analysis must determine whether the project's contribution to any cumulatively significant impact is cumulatively considerable, as defined by CEQA Guideline Section 15065(a)(3). The cumulative impacts discussion for each environmental issue accordingly addresses the following issues: 1) would the effects of all of past, present, and probable future (pending) development result in a significant cumulative impact on the resource in question; and, if that cumulative impact is likely to be significant, 2) would the contribution from the proposed project (or project alternatives) to that significant cumulative impact be cumulatively considerable?

Table 2.6-1 identifies the approved (but not yet constructed or occupied) and pending projects in the project vicinity that are evaluated in the cumulative analysis.

Table 2.6-1: Cumulative Projects List

Project Name	Address	Project Description
Approved But Not Yet Constructed/Occupied Projects		
Apple Park	10600 North Tantau Ave, Cupertino	2.8 million square feet of office; 1,000 seat auditorium, 600,000 square feet of Research and Development (R&D) offices
Hyatt House Hotel	10380 Perimeter Road, Cupertino (northeast portion of the project site)	148 hotel rooms
Main Street Cupertino	Northwest corner of Stevens Creek Boulevard and North Tantau Avenue, Cupertino	120 apartments and 20,000 square feet of retail
The Hamptons	19500 Pruneridge Ave, Cupertino	942 apartments
Marina Plaza	10118-10122 Bandley Street, Cupertino	188 apartments, 22,600 square feet of retail, 122 hotel rooms
The Gallery at Central Park	900 Kiely Boulevard, Santa Clara	397 residential units
Bowers Avenue Office campus	3000 Bowers Avenue, Santa Clara	300,000 square feet of office
City Place Santa Clara	5155 Stars & Stripes Drive, Santa Clara	240 acres of mixed use development (Phase 1-3)
Gateway Village	3610 and 3700 El Camino Real, Santa Clara	476 residential units, 108,600 square feet of retail
Lawson Lane Office Campus Phase 2	2215 and 2225 Lawson Lane, Santa Clara	153,450 square feet of office

Table 2.6-1: Cumulative Projects List		
Project Name	**Address**	**Project Description**
NVIDIA	2600, 2800 San Tomas Expressway and 2400 Condensa Street, Santa Clara	1.9 million square feet of office
Santa Clara Square	2600-2016 Augustine Drive (Multiple Addresses on Augustine, Montgomery, Scott, Coronado and Octavious), Santa Clara	2,200 apartments, 40,000 square feet of retail
Scott Boulevard Office Campus	3333 Scott Boulevard, Santa Clara	735,000 square feet of office
Stevens Creek Boulevard Office Campus	5407 and 5409 Stevens Creek Boulevard, Santa Clara	147,500 square feet of office (Phase 2)
Lawrence Station Project	3505 Kifer Road, Santa Clara	988 residential units, 35,200 square feet of retail
Butcher's Corner	871 and 895 E. Fremont Avenue, Sunnyvale	138 residential units, 6,930 square feet of retail
Cityline	2502 Town Center, Sunnyvale	315,000 square feet of office, 650,000 square feet of retail, 292 apartments, 200 hotel rooms
North Sunnyvale Projects	North of Central Expressway, Sunnyvale	10 million square feet of office, 1,600 hotel rooms, 1,370 residential units
South Sunnyvale Projects	South of Central Expressway, Sunnyvale	760,000 square feet of office, 340 hotel rooms, 980 apartments
Pending Projects		
I-280/Wolfe Road Interchange	Cupertino	Modify the interchange to improve traffic operations, facilities for bicycles and pedestrians, and improve HOV lane use
Cupertino Hotel	10931 North De Anza Boulevard, Cupertino	156 hotel rooms
Cupertino Village/Boutique Hotel	10765-10801 North Wolfe Road, Cupertino	185 hotel rooms
Mariani's Inn	2500 El Camino Real, Santa Clara	392 residential units, 224,400 square feet of retail uses
Midtown Village	90 N Winchester Boulevard, Santa Clara	165 senior residential units
North Sunnyvale Projects	North of Central Expressway, Sunnyvale	725,000 square feet of office, 120 residential units

Table 2.6-1: Cumulative Projects List		
Project Name	**Address**	**Project Description**
South Sunnyvale Projects	South of Central Expressway, Sunnyvale	2.0 million square feet of office, 125 hotel rooms

For each environmental issue, cumulative impacts may occur within different geographic areas. For example, the project effects on air quality would combine with the effects of projects in the entire air basin, whereas noise impacts would primarily be localized to the surrounding area.

Consistency with Applicable Plans

The project's consistency with applicable plans (such as general plans, specific plans, and regional plans) is also discussed within this subsection, as applicable, pursuant to CEQA Guidelines Section 15125(d).

3.1 AESTHETICS

3.1.1 Environmental Setting

3.1.1.1 *Regulatory Framework*

State

Senate Bill 743

Senate Bill (SB) 743 was adopted in 2013 and requires lead agencies to use alternatives to level of service (LOS) for evaluating transportation impacts, specifically, vehicle miles traveled (VMT). SB 743 also includes several important changes to CEQA that apply to transit oriented developments, including aesthetics and parking. Specifically with regard to parking, SB 743 requires that the parking impacts of a residential, mixed-use residential, or employment center project, as defined, on an infill site, as defined, within a transit priority area, as defined, shall not be considered significant impacts on the environment. A project's aesthetic (and parking) impacts will no longer be considered significant impacts on the environment if:

1. The project is a residential, mixed-use residential, or employment center project, and
2. The project is located on an infill site within a transit priority area.[16]

The exemption for aesthetic impacts does not include impacts to historic or cultural resources, however. Local governments retain their ability to regulate a project's transportation, aesthetics, and parking impacts outside of the CEQA process. Amendments to the CEQA Guidelines to address SB 743 are expected to be adopted in mid-2018 and are scheduled to apply statewide on January 1, 2020.

Scenic Highways Program

The California Scenic Highway Program is managed by the California Department of Transportation (Caltrans). The program is intended to protect and enhance the natural scenic beauty of California highways and adjacent corridors through special conservation treatment. State laws governing the Scenic Highway Program are found in the Streets and Highway Code, Sections 260 through 263. There are no state-designated scenic highways in Cupertino. I-280 from the San Mateo County line to State Route 17 is an eligible, but not officially designated, State Scenic Highway. The status of the proposed state scenic highway changes from "eligible" to officially "designated" when the local governing body applies to Caltrans for scenic highway approval, adopts a Corridor Protection

[16] An "infill site" is defined as "a lot located within an urban area that has been previously developed, or on a vacant site where at least 75 percent of the perimeter of the site adjoins, or is separated only by an improved public right-of-way from, parcels that are developed with qualified urban uses." A "transit priority area" is defined as "an area within one-half mile of a major transit stop that is existing or planned, if the planned stop is scheduled to be completed within the planning horizon included in a Transportation Improvement Program adopted pursuant to Section 450.216 or 450.322 of Title 23 of the Code of Federal Regulations." A "major transit stop" means "a site containing an existing rail transit station, a ferry terminal served by either a bus or rail transit service, or the intersection of two or more major bus routes with a frequency of service interval of 15 minutes or less during the morning and afternoon peak commute periods." Source: Office of Planning and Research. "Changes to CEQA for Transit Oriented Development – FAQ." October 14, 2014. Accessed: May 1, 2018. Available at: http://www.opr.ca.gov/ceqa/updates/sb-743/transit-oriented.html.

Program, and receives notification that the highway has been officially designated a scenic highway. The City of Cupertino has not applied to Caltrans for scenic highway approval.

Cupertino General Plan: Community Vision 2015-2040

The Cupertino General Plan, *Community Vision 2015-2040*, is the City's General Plan that describes the community's overall philosophy regarding the character and accessibility of existing and new neighborhoods and mixed-use corridors and contains goals, policies, and strategies for implementing the community's vision. The proposed project (and project alternatives) are subject to General Plan policies and strategies including, but not limited to, the policies and strategies listed below pertaining to aesthetics.

Policy/Strategy	Description
Policy LU-2.2	Require developments to incorporate pedestrian-scaled elements along the street and within the development such as parks, plazas, active uses along the street, active uses, entries, outdoor dining, and public art.
Policy LU-3.3	Ensure that building layouts and design are compatible with the surrounding environment and enhance the streetscape and pedestrian activity.
Strategy LU-3.3.1	Emphasize attractive building and site design by paying careful attention to building scale, mass, placement, architecture, materials, landscaping, screening of equipment, loading areas, signage and other design considerations.
Strategy LU-3.3.2	Ensure that the scale and interrelationships of new and old development complement each other. Buildings should be grouped to create a feeling of spatial unity.
Strategy LU-3.3.3	Buildings should be designed to avoid abrupt transitions with existing development, whether they are adjacent or across the street. Consider reduced heights, buffers and/or landscaping to transition to residential and/or low-intensity uses in order to reduce visual and privacy impacts.
Strategy LU-3.3.5	Encourage building location and entries closer to the street while meeting appropriate landscaping and setback requirements.
Strategy LU-3.3.6	Promote high-quality architecture, appropriate building articulation and use of special materials and architectural detailing to enhance visual interest.
Strategy LU-3.3.7	Ensure development enhances pedestrian activity by providing active uses within mixed-use areas and appropriate design features within residential areas along a majority of the building frontage facing the street. Mixed-use development should include retail, restaurant, outdoor dining, main entries, etc. Residential development should include main entrances, lobbies, front stoops and porches, open space and other similar features.
Strategy LU-3.3.8	Allow drive-up service facilities only when adequate circulation, parking, noise control, architectural features and landscaping are compatible with the expectations of the Planning Area, and when residential areas are visually buffered. Prohibit drive-up services in areas where pedestrian-oriented activity and design are highly encouraged, such as Heart of the City, North De Anza Boulevard, Monta Vista Village and neighborhood centers.
Strategy LU-3.3.9	Maintain and update Specific/Conceptual plans and design guidelines for Special Areas such as Heart of the City, Crossroads, Homestead Corridor, Vallco Shopping District, North and South De Anza corridors and Monta Vista Village.
Strategy LU-3.3.10	In multi-family projects where residential uses may front on streets, require pedestrian-scaled elements such as entries, stoops and porches along the street.

Policy/Strategy	Description
Strategy LU-3.3.11	Allow construction of multiple-story buildings if it is found that nearby residential districts will not suffer from privacy intrusion or be overwhelmed by the scale of a building or group of buildings.
Policy LU-3.4	In surface lots, parking arrangements should be based on the successful operation of buildings; however, parking to the side or rear of buildings is desirable. No visible garages shall be permitted along the street frontage. Above grade structures shall not be located along street frontages and shall be lined with active uses on the ground floor on internal street frontages. Subsurface/deck parking is allowed provided it is adequately screened from the street and/or adjacent residential development.
Policy LU-4.2	Ensure that tree planting and landscaping along streets visually enhances the streetscape and is consistent for the vision for each Planning Area (Special Areas and Neighborhoods) • Maximize street tree planting along arterial street frontages between buildings and/or parking lots. • Provide enhanced landscaping at the corners of all arterial intersections. • Enhance major arterials and connectors with landscaped medians to enhance their visual character and serve as traffic calming devices. • Develop uniform tree planting plans for arterials, connectors and neighborhood streets consistent with the vision for the Planning Area. • Landscape urban areas with formal planting arrangements. • Provide a transition to rural and semi-rural areas in the city, generally west of Highway 85, with informal planting.
Policy LU-19.1	Create a Vallco Shopping District Specific Plan prior to any development on the site that lays out the land uses, design standards and guidelines, and infrastructure improvements required. The Specific Plan will be based on the following strategies:
Strategy LU-19.1.9	Buildings should have high-quality architecture, and an emphasis on aesthetics, human scale, and create a sense of place. Taller buildings should provide appropriate transitions to fit into the surrounding area.
Strategy LU-19.1.10	High-quality buildings with architecture and materials befitting the gateway character of the site. The project should provide gateway signage and treatment.
Strategy LU-19.1.12	Parking in surface lots shall be located to the side or rear of buildings. Underground parking beneath buildings is preferred. Above grade structures shall not be located along major street frontages. In cases, where above-grade structures are allowed along internal street frontages, they shall be lined with retail, entries and active uses on the ground floor. All parking structures should be designed to be architecturally compatible with a high-quality "town center" environment.
Strategy LU-19.1.14	Consider buffers such as setbacks, landscaping and/or building transitions to buffer abutting single-family residential areas from visual and noise impacts.
Policy LU-26.4	Encourage projects to include building transitions, setbacks and landscaping to provide a buffer for adjoining low-intensity residential uses.
Policy LU-27.1	Ensure that new development within and adjacent to residential neighborhoods is compatible with neighborhood character.
Strategy LU-27.1.3	When neighborhoods are in transition, add flexibility for requirements for new development that acknowledge the transition while continuing to respect the existing neighborhood.

Policy/Strategy	Description
Policy LU-27.2	Ensure that new development in and adjacent to neighborhoods improve the walkability of neighborhoods by providing inviting entries, stoops and porches along the street frontage, compatible building design and reducing visual impacts of garages.
Policy LU-27.7	Protect residential neighborhoods from noise, traffic, light and visually intrusive effects from more intense development with landscape buffers, site design, setbacks, and other appropriate measures.
Policy M-2.2	Design roadway alignments, lane widths, medians, parking and bicycle lanes, and sidewalks to complement adjacent land uses to keep with the aesthetic vision of the Planning Area. Improvement standards shall also consider the urban, suburban and rural environments found within the City.

Cupertino Municipal Code

The City's Zoning Ordinance (Title 19 of the City's Municipal Code) sets forth the standards requiring architectural and site review and stipulating aesthetic criteria for new development. Under Section 19.168, the City is responsible for the review of architectural and site designs of buildings within the City to promote and ensure compliance with the goals and objectives identified in the General Plan.

Title 14 of the City's Municipal Code (Street, Sidewalks and Landscaping) contains development standards related to street improvements, encroachments, landscaping, and undergrounding of utilities.

3.1.1.2 *Existing Conditions*

Scenic Vistas and Resources

A scenic vista is a view of an area that is visually or aesthetically pleasing. Aesthetic components of a scenic vista include scenic quality, sensitivity level, and view access. Scenic vistas are generally interpreted as long-range views of a specific scenic features (e.g., open space lands, mountain ridges, bay, or ocean views).

The eastern part of the City, where the project site is located, is relatively flat. Given this and the fact that the project site area is built out, views of scenic vistas from the project site are limited. Glimpses of the Santa Cruz Mountain Range to the west can be seen from Stevens Creek Boulevard, which forms the southerly boundary of the site.

There are no designated scenic highways within the City of Cupertino.

Visual Character and Quality

The project site is considered the City's regional shopping mall district and primarily consists of one to three story, large scale buildings that straddle North Wolfe Road. The exterior of the buildings consists of large expanses of walls with minimal articulation and windows. There is an enclosed, pedestrian bridge with shops and store fronts that connects the buildings on the east and west sides of North Wolfe Road.

The satellite buildings at the northern end of North Wolfe Road (formerly TGI Fridays and Alexander's Steakhouse), the parking lot behind the former Sears Auto Center (at the corner of Perimeter Road and Stevens Creek Boulevard, and the former Sears Auto Center building, are surrounded by screened construction fencing.

The perimeter of the site includes sidewalks lined with rows of mature landscaping trees, grass, and shrubs. The project site also includes large amounts of parking, both surface and structured, that are visible from Stevens Creek Boulevard and North Wolfe Road.

From I-280, views of the project site are obscured with dense vegetation and mature trees. The "Vallco Fashion Park" landmark sign (per Municipal Code Chapter 19.104) and the five-story Hyatt House hotel (under construction) are visible from I-280. Views of the project site are shown in Photos 1-4.

Location within a Transit Priority Area

The project site is located within a transit priority area, as defined in SB 743. Bus routes 23 and 323 on Stevens Creek Boulevard qualify as major transit stops because the routes have headways of 15 minutes or less during the AM and PM peak commute periods. The project site is within one-half mile of bus stops for routes 23 and 323 (refer to Figure 3.1-1).

The project site is generally surrounded by low density, one to two-story single-family residences (constructed in the early 1960s), commercial, and office development (circa 1970s-1980s) to the west, east, and south. This development represents a variety of architectural styles. Development at the southwest corner of Vallco Parkway and North Wolfe Road, however, consists of a recently constructed, five-story mixed use development (nineteen800) with four stories of residential units above ground floor retail. This development includes pedestrian-scale features, including planter boxes, outdoor dining, and pergolas. The building has visual variation with the use of color, stone work, windows, and balconies. A new mixed use development (Main Street Cupertino) east of the project site, at the northwest corner of Stevens Creek Boulevard and South Tantau Avenue, consists of one to five-story commercial, residential, and office uses. This development also has pedestrian-scale features including landscaping, awnings, and outdoor dining. The development varies in height and includes several different building materials including glass, stone, wood, and metal.

PHOTO 1: View of project site and adjacent mixed use development from Vallco Parkway looking west.

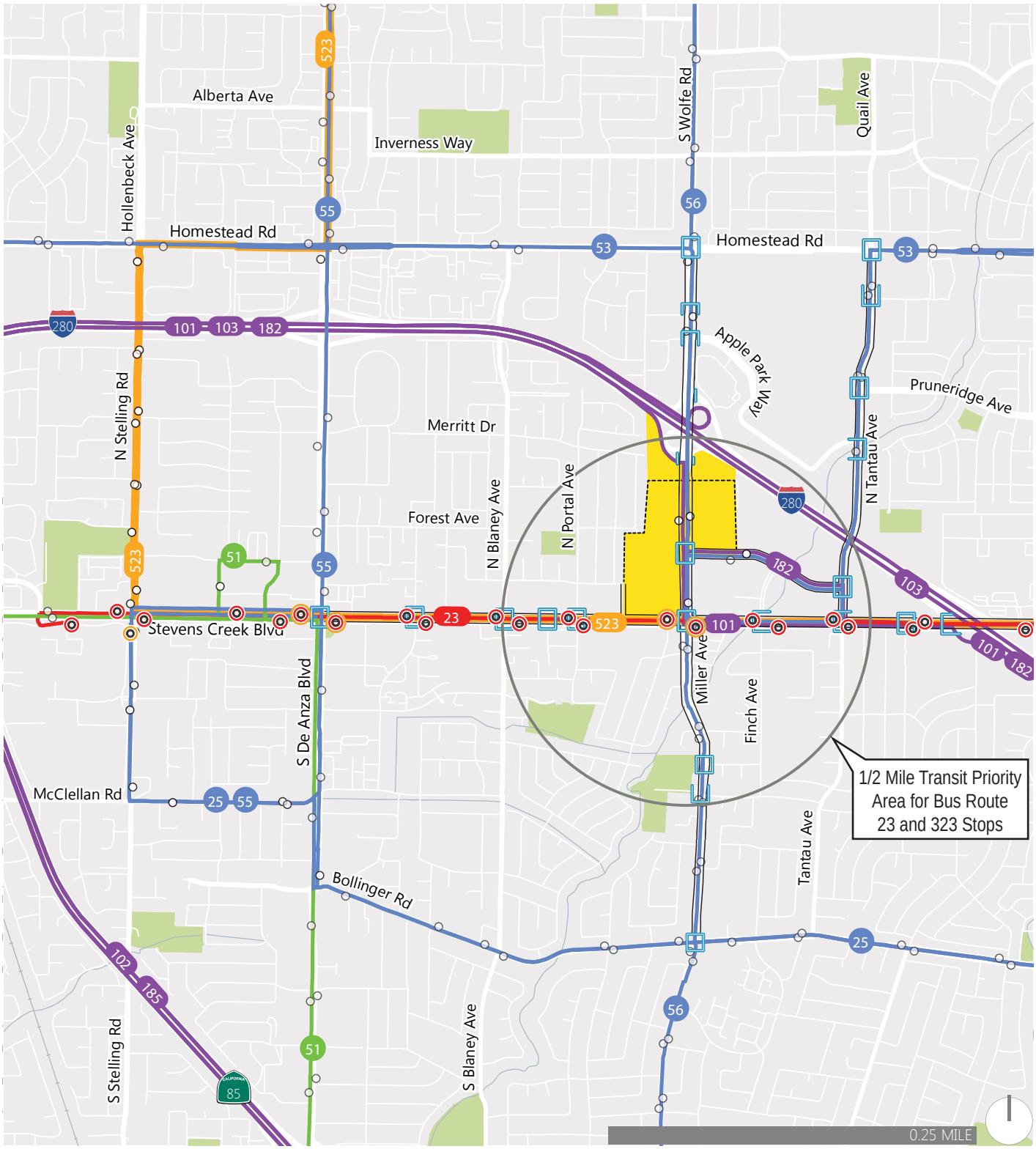
PHOTO 2: View of project site and adjacent office development from Vallco Parkway looking northeast.

PHOTOS 1 AND 2

PHOTO 3: View of project site and North Wolfe Road from the intersection of North Wolfe Road and Vallco Parkway looking north.

PHOTO 4: View of project site from Stevens Creek Boulevard looking west.

PHOTOS 3 AND 4



Source: Fehr & Peers

TRANSIT PRIORITY AREA FIGURE 3.1-1

3.1.2 Aesthetics Impacts

Impact AES-1:	The project (and project alternatives) would not result in significant aesthetic impacts. (Less than Significant Impact)

Project and All Project Alternatives

The project and project alternatives are mixed-use residential and/or employment center projects. The project site is an infill site located within a transit priority area. Pursuant to SB 743 (Public Resources Code section 21099[d][1]) "aesthetic and parking impacts of a residential, mixed-use residential, or employment center on an infill site within a transit priority area shall not be considered significant impacts on the environment;" therefore, the aesthetics impacts of the project and project alternatives are not considered significant. **(Less than Significant Impact)**

The Occupied/Re-Tenanted Mall Alternative is provided in the EIR for informational purposes only. This alternative is a permitted land use, and can be implemented without further discretionary approvals from the City or environmental review under CEQA. **(Less than Significant Impact: Not a CEQA Impact)**

Impact AES-2:	The project (and project alternatives) would not have a cumulatively considerable contribution to a significant cumulative aesthetic impacts. (Less than Significant Cumulative Impact)

Project and All Project Alternatives

See Impact AES-1 discussion above. **(Less than Significant Cumulative Impact)**

The Occupied/Re-Tenanted Mall Alternative is provided in the EIR for informational purposes only. See Impact AES-1 discussion above. **(Less than Significant Cumulative Impact: Not a CEQA Impact)**

3.2 AGRICULTURAL AND FORESTRY RESOURCES

3.2.1 Environmental Setting

3.2.1.1 *Regulatory Framework*

Farmland Mapping and Monitoring Program

The California Resources Agency's Farmland Mapping and Monitoring Program (FMMP) assesses the location, quality, and quantity of agricultural land and conversion of these lands over time. Agricultural land is rated according to soil quality and irrigation status; the best quality land is called *Prime Farmland*. In CEQA analyses, the FMMP classifications and published County maps are used, in part, to identify whether agricultural resources that could be effected are present on-site or in the project area.

California Land Conservation Act (Williamson Act)

The California Land Conservation Act (commonly referred to as the Williamson Act) enables local governments to enter into contracts with private landowners to restrict parcels of land to agricultural or related open space use. In return, landowners receive lower property tax assessments. In CEQA analyses, identification of properties under Williamson Act contract is used, in part, to identify sites that may include agricultural resources or are zoned for agricultural uses.

Forest Land, Timberland, and Timberland Production

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.[17] In CEQA analyses, programs such as Cal Fire's Fire and Resource Assessment Program (FRAP) 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.

3.2.1.2 *Existing Conditions*

The Vallco Special Area is zoned P(Regional Shopping) – Planned Development Regional Shopping north of Vallco Parkway, and P(CG) – Planned Development General Commercial south of Vallco Parkway (west of North Wolfe Road). There are no lands on-site or in the vicinity that are used for agricultural, forestry, or timberland purposes.[18]

[17] *Forest land* is land that can support 10-percent native tree cover under natural conditions and that allows for management of one or more forest resources (including timber, fish and wildlife, and biodiversity) (California Public Resources Code Section 12220[g]); *Timberland* is land (not owned by the federal government or designated by the board as experimental forest land) that is available for, and capable of, growing a crop of trees of any commercial species used to produce lumber and other forest products, including Christmas trees (California Public Resources Code Section 4526); and land zoned as *Timberland Production* is land devoted to and used for growing and harvesting timber, or for growing and harvesting timber and compatible uses (Government Code Section 51104[g]).

[18] California Department of Conservation. *Santa Clara County Important Farmland 2014 Map*. Map published October 2016. Available at: ftp://ftp.consrv.ca.gov/pub/dlrp/FMMP/pdf/2014/scl14.pdf.

The project site is located within an existing developed area that has been developed with commercial uses since the 1970s. The site is not used or zoned for agricultural purposes. The site is not designated by the Department of Conservation as farmland of any type, and is not the subject of a Williamson Act contract. None of the properties adjacent to the project site are used for agriculture, nor are any designated as forest land.

3.2.2 Agricultural and Forestry Resources Impacts

3.2.2.1 *Thresholds of Significance*

For the purposes of this EIR, an agricultural and forestry resource impact is considered significant if the project would:

- Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use;
- Conflict with existing zoning for agricultural use, or a Williamson Act contract;
- Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code Section 12220[g]), timberland (as defined by Public Resources Code Section 4526), or timberland zoned Timberland Production (as defined by Government Code Section 51104[g]);
- Result in a loss of forest land or conversion of forest land to non-forest use; or
- Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use.

Impact AG-1:	**The project (and project alternatives) would not convert farmland, conflict with zoning for agricultural use, or conflict with a Williamson Act contract. (No Impact)**

Project and All Project Alternatives

The project site and surrounding properties are not used, zoned, or designated for agricultural purposes. For these reasons, implementation of the proposed project (or project alternatives) would not convert farmland to non-agricultural uses, conflict with existing zoning for agricultural use, or conflict with a Williamson Act contract. **(No Impact)**

Impact AG-2:	**The project (and project alternatives) would not conflict with existing zoning of forest land or timberland, or result in the loss or conversion of forest land. (No Impact)**

Project and All Project Alternatives

The project site and surrounding properties are not used or zoned for forestry or timberland purposes. For these reasons, implementation of the proposed project (or project alternatives) would not conflict with zoning of forest land or timberland or result in the loss or conversion of forest land to non-forest uses. **(No Impact)**

Impact AG-3:	**The project (and project alternatives) would not contribute to a significant cumulative impact on agricultural and forestry resources. (No Cumulative Impact)**

Project and All Project Alternatives

As discussed above, the implementation of the proposed project (or project alternatives) would not impact agricultural, forestry, and/or timberland; therefore, implementation of the project would not contribute to a cumulative impact to those resources. **(No Cumulative Impact)**

3.3 AIR QUALITY

This section is based in part on an air quality and greenhouse gas (GHG) emissions assessment prepared by Illingworth & Rodkin, Inc. in May 2018. A copy of this report is included in Appendix B of this EIR.

3.3.1 Environmental Setting

3.3.1.1 *Regulatory Framework*

Federal and State

Air Quality Overview

At the federal level, the U.S. Environmental Protection Agency (EPA) is responsible for overseeing implementation of the Clean Air Act. CARB is the state agency that regulates mobile sources throughout the state and oversees implementation of the state air quality laws and regulations, including the California Clean Air Act, as described further below.

Regional and Local Criteria Pollutants

The federal Clean Air Act requires the EPA to set national ambient air quality standards for six common air pollutants (referred to as "criteria pollutants"): particulate matter (PM), ground-level ozone (O_3), carbon monoxide (CO), sulfur oxides (SO_x), nitrogen oxides (NO_x), and lead. EPA and CARB have adopted ambient air quality standards establishing permissible levels of these pollutants to protect public health and the climate. The health effects associated with air pollutants are summarized in Table 3.3-1.

CARB is also the agency responsible for the coordination and oversight of state and local air pollution control programs in state and for implementing the California Clean Air Act, adopted in 1988. The California Clean Air Act requires that all air districts in the state achieve and maintain the adopted ambient air quality standards.

Violations of ambient air quality standards are based on air pollutant monitoring data and are determined for each air pollutant. "Attainment" status for a pollutant means that a given air district meets the standard set by the EPA and/or CARB.

Toxic Air Contaminants

Toxic Air Contaminants (TACs) are a broad class of compounds known to cause morbidity or mortality, usually because they cause cancer. Some examples of TACs include: benzene, butadiene, formaldehyde, and hydrogen sulfide. TACs are found in ambient air, especially in urban areas, and are released by industry, agriculture, fuel combustion, and commercial operations (e.g., dry cleaners). Because chronic exposure can result in adverse health effects, TACs are regulated at the regional, state, and federal level.

Diesel exhaust is the predominant source of TAC in urban air and is estimated to represent about three-quarters of the cancer risk from exposure to TACs. Diesel exhaust is a complex mixture of gases, vapors, and fine particles. CARB has adopted regulations for stationary and mobile sources to

reduce emissions of diesel exhaust and diesel particulate matter (DPM). Several of these regulatory programs affect medium and heavy-duty diesel trucks, which represent the bulk of DPM emissions from California highways.

Common stationary sources of TACs include gasoline stations, dry cleaners, and diesel backup generators. The other more significant, common mobile source is motor vehicles on roadways and freeways. Unlike regional criteria pollutants, local risks associated with TACs are evaluated on the basis of risk to human health rather than comparison to an ambient air quality standard or emission-based threshold.

Table 3.3-1: Health Effects of Air Pollutants

Pollutants	Sources	Primary Effects
Carbon Monoxide (CO)	• Incomplete combustion of fuels and other carbon-containing substances, such as motor exhaust • Natural events, such as decomposition of organic matter	• Reduced tolerance for exercise • Impairment of mental function • Impairment of fetal development • Death at high levels of exposure • Aggravation of some heart diseases (angina)
Nitrogen Dioxide (NO_2)	• Motor vehicle exhaust • High temperature stationary combustion • Atmospheric reactions	• Aggravation of respiratory illness • Reduced visibility
Ozone (O_3)	• Atmospheric reaction of organic gases with nitrogen oxides in sunlight	• Aggravation of respiratory and cardiovascular diseases • Irritation of eyes • Impairment of cardiopulmonary function
Lead (Pb)	• Contaminated soil	• Impairment of blood functions and nerve construction • Behavioral and hearing problems in children
Suspended Particulate Matter ($PM_{2.5}$ and PM_{10})	• Stationary combustion of solid fuels • Construction activities • Industrial processes • Atmospheric chemical reactions	• Reduced lung function • Aggravation of the effects of gaseous pollutants • Aggravation of respiratory and cardiorespiratory diseases • Increased cough and chest discomfort • Reduced visibility
Sulfur Dioxide (SO_2)	• Combustion of sulfur-containing fossil fuels • Smelting of sulfur-bearing metal ores • Industrial processes	• Aggravation of respiratory diseases (asthma, emphysema) • Reduced lung function • Irritation of eyes • Reduced visibility

Table 3.3-1: Health Effects of Air Pollutants		
Pollutants	**Sources**	**Primary Effects**
Toxic Air Contaminants	• Cars and trucks, especially diesels • Industrial sources such as chrome platers • Neighborhood businesses such as dry cleaners and service stations • Building materials and product	• Cancer • Chronic eye, lung, or skin irritation • Neurological and reproductive disorders

Sensitive Receptors

Some groups of people are more adversely affected by air pollution than others. CARB has identified the following persons as most likely to be affected by air pollution: children under 16, the elderly over 65, athletes, and people with cardiovascular and chronic respiratory diseases. These groups are classified as sensitive receptors. Locations that may contain a high concentration of these sensitive population groups include residential areas, hospitals, daycare facilities, elder care facilities, elementary schools, and parks. For cancer risk assessments, children are the most sensitive receptors because they are more susceptible to cancer-causing TACs. Residential locations are assumed to include infants and small children.

Regional

Bay Area 2017 Clean Air Plan

The Bay Area Air Quality Management District (BAAQMD) is the agency primarily responsible for assuring that the federal and state ambient air quality standards are maintained in the San Francisco Bay Area. BAAQMD seeks to attain and maintain air quality conditions in the San Francisco Bay Area Air Basin through a comprehensive program of planning, regulation, enforcement, technical innovation, and education. The clean air strategy includes the preparation of plans for the attainment of ambient air quality standards, adoption and enforcement of rules and regulations, and issuance of permits for stationary sources. BAAQMD also inspects stationary sources and responds to citizen complaints, monitors ambient air quality and meteorological conditions, and implements programs and regulations required by law.

Regional air quality management districts, such as BAAQMD, must prepare air quality plans specifying how state and federal air quality standards will be met. BAAQMD's most recently adopted plan is the *Bay Area 2017 Clean Air Plan* (2017 CAP). The 2017 CAP focuses on two related BAAQMD goals: protecting public health and protecting the climate. To protect public health, the 2017 CAP describes how BAAQMD will continue its progress toward attaining state and federal air quality standards and eliminating health risk disparities from exposure to air pollution among Bay Area communities. To protect the climate, the 2017 CAP includes control measures designed to reduce emissions of methane and other super-GHGs that are potent climate pollutants in the near-term, and to decrease emissions of carbon dioxide by reducing fossil fuel combustion.

CEQA Air Quality Guidelines

The BAAQMD CEQA Air Quality Guidelines are intended to serve as a guide for those who prepare or evaluate air quality impact analyses for projects and plans in the San Francisco Bay Area. The City of Cupertino and other jurisdictions in the San Francisco Bay Area Air Basin use the thresholds and methodology for assessing air quality impacts developed by BAAQMD in its CEQA Air Quality Guidelines. The guidelines include information on legal requirements, BAAQMD rules, methods of analyzing impacts, and recommended mitigation measures.

Local

Cupertino General Plan: Community Vision 2015-2040

The proposed project (and project alternatives) are subject to General Plan policies and strategies including, but not limited to, the policies and strategies listed below pertaining to air quality.

Policy/Strategy	Description
Policy ES-4.1	Minimize the air quality impacts of new development projects and air quality impacts that affect new development.
Policy ES-4.3	Discourage high pollution fireplace use.
Policy HE-1.3	Encourage mixed-use development near transportation facilities and employment centers.
Policy M-2.1	Adopt and maintain street design standards to optimize mobility for all transportation modes including automobiles, walking, bicycling and transit.
Policy M-2.3	Promote pedestrian and bicycle improvements that improve connectivity between planning areas, neighborhoods and services, and foster a sense of community.
Policy M-2.4	Reduce traffic impacts and support alternative modes of transportation in neighborhoods and around schools, parks and community facilities rather than constructing barriers to mobility. Do not close streets unless there is a demonstrated safety or over-whelming through traffic problem and there are no acceptable alternatives since street closures move the problem from one street to another.
Policy M-2.5	Ensure all new public and private streets are publicly accessible to improve walkability and reduce impacts on existing streets.
Policy M-8.2	Support development and transportation improvements that help reduce greenhouse gas emissions by reducing capita Vehicles Miles Traveled (VMT).
Policy M-8.4	Require large employers to develop and maintain Transportation Demand Management (TDM) programs to reduce vehicle trips generated by their employees and develop a tracking method to monitor results.
Policy M-8.5	Encourage new commercial developments to provide shared office facilities, cafeterias, daycare facilities, lunch-rooms, showers, bicycle parking, home offices, shuttle buses to transit facilities and other amenities that encourage the use of transit, bicycling or walking as commute modes to work. Provide pedestrian pathways and orient buildings to the street to encourage pedestrian activity.
Policy RPC-2.4	Ensure that each home is within a half-mile walk of a neighborhood park or community park with neighborhood facilities; ensure that walking and biking routes are reasonably free of physical barriers, including streets with heavy traffic; provide pedestrian links between parks, wherever possible; and provide adequate directional and site signage to identify public parks.

Policy/Strategy	Description
Strategy ES-4.1.1	Continue to review projects for potential generation of toxic air contaminants at the time of approval and confer with BAAQMD on controls needed if impacts are uncertain.
Strategy ES-4.1.2	Continue to require water application to non-polluting dust control measures during demolition and the duration of the construction period.
Strategy LU-13.7.1	Provide active uses along the street frontage, bike lanes, sidewalks that support pedestrian-oriented activity, improved pedestrian crossings at street intersections, and attractive transit facilities (e.g., bus stops, benches, etc.).
Strategy LU-19.1.13	Retain trees along the Interstate 280, Wolfe Road and Stevens Creek Boulevard to the extent feasible, when new development are proposed.
Strategy LU-19.1.6	Provide a newly configured complete street grid hierarchy of streets, boulevards and alleys that is pedestrian-oriented, connects to existing streets, and creates walkable urban blocks for buildings and open space. It should also incorporate transit facilities, provide connections to other transit nodes and coordinate with the potential expansion of Wolfe Road bridge over Interstate 280 to continue the walkable, bike-able boulevard concept along Wolfe Road. The project should also contribute towards a study and improvements to a potential Interstate 280 trail along the drainage channel south of the freeway and provide pedestrian and bicycle connections from the project sites to the trail.
Strategy LU-19.1.7	Improve Stevens Creek Boulevard and Wolfe Road to become more bike and pedestrian-friendly with bike lanes, wide sidewalks, street trees, improved pedestrian intersections to accommodate the connections to Rosebowl and Main Street.

3.3.1.2 *Existing Conditions*

The project site is located within the San Francisco Bay Area Air Basin. The Bay Area meets state and federal ambient air quality standards with the exception of ground-level ozone, respirable particulate matter (PM_{10}) and fine particulate matter ($PM_{2.5}$). The project site is currently developed with a shopping mall that is partially occupied and a hotel that is currently under construction. The nearest sensitive receptors are single family residences located immediately adjacent to the west of the project site.

3.3.2 Air Quality Impacts

3.3.2.1 *Thresholds of Significance*

For the purposes of this EIR, an air quality impact is considered significant if the project would:

- Conflict with or obstruct implementation of the applicable air quality plan;
- Violate any air quality standard or contribute substantially to an existing or projected air quality violation;
- 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 (including releasing emissions which exceed quantitative thresholds for ozone precursors);
- Expose sensitive receptors to substantial pollutant concentrations; or

- Create objectionable odors 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 to the extent possible on scientific and factual data. The City of Cupertino has considered the thresholds updated by BAAQMD in May 2017 and regards these thresholds to be based on the best information available for the San Francisco Bay Area Air Basin and conservative in terms of the assessment of health effects associated with TACs and $PM_{2.5}$. The BAAQMD CEQA Air Quality thresholds used in this analysis are identified in Table 3.3-2, which follows.

Table 3.3-2: BAAQMD Air Quality Significance Thresholds

Pollutant	**Construction**	**Operation**	
	Average Daily Emissions (pounds)	**Average Daily Emissions** (pounds)	**Maximum Annual Emissions** (tons)
ROG, NO_x	54	54	10
PM_{10}	82 (exhaust)	82	15
$PM_{2.5}$	54 (exhaust)	54	10
Fugitive Dust (PM_{10}/$PM_{2.5}$)	Implement Best Management Practices	None	None
Risk and Hazards for New Sources and Receptors (Project)	Same as operational threshold	• Increased cancer risk of >10.0 in one million • Increased non-cancer risk of > 1.0 Hazard Index (chronic or acute) • Ambient $PM_{2.5}$ increase: > 0.3 µ/m^3 (Zone of influence: 1,000-foot radius from property line of source or receptor)	
Risk and Hazards for New Sources and Receptors (Cumulative)		• Increased cancer risk of >100 in one million • Increased non-cancer risk of > 10.0 Hazard Index (chronic or acute) • Ambient $PM_{2.5}$ increase: > 0.8 µ/m^3 (Zone of influence: 1,000-foot radius from property line of source or receptor)	

Sources: BAAQMD CEQA Thresholds Options and Justification Report (2009) and BAAQMD CEQA Air Quality Guidelines (dated May 2017).

As previously discussed in Section 3.0, in 2015 the California Supreme Court ruled that CEQA does not generally require an analysis of the impacts of locating development in areas subject to environmental hazards unless the project would exacerbate those existing environmental hazards or

the hazards at issue are subject to certain specified exceptions to this general rule.[19] However, the City of Cupertino has policies that address existing air quality conditions affecting a proposed project which are discussed in this section. The criteria used by the City of Cupertino for determining whether new receptors would be affected are the same as those listed for Project Health Risk and Cumulative Health Risk in Table 3.3-2.

Impact AQ-1: The project (and project alternatives) would not conflict with or obstruct implementation of the applicable air quality plan. (Less than Significant Impact)

Project and All Project Alternatives

BAAQMD's 2017 CAP is the applicable air quality plan for the project area. The BAAQMD CEQA Air Quality Guidelines set forth specific criteria for determining consistency with the 2017 CAP. A project is considered consistent with the 2017 CAP if it supports the CAP's primary goals, includes relevant control measures, and does not interfere with implementation of control measures. As a sustainable, transit-oriented development, the proposed project (and General Plan Buildout with Maximum Residential Alternative or Retail and Residential Alternative) would generally be consistent with 2017 CAP control measures intended to reduce automobile and energy use, as discussed below in Table 3.3-3.

Table 3.3-3: 2017 BAAQMD CAP Control Measure Consistency

Control Measures	Consistency
Transportation	
TR1: Clean Air Teleworking Initiative	*Consistent:* The proposed project (and General Plan Buildout with Maximum Residential Alternative and Retail and Residential Alternative) includes a TDM program (refer to Section 2.4.4), which would include measures such as increased support for telecommuting.
TR2: Trip Reduction Programs	*Consistent:* The proposed project (and General Plan Buildout with Maximum Residential Alternative and Retail and Residential Alternative) includes a TDM program (refer to Section 2.4.4), which would include measures such as transit subsidies, carpool incentives, bicycling incentives, carshare memberships, and/or vanpools.
TR 5: Transit Efficiency and Use	*Consistent:* While this is mostly a regionally implemented measure, the proposed project (and General Plan Buildout with Maximum Residential Alternative and Retail and Residential Alternative) would include a transit hub to support and encourage transit use (refer to Section 2.4.4).

[19] *California Building Industry Association v. BAAQMD, 62 Cal. 4th 369*, filed December 17, 2015.

Table 3.3-3: 2017 BAAQMD CAP Control Measure Consistency	
Control Measures	**Consistency**
TR7: Safe Routes to Schools and Safe Routes to Transit	*Consistent*: Future development under the proposed project (and General Plan Buildout with Maximum Residential Alternative and Retail and Residential Alternative) would ensure clear and safe pedestrian circulation. Convenience, safety and integrated access would be prioritized for all modes of transportation, consistent with General Plan policies RPC-2.4, M-2.1, M-2.2, M-2.3, M-2.4, and M-2.5 and strategies LU-19.1.6, LU-19.1.7, and LU-13.7.1.
TR8: Ridesharing, Last-Mile Connection	*Consistent:* The proposed project (and General Plan Buildout with Maximum Residential Alternative and Retail and Residential Alternative) includes a TDM program (refer to Section 2.4.4), which would include measures such as carpool incentives, carshare memberships, additional last-mile services, and/or vanpools.
TR9: Bicycle and Pedestrian Access and Facilities	*Consistent*: Future development under the proposed project (and General Plan Buildout with Maximum Residential Alternative and Retail and Residential Alternative) would create a dense, walkable environment, simplify wayfinding, and ensure clear and safe pedestrian circulation, consistent with General Plan policies RPC-2.4, M-2.1, M-2.2, M-2.3, M-2.4, and M-2.5 and strategies LU-19.1.6, LU-19.1.7, and LU-13.7.1.
TR10: Land Use Strategies	*Consistent:* Future development under the proposed project (and General Plan Buildout with Maximum Residential Alternative and Retail and Residential Alternative) would design new buildings around walkable streets and close to transit, creating opportunity for more sustainable transportation modes less reliant on the car, consistent with General Plan policies RPC-2.4, M-2.1, M-2.2, M-2.3, M-2.4, and M-2.5 and strategies LU-19.1.6, LU-19.1.7, and LU-13.7.1.
TR13: Parking Policies	*Consistent:* Future development under the proposed project (and General Plan Buildout with Maximum Residential Alternative and Retail and Residential Alternative) would reduce demand for parking through design with the implementation of a TDM program. Parking for drive-alone commuters for the office uses would be limited to what the Municipal Code requires. The City's Parking Ordinance allows alternative parking standards in Planned Development zones if they can be supported by a parking study.
Building	
BL1: Green Buildings	*Consistent:* Environmental sustainability would be implemented by building-, site-, and district-scale improvements. New development would incorporate sustainable design features and materials, consistent with General Plan policies RPC-2.4, M-2.1, M-2.2, M-2.3, M-2.4, M-2.5, ES-7.2, and HE-1.3 and strategies LU-19.1.6, LU-19.1.7, LU-13.7.1, LU-19.1.13, ES-7.11.4, ES-7.11.1, INF-2.5.2, INF-7.3.2, INF-7.3.3, and RPF-3.1.1.

Table 3.3-3: 2017 BAAQMD CAP Control Measure Consistency	
Control Measures	**Consistency**
BL2: Decarbonize Buildings	*Consistent:* Electricity is provided to the site by Silicon Valley Clean Energy (SVCE). SVCE customers are automatically enrolled in the GreenStart plan, which generates its electricity from 100 percent carbon free sources; with 50 percent from solar and wind sources, and 50 percent from hydroelectric. Customers have the option to enroll in the GreenPrime plan, which generates its electricity from 100 percent renewable sources such as wind and solar.
BL4: Urban Heat Island Mitigation	*Consistent:* Future development under the proposed project (and General Plan Buildout with Maximum Residential Alternative and Retail and Residential Alternative) would reduce the urban heat island effect by incorporating measures such as cool surface treatments for parking facilities, cool roofs, cool paving, and landscaping to provide well-shaded areas (refer to Section 2.4.4.6).
Natural and Working Lands Control Measures	
NW2: Urban Tree Planting	*Consistent:* Future development under the proposed project (and General Plan Buildout with Maximum Residential Alternative and Retail and Residential Alternative) would provide a comfortable, well-shaded environment (refer to Section 2.4.4.6).
Waste Management Control Measures	
WA4: Recycling and Waste Reduction	*Consistent:* Future development under the proposed project (and General Plan Buildout with Maximum Residential Alternative and Retail and Residential Alternative) would aim to structure facilities to be "zero-waste ready" and provide means for waste separation at point of collection.
Water Control Measures	
WR2: Support Water Conservation	*Consistent:* Future development under the proposed project (and General Plan Buildout with Maximum Residential Alternative and Retail and Residential Alternative) would maximize water reuse and aim to capture and treat stormwater on-site, consistent with General Plan strategies ES-7.11.4, ES-7.11.5, and RPC-3.1.1. In addition, recycled water is proposed to irrigate landscaping (refer to Section 2.4.4).

As indicated in Table 3.3-3, the proposed project (and General Plan Buildout with Maximum Residential Alternative and Retail and Residential Alternative) would include implementation of policies and measures that are consistent with the applicable 2017 CAP control measures. With implementation of these policies and measures as part of new development, the proposed project (and General Plan Buildout with Maximum Residential Alternative and Retail and Residential Alternative) would not conflict with the 2017 CAP.

The Occupied/Re-Tenanted Mall does not interfere with the implementation of the 2017 CAP control measures. Currently, electricity to the mall is provided by Silicon Valley Clean Energy (SVCE). SVCE provides 100 percent carbon free electricity to users. Under this alternative, it is assumed that

exterior and interior tenant improvements would be constructed using the current green building/energy efficiency standards, the uses on-site would use carbon free electricity, the existing mature landscaping trees would be preserved (which provides shade and reduces the urban heat island effect), and recycling would occur. The Occupied/Re-Tenanted Mall would not be as consistent with the 2017 CAP as the proposed project, however, in that it does not include a TDM program, and it does not have a grid-street system that could be more walkable and facilitate wayfinding.

Based on the above discussion, the project and project alternatives would not conflict or obstruct the implementation of the 2017 BAAQMD CAP. **(Less than Significant Impact)**

The Occupied/Re-Tenanted Mall Alternative is provided in the EIR for informational purposes only. This alternative is a permitted land use, and can be implemented without further discretionary approvals from the City or environmental review under CEQA. **(Less than Significant Impact: Not a CEQA Impact)**

Impact AQ-2:	**The construction of the project (and General Plan Buildout with Maximum Residential Alternative and Retail and Residential Alternative) would violate air quality standard or contribute substantially to an existing or projected air quality violation. (Significant and Unavoidable Impact with Mitigation Incorporated)**

As discussed previously in Section 3.3.2, the Bay Area is considered a non-attainment area for ground-level O_3 and $PM_{2.5}$ under both the federal Clean Air Act and the California Clean Air Act. The area is also considered non-attainment for PM_{10} under the California Clean Air Act. As part of an effort to attain and maintain ambient air quality standards for O_3 and PM_{10}, BAAQMD has established thresholds of significance for these air pollutants and their precursors (see Table 3.3-2), which apply to both construction and operational period impacts.

Project

Implementation of the proposed project (and General Plan Buildout with Maximum Residential Alternative and Retail and Residential Alternative) would result in short-term emissions from construction activities associated with development, including site grading, asphalt paving, building construction, and architectural coating. Emissions commonly associated with construction activities include fugitive dust from soil disturbance, fuel combustion from mobile heavy-duty diesel- and gasoline-powered equipment, portable auxiliary equipment, and worker commute trips. During construction, fugitive dust, the dominant source of PM_{10} and $PM_{2.5}$ emissions, is generated when wheels or blades disturb surface materials. Uncontrolled dust from construction can become a nuisance and potential health hazard to those living and working nearby.

Demolition and construction of buildings can also generate PM_{10} and $PM_{2.5}$ emissions. Off-road construction equipment is often diesel-powered and can be a substantial source of NO_x emissions, in addition to PM_{10} and $PM_{2.5}$ emissions. The combination of temporary dust from activities and diesel exhaust from construction equipment poses both a health and nuisance impact to nearby receptors.

Without application of appropriate control measures to reduce construction dust and exhaust, construction period impacts would be considered significant.

Construction exhaust emissions were modeled assuming the project (and project alternatives) would be built out over 10 years and would include excavation of approximately 2.0 million cubic yards of soil. Refer to Appendix B for modeling details, data inputs, and assumptions. Table 3.3-4 summarizes the average daily construction emissions (both with and without MM AQ-2.1 and MM AQ-2.2) of ROG, NO_x, PM_{10} exhaust, and $PM_{2.5}$ exhaust during construction of the project (and General Plan Buildout with Maximum Residential Alternative and Retail and Residential Alternative) as compared to BAAQMD thresholds. As shown in Table 3.3-4, estimated construction emissions for the project, General Plan Buildout with Maximum Residential Alternative, and Retail and Residential Alternative would exceed the BAAQMD significance threshold for NO_x emissions during construction. Emissions of ROG, PM_{10} exhaust, and $PM_{2.5}$ exhaust during construction would be below BAAQMD significance thresholds.

Table 3.3-4: Project and Project Alternative Construction Period Emissions

	ROG	**NO_x**	**PM_{10} Exhaust**	**$PM_{2.5}$ Exhaust**
	(pounds per day)			
BAAQMD Thresholds	54	54	82	54
Project				
Average daily emissions	31.6	**149.2**	1.3	1.2
Mitigated average daily emissions	-	**111.9**	-	-
General Plan Buildout with Maximum Residential Alternative				
Average daily emissions	39.7	**153.2**	**1.3**	**1.2**
Mitigated average daily emissions	-	**114.9**	-	-
Retail and Residential Alternative				
Average daily emissions	42.1	**135.0**	1.3	1.2
Mitigated average daily emissions	-	**101.2**	-	-

Note: Bold and highlighted emissions indicate emissions exceeding the threshold of significance.

As shown in Table 3.3-4, implementation of the proposed project (and General Plan Buildout with Maximum Residential Alternative and Retail and Residential Alternative) would result in significant air quality impacts related to construction period dust and exhaust emissions.

Mitigation Measures:

MM AQ-2.1: Future development under the proposed project (and General Plan Buildout with Maximum Residential Alternative or Retail and Residential Alternative) shall implement the following BAAQMD-recommended measures to control dust, particulate matter, and diesel exhaust emissions during construction:

Basic Measures

1. All exposed surfaces (e.g., parking areas, staging areas, soil piles, graded areas, and unpaved access roads) shall be watered two times per day.
2. All haul trucks transporting soil, sand, or other loose material off-site shall be covered.
3. 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.
4. All vehicle speeds on unpaved roads shall be limited to 15 miles per hour (mph).
5. 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.
6. Idling times shall be minimized either by shutting equipment off when not in use or reducing the maximum idling time to five minutes (as required by the California airborne toxics control measure Title 13, Section 2485 of California Code of Regulations [CCR]). Clear signage shall be provided for construction workers at all access points.
7. All construction equipment shall be maintained and properly tuned in accordance with manufacturer's specifications. All equipment shall be checked by a certified mechanic and determined to be running in proper condition prior to operation.
8. Post a publicly visible sign with the telephone number and person to contact at the Lead Agency regarding dust complaints. This person shall respond and take corrective action within 48 hours. The Air District's phone number shall also be visible to ensure compliance with applicable regulations.

Applicable Enhanced Control Measures

9. All exposed surfaces shall be watered at a frequency adequate to maintain minimum soil moisture of 12 percent. Moisture content can be verified by lab samples or moisture probe.
10. All excavation, grading, and/or demolition activities shall be suspended when average wind speeds exceed 20 mph and visible dust extends beyond site boundaries.
11. Wind breaks (e.g., trees, fences) shall be installed on the windward side(s) of actively disturbed areas of construction adjacent to sensitive receptors. Wind breaks should have at maximum 50 percent air porosity.

12. 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.
13. The simultaneous occurrence of excavation, grading, and ground-disturbing construction activities on the same area at any one time shall be limited. Activities shall be phased to reduce the amount of disturbed surfaces at any one time.
14. Avoid tracking of visible soil material on to public roadways by employing the following measures if necessary: (1) Site accesses to a distance of 100 feet from public paved roads shall be treated with a 6 to 12 inch compacted layer of wood chips, mulch, or gravel and (2) washing truck tires and construction equipment of prior to leaving the site.
15. Sandbags or other erosion control measures shall be installed to prevent silt runoff to public roadways from sites with a slope greater than one percent.
16. Minimizing the idling time of diesel powered construction equipment to two minutes.

Exhaust Control Measures

17. The project shall develop a plan demonstrating that the off-road equipment (more than 25 horsepower) to be used in the construction project (i.e., owned, leased, and subcontractor vehicles) would achieve a project wide fleet-average 25 percent NO_x reduction and 65 percent PM (particulate matter) exhaust reduction compared to the CalEEMod modeled average used in this report. Acceptable options for reducing emissions include the use of late model engines, low-emission diesel products, alternative fuels, engine retrofit technology, after-treatment products, add-on devices such as particulate filters, and/or other options as such become available. The following are feasible methods:
    - All construction equipment larger than 25 horsepower used at the site for more than two continuous days or 20 hours total shall meet EPA Tier 4 emission standards for NO_x and PM, where feasible.
    - All construction equipment larger than 25 horsepower used at the site for more than two continuous days or 20 hours total shall meet EPA emission standards for Tier 3 engines and include particulate matter emissions control equivalent to CARB Level 3 verifiable diesel emission control devices that altogether achieve an 85 percent reduction in particulate matter exhaust.
    - Use of alternatively-fueled equipment with lower NO_x emissions that meet the NO_x and PM reduction requirements above.
    - Diesel engines, whether for off-road equipment or on-road vehicles, shall not be left idling for more than two minutes, except as provided in exceptions to the applicable state regulations (e.g., traffic conditions, safe operating conditions). The construction

sites shall have posted legible and visible signs in designated queuing areas and at the construction site to clearly notify operators of idling limit.

- All on-road heavy-duty diesel trucks with a gross vehicle weight rating of 33,000 pounds or greater (EMFAC Category HDDT) used at the project site (such as haul trucks, water trucks, dump trucks, and concrete trucks) shall be model year 2010 or newer.
- Develop a Transportation Demand Management program for construction worker travel to reduce worker trips by 10 percent.
- Provide line power to the site during the early phases of construction to minimize the use of diesel powered stationary equipment, such as generators.
- Enforce idling limit of two minutes unless subject to state law exemptions (e.g., safety issues).

Modeling was completed to determine the effectiveness of mitigation measure AQ-2.1 (refer to Appendix B). The results of the modeling found the implementation of mitigation measure MM AQ-2.1 would result in a 25 percent reduction in NO_x emissions. The mitigated NOx emissions for the project and project alternatives is shown in Table 3.3-4. As shown in Table 3.3-4, the construction-related emissions from the project (and General Plan Buildout with Maximum Residential Alternative and Retail and Residential Alternative) would be reduced, but not to a less than significant level. Therefore, this impact is considered significant and unavoidable. **(Significant and Unavoidable Impact with Mitigation Incorporated)**

General Plan Buildout with Maximum Residential Alternative

Implementation of the General Plan Buildout with Maximum Residential Alternative would result in similar significant air quality impacts related to construction period dust and exhaust (specifically emissions of NO_x, see Table 3.3-4). As shown in Table 3.3-4, the General Plan Buildout with Maximum Residential Alternative would result in slightly greater NO_x emissions than the proposed project. Refer to Impact AQ-2 and mitigation measure MM AQ-2.1 above. **(Significant and Unavoidable Impact with Mitigation Incorporated)**

Retail and Residential Alternative

Implementation of the Retail and Residential Alternative would result in similar significant air quality impacts related to construction period dust and exhaust (specifically emissions of NO_x, see Table 3.3-4). As shown in Table 3.3-4, the Retail Residential Alternative would result in fewer NO_x emissions than the proposed project. Refer to Impact AQ-2 and mitigation measure MM AQ-2.1. **(Significant and Unavoidable Impact with Mitigation Incorporated)**

Occupied/Re-Tenanted Mall Alternative

The Occupied/Re-Tenanted Mall Alternative would not result in the construction of new structures on-site. It is likely, however, that exterior and interior modifications would be made under this alternative to update the mall to current standards for aesthetics and lighting and ADA compliance. It is anticipated that the construction-related activities associated exterior and interior modifications

to the existing mall would generate air pollutant emissions. As discussed in the General Plan EIR, as part of the City's development review process, development projects are required to implement BAAQMD's basic control measures for reducing construction emissions. BAAQMD's basic control measures are identified in MM AQ-2.1. The construction-related pollutant emissions under the Occupied/Re-Tenanted Mall Alternative would be less than described for the proposed project under Impact AQ-2.

A discussion of this alternative is provided in the EIR for informational purposes only. This alternative is a permitted land use, and can be implemented without further discretionary approvals from the City or environmental review under CEQA. **(Less than Significant Impact: Not a CEQA Impact)**

Impact AQ-3:	**The operation of the project (and General Plan Buildout with Maximum Residential Alternative and Retail and Residential Alternative) would violate air quality standard or contribute substantially to an existing or projected air quality violation. (Significant and Unavoidable Impact with Mitigation Incorporated)**

Project

Operational emissions typically represent the majority of a project's air quality impacts. After a project is built, operational emissions, including mobile and area sources (including tire wear and brake wear), are anticipated to occur continuously throughout the project's lifetime. Annual and daily estimated operational period emissions in tons per year and pounds per day for the project and project alternatives are summarized in Table 3.3-5 and Table 3.3-6.

As shown in Table 3.3-5 and Table 3.3-6, the proposed project would exceed the significance thresholds for all of the criteria pollutants except for $PM_{2.5}$ on an annual and daily basis, primarily due to the amount of development proposed and the substantial amount of vehicle trips generated by the proposed uses. The implementation of the proposed TDM program (see Section 2.4.4) would further reduce air pollutant emissions, but not to a less than significant level.

Table 3.3-5: Annual Project and Project Alternative Operational Air Pollutant Emissions				
	ROG	**NO_x**	**PM_{10}**	**$PM_{2.5}$**
	(tons per year)			
Existing Conditions	2.65	5.29	5.82	1.58
BAAQMD Thresholds	10	10	15	10
Project and Project Alternatives				
Net Project Emissions*	**23.58**	**29.91**	**33.68**	9.35
Net General Plan Buildout with Maximum Residential Alternative Emissions*	**27.64**	**28.32**	**31.47**	8.81
Net Retail and Residential Alternative Emissions*	**26.27**	**14.89**	**15.13**	4.40
Net Occupied/Re-tenanted Mall Alternative Emissions*	7.18	**8.97**	**9.37**	2.58
Note: * Minus Existing Operations; Bolded and highlighted emissions indicate emissions above the threshold of significance.				

Table 3.3-6: Average Project and Project Alternative Daily Operational Air Pollutant Emissions				
	ROG	**NO_x**	**PM_{10}**	**$PM_{2.5}$**
	(pounds per day)			
Existing Conditions	14.5	29.0	31.9	8.7
BAAQMD Thresholds	54	54	82	54
Project and Project Alternatives				
Net Project Emissions*	**129.2**	**163.9**	**184.5**	51.2
Net General Plan Buildout with Maximum Residential Alternative Emissions*	**151.5**	**155.2**	**172.4**	48.3
Net Retail and Residential Alternative Emissions*	**144.0**	**81.6**	**82.9**	24.1
Net Occupied/Re-tenanted Mall Alternative Emissions*	39.3	49.2	51.3	14.1
Note: * Minus Existing Operations; Bolded and highlighted emissions indicate emissions above the threshold of significance.				

Mitigation Measure:

MM AQ-3.1: Future development under the proposed project (and General Plan Buildout with Maximum Residential Alternative or Retail and Residential Alternative) shall use low-VOC paint (i.e., 50 g/L or less) on operational architectural coatings and no hearths or fireplaces (including natural gas-powered) shall be installed in the residential units.

Implementation of the proposed TDM program (refer to Section 2.4.4) and MM AQ-3.1, would reduce this impact but not to a less than significant level. For this reason, this impact is considered significant and unavoidable. **(Significant and Unavoidable Impact with Mitigation Incorporated)**

General Plan Buildout with Maximum Residential Alternative

As shown in Table 3.3-5 and Table 3.3-6, the General Plan Buildout with Maximum Residential Alternative would exceed significance thresholds for all criteria pollutants except for $PM_{2.5}$. The General Plan Buildout with Maximum Residential Alternative would have similar operational criteria air pollutant impacts as the proposed project. Refer to Impact AQ-3 and mitigation measures MM AQ-3.1. **(Significant and Unavoidable Impact with Mitigation Incorporated)**

Retail and Residential Alternative

As shown in Table 3.3-5 and Table 3.3-6, the Retail and Residential Alternative would exceed significance thresholds for all criteria pollutants except for $PM_{2.5}$. The Retail and Residential Alternative would have similar operational criteria air pollutant impacts as the proposed project. Refer to Impact AQ-3 and mitigation measures MM AQ-3.1. **(Significant and Unavoidable Impact with Mitigation Incorporated)**

Occupied/Re-Tenanted Mall Alternative

The Occupied/Re-Tenanted Mall Alternative would not result in significant operational criterial air pollutant emissions impacts and would have less operational pollutant impacts than the proposed project. A discussion of this alternative is provided in the EIR for informational purposes only. This alternative is a permitted land use, and can be implemented without further discretionary approvals from the City or environmental review under CEQA. **(Less than Significant Impact: Not a CEQA Impact)**

Impact AQ-4:	**The proposed project (and General Plan Buildout with Maximum Residential Alternative and Retail and Residential Alternative) would result in a cumulatively considerable net increase of criteria pollutants (ROG, NO_x, PM_{10}, and/or $PM_{2.5}$) for which the project region is non-attainment under an applicable federal or state ambient air quality standard. (Significant and Unavoidable Impact with Mitigation Incorporated)**

Project

The discussion under Impact AQ-3 addresses cumulatively considerable net increases of criteria pollutants or precursors. The project (and General Plan Buildout with Maximum Residential Alternative and Retail and Residential Alternative) would have a cumulatively considerable net increase in criteria air pollutants (ROG, NO_x, and PM_{10}) and those emissions are considered significant and unavoidable (refer to Impact AQ-3 and mitigation measure AQ-3.1).

Mitigation Measure:

MM AQ-4.1: Implement MM AQ-3.1.

(Significant and Unavoidable Impact with Mitigation Incorporated)

General Plan Buildout with Maximum Residential Alternative

The discussion under Impact AQ-3 addresses cumulatively considerable net increases of criteria pollutants or precursors. The General Plan Buildout with Maximum Residential Alternative would have a cumulatively considerable net increase in criteria air pollutants (ROG, NO_x, and PM_{10}) and those emissions are considered significant and unavoidable (refer to Impact AQ-3 and mitigation measure AQ-3.1). **(Significant and Unavoidable Impact with Mitigation Incorporated)**

Retail and Residential Alternative

The discussion under Impact AQ-3 addresses cumulatively considerable net increases of criteria pollutants or precursors. The Retail and Residential Alternative would have a cumulatively considerable net increase in criteria air pollutants (ROG, NO_x, and PM_{10}) and those emissions are considered significant and unavoidable (refer to Impact AQ-3 and mitigation measure AQ-3.1). **(Significant and Unavoidable Impact with Mitigation Incorporated)**

Occupied/Re-Tenanted Mall Alternative

The discussion under Impact AQ-3 addresses cumulatively considerable net increases of criteria pollutants or precursors. The Occupied/Re-Tenanted Mall Alternative would not have a cumulatively considerable net increase in criteria air pollutants (ROG, NO_x, PM_{10}, and $PM_{2.5}$). A discussion of this alternative is provided in the EIR for informational purposes only. This alternative is a permitted land use, and can be implemented without further discretionary approvals from the City or environmental review under CEQA. **(Less than Significant Impact: Not a CEQA Impact)**

Impact AQ-5:	**The proposed project (and project alternatives) would not expose sensitive receptors to substantial CO concentrations. (Less than Significant Impact)**

Project and All Project Alternatives

The Bay Area has been designated as an attainment area for the CO standards. The highest measured levels in Cupertino during the past five years are less than 1.0 ppm for eight-hour averaging periods, compared with state and federal criteria of 9.0 ppm.

Even though current CO levels in the Bay Area are well below ambient air quality standards, and there have been no exceedances of CO standards in the Bay Area since 1991, elevated levels of CO still warrant analysis. CO hotspots (occurrences of localized high CO concentrations) could still occur near busy congested intersections. Recognizing the relatively low CO concentrations experienced in the Bay Area, BAAQMD's CEQA Air Quality Guidelines state that a project would have a less than significant impact if it would not increase traffic volumes at affected intersections to more than 44,000 vehicles per hour. Because intersections affected by the project (and project alternatives) would have volumes below the threshold of 44,000 vehicles per hour (refer to Appendix H), the impact of the proposed project (and project alternatives) related to localized CO concentrations would be less than significant. **(Less than Significant Impact)**

The Occupied/Re-Tenanted Mall Alternative is provided in the EIR for informational purposes only. This alternative is a permitted land use, and can be implemented without further discretionary approvals from the City or environmental review under CEQA. **(Less than Significant Impact: Not a CEQA Impact)**

Impact AQ-6:	**The proposed project (and General Plan Buildout with Maximum Residential Alternative and Retail and Residential Alternative) would expose sensitive receptors to substantial construction dust and diesel exhaust emissions concentrations. (Significant and Unavoidable Impact with Mitigation Incorporated)**

Project

The exposure of nearby sensitive receptors to construction-related dust and diesel exhaust emissions is discussed under Impact AQ-2 and would be reduced (but not to a less than significant level) with the implementation of mitigation measures MM AQ-2.1 and -2.2.

Mitigation Measure:

MM AQ-6.1: Implement MM AQ-2.1 and -2.2

(Significant and Unavoidable Impact with Mitigation Incorporated)

General Plan Buildout with Maximum Residential Alternative

The exposure of nearby sensitive receptors to construction-related dust and diesel exhaust emissions is discussed under Impact AQ-2 and would be reduced (but not to a less than significant level) with the implementation of mitigation measures MM AQ-2.1 and -2.2. As shown in Table 3.3-4, the General Plan Buildout with Maximum Residential Alternative would result in slightly greater NO_x emissions than the proposed project. **(Significant and Unavoidable Impact with Mitigation Incorporated)**

Retail and Residential Alternative

The exposure of nearby sensitive receptors to construction-related dust and diesel exhaust emissions is discussed under Impact AQ-2 and would be reduced (but not to a less than significant level) with the implementation of mitigation measures MM AQ-2.1 and -2.2. As shown in Table 3.3-4, the Retail Residential Alternative would result in fewer NO_x emissions than the proposed project. **(Significant and Unavoidable Impact with Mitigation Incorporated)**

Occupied/Re-Tenanted Mall Alternative

The exposure of nearby sensitive receptors to construction-related dust and diesel exhaust emissions is discussed under Impact AQ-2. The construction-related pollutant emissions under the Occupied/Re-Tenanted Mall Alternative would be less than described for the proposed project under Impact AQ-2.

A discussion of this alternative is provided in the EIR for informational purposes only. This alternative is a permitted land use, and can be implemented without further discretionary approvals from the City or environmental review under CEQA. **(Less than Significant Impact: Not a CEQA Impact)**

Impact AQ-7:	**The proposed project (and General Plan Buildout with Maximum Residential Alternative and Retail and Residential Alternative) would expose sensitive receptors to substantial TAC pollutant concentrations. (Less than Significant Impact with Mitigation Incorporated)**

Project impacts related to increased community risk can occur either by introducing a new sensitive receptor, such as a residential use, in proximity to an existing source of TACs or by introducing a new source of TACs with the potential to adversely affect existing sensitive receptors in the project vicinity.

Community health risk assessments typically look at all substantial sources of TACs that can affect sensitive receptors located within 1,000 feet of a project site. These sources include construction sites, freeways or highways, busy surface streets, and stationary sources identified by BAAQMD. Traffic on high volume roadways is a source of TAC emissions that may adversely affect sensitive receptors in proximity to the roadway. For local roadways, BAAQMD considers roadways with traffic volumes of over 10,000 vehicles per day to have a potentially significant impact on a proposed project.

Exposure of Sensitive Receptors from Project Construction Activity

Project

Construction equipment and associated heavy-duty truck traffic generates diesel exhaust, which is a known TAC. The primary community risk impact issues associated with construction emissions are cancer risk and exposure to $PM_{2.5}$ from diesel exhaust. A community risk assessment of the project construction activities was completed to evaluate potential health effects to sensitive receptors at nearby residences from construction emissions of DPM and $PM_{2.5}$.[20] Refer to Appendix B for details about community health risk modeling, data inputs, and assumptions.

Table 3.3-2 summarizes the maximum cancer risk, annual $PM_{2.5}$ concentration, and non-cancer Hazard Index (HI) based on maximum DPM concentration affecting the maximally exposed individual (MEI), which would be located at a second floor residence at the mixed-use development (nineteen800) located at the southeast corner of Vallco Parkway and North Wolfe Road. The community risk impacts from construction of the General Plan Buildout with Maximum Residential Alternative and Retail and Residential Alternative were estimated to result in similar maximum cancer risk (26.8 in one million) as the proposed project (and with less than significant annual $PM_{2.5}$ concentrations and HI).

Table 3.3-7: Project Construction Community Risk at the Maximally Exposed Individual

Source	Cancer Risk (per million)	Annual $PM_{2.5}$ Concentration ($\mu g/m^3$)	Hazard Index
Project	**26.7**	0.25	0.01
BAAQMD Single Source Threshold	>10.0	>0.3	>1.0

Notes: Bolded and highlighted emissions indicate emissions above the threshold of significance. The community risk impacts from construction of the General Plan Buildout with Maximum Residential Alternative and Retail and Residential Alternative were estimated to result in a similar maximum cancer risk (26.8 in one million) as the proposed project (and with less than significant annual $PM_{2.5}$ concentrations and HI).

As summarized in Table 3.3-7, the maximum excess cancer risk would be 26.7 in one million, which exceeds the BAAQMD threshold of significance of 10 in one million. The maximum annual $PM_{2.5}$ concentration, which is based on combined exhaust and fugitive dust emission, is 0.25 $\mu g/m^3$ and does not exceed the BAAQMD threshold of significance of 0.3 $\mu g/m^3$. The maximum Hazard Index (non-cancer health hazards from TAC exposure) is 0.01, which is below the BAAQMD threshold of significance of 1.0.

[20] DPM is identified by the State of California as a TAC due to the potential to cause cancer.

Mitigation Measure:

MM AQ-7.1: Future development under the proposed project (and General Plan Buildout with Maximum Residential Alternative and Retail and Residential Alternative) shall implement mitigation measure MM AQ-2.1 to reduce on-site diesel exhaust emissions, which would thereby reduce the maximum cancer risk due to construction of the project (and General Plan Buildout with Maximum Residential Alternative and Retail and Residential Alternative).

With the implementation of the above mitigation measure, the maximum cancer risk from the project construction (and General Plan Buildout with Maximum Residential Alternative, and Retail and Residential Alternative) would be 4.4 in one million or less, which is below the BAAQMD threshold of greater than 10 per one million for cancer risk. **(Less than Significant with Mitigation Incorporated)**

General Plan Buildout with Maximum Residential Alternative

The construction of the General Plan Buildout with Maximum Residential Alternative would result in the similar health risk exposure to sensitive receptors as described above for the proposed project. See Impact AQ-7 and mitigation measure MM AQ-7.1. **(Less than Significant with Mitigation Incorporated)**

Retail and Residential Alternative

The construction of the Retail and Residential Alternative would result in the similar health risk exposure to sensitive receptors as described above for the proposed project. See Impact AQ-7 and mitigation measure MM AQ-7.1. **(Less than Significant with Mitigation Incorporated)**

Occupied/Re-Tenanted Mall Alternative

The Occupied/Re-Tenanted Mall Alternative would result in construction emissions related to exterior and interior tenant improvements. It is anticipated that the construction emissions under this alternative would be much lower than those involved with demolition, grading, and new exterior building construction, which would occur under the proposed project, General Plan Buildout with Maximum Residential Alternative, and Retail and Residential Alternative. In addition, interior work typically involves minimal diesel equipment and would be completed indoors. For these reasons, it is anticipated the construction-related health risk from this alternative would be less than significant. **(Less than Significant Impact: Not a CEQA Impact)**

Exposure of On-Site Sensitive Receptors to Toxic Air Contaminants – Planning Consideration

Project

As previously discussed in Section 3.0, in 2015 the California Supreme Court ruled that CEQA does not generally require an analysis of the impacts of locating development in areas subject to environmental hazards unless the project would exacerbate those existing environmental hazards or

the hazards at issue are subject to certain specified exceptions to this general rule.[21] The City of Cupertino has policies, however, that address existing air quality conditions affecting a proposed project. Determining whether new on-site receptors would be affected are the same as those listed for Project Health Risk and Cumulative Health Risk in Table 3.3-2, above.

The proposed project (and General Plan Buildout with Maximum Residential Alternative, and Retail and Residential Alternative) would include the development of new sensitive receptors, such as new residents, in locations near existing roadways and highways. Future on-site sensitive receptors, therefore, would be exposed to levels of TACs and/or $PM_{2.5}$ from adjacent roadways and highways that could cause an unacceptable cancer risk or hazard. Existing stationary sources are also a source of TACs, however, a search of the BAAQMD screening tool did not reveal any stationary sources that would have an impact on the project site.

Increased cancer risks and exposure to $PM_{2.5}$ were calculated consistent with BAAQMD and CARB recommended risk assessment methods. In general, cancer risks will decrease with distance from the roadway and with height of the receptors (i.e., residents on upper floors). The impact of these roadways on the proposed project are discussed further below. Refer to Appendix B for modeling details, data inputs, and assumptions.

- Interstate 280 – The predicted maximum increased cancer risk at the project site from traffic on I-280 was calculated to be 4.0 in one million, which is below than the BAAQMD threshold of significance of 10 in one million. Impacts from $PM_{2.5}$ emissions from I-280 would occur at the project site along portions of the site closest to the freeway. BAAQMD adopted a significance threshold of an annual average $PM_{2.5}$ concentration greater than 0.3 $\mu g/m^3$. Appendix B shows contour lines on the site where $PM_{2.5}$ concentrations would occur at or above the BAAQMD threshold of significance of 0.3 $\mu g/m^3$. For distances within about 530 feet from I-280 on the project site west of North Wolfe Road and within about 620 feet from I-280 on the project site east of North Wolfe Road, $PM_{2.5}$ concentrations would be significant. The Hazard Index (HI) is estimated to be 0.0006, which is below the BAAQMD threshold of significance of 1.0.

- Stevens Creek Boulevard – The predicted maximum increased cancer risk at the project site from traffic on Stevens Creek Boulevard was calculated to be 2.2 in one million, which is below the BAAQMD threshold of significance of 10 in one million. Figure 3.3-2 shows the contour lines on the project site where $PM_{2.5}$ concentrations would occur at or above the BAAQMD threshold of significance of 0.3 $\mu g/m^3$. For distances within about 130 feet from Stevens Creek Boulevard at the project site, $PM_{2.5}$ concentrations would be significant. The HI is estimated to be 0.0004, which is below the BAAQMD threshold of significance of 1.0.

- North Wolfe Road – The predicted maximum increased cancer risk at the project site from traffic on North Wolfe Road was calculated to be 3.3 in one million, which is below the BAAQMD threshold of significance of 10 in one million. Figure 3.3-3 shows the contour lines on the project site where $PM_{2.5}$ concentrations would occur at or above the BAAQMD threshold of significance of 0.3 $\mu g/m^3$. For distances within about 95 feet from North Wolfe Road and within about 215 feet east of North Wolfe Road, $PM_{2.5}$ concentrations would be

[21] *California Building Industry Association v. BAAQMD, 62 Cal. 4th 369*, filed December 17, 2015.

significant. The HI is estimated to be 0.0006, which is below the BAAQMD threshold of significance of 1.0.

- Vallco Parkway – The predicted maximum increased cancer risk at the project site from traffic on North Wolfe Road was calculated to be 8.6 in one million, which is below the BAAQMD threshold of significance of 10 in one million. The $PM_{2.5}$ concentrations and HI on-site from traffic on Vallco Parkway are estimated to be 0.25 $\mu g/m^3$ and 0.03, which are below their respective BAAQMD thresholds of significance of 0.3 $\mu g/m^3$ and 1.0.

Figure 3.3-4 shows the combined annual $PM_{2.5}$ concentrations across the project site for all three roadways (I-280, Stevens Creek Boulevard, and North Wolfe Road). Areas with potentially significant annual $PM_{2.5}$ concentrations are highlighted. Excess cancer risk from these combined sources were found to be below the BAAQMD 100 in one million combined source significance threshold. Non-cancer health effects from these combined sources would not exceed the significance threshold of a HI of greater than 10.0. Refer to Appendix B for modeling details, data inputs, and assumptions.

The proposed project (and General Plan Buildout with Maximum Residential Alternative, and Retail and Residential Alternative) could also allow development of new non-residential land uses that are potential emissions sources. The proposed project (and General Plan Buildout with Maximum Residential Alternative, and Retail and Residential Alternative) could include stationary sources of pollutants that would be required to obtain permits to operate in compliance with BAAQMD rules. These sources include, but are not limited to, dry cleaners and back up diesel generators. The permit process ensures that these sources would be equipped with the required emission controls and that, individually, these sources would result in a less than significant community risk impact.

The project would include a transit hub. It is estimated that 15 buses would service the transit hub daily. Assuming the buses would be diesel powered, this relatively small number of daily buses accessing the transit hub would not be expected to pose a significant community risk impact to future residents on-site.

The proposed project (and General Plan Buildout with Maximum Residential Alternative and Retail and Residential Alternative) would allow new residential land uses on-site that would be exposed to TAC and $PM_{2.5}$ concentrations above the BAAQMD threshold of significance.

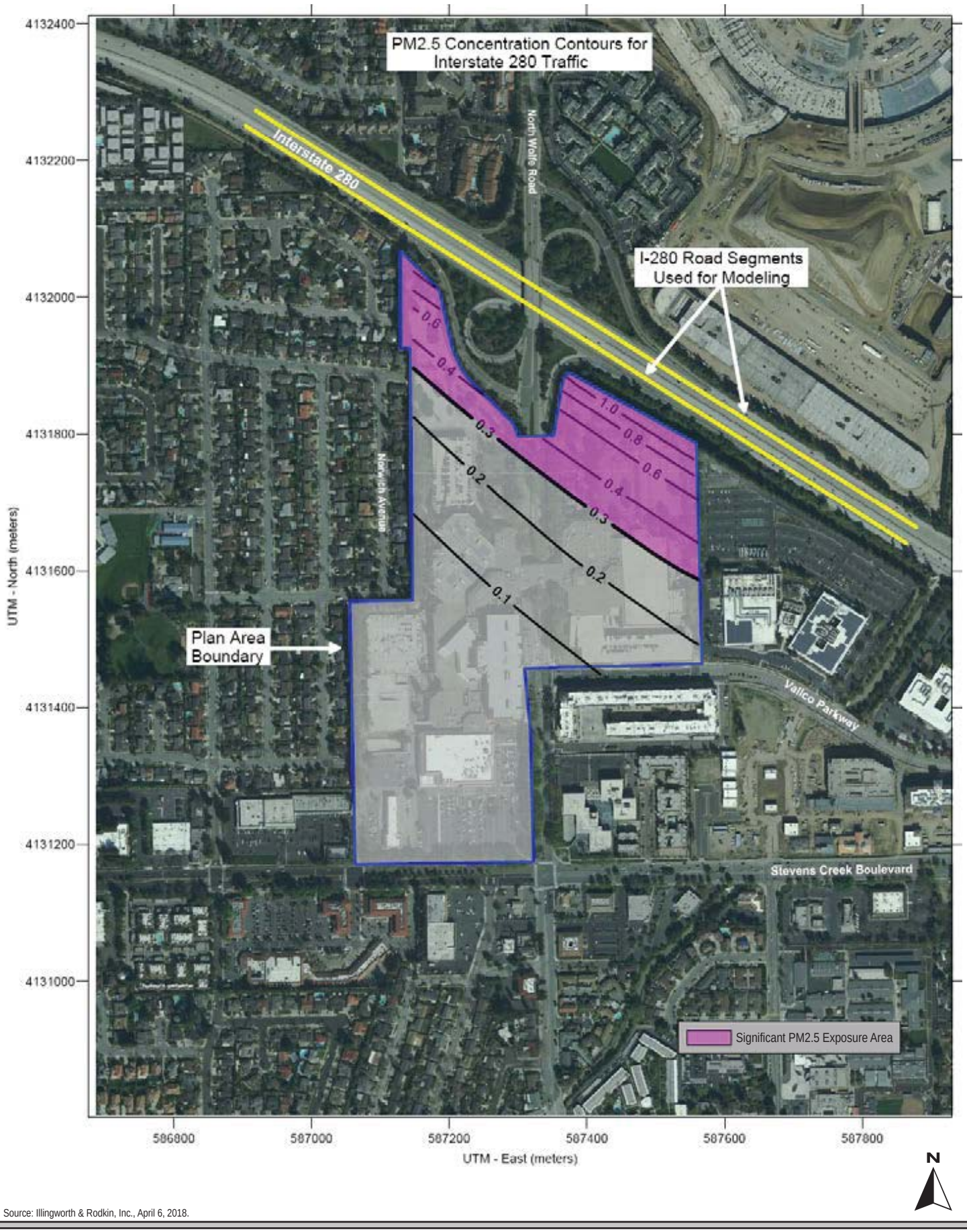
Consistent with City of Cupertino General Plan policies, the Specific Plan includes design policies that require the following to reduce TAC and $PM_{2.5}$ exposure where sensitive receptors are located within the setback distances identified above and shown in Figure 3.3-1, Figure 3.3-2, and Figure 3.3-3:

- Future development under the proposed project (and General Plan Buildout with Maximum Residential Alternative and Retail and Residential Alternative) that includes sensitive receptors (such as residences or daycare centers) located within the above discussed setback distances from I-280 and local roadways shall require site-specific analysis to quantify the level of TAC and $PM_{2.5}$ exposure. This analysis shall be conducted following procedures outlined by BAAQMD. If the site-specific analysis reveals significant exposures, such as cancer risk greater than 10 in one million acute or chronic hazards with a HI greater than 1.0,

or annual $PM_{2.5}$ exposures greater than 0.3 µg/m^3, or a significant cumulative health risk in terms of excess cancer risk greater than 100 in one million, acute or chronic hazards with a HI greater than 10.0, or annual $PM_{2.5}$ exposures greater than 0.8 µg/m^3, additional measures such as those detailed below shall be implemented to reduce the risk to below the threshold. If this is not possible, the sensitive receptors shall be relocated.

- For significant cancer risk exposure, as defined by BAAQMD, indoor air filtration systems shall be installed to effectively reduce particulate levels to below the significance threshold. Project sponsors shall submit performance specifications and design details to demonstrate that lifetime residential exposures would result in less than significant cancer risks (less than 10 in one million chances or 100 in one million for cumulative sources), HI, and $PM_{2.5}$ concentration. To reduce significant community health risk exposure, future development shall implement the following measures:
  - Air filtration systems installed at significantly impacted sensitive receptor buildings shall be rated MERV-13 or higher and a maintenance plan for the air filtration system shall be implemented.
  - Trees and/or vegetation shall be planted between sensitive receptors and pollution sources, if feasible. Trees that are best suited to trapping particulate matter shall be planted, including the following: pine (*Pinus nigra var. maritime*), cypress *(X Cupressocyparis leylandii*), hybrid poplar (*Populus deltoids X trichocarpa*), and redwoods (*Sequoia sempervirens*).
  - Sites shall be designed to locate sensitive receptors as far as possible from any freeways, roadways, diesel generators, and distribution centers.
  - Operable windows, balconies, and building air intakes shall be located as far away from TAC sources as feasible. If future residences are located near a distribution center, residences shall not be located immediately adjacent to a loading dock or where trucks concentrate to deliver goods.

- Future development under the proposed project (and General Plan Buildout with Maximum Residential Alternative and Retail and Residential Alternative) that would include TAC sources (such as diesel backup generators) would be evaluated through the CEQA environmental review process or BAAQMD permit process to ensure they do not cause a significant health risk in terms of excess cancer risk greater than 10 in one million, acute or chronic hazards with a HI greater than 1.0, or annual $PM_{2.5}$ exposures greater than 0.3 µg/m^3, or a significant cumulative health risk in terms of excess cancer risk greater than 100 in one million, acute or chronic hazards with a HI greater than 10.0, or annual $PM_{2.5}$ exposures greater than 0.8 µg/m^3.



Source: Illingworth & Rodkin, Inc., April 6, 2018.

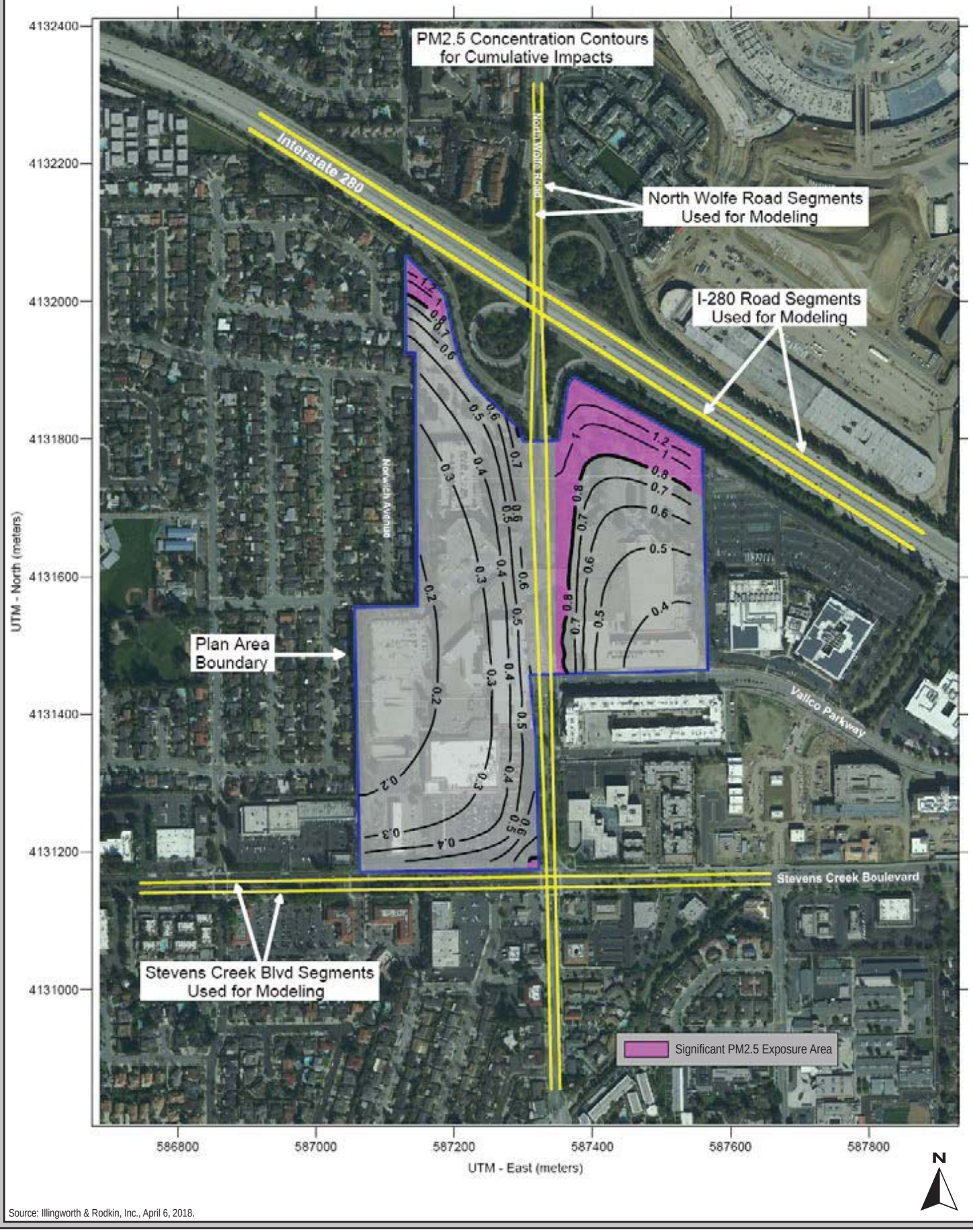
PROJECT SITE PM2.5 CONCENTRATIONS (µg/m3) FROM I-280 FIGURE 3.3-1

Source: Illingworth & Rodkin, Inc., April 6, 2018.

PROJECT SITE PM2.5 CONCENTRATIONS (µg/m3) FROM STEVENS CREEK BOULEVARD FIGURE 3.3-2

Source: Illingworth & Rodkin, Inc., April 6, 2018.

PROJECT SITE PM2.5 CONCENTRATIONS (µg/m3) FROM NORTH WOLFE ROAD FIGURE 3.3-3



Source: Illingworth & Rodkin, Inc., April 6, 2018.

COMBINED ANNUAL PM2.5 CONCENTRATIONS (µg/m3) FROM NEARBY ROADWAYS FIGURE 3.3-4

General Plan Buildout with Maximum Residential Alternative

The General Plan Buildout with Maximum Residential Alternative would result in the same exposure to future on-site sensitive receptors to TACs as described above for the proposed project.

Retail and Residential Alternative

The Retail and Residential Alternative would result in the same exposure to future on-site sensitive receptors to TACs as described above for the proposed project.

Occupied/Re-Tenanted Mall Alternative

The Occupied/Re-Tenanted Mall Alternative would not include residences on-site. Future commercial and office tenants, however, could include other sensitive receptors such as daycare facilities. The Occupied/Re-Tenanted Mall Alternative would result in the same exposure to future on-site sensitive receptors to TACs as described above for the proposed project.

A discussion of this alternative is provided in the EIR for informational purposes only. This alternative is a permitted land use, and can be implemented without further discretionary approvals from the City or environmental review under CEQA. The City cannot require the above Specific Plan design policies to reduce TAC exposure to future sensitive receptors on-site under this alternative.

Impact AQ-8:	**The proposed project (and project alternatives) would not create objectionable odors affecting a substantial number of people. (Less than Significant Impact)**

Project and All Project Alternatives

Subsequent land use activities associated with implementation of the proposed project (and all project alternatives) could results in odorous emissions. According to the BAAQMD CEQA Air Quality Guidelines, an odor source with five or more confirmed complaints per year averaged over three years is considered to have a significant impact. Future construction activities associated with the proposed project could result in odorous emissions from diesel exhaust associated with construction equipment. Because of the temporary nature of these emissions and the highly diffusive properties of diesel exhaust, exposure of sensitive receptors to these emissions would be limited and the impact is considered less than significant.

The proposed project (and all project alternatives) could allow the development of uses that have the potential to produce odorous emissions during operation; however, significant sources of odors (e.g., wastewater treatment, food processing facilities, and chemical plants) are not proposed as part of the project or any of the alternatives. Other sources, such as restaurants, that could be associated with future development typically result in only localized sources of odors that would not impact a large number of people. Thus, the impact would be less than significant. **(Less than Significant Impact)**

The Occupied/Re-Tenanted Mall Alternative is provided in the EIR for informational purposes only. This alternative is a permitted land use, and can be implemented without further discretionary approvals from the City or environmental review under CEQA. **(Less than Significant Impact: Not a CEQA Impact)**

Impact AQ-9:	**Implementation of the proposed project (and General Plan Buildout with Maximum Residential Alternative and Retail and Residential Alternative) would cumulatively contribute to cumulatively significant air quality impacts in the San Francisco Bay Area Air Basin. (Significant and Unavoidable Cumulative Impact with Mitigation Incorporated)**

By its very nature, air pollution is largely a cumulative impact. The geographic area for cumulative air quality impacts is the San Francisco Bay Area Air Basin. Past, present, and future development projects contribute to the region's adverse air quality impacts. No single project is sufficient in size to, by itself, result in nonattainment of ambient air quality standards. Instead, a project's individual emissions contribute to existing cumulatively significant adverse air quality impacts.

Cumulative Air Pollutant Emissions

Project

In developing thresholds of significance for air pollutants, BAAQMD considered the emissions levels for which a project's individual emissions would be cumulatively considerable. If a project exceeds the identified significance thresholds, its emissions would be cumulatively considerable, resulting in significant adverse air quality impacts to the region's existing air quality conditions. As discussed in Impact AQ-3, the project (and General Plan Buildout with Maximum Residential Alternative and Retail and Residential Alternative), even with the implementation of the proposed TDM program and mitigation measure MM AQ-3.1, would result in significant and unavoidable operational criteria air pollutant emissions.

Mitigation Measure:

MM AQ-9.1: Implement MM AQ-3.1.

The project (and General Plan Buildout with Maximum Residential Alternative and Retail and Residential Alternative), with the implementation of the above mitigation measure would result in significant and unavoidable cumulative criteria air pollutant emissions (see discussion under Impact AQ-3). **(Significant and Unavoidable Cumulative Impact with Mitigation Incorporated)**

General Plan Buildout with Maximum Residential Alternative

The General Plan Buildout with Maximum Residential Alternative would result in similar cumulative criteria air pollutant emissions as described above for the proposed project. The General Plan Buildout with Maximum Residential Alternative would result in lesser (though still significant) cumulative criteria air pollutant emissions impacts than the proposed project because this alternative would not result in significant emissions of $PM_{2.5}$ (which the project did) (refer to Table 3.3-5 and

Table 3.3-6). See Impact AQ-3 and AQ-9. **(Significant and Unavoidable Cumulative Impact with Mitigation Incorporated)**

Retail and Residential Alternative

The Retail and Residential Alternative would result in similar cumulative criteria air pollutant emissions as described above for the proposed project. The Retail and Residential Alternative would result in lesser (though still significant) cumulative criteria air pollutant emissions impacts than the proposed project because this alternative would not result in significant emissions of $PM_{2.5}$ (which the project did) (refer to Table 3.3-5 and Table 3.3-6). See Impact AQ-3 and AQ-9. **(Significant and Unavoidable Cumulative Impact with Mitigation Incorporated)**

Occupied/Re-Tenanted Mall Alternative

As discussed above, the Occupied/Re-Tenanted Mall Alternative would not result in significant emissions of operational criteria air pollutants; therefore, it would not result in significant cumulative emissions of criteria air pollutants.

A discussion of this alternative is provided in the EIR for informational purposes only. This alternative is a permitted land use, and can be implemented without further discretionary approvals from the City or environmental review under CEQA. **(Less than Significant Cumulative Impact: Not a CEQA Impact)**

Cumulative Exposure of Sensitive Receptors from Project Construction Activity

Project and All Project Alternatives

The project site would be affected by multiple sources of TACs. Table 3.3-8 shows the cancer risk associated with each TAC source affecting the MEI. There are also two cumulative projects that could be constructed at the same time as the proposed project (and General Plan Buildout with Maximum Residential Alternative and Retail and Residential Alternative): the I-280/Wolfe Road interchange improvement and The Hamptons Apartment projects. Both of these cumulative projects are more than 1,000 feet from the project's MEI. As shown in Table 3.3-8, the sum of impacts from combined sources (i.e., TAC sources within 1,000 feet of the project) would not exceed the BAAQMD cumulative community risk thresholds. **(Less than Significant Cumulative Impact)**

The Occupied/Re-Tenanted Mall Alternative is provided in the EIR for informational purposes only. This alternative is a permitted land use, and can be implemented without further discretionary approvals from the City or environmental review under CEQA. **(Less than Significant Cumulative Impact: Not a CEQA Impact)**

Table 3.3-8: Combined Construction Community Risk at MEI			
Source	**Cancer Risk** (per million)	**Annual $PM_{2.5}$ Concentration** ($\mu g/m^3$)	**Hazard Index**
Proposed Project*	26.7	0.25	0.01
Stevens Creek Boulevard†	0.4	0.06	<0.01
North Wolfe Road	1.8	0.28	<0.01
Vallco Parkway	7.1	0.21	<0.03
I-280†	--	--	--
Apple Inc., Plant 18440 (10500 Ridgeview Court)†	--	--	--
Apple Inc., Plant 18604 (19333 Vallco Parkway)†	0.1	0.00	<0.01
Conoco Phillips, Plant G9315 (19550 Stevens Creek Boulevard)†	--	--	--
Combined Total	36.1	0.80	<0.07
BAAQMD Threshold – Combined Sources	>100	>0.8	>10.0
Significant?	No	No	No

Notes: * The community health risk of the General Plan Buildout with Maximum Residential and Retail and Residential Alternative were found to be similar to that of the proposed project. †Source is over 1,000 feet from the project construction MEI.

Cumulative Odor Impacts

Project and All Project Alternatives

There are no significant sources of odors (e.g., wastewater treatment, food processing facilities, and chemical plants) in the project vicinity; therefore, there would be no significant cumulative odor impact. The odor impacts from the project (and General Plan Buildout with Maximum Residential Alternative and Retail and Residential Alternative) are discussed under Impact AQ-8. **(Less than Significant Cumulative Impact)**

The Occupied/Re-Tenanted Mall Alternative is provided in the EIR for informational purposes only. This alternative is a permitted land use, and can be implemented without further discretionary approvals from the City or environmental review under CEQA. **(Less than Significant Cumulative Impact: Not a CEQA Impact)**

3.4 BIOLOGICAL RESOURCES

3.4.1 Environmental Setting

3.4.1.1 *Regulatory Framework*

Federal and State

Special Status Species

Individual plant and animal species listed as rare, threatened or endangered under state and federal Endangered Species Acts are considered "special-status species." Federal and state endangered species legislation has provided the United States Fish and Wildlife Service (USFWS) and the California Department of Fish and Wildlife (CDFW) with a mechanism for conserving and protecting plant and animal species of limited distribution and/or low or declining populations. Permits may be required from both the USFWS and CDFW if activities associated with a proposed project will result in the take of a species listed as threatened or endangered. To "take" a listed species, as defined by the State of California, is "to hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture or kill" said species. "Take" is more broadly defined by the federal Endangered Species Act to include "harm" of a listed species.

In addition to species listed under state and federal Endangered Species Acts, Section 15380(b) and (c) of the CEQA Guidelines provide that all potential rare or sensitive species, or habitats capable of supporting rare species, are to be considered for environmental review per the CEQA Guidelines. These may include plant species of concern in California listed by the California Native Plant Society and CDFW listed "Species of Special Concern."

Migratory Bird and Birds of Prey Protections

Federal and state laws also protect most bird species. The federal Migratory Bird Treaty Act (MBTA) prohibits killing, possessing, or trading in migratory birds, except in accordance with regulations prescribed by the Secretary of the Interior. This act encompasses whole birds, parts of birds, and bird nests and eggs.

Birds of prey, such as owls and hawks, are protected in California under provisions of the State Fish and Game Code. The code states that it is "unlawful to take, possess, or destroy any birds in the order Falconiformes or Strigiformes (birds of prey) or to take, possess, or destroy the nest or eggs of any such bird except as otherwise provided by this code or any regulation adopted pursuant thereto."[22] Construction disturbance during the breeding season could result in the incidental loss of fertile eggs or nestlings, or otherwise lead to nest abandonment. Disturbance that causes nest abandonment and/or loss of reproductive effort is considered "taking" by the CDFW.

Sensitive Habitats

Wetland and riparian habitats are considered sensitive habitats under CEQA. They are also afforded protection under applicable federal, state, and local regulations, and are generally subject to regulation, protection, or consideration by the US Army Corps of Engineers (USACE), Regional

[22] California Fish and Game Code, Division 4, Part 2, Chapter 1, Provision 3505.3.

Water Quality Control Board (RWQCB), CDFW, and/or the USFWS under provisions of the federal Clean Water Act (e.g., Sections 303, 304, 404) and State of California Porter-Cologne Water Quality Control Act. EPA regulations, called for under Section 402 of the Clean Water Act, also include the National Pollutant Discharge Elimination System (NPDES) permit program, which controls sources that discharge into waters of the United States (e.g., streams, lakes, bays, etc.).

CDFW Stream/Riparian Habitat

Streambeds and banks, as well as associated riparian habitat, are regulated by the CDFW under Section 1602 of the Fish and Game Code. Work within the bed or banks of a stream or the adjacent riparian habitat requires a Streambed Alteration Agreement from the CDFW. Provisions of these regulations apply to modifications of sensitive aquatic habitats and riparian habitats within Cupertino.

City of Cupertino

Cupertino General Plan: Community Vision 2015-2040

The proposed project (and project alternatives) are subject to General Plan policies including, but not limited to, the policies and strategies listed below pertaining to biological resources.

Policy/Strategy	Description
Policy ES-5.1	Manage the public and private development to ensure the protection and enhancement of its urban ecosystem.
Policy ES-5.3	Preserve and enhance existing natural vegetation, landscape features and open space when new development is proposed within existing natural areas. When development is proposed near natural vegetation, encourage the landscaping to be consistent with the palate of vegetation found in the natural vegetation.
Strategy LU-6.7.1	Establish and periodically revise a heritage tree list that includes trees of importance to the community.
Strategy LU-19.1.13	Retain trees along the Interstate 280, Wolfe Road and Stevens Creek Boulevard to the extent feasible, when new development are proposed.

City of Cupertino Municipal Code

The City of Cupertino recognizes the substantial economic, environmental, and aesthetic importance of its tree population. The City finds that the preservation of "protected trees" on private and public property, and the protection of all trees during construction, is necessary for the best interests of the City and of the citizens and public (Municipal Code Chapter 14.18).

The City's Municipal Code calls for protection of "protected" trees and requires a permit prior to their removal. Pursuant to Municipal Code Chapter 14.18.050, protected trees include:

- Heritage trees in all zoning districts. Heritage trees are defined by the City as any tree or grove of trees which, because of factors including, but not limited to, its historic value,

unique quality, girth, height, or species, has been found by the Architectural and Site Approval Committee to have a special significance to the community;

- Specimen trees are all trees of the following species that have a minimum single-trunk diameter of 10-inches (31-inches in circumference) or minimum multi-truck diameter of 20-inches (63-inches in circumference) measured at 4.5 feet from natural grade: oak (including coast live oak, valley oak, black oak, blue oak, and interior live oak), California buckeye, big leaf maple, deodar cedar, blue atlas cedar, bay laurel or California bay, and western sycamore;
- Any tree required to be planted or retained as part of an approved development application, building permit, tree removal permit, or code enforcement action in all zoning districts; and
- Approved privacy protection planting in R-1 zoning districts.

Any protected tree in any zoning district shall not be removed without first obtaining a tree removal permit (Municipal Code Chapter 14.18.030). Replacement trees, of a species and size as designated by the approval authority and consistent with the replacement value of each tree to be removed, shall be planted on the subject property on which the tree(s) are to be removed. The City's replacement tree ratios, as identified in Municipal Code Chapter 14.18.190, are listed below.

Table 3.4-1: City Tree Replacement Ratios

Trunk Size of Removed Tree	Corresponding Replacement Tree
Up to 12 inches	One 24-inch box tree
Over 12 inches and up to 18 inches	Two 24-inch box trees
Over 18 inches and up to 36 inches	Two 24-inch box trees or one 36-inch box tree
Over 36 inches	One 36-inch box tree
Heritage Tree of any size	One 48-inch box tree

If a replacement tree for the removal of a non-heritage tree or tree with trunk size equal to or less than 36-inches cannot be reasonably planted on the subject property, an in-lieu tree replacement fee shall be paid to the City's tree fund to add or replace trees on public property in the vicinity of the subject property or add trees or landscaping on City property (Municipal Code Chapter 14.18.190).

3.4.1.2 *Existing Conditions*

The project site is located in an urban area surrounded by development (refer to Figure 2.1-3). The project site is developed with buildings, parking structures, and paved parking lots and surfaces. Landscaping, including trees, shrubs, and groundcover, is primarily located along the perimeter of the site, building perimeters, and within surface parking lots.

Habitats in developed, urban areas such as the project site are extremely low in species diversity. The wildlife species most often associated with developed areas include urban adapted birds such as the rock dove, mourning dove, house sparrow, and European starling. There are no sensitive habitats or wetlands on or adjacent to the project site. Due to the lack of sensitive habitats and the developed

nature of the project site, special-status plant and animal species are not expected to occur on the project site. The primary biological resources on-site are mature landscape trees, which are described in more detail below.

An arborist report was prepared for most of the project site (the mall and the SIMEON parcel) by Walter Levison, Consulting Arborist in October 2015 and peer reviewed by Michael L. Bench, Consulting Arborist in November 2015. The remaining portion of the project site was surveyed as part of the environmental review for the Hyatt House Hotel project located at the northeast corner of the project site (KCR Development parcel) in July 2014 by David L. Babby, Consulting Arborist. Copies of the arborist reports and peer review are included in Appendix C of this EIR.

The project site includes 1,125 trees, at least 36 of which are considered dead. Most of the trees on-site are mature landscape trees located on the perimeter of the site along street frontages and within the City right-of-way. Trees are also located along the perimeter of buildings and in surface parking lots. Prominent tree species on-site include coast redwood (533 trees), shamel ash (406 trees), and pine (91 trees). The overall health condition for the prominent tree species on-site ranges from fair to poor. According to the consulting arborists, the trees on-site are considered heavy water users and the health of the trees has been declining due to the drought conditions. The health of the single and double row of coast redwood trees along the western site boundary is declining.

The existing 1,125 trees on the project site were planted as part of the development of Vallco Shopping Mall and, therefore, are all protected trees. Six of the protect trees are specimen trees. Refer to Appendix C for detailed tables of all trees on-site and tree location maps. The six protected trees are California sycamores and their tree numbers are 260-262 and 414-416. Protected trees 260-262 are on the west side of North Wolfe Road in the landscape median located between the satellite restaurant building (formerly TGI Fridays) and the mall building. Protected trees 414-416 are located on the east side of North Wolfe Road in the landscape median located between the satellite restaurant building (formerly Alexander's Steakhouse) and the mall building. The protected trees are in fair to good condition. There are no heritage trees on-site.

As part of the approved Hyatt House Hotel project at the northeast corner of the project site, 117 new trees would be planted on the KCR Development owned parcel.

3.4.2 Biological Resources Impacts

3.4.2.1 *Thresholds of Significance*

For the purposes of this EIR, a biological resource impact is considered significant if the 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 the California Department (CDFW) of Fish and Wildlife or United States Fish and Wildlife Service (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 the CDFW or USFWS;

- Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (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.

Impact BIO-1:	**The project (and project alternatives) would not have a substantial adverse effect on species identified as a candidate, sensitive, or special status species. (Less than Significant Impact)**

Project

Because the entire project site is developed, disturbed by human use, and located in an urbanized area, the site does not contain sensitive habitats (such as wetlands and riparian habitats). Due to the lack of sensitive habitats on-site, no special-status plant or animal species are expected to be present within the project site.

Nesting birds, however, may be present in trees on and adjacent to the project site. The trees could provide nesting habitat for birds, including migratory birds and raptors. Nesting birds are protected under provisions of the MBTA and Fish and Game Code Sections 3503, 3503.5, and 2800.

Future construction disturbance during the breeding season could result in the incidental loss of fertile eggs or nestlings, or otherwise lead to nest abandonment. Disturbance that causes abandonment and/or loss of reproductive effort is considered a taking by the CDFW. Any loss of fertile eggs, nesting raptors, or any activities resulting in nest abandonment would constitute a significant impact. Construction activities, such as exterior architectural improvements, tree removal, and site grading, that disturb a nesting bird or raptor on-site or immediately adjacent to the construction zone would constitute a significant impact.

Standard Permit Conditions: As standard permit conditions, future construction under the proposed project (and General Plan Buildout with Maximum Residential Alternative and Retail and Residential Alternative) shall implement the following measures to comply with the MBTA and Fish and Game Code and reduce impacts to nesting birds to a less than significant level:

- Construction and tree removal/pruning activities shall be scheduled to avoid the nesting season to the extent feasible. If feasible, tree removal and/or pruning shall be completed before the start of the nesting season to help preclude nesting. The nesting season for most birds and raptors in the San Francisco Bay area extends from February 1 through August 31.
- If it is not possible to schedule construction activities between September 1 and January 31 then a qualified ornithologist shall conduct a preconstruction survey to identify active bird

nests that may be disturbed during project construction. This survey shall be completed no more than seven days prior to the initiation of demolition/construction activities (including tree removal and pruning). During this survey, the ornithologist shall inspect all trees and other possible nesting habitats in and immediately adjacent to the construction areas for nests.

- If the survey does not identify any nesting birds that would be affected by construction activities, no further mitigation is required. If an active nest is found sufficiently close to work areas to be disturbed by these activities, the ornithologist (in consultation with the CDFW) shall designate a construction-free buffer zone (typically 300 feet for raptors and 100 feet for non-raptors) to be established around the nest to ensure that no nests of species protected by the MBTA and California Fish and Game Code will be disturbed during construction activities. The buffer shall remain in place until a qualified ornithologist has determined that the nest is no longer active.
- A final report on nesting birds and raptors, including survey methodology, survey date(s), map of identified active nests (if any), and protection measures (if required), shall be submitted to the Planning Manager and be completed to the satisfaction of the Community Development Director prior to the start of grading.

Future construction under the proposed project (and General Plan Buildout with Maximum Residential Alternative and Retail and Residential Alternative), with the implementation of the above standard permit conditions, would result in less than significant impacts to nesting birds by avoiding construction activities during the nesting season, inhibiting nesting, and conducting preconstruction surveys in order to avoid disturbance of active nests that may be affected by project construction. **(Less than Significant Impact)**

General Plan Buildout with Maximum Residential Alternative

The General Plan Buildout with Maximum Residential Alternative would implement the above standard permit condition and result in the same impacts to nesting birds as described above for the proposed project. **(Less than Significant Impact)**

Retail and Residential Alternative

The Retail and Residential Alternative would implement the above standard permit condition and result in the same impacts to nesting birds as described above for the proposed project. **(Less than Significant Impact)**

Occupied/Re-Tenanted Mall Alternative

Construction activities under the Occupied/Re-Tenanted Mall Alternative is required to comply with the MBTA and Fish and Game Code to avoid impacts to nesting birds. A discussion of this alternative is provided in the EIR for informational purposes only. This alternative is a permitted land use, and can be implemented without further discretionary approvals from the City or environmental review under CEQA. **(Less than Significant Impact: Not a CEQA Impact)**

Impact BIO-2:	The project (and project alternatives) would not have a substantial adverse effect on riparian habitat, wetland, or other sensitive natural community. (No Impact)

Project and All Project Alternatives

The entire project site is developed, disturbed by human use, and located in an urban area. The project site does not contain sensitive habitats, such as riparian habitat and wetlands. **(No Impact)**

Impact BIO-3:	The project (and project alternatives) would not interfere substantially with the movement of fish or wildlife species or with established wildlife corridors, or impede the use of native wildlife nursery sites. (Less than Significant Impact)

Project

The project site is developed and surrounded by development. There are no sensitive habitats on-site or on surrounding properties.

The greater San Francisco Bay Area is located on the Oceanic Route of the Pacific Flyway, which is an important route utilized by migratory birds. The dominant routes are those over bodies of water, wetlands, and marshes, which are locations for resting and foraging. Routes over heavily urbanized areas that lack these features (such as the project site) are less popular. Some studies have found that migratory birds can be affected by human-built structures (buildings, signs, etc.) if they contain transparent materials, which may lead to unintentional collisions because the structures are difficult to see. Further, during the nighttime if the structure contains bright artificial light, birds can become vulnerable to collisions because they are attracted to, and disoriented by, the bright artificial light.[23]

As identified in Section 2.4.4, the Specific Plan under the project (and General Plan Buildout with Maximum Residential Alternative and Retail and Residential Alternative) would include bird-safe building design policies such as the following:

- Avoiding large, uninterrupted expanses of glass near open areas,
- Prohibiting glass skyways and freestanding glass walls,
- Avoiding transparent glass walls coming together at building corners,
- Prohibiting up-lighting or spotlights,
- Shielding outdoor lights,
- Utilizing fritted, glazed, and/or low reflective glass.

For these reasons, the project site does not facilitate the movement of fish or wildlife species, act as a wildlife corridor, or impede use of wildlife nursery sites, and future development under the proposed project, General Plan Buildout with Maximum Residential Alternative, and Retail and Residential Alternative. **(Less than Significant Impact)**

[23] San Francisco Planning Department. *Standards for Bird-Safe Buildings.* July 2011.

General Plan Buildout with Maximum Residential Alternative

The General Plan Buildout with Maximum Residential Alternative would result in the same impact to movement of fish or wildlife, wildlife corridors, wildlife nursery sites, and bird safety as described above for the proposed project. Future development under the General Plan Buildout with Maximum Residential Alternative would include the same bird safe design measures listed above. **(Less than Significant Impact)**

Retail and Residential Alternative

The Retail and Residential Alternative would result in the same impact to movement of fish or wildlife, wildlife corridors, wildlife nursery sites, and bird safety as described above for the proposed project. Future development under the Retail and Residential Alternative would include the same bird safe design measures listed above. **(Less than Significant Impact)**

Occupied/Re-Tenanted Mall Alternative

The Occupied/Re-Tenanted Mall Alternative would result in exterior and interior improvements to the existing mall buildings. The project site is developed and surrounded by development, and there are no sensitive habitats on-site or on surrounding properties. For these reasons, the project site does not facilitate the movement of fish or wildlife species, act as a wildlife corridor, or impede use of wildlife nursery sites.

A discussion of this alternative is provided in the EIR for informational purposes only. This alternative is a permitted land use, and can be implemented without further discretionary approvals from the City or environmental review under CEQA. No mitigation measures or additional conditions of approval can be required. **(Less than Significant Impact: Not a CEQA Impact)**

Impact BIO-4:	**The project (and project alternatives) would not conflict with local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance. (Less than Significant Impact)**

The consistency of the project and project alternatives with the City's Tree Protection Ordinance is described below. Refer to Section 3.11 for a discussion of consistency of the project and project alternatives with General Plan policies.

Project

The project site includes a total of 1,125 trees on-site, which are all protected trees. Consistent with General Plan Strategy LU-19.1.13, future development under the project (and the General Plan Buildout with Maximum Residential Alternative and Retail and Residential Alternative) would retain all of the trees along I-280, Wolfe Road, and Stevens Creek Boulevard to the extent feasible. Nonetheless, future development under the proposed project (or project alternatives) could result in the removal of trees on-site.

In addition, the extension of the recycled water infrastructure to the site as proposed by the project (and General Plan Buildout with Maximum Residential Alternative) would occur within the existing right-of-way of roadways that have landscaped medians with trees. The construction of the recycled water infrastructure extension could result in removal of the trees in the landscape median.

Standard Permit Conditions: As standard permit conditions, future development under the proposed project (and General Plan Buildout with Maximum Residential Alternative and Retail and Residential Alternative) shall implement the following measures to reduce impacts to trees to a less than significant level:

- An updated arborist report shall be prepared by a certified arborist and submitted to the City. The updated arborist report shall include updated tree assessments and tree maintenance and protection measures for trees to be preserved. The development project shall be required to implement the recommendations in the arborist report to protect trees identified to be preserved.
- Per Municipal Code Chapter 14.18.190, trees removed shall be replaced as follows:

Trunk Size of Removed Tree	Corresponding Replacement Tree
Up to 12 inches	One 24-inch box tree
Over 12 inches and up to 18 inches	Two 24-inch box trees
Over 18 inches and up to 36 inches	Two 24-inch box trees or one 36-inch box tree
Over 36 inches	One 36-inch box tree
Heritage Tree of any size	One 48-inch box tree

The species and location of the replacement trees and monitoring of replanting success shall be approved by the City of Cupertino Arborist and Community Development Director, in conformance with the City's Protected Tree Ordinance requirements.

If a replacement tree for the removal of a non-heritage tree or tree with trunk size equal to or less than 36-inches cannot be reasonably planted on the project site, an in-lieu tree replacement fee shall be paid to the City's tree fund to add or replace trees on public property in the vicinity of the Specific Plan area or add trees or landscaping on City property.

The proposed project (and General Plan Buildout with Maximum Residential Alternative and Retail and Residential Alternative), with the implementation of the above standard permit conditions, would result in less than significant impacts to trees by protecting existing trees to be preserved and replacing trees to be removed. **(Less than Significant Impact)**

General Plan Buildout with Maximum Residential Alternative

Future development under the General Plan Buildout with Maximum Residential Alternative would be subject to the same standard permit conditions as described above for the proposed project. This alternative, therefore, would be have similar impacts to trees as discussed above for the proposed project. **(Less than Significant Impact)**

Retail and Residential Alternative

Future development under the Retail and Residential Alternative would be subject to the same standard permit conditions as described above for the proposed project. This alternative, therefore, would be have similar impacts to trees as discussed above for the proposed project. **(Less than Significant Impact)**

Occupied/Re-Tenanted Mall Alternative

The Occupied/Re-Tenanted Mall Alternative assumes that the existing buildings would be re-tenanted and reused without constructing any new structures. New exterior and interior tenant improvements to the existing buildings would likely occur under this alternative, however. If exterior improvements to the existing buildings would result in the removal of existing trees on-site, the project proponent would comply with the City's Municipal Code Chapter 14.18.190 to reduce impacts to trees by replacing removed trees at the appropriate ratio. **(Less than Significant Impact: Not a CEQA Impact)**

Impact BIO-5:	**The project (and project alternatives) would not conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved habitat conservation plan. (No Impact)**

Project and All Project Alternatives

The project site is not located within an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan. The proposed Specific Plan (and project alternatives), therefore, would not conflict with provisions of any of these plans. **(No Impact)**

Impact BIO-6:	**The project (and project alternatives) would not have a cumulatively considerable contribution to a significant cumulative biological resources impact. (Less than Significant Cumulative Impact)**

Project and All Project Alternatives

The geographic area for cumulative biological resources impacts includes the project site and its surrounding area because localized development would affect the same group of biological resources. The project site is located within an urbanized area and does not contain sensitive habitat.

The implementation of the proposed project (or project alternatives) would impact nesting birds (if present during construction) and trees. Other past, present, and pending development projects could also impact nesting birds (if present during construction) and trees. Cumulatively, the proposed project and other development projects in the area could result in a significant impact to these biological resources. Each development project, however, is subject to federal, state, and local regulations (including the MBTA, Fish and Game Code, and local tree replacement requirements) to

avoid and/or minimize impacts to nesting birds and trees. For these reasons, the proposed project (or project alternatives) would not have a cumulatively considerable contribution to a significant cumulative biological resources impact. **(Less than Significant Cumulative Impact)**

The Occupied/Re-Tenanted Mall Alternative is provided in the EIR for informational purposes only. This alternative is a permitted land use, and can be implemented without further discretionary approvals from the City or environmental review under CEQA. **(Less than Significant Cumulative Impact: Not a CEQA Impact)**

3.5 CULTURAL RESOURCES

The discussion in this section is based in part on a cultural resources literature search and initial Native American consultation for the project site by Holman & Associates in March 2018.

3.5.1 Environmental Setting

3.5.1.1 *Regulatory Framework*

Federal and State

National Register of Historic Places

The National Register of Historic Places (NRHP) is the nation's most comprehensive list of historic resources and includes historic resources significant in American history, architecture, archeology, engineering and culture, at the local, state, and national level. For a property to be eligible for listing in the NRHP, it must be significant in American history, architecture, archaeology, engineering, or culture, and must retain integrity in terms of location, design, setting, materials, workmanship, feeling, and association. Resources less than 50 years in age, unless of exceptional importance, are not eligible for the NRHP.

There are no NRHP listed or eligible resources on or adjacent to the project site.[24,25]

California Register of Historical Resources

The California Register of Historical Resources (CRHR) is a guide to cultural resources that must be considered when a government agency undertakes a discretionary action subject to CEQA. The CRHR aids government agencies in identifying, evaluating, and protecting California's historical resources, and indicates which properties are to be protected from substantial adverse change (Public Resources Code, Section 5024.1[a]). The CRHR is administered through the State Office of Historic Preservation (SHPO), which is part of the California State Parks system. A historic resource listed in, or formally determined to be eligible for listing in, the NRHP is, by definition, included in the CRHR (Public Resources Code Section 5024.1[d][1]).[26]

State Regulations Regarding Cultural and Paleontological Resources

Archaeological, paleontological, and historical sites are protected by a number of state policies and regulations under the California Public Resources Code, California Code of Regulations (Title 14 Section 1427), and California Health and Safety Code. California Public Resources Code Sections 5097.9-5097.991 require notification of discoveries of Native American remains and provides for the treatment and disposition of human remains and associated grave goods.

[24] National Park Service. "National Register Home." Accessed: January 11, 2018. Available at: http://www.nps.gov/nr/research/.
[25] City of Cupertino. *General Plan Amendment, Housing Element Update, and Associated Rezoning EIR Volume 1*. June 18, 2014. Page 4.4-19.
[26] Refer to Public Resources Code Section 5024.1(d)(1)

Both state law and County of Santa Clara County Code (Sections B6-19 and B6-20) require that the Santa Clara County Coroner be notified if cultural remains are found on a site. If the Coroner determines the remains are those of Native Americans, the Native American Heritage Commission and a "most likely descendant" must also be notified.

Assembly Bill 52 – Tribal Cultural Resources

A tribal cultural resource can be 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. It also must be either on or eligible for inclusion in the CRHR, a local historic register, or the lead agency, at its discretion, chooses to treat the resource as a tribal cultural resource. Assembly Bill (AB) 52, which amended the Public Resources Code, requires lead agencies to participate in formal consultations with California Native American tribes during the preparation of an EIR, negative declaration or mitigated negative declaration, if requested by any tribe, to identify tribal cultural resources that may be subject to significant impacts by a project. Where a project may have a significant impact on a tribal cultural resource, the lead agency's environmental document must discuss the impact and whether feasible alternatives or mitigation measures could avoid or substantially lessen the impact. Consultation is required until the parties agree to measures to mitigate or avoid a significant effect on a tribal cultural resource or when it is concluded that mutual agreement cannot be reached.

Senate Bill 18

The intent of SB 18, which amended the Government Code, is to aid in the protection of traditional tribal cultural places through local land use planning by requiring city governments to consult with California Native American tribes on projects which include adoption or amendment of general plans (defined in Government Code Section 65300 et seq.) and specific plans (defined in Government Code Section 65450 et seq.). SB 18 requires local governments to consult with tribes prior to making certain planning decisions and to provide notice to tribes at certain key points in the planning process.

Paleontological Resources Regulations

Paleontological resources are the fossilized remains of organisms from prehistoric environments found in geologic strata. They range from mammoth and dinosaur bones to impressions of ancient animals and plants, trace remains, and microfossils. These are in part valued for the information they yield about the history of the earth and its past ecological settings. The California Public Resources Code (Section 5097.5) specifies that unauthorized removal of a paleontological resource is a misdemeanor. Under the CEQA Guidelines, a project would have a significant impact on paleontological resources if it will disturb or destroy a unique paleontological resource or site or unique geologic feature.

Cupertino General Plan: Community Vision 2015-2040

The Vallco Shopping District is identified as a Community Landmark in the City's General Plan. The proposed project (and project alternatives) are subject to General Plan policies including, but not limited to, the policies listed below pertaining to cultural resources.

Policy/Strategy	Description
Policy LU-6.3	Projects on Historic Sites, Commemorative Sites and Community Landmarks shall provide a plaque, reader board and/or other educational tools on the site to explain the historic significance of the resource. The plaque shall include the city seal, name of resource, date it was built, a written description, and photograph. The plaque shall be placed in a location where the public can view the information.
Policy LU-6.8	Promote education related to the city's history through public art in public and private development.

Municipal Code

Appendix B of the City's Municipal Code identifies the Vallco freeway-oriented sign as a Landmark Sign. The Municipal Code includes the Zoning Ordinance, which has the following section pertaining to landmark signs:

1. *19.104.210 Landmark Signs* – Existing ground signs that have been designated by the City as Landmark Signs are exempt from the Nonconforming Sign regulations in Section 19.104.310.
    - Such signs may be structurally reinforced or rebuilt, after damage or destruction, to its original design and specifications.
    - Minor modifications to such signs may be allowed such that they do not distract from or alter the unique architectural style of the sign, with a Director's Minor Modification.

3.5.1.2 *Existing Conditions*

Historical Resources

The types of cultural resources that meet the definition of historical resources under CEQA generally consist of districts, sites, buildings, structures, and objects that are significant for their traditional, cultural, and/or historical associations.

The existing mall building was constructed between 1974 and 1979, and renovated in 1988 and 2006. The two smaller detached restaurant buildings (Alexander's Steakhouse and formerly TGI Friday's) on-site were constructed in 1978 and 1979. The buildings on-site, therefore, are less than 50 years old. Based on their age and modifications made, the buildings on-site are not listed and do not appear to be eligible for listing on the NRHP or CRHR.

The City has identified locally important cultural resources, including the Vallco Shopping District, in the General Plan. Vallco Shopping District is designated as a City Community Landmark. The General Plan EIR concluded the redevelopment of the Vallco site would not result in significant

impacts to historic resources, if redevelopment is consistent with General Plan Policy LU-6.3.[27] In addition, the Vallco freeway-oriented sign is identified as a Landmark Sign in the City's Municipal Code.

Paleontological Resources and Unique Geologic Features

Paleontological resources are fossils, the remains or traces of prehistoric life preserved in the geologic record. They range from the well-known and well-publicized (such as mammoth and dinosaur bones) to scientifically important fossils. Most of the City of Cupertino, including the Specific Plan area, is on recent alluvium deposits of Holocene (11,700 years ago to present). Holocene deposits are too recent to contain fossils.[28] There are no recorded paleontological resources in the project area.

The project site is located in an urban, developed, infill area and unique geologic features such as serpentine outcrops and boulders, pinnacles, or Tafoni sandstone are not located on-site.

Archaeological Resources

An archaeological literature review was completed for the project site at the Sonoma State University Northwest Information Center in March 2018. There are no recorded archaeological sites identified within the project site or the surrounding quarter-mile. No historical buildings or structures have been identified within or adjacent to the project site and, as discussed earlier, no buildings on or adjacent to the project site are listed on NRHP or CRHR.

The most archaeologically sensitive feature in the area, Calabazas Creek (approximately 1,300 feet to the east of the project site), was systematically surveyed in 1974 with negative findings. A literature search and field survey for 25 acres on lands spanning both sides of Calabazas Creek just southeast of the project site was completed in 2001. In 2014, a literature search was completed for approximately two acres at the northeast portion of the project site for the Hyatt House Hotel development. Neither survey found any evidence of buried cultural materials or resources. In addition, research completed for the Apple Park project northeast of the site, on the north side of I-280, did not identify any archaeological resources.[29] Given the developed nature of Vallco (i.e., most of the site is covered with buildings, pavement, and landscaping), visual inspection of native soils is not possible. Overall, the general vicinity of the Vallco area has a low to moderate potential for containing Native American deposits and archaeological resources.

[27] City of Cupertino. *General Plan Amendment, Housing Element Update, and Associated Rezoning EIR* Volume 1. June 18, 2014. Pages 4.4-19 through 4.4-21.
[28] Ibid. Page 4.4-16.
[29] Holman & Associates. *Archaeological Literature Review for the Proposed Vallco Project, Cupertino, Santa Clara County, California.* September 4, 2015.

Tribal Cultural Resources

Holman & Associates initiated Native American consultation for the Specific Plan project on behalf of the City of Cupertino on February 14, 2018. The Native American Heritage Commission (NAHC) was contacted to request a review of the Sacred Land files for any evidence of cultural resources or traditional properties of potential concern that might be known on lands within or adjacent to the project site. On February 22, 2018, the NAHC responded that the search results were negative.

The NAHC also provided a contact list of six Native American individuals/organizations who may know of cultural resources in this area or have specific concerns about the project. One contact recommended cultural sensitivity training for the contractors involved with any ground-disturbing activities. No other comments were received from the six contacted Native American individuals/organizations.

3.5.2 Cultural Resources Impacts

3.5.2.1 *Thresholds of Significance*

For the purposes of this EIR, a cultural resources impact is considered significant if the project would:

- Cause a substantial adverse change in the significance of a historical resource as defined in CEQA Guidelines Section 15064.5;
- Cause a substantial adverse change in the significance of an archaeological resource pursuant to CEQA Guidelines Section 15064.5;
- Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature;
- Disturb any human remains, including those interred outside of dedicated cemeteries;
- Cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code Section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:
    a. Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code Section 5020.1(k); or
    b. A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying these criteria, the significance of the resource to a California Native American tribe shall be considered.

Impact CR-1:	The project (and project alternatives) would not cause a substantial change in the significance of a historic resource. (Less than Significant Impact)

Project

The project site is not listed on the NRHP or CRHR. The Vallco Shopping District is designated as a City Community Landmark and the Vallco freeway-oriented sign is identified as a Landmark Sign in the City's Municipal Code. The redevelopment of the site under the proposed project (and General Plan Buildout with Maximum Residential Alternative and Retail and Residential Alternative) would result in the demolition of the mall and changes to the freeway-oriented sign.

Future development shall conform to Municipal Code Section 19.104.210, which allows for minor modifications to landmark signs such that they do not distract from or alter the unique architectural style of the sign. In addition, as identified in Section 2.4.4, the Specific Plan under the project (and General Plan Buildout with Maximum Residential Alternative and Retail and Residential Alternative) would comply with General Plan Policy LU-6.3 and include a policy that requires the following:

- Future development shall provide a plaque, reader board and/or other educational tools on the site to explain the historic significance of the mall. The plaque shall include the city seal, name of resource (i.e., Vallco Shopping District), date it was built, a written description, and photograph. The plaque shall be placed in a location where the public can view the information.

The project (and General Plan Buildout with Maximum Residential Alternative and Retail and Residential Alternative), therefore, would not result in significant impacts to historic resources. **(Less than Significant Impact)**

General Plan Buildout with Maximum Residential Alternative

The General Plan Buildout with Maximum Residential Alternative would have similar impacts to historic resources as discussed above for the proposed project. This alternative would conform with Municipal Code Section 19.104.210 and include a design policy to provide a plaque explaining the historic significance of the mall as described above for the proposed project. This alternative, therefore, would result in the same impact to historic resources as described above for the proposed project. **(Less than Significant Impact)**

Retail and Residential Alternative

The Retail and Residential Alternative would have similar impacts to historic resources as discussed above for the proposed project. This alternative would conform with Municipal Code Section 19.104.210 and include a design policy to provide a plaque explaining the historic significance of the mall as described above for the proposed project. This alternative, therefore, would result in the same impact to historic resources as described above for the proposed project. **(Less than Significant Impact)**

Occupied/Re-Tenanted Mall Alternative

Under the Occupied/Re-Tenanted Mall Alternative, the existing buildings would remain. The existing buildings would not be demolished and the plaque, reader board and/or other educational tools on the site described above under the project would not likely be provided. It is possible that the Vallco freeway-oriented sign would be modified. If the project proponent modifies the sign, the modifications would be required to be done in conformance with Municipal Code 19.104.210. **(Less than Significant Impact: Not a CEQA Impact)**

Impact CR-2:	**The project (and General Plan Buildout with Maximum Residential Alternative and Retail and Residential Alternative) would not significantly impact archaeological resources, human remains, or tribal cultural resources. (Less than Significant Impact with Mitigation Incorporated)**

Project

As discussed previously, the project site has a low to moderate potential for containing buried archaeological resources. To date, no archaeological resources have been recorded on or adjacent to the project site.

Based on a conservative estimate of parking demand, it is anticipated that the project (and General Plan Buildout with Maximum Residential Alternative and Retail and Residential Alternative) would require two to three levels of below grade parking across most of the site (51 acres). Two to three levels of below ground parking over 51 acres would require a maximum excavation depth of 20 to 30 feet. Should any archaeological resource, human remains, or tribal cultural resources be found during project excavation and grading activities, their disturbance would be a significant impact.

Mitigation Measures:

MM CR-2.1: A qualified archaeological monitor shall be retained by the project proponent for future development under the proposed project (or General Plan Buildout with Maximum Residential Alternative or Retail and Residential Alternative) to inspect the ground surface at the completion of demolition activities as they occur to search for archaeological site indicators. Site indicators include, but are not limited to: darker than surrounding soils of a friable nature; evidence of fires (ash, charcoal, fire affected rock or earth); concentrations of stone, bone, or shellfish; artifacts of stone, bone, or shellfish; and burials, either human or animal.

In the event that any indicators are discovered, work shall be halted within a sensitivity zone to be determined by the archaeologist. The archaeologist shall prepare a plan for the evaluation of the resource to the CRHP and submit the plan to the Cupertino Planning Department for review and approval prior to any construction related earthmoving within the identified zone of archaeological sensitivity. The plan shall also include appropriate recommendations regarding the significance of the find and the appropriate mitigation. The identified mitigation shall be implemented and can take the form of limited data retrieval

through hand excavation coupled with continued archaeological monitoring inside of the archaeologically sensitive zone to ensure that significant data and materials are recorded and/or removed for analysis. Monitoring also serves to identify and thus limit damage to human remains and associated grave goods.

MM CR-2.2: Pursuant to Section 7050.5 of the Health and Safety Code and Section 5097.94 of the Public Resources Code of the State of California, in the event of the discovery of human remains during construction of the proposed project (or General Plan Buildout with Maximum Residential Alternative or Retail and Residential Alternative), there shall be no further excavation or disturbance of the site within a 100-foot radius of the remains or any nearby area reasonably suspected to overlie adjacent remains. The Santa Clara County Coroner shall be notified and shall make a determination as to whether the remains are Native American. If the Coroner determines that the remains are not subject to his authority, he shall notify the NAHC within 24 hours. The NAHC shall attempt to identify descendants of the deceased Native American. If no satisfactory agreement can be reached as to the disposition of the remains pursuant to this State law, then the land owner shall re-inter the human remains and items associated with Native American burials on the property in a location not subject to further subsurface disturbance.

MM CR-2.3: If archaeological resources are identified during construction of the proposed project (or General Plan Buildout with Maximum Residential Alternative or Retail and Residential Alternative), a final report summarizing the discovery of cultural materials shall be submitted to the City's Project Planner prior to issuance of building permits. This report shall contain a description of the mitigation program that was implemented and its results, including a description of the monitoring and testing program, a list of the resources found and conclusion, and a description of the disposition/curation of the resources.

MM CR-2.4: The City of Cupertino shall coordinate with the applicable Native American tribal representatives following approval of a development on-site under the proposed project (or General Plan Buildout with Maximum Residential Alternative or Retail and Residential Alternative). Cultural sensitivity training shall be provided to all contractors prior to the start of ground-disturbing activities.

The proposed project (or General Plan Buildout with Maximum Residential Alternative or Retail and Residential Alternative) would not result in significant impacts to buried archaeological resources, human remains, or tribal cultural resources, with the implementation of the mitigation measures listed above (MM CR-2.1 through -2.4) by monitoring for evidence of resources prior to subsurface construction activities, halting ground-disturbing activities in the vicinity of a resource if discovered, and developing a detailed mitigation program to avoid significantly impacting the resource(s) (if found on-site). **(Less Than Significant Impact with Mitigation Incorporated)**

General Plan Buildout with Maximum Residential Alternative

The General Plan Buildout with Maximum Residential Alternative would have similar impacts as discussed for the project above. See Impact CR-2 and mitigation measures MM CR-2.1 through -2.4. **(Less than Significant Impact with Mitigation Incorporated)**

Retail and Residential Alternative

The Retail and Residential Alternative would have similar impacts as discussed for the project above. See Impact CR-2 and mitigation measures MM CR-2.1 through -2.4. **(Less than Significant Impact with Mitigation Incorporated)**

Occupied/Re-Tenanted Mall Alternative

It is assumed under the Occupied/Re-Tenanted Mall Alternative that exterior and interior tenant improvements would be made. In the event that below ground improvements are necessary and human remains are discovered, the project proponent would be required to comply with applicable laws including California Health and Safety Code Section 7050.5(b)-(c) and Public California Resources Code Sections 5097.98(a)-(d). **(Less than Significant Impact: Not a CEQA Impact)**

Impact CR-3:	**The project (and project alternatives) would not destroy a unique paleontological resource or site or unique geological feature. (No Impact)**

Project and All Project Alternatives

The proposed project area is located on Holocene deposits, which are too recent to contain paleontological resources. The implementation of the proposed project (or project alternatives), therefore, would not impact paleontological resources. As discussed previously, there are no unique geologic features on-site. **(No Impact)**

Impact CR-4:	**The project (and project alternatives) would not result in a cumulatively considerable contribution to a significant cumulative cultural resources impact. (Less than Significant Cumulative Impact with Mitigation Incorporated)**

Impacts to Historic and Paleontological Resources

Project and All Project Alternatives

As discussed above, the project (and project alternatives) would not impact historic or paleontological resources. For these reasons, the project (and project alternatives) would not have a cumulatively considerable contribution to a significant impact to historic or paleontological resources. **(No Cumulative Impact)**

Impacts to Archaeological Resources, Human Remains, and Tribal Cultural Resources

Project

The geographic area for cumulative impacts to archaeological resources for the proposed project (and the General Plan Buildout with Maximum Residential Alternative and Retail and Residential Alternative) is the general project area because it is assumed the surrounding projects would affect similar cultural resources. The development of cumulative projects in proximity to the project site, in conjunction with the development of the proposed project (or the General Plan Buildout with Maximum Residential Alternative or Retail and Residential Alternative), could significantly impact unknown buried archaeological resources. The cumulative projects are required to comply with the federal, state, and local regulations put in place to protect cultural resources.

Mitigation Measure:

MM CR-4: Implement mitigation measures MM CR-2.1 through -2.4.

The proposed project (and General Plan Buildout with Maximum Residential Alternative and Retail and Residential Alternative) would comply with applicable regulations and redevelopment of the site under the proposed project (and General Plan Buildout with Maximum Residential Alternative and Retail and Residential Alternative) would implement mitigation measure MM CR-4 to avoid and/or minimize impacts to buried cultural resources to a less than significant level. For this reason, the project (and General Plan Buildout with Maximum Residential Alternative and Retail and Residential Alternative) would not have a cumulatively considerable contribution to a significant cumulative cultural resources impact. **(Less than Significant Cumulative Impact with Mitigation Incorporated)**

General Plan Buildout with Maximum Residential Alternative

The General Plan Buildout with Maximum Residential Alternative would have the same cumulative impact to archaeological resources as described above for the proposed project. Refer to Impact CR-4 and mitigation measure MM CR-4. **(Less than Significant Cumulative Impact with Mitigation Incorporated)**

Retail and Residential Alternative

The Retail and Residential Alternative would have the same cumulative impact to archaeological resources as described above for the proposed project. Refer to Impact CR-4 and mitigation measure MM CR-4. **(Less than Significant Cumulative Impact with Mitigation Incorporated)**

Occupied/Re-Tenanted Mall Alternative

As discussed under Impact CR-2, the Occupied/Re-Tenanted Mall Alternative would comply with applicable laws including California Health and Safety Code Section 7050.5(b)-(c) and Public California Resources Code Sections 5097.98(a)-(d) to minimize impacts to human remains, if found on-site. For this reason, this alternative would not have a cumulatively considerable contribution to a significant cumulative impact on archaeological resources. **(Less than Significant Cumulative Impact: Not a CEQA Impact)**

3.6 ENERGY

3.6.1 Environmental Setting

3.6.1.1 *Overview*

Energy consumption is analyzed in an EIR because of the environmental impacts associated with its production and use. Such impacts include the depletion of nonrenewable resources (oil, natural gas, coal, etc.) and emissions of pollutants during both the production and consumption phases.

Energy usage is typically quantified using British thermal units (Btu).[30] As points of reference, the approximate amount of energy contained in a gallon of gasoline, a cubic foot of natural gas, and a kilowatt hour (kWh) of electricity are 123,000 Btu, 1,000 Btu, and 3,400 Btu respectively. Utility providers measure gas usage in therms. One therm is approximately equal to 100,000 Btu.

Electrical energy is expressed in units of kilowatts (kW) and kilowatt hour (kWh). One kW, a measurement of power (energy used over time), equals one thousand joules[31] per second. A kWh is a measurement of energy. If run for one hour, a 1,000 watt (one kW) hair dryer would use one kWh of electrical energy. Other measurements of electrical energy include the megawatt (1,000 kW) and the gigawatt (1,000,000 kW).

Total energy usage in California was approximately 7,300 trillion Btu in the year 2015 (the most recent year for which this specific data was available).[32] The breakdown by sector was approximately 18 percent for residential uses, 19 percent for commercial uses, 24 percent for industrial uses, and 39 percent for transportation.[33]

3.6.1.2 *Regulatory Framework*

Federal

At the federal level, energy standards set by EPA apply to numerous consumer and commercial products (e.g., the EnergyStar™ program). EPA also sets fuel efficiency standards for automobiles and other modes of transportation.

[30] A Btu is the amount of energy that is required to raise the temperature of one pound of water by one degree Fahrenheit.
[31] As defined by the International Bureau of Weights and Measures, the joule is a unit of energy or work. One joule equals the work done when one unit of force (a Newton) moves through a distance of one meter in the direction of the force.
[32] United States Energy Information Administration. "California Energy Consumption Estimates 2015." Accessed July 13, 2017. Available at: http://www.eia.gov/state/?sid=CA#tabs-2.
[33] United States Energy Information Administration. "California Energy Consumption by End-Use Sector, 2015." Accessed July 14, 2017. Available at: http://www.eia.gov/beta/state/seds/data.cfm?incfile=/state/seds/sep_sum/html/sum_btu_1.html&sid=CA.

State

Renewable Energy Standards

In 2002, California established its Renewables Portfolio Standard (RPS) Program, with the goal of increasing the percentage of renewable energy in the state's electricity mix to 20 percent of retail sales by 2010. In 2006, California's goal of 20 percent by 2010 RPS was codified by SB 107. Under the provisions of SB 107, investor-owned utilities were required to generate 20 percent of their retail electricity using qualified renewable energy technologies by the end of 2010. In 2008, Executive Order S-14-08 was signed into law and required that retail sellers of electricity serve 33 percent of their load with renewable energy by 2020.

In October 2015, Governor Brown signed SB 350 to codify California's climate and clean energy goals. A key provision of SB 350 for retail sellers and publicly owned utilities requires them to procure 50 percent of the state's electricity from renewable sources by 2030.

Building Codes

The Energy Efficiency Standards for Residential and Nonresidential Buildings, as specified in Title 24, Part 6, of the California Code of Regulations (Title 24), was established in 1978 in response to a legislative mandate to reduce California's energy consumption. Title 24 is updated approximately every three years, and the 2016 Title 24 updates went into effect on January 1, 2017.[34] Compliance with Title 24 is mandatory at the time new building permits are issued by city and county governments.[35]

In January 2010, the state adopted CALGreen, which established mandatory green building standards for buildings in California. CALGreen was also updated and went into effect on January 1, 2017. The code covers five categories: planning and design, energy efficiency, water efficiency and conservation, material conservation and resource efficiency, and indoor environmental quality.

Local

Cupertino General Plan: Community Vision 2015-2040

The proposed project (and project alternatives) are subject to General Plan policies including, but not limited to, the policies and strategies listed below pertaining to energy.

Policy/Strategy	Description
Policy HE-4.1	Encourage energy and water conservation in all existing and new residential development.
Strategy HE-4.1.1	The City will continue to enforce Title 24 requirements for energy conservation and will evaluate utilizing some of the other suggestions as identified in the Environmental Resources/ Sustainability element.

[34] California Building Standards Commission. "Welcome to the California Building Standards Commission". Accessed July 13, 2017. Available at: http://www.bsc.ca.gov.
[35] California Energy Commission. "2016 Building Energy Efficiency Standards". Accessed July 13, 2017. Available at: http://www.energy.ca.gov/title24/2016standards/index.html.

Policy/Strategy	Description
Policy ES-2.1	Encourage the maximum feasible conservation and efficient use of electrical power and natural gas resources for new and existing residences, businesses, industrial and public uses.

Cupertino Municipal Code

The following chapter of the Municipal Code contain directives pertaining to energy conservation.

- *Chapter 16.58, Green Building Standards,* the provisions of this chapter apply to the planning, design, operation, construction, use, and occupancy of every newly constructed building or structure, unless otherwise indicated. This chapter also applies to additions, renovations, and tenant improvements. Pursuant to Table 101.10 in Section 16.58.220, multi-family structures of greater than nine units are required to meet a minimum of Green Point Rated certified of 50 points, Leadership in Energy and Environmental Design (LEED) Silver, or alternate reference standard, and non-residential structures of greater than 50,000 square feet are required to meet a minimum of LEED Silver or alternate reference standard. Renovations of at least 35,000 square feet are required to be LEED Certified, LEED Existing Buildings: Operation and Maintenance (EBOM) Certified, or alternate reference standard.

3.6.1.3 *Existing Conditions*

Electricity

The electricity supply in California involves a complex grid of power plants and transmission lines. In 2016, California produced approximately 93 percent of the electricity it consumed and the rest was imported. California's non carbon dioxide (CO_2)-emitting electric generation (from nuclear, large hydroelectric, solar, wind, and other renewable sources) accounted for 50 percent of total in-state generation in 2016, compared to 40 percent in 2015.[36] Electricity supplied from out-of-state, coal-fired power plants has continued to decrease since 2006, following the enactment of a state law requiring California utilities to limit new long-term financial investments to power plants that meet California emissions standards.[37]

California's total system electric generation in 2016 was 290,567 gigawatt-hours (GWh), which was down 1.6 percent from 2015's total generation of 295,405 GWh. California's 2016 in-state electric generation was up by approximately one percent at 198,227 GWh compared to 196,195 GWh in 2015, and energy imports were down by 6,869 GWh to 92,341 GWh.[38] In 2016, total in-state solar generation increased 31.5 percent from 2015 levels and wind generation increased 10.8 percent.

Growth in annual electricity consumption declined between 2015 and 2016 reflecting increased energy efficiency and higher self-generation from solar photovoltaic power systems. Per capita

[36] California Energy Commission. "Total System Electric Generation." Accessed July 14, 2017. Available at: http://www.energy.ca.gov/almanac/electricity_data/total_system_power.html.
[37] United States Energy Information Administration. "California State Profile and Energy Estimates Profile Analysis." Accessed July 13, 2017. Available at: https://www.eia.gov/state/analysis.php?sid=CA#40.
[38] California Energy Commission. "Total System Electric Generation." Accessed July 14, 2017. Available at: http://www.energy.ca.gov/almanac/electricity_data/total_system_power.html

drops in electrical consumption are predicted through 2027 as a result of energy efficiency gains and increased self-generation (particularly for photovoltaic systems).[39] Due to population increases, however, it is estimated that future demand in California for electricity will grow at approximately one percent each year through 2027, and that 319,256 GWh of electricity would be utilized in the state in 2027.[40]

The community-owned Silicon Valley Clean Energy (SVCE) is the electricity provider for the City of Cupertino.[41] SVCE sources the electricity and the Pacific Gas and Electric Company (PG&E) delivers it to customers over its existing utility lines. Customers are automatically enrolled in the GreenStart plan, which generates its electricity from 100 percent carbon free sources; with 50 percent from solar and wind (i.e., renewable) sources, and 50 percent from hydroelectric. Customers have the option to enroll in the GreenPrime plan, which generates its electricity from 100 percent renewable sources such as wind and solar.

Electricity usage for differing land uses varies substantially by the type of uses in a building, the type of construction materials used, and the efficiency of the electricity-consuming devices used. Electricity in Santa Clara County in 2016 was consumed primarily by the commercial sector (77 percent), followed by the residential sector consuming 23 percent. In 2016, a total of approximately 16,800 GWh of electricity was consumed in Santa Clara County.[42]

Natural Gas

PG&E provides natural gas for residential, commercial, industrial, and municipal uses for the City of Cupertino. In 2016, approximately three percent of California's natural gas supply came from in-state production, while 97 percent was imported from other western states and Canada.[43] California's natural gas is supplied by interstate pipelines, including the Mojave Pipeline, Transwestern Pipeline, Questar Southern Trails Pipeline, Tuscarora Pipeline, and the Baja Norte/North Baja Pipeline.[44] As a result of improved access to supply basins, as well as pipeline expansion and new projects, these pipelines currently have excess capacity.

In 2016, approximately 32 percent of the natural gas delivered for consumption in California was for electricity generation, 37 percent for industrial uses, 19 percent for residential uses, 11 percent for commercial uses, and less than one percent for vehicle fuel. As with electricity usage, natural gas usage depends on the type of uses in a building, the type of construction materials used, and the efficiency of gas-consuming devices. In 2016, California consumed approximately 1,275 trillion Btu

[39] California Energy Commission. *California Energy Demand Updated Forecast, 2017-2027*. Accessed July 14, 2017. Available at: http://docketpublic.energy.ca.gov/PublicDocuments/16-IEPR-05/TN214635_20161205T142341_California_Energy_Demand_Updated_Forecast.pdf.
[40] Ibid.
[41] Silicon Valley Clean Energy. "Frequently Asked Questions." Accessed October 9, 2017. Available at: https://www.svcleanenergy.org/faqs.
[42] California Energy Commission. Energy Consumption Data Management System. "Electricity Consumption by County". Accessed July 13, 2016. http://ecdms.energy.ca.gov/elecbycounty.aspx.
[43] California Gas and Electric Utilities. "2016 California Gas Report." Accessed: July 14, 2017. Available at: http://docketpublic.energy.ca.gov/PublicDocuments/16-BSTD-06/TN212364_20160720T111050_2016_California_Gas_Report.pdf.
[44] Ibid.

of natural gas; a slight increase from 2015 when 1,225 trillion Btu were consumed.[45] In Santa Clara County, a total of approximately 42 trillion Btu of natural gas were consumed in 2016, which is about three percent of the state's total.[46]

Gasoline for Motor Vehicles

California crude oil production levels have been declining over the last 30 years; however, the state still accounts for six percent of the United States' crude oil production and petroleum refining capacity.[47] In 2016, approximately 143.4 billion gallons of gasoline were consumed in the United States (setting an annual gasoline consumption record) and 15.5 billion gallons were consumed in California.[48,49] The United States has seen low gasoline prices and high demand in the last few years, although forecast growth in demand is expected to slow as retail prices begin to increase.[50]

The average fuel economy for light-duty vehicles (autos, pickups, vans, and SUVs) in the United States has steadily increased from about 13.1 miles-per-gallon (mpg) in the mid-1970s to 22.0 mpg in 2015.[51] Federal fuel economy standards have changed substantially since the Energy Independence and Security Act was passed in 2007. That standard, which originally mandated a national fuel economy standard of 35 mpg by the year 2020, applies to cars and light trucks of Model Years 2011 through 2020.[52,53] In 2012, the federal government raised the fuel economy standard to 54.5 mpg for cars and light-duty trucks by Model Year 2025.[54]

Currently, approximately 24 percent of the existing mall is occupied. It is estimated that the existing uses on-site require approximately seven GWh of electricity and 703 million Btu of natural gas per year. It is estimated that the existing vehicle miles traveled (VMT) for the site is approximately 44,065.[55] Assuming an average fuel economy of 35 mpg, existing uses require approximately two million gallons of gasoline per year.

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[45] United States Energy Information Administration. "Natural Gas Delivered to Consumers in California". Accessed August 22, 2017. http://www.eia.gov/dnav/ng/ng_sum_lsum_dcu_SCA_a.htm.
[46] California Energy Commission. "Natural Gas Consumption by County". Accessed March 1, 2018. http://ecdms.energy.ca.gov/gasbycounty.aspx.
[47] United States Energy Information Administration. "California State Profile and Energy Estimates Profile Analysis." Accessed: July 13, 2017. Available at: https://www.eia.gov/state/analysis.php?sid=CA#40.
[48] United States Energy Information Administration. "Frequently Asked Questions." Accessed: July 14, 2017. Available at: https://www.eia.gov/tools/faqs/faq.cfm?id=23&t=10.
[49] California State Board of Equalization. "Taxable Gasoline, Diesel Fuel, Jet Fuel Ten Year Reports." Accessed July 14, 2017. Available at: http://www.boe.ca.gov/sptaxprog/reports/MVF_10_Year_Report.pdf.
[50] United States Energy Information Administration. "Short-Term Energy Outlook, U.S. Liquid Fuels." Accessed: July 14, 2017. Available at: http://www.eia.gov/forecasts/steo/report/us_oil.cfm.
[51] United States Environmental Protection Agency. "Table 4-23: Average Fuel Efficiency of U.S. Light Duty Vehicles." Accessed July 14, 2017. Available at: http://www.rita.dot.gov/bts/sites/rita.dot.gov.bts/files/publications/national_transportation_statistics/html/table_04_23.html.
[52] United States Department of Energy. "Energy Independence & Security Act of 2007." Accessed December 7, 2016. Available at: http://www.afdc.energy.gov/laws/eisa.
[53] Public Law 110–140—December 19, 2007. "Energy Independence & Security Act of 2007." Page 1449. Accessed: December 7, 2016. Available at: http://www.gpo.gov/fdsys/pkg/PLAW-110publ140/pdf/PLAW-110publ140.pdf.
[54] National Highway Traffic Safety Administration. *Obama Administration Finalizes Historic 54.5 mpg Fuel Efficiency Standards*. Accessed: July 14, 2017. Available at: https://www.nhtsa.gov/press-releases/obama-administration-finalizes-historic-545-mpg-fuel-efficiency-standards.
[55] Church, Franziska. Fehr & Peers. Personal communications. March 14, 2018.

3.6.2 Energy Impacts

3.6.2.1 *Thresholds of Significance*

Based on Appendix F of the CEQA Guidelines, and for the purposes of this EIR, a project would result in a significant energy impact if the project would:

- Result in a potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources during project construction or operation;
- Conflict with or obstruct a state or local plan for renewable energy or energy efficiency; or

Impact EN-1:	**The project (and project alternatives) would not result in a significant environmental impact due to the wasteful, inefficient or unnecessary consumption of energy during construction or operation. (Less than Significant Impact)**

Project

Energy would be consumed during the construction and operational phases of development for the project (and project alternatives). A summary of the project (and project alternative) energy demand is provided in Table 3.6-1.

Table 3.6-1: Summary of Project and Project Alternative Energy Demand

	Estimated Electricity Demand* (GWh per year)	**Estimated Natural Gas Demand*** (Btu per year)	**Estimated Gasoline Demand†** (million gallons per year)
Existing	7	703 million	2
Proposed Project	70	64 billion	12
General Plan Buildout with Maximum Residential Alternative	60	63 billion	10
Retail and Residential Alternative	45	57 billion	6
Occupied/Re-Tenanted Mall Alternative	19	12 billion	4

Notes: * The net energy demand is identified for the proposed project and project alternatives.
† The estimated gasoline demand was based on the estimated vehicle miles traveled discussed in Section 3.17 Transportation/Traffic and the average fuel economy of 35 mpg.
Source: Illingworth & Rodkin, Inc. *Vallco Special Area Specific Plan Air Quality and Greenhouse Gas Emissions Assessment.* May 2018. Attachment 2.

Construction

Construction of the project (and the General Plan Buildout with Maximum Residential Alternative and Retail and Residential Alternative) would require energy for the manufacture and transportation

of building materials, preparation of the project site (e.g., grading), and the actual construction of the buildings and infrastructure. As discussed in Section 3.3 Air Quality, future development under the proposed project (or the General Plan Buildout with Maximum Residential Alternative and Retail and Residential Alternative) shall implement measures to minimize idling times of construction equipment, require properly maintained construction equipment, and require the use of alternative fueled construction equipment. In addition, the project (and the General Plan Buildout with Maximum Residential Alternative and Retail and Residential Alternative) shall comply with the City's Construction and Demolition Debris Recycling Program. For these reasons, the construction of the project (and the General Plan Buildout with Maximum Residential Alternative and Retail and Residential Alternative) would not use fuel or energy in a wasteful manner. **(Less than Significant Impact)**

Operation

Operation of the project (and the General Plan Buildout with Maximum Residential Alternative and Retail and Residential Alternative) would consume energy for multiple purposes including, but not limited to, building heating and cooling, lighting, appliances, and electronics. Operational energy would also be consumed during each vehicle trip generated by future residents, employees, and customers.

As shown in Table 3.6-1, operation of the project is estimated to result in an annual net energy demand of approximately 70 GWh of electricity, 64 billion Btu of natural gas, and 12 million gallons of gasoline compared to existing conditions. The project's gasoline use is reduced given its proximity to existing transit, the proposed mix of uses, placing residential development near jobs, and the proposed TDM program. The project gasoline use is higher than the alternatives primarily due to the larger amount of office space and the longer average trip length of the office-generated trips. The project would not use energy or fuel in a wasteful manner, given the project features that reduce energy use, including the following:

- Developing an infill site;
- Proposing a mix of uses;
- Proposing high-density residential uses near existing bus transit;
- Implementing a TDM program to promote automobile-alternative modes of transportation (see Section 2.4.4); and
- Constructing in conformance with the Title 24 and CALGreen to promote energy and water efficiency.

(Less than Significant Impact)

General Plan Buildout with Maximum Residential Alternative

Construction

The General Plan Buildout with Maximum Residential Alternative would result in similar energy use and efficiency during construction as discussed above for the proposed project above. **(Less than Significant Impact)**

Operation

As shown in Table 3.6-1, operation of the General Plan Buildout with Maximum Residential Alternative is estimated to result in an annual net energy demand of approximately 60 GWh of electricity, 63 billion Btu of natural gas, and 10 million gallons of gasoline compared to existing conditions. Compared to the proposed project, the General Plan Buildout with Maximum Residential Alternative would have less electricity demand, similar natural gas demand, and less gasoline demand than the proposed project.

The General Plan Buildout with Maximum Residential Alternative would not use energy or fuel in a wasteful manner, given that it would include the same project features to reduce energy use as identified above for the proposed project. **(Less than Significant Impact)**

Retail and Residential Alternative

Construction

The Retail and Residential Alternative would result in similar energy use and efficiency during construction as discussed above for the proposed project. **(Less than Significant Impact)**

Operation

It is estimated that the operation of the Retail and Residential Alternative would result in a net increase in demand of approximately 45 GWh of electricity and 57 billion Btu of natural gas per year compared to existing conditions. Given this alternative's estimated vehicle miles traveled (refer to Section 3.17 Transportation/Traffic), it is estimated that vehicle trips associated with this alternative would use approximately six million gallons of gasoline per year (assuming an average fuel economy of 35 mpg). Compared to the proposed project, the Retail and Residential Alternative would have less electricity demand, less natural gas demand, and less gasoline demand than the proposed project.

The Retail and Residential Alternative would not use fuel or energy in a wasteful manner, given that it would include the same project features to reduce energy use as identified above for the proposed project. **(Less than Significant Impact)**

Occupied/Re-Tenanted Mall Alternative

Construction

No new buildings would be constructed under the Occupied/Re-Tenanted Mall Alternative. Exterior and interior tenant improvements, however, would likely be constructed and energy would be used to make those improvements. The energy used for exterior and interior improvements are not estimated to be greater than the energy needed to construct the proposed project (or General Plan Buildout with Maximum Residential Alternative or Retail and Residential Alternative).

The Occupied/Re-Tenanted Mall Alternative would not result in wasteful, inefficient, or unnecessary consumption of energy during construction since this alternative would reuse existing buildings, and any new tenant improvements would be constructed in accordance with applicable regulations, including Title 24, CALGreen, and City Municipal Code.

The Occupied/Re-Tenanted Mall Alternative is provided in the EIR for informational purposes only. This alternative is a permitted land use, and can be implemented without further discretionary approvals from the City or environmental review under CEQA. **(Less than Significant Impact: Not a CEQA Impact)**

Operation

Under this alternative, the mall is assumed to be occupied and re-tenanted. Compared to existing conditions where the mall is approximately 24 percent (or 284,059 square feet) occupied, the Occupied/Re-Tenanted Mall Alternative assumes all 1,207,774 square feet of the mall is occupied. As shown in Table 3.6-1, operation of the Occupied/Re-Tenanted Mall Alternative is estimated to result in an annual net energy demand of approximately 19 GWh of electricity, 12 billion Btu of natural gas, and four million gallons of gasoline compared to existing conditions.

Compared to the proposed project, the Occupied/Re-Tenanted Mall Alternative would have less electricity demand, less natural gas demand, and less gasoline demand than the proposed project. The energy efficiency of the existing mall buildings are from the energy/efficiency standards at the time they were constructed (mid-1970s with tenant improvements in the early 1990s), however. Therefore, while the Occupied/Re-Tenanted Mall Alternative would have a lower energy demand than the proposed project, the energy efficiency of the buildings would be less than the new buildings constructed under the proposed project.

The Occupied/Re-Tenanted Mall Alternative is provided in the EIR for informational purposes only. This alternative is a permitted land use, and can be implemented without further discretionary approvals from the City or environmental review under CEQA. **(Less than Significant Impact: Not a CEQA Impact)**

Impact EN-2:	**The project (and project alternatives) would not conflict with or obstruct a state or local plans for renewable energy or energy efficiency. (Less than Significant Impact)**

Project and All Project Alternatives

Electricity on-site is provided by SVCE, which provides electricity from 100 percent carbon free sources. Electricity would continue to be provided by SVCE under the proposed project and project alternatives. In addition, future development under the proposed project and project alternatives (including exterior and interior tenant improvements under the Occupied/Re-Tenanted Mall Alternative) would be completed in compliance with the current energy efficiency standards set forth in Title 24, CALGreen, and City's Municipal Code. For these reasons, the project and project alternatives would not conflict with or obstruct state or local plans for renewable energy or energy efficiency. **(Less than Significant Impact)**

The Occupied/Re-Tenanted Mall Alternative is provided in the EIR for informational purposes only. This alternative is a permitted land use, and can be implemented without further discretionary approvals from the City or environmental review under CEQA. **(Less than Significant Impact: Not a CEQA Impact)**

Impact EN-3:	**The project (and project alternatives) would not have a cumulatively considerable contribution to a significant cumulative energy impact. (Less than Significant Cumulative Impact)**

Project and All Project Alternatives

Energy is a cumulative resource. 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 the project is determined to have a significant energy impact, it is concluded that the impact is a cumulative impact. As discussed above, the project and project alternatives would not result in a significant energy impact. Therefore, the project and project alternatives would not have a cumulatively considerable contribution to a significant cumulative energy impact. **(Less than Significant Cumulative Impact)**

The Occupied/Re-Tenanted Mall Alternative is provided in the EIR for informational purposes only. This alternative is a permitted land use, and can be implemented without further discretionary approvals from the City or environmental review under CEQA. **(Less than Significant Cumulative Impact: Not a CEQA Impact)**

3.7 GEOLOGY AND SOILS

The following discussions are based on a Geotechnical Feasibility Investigation prepared by Cotton, Shires and Associates, Inc. in April 2018. A copy of the report is included in Appendix D of this EIR.

3.7.1 Environmental Setting

3.7.1.1 *Regulatory Framework*

State

Alquist-Priolo Earthquake Fault Zoning Act

The Alquist-Priolo Earthquake Fault Zoning Act was passed into law following the destructive 1971 San Fernando earthquake. The Act ensures public safety by prohibiting the siting of most structures for human occupancy across traces of active faults that constitute a potential hazard to structures from surface faulting or fault creep. Local agencies are responsible for regulating most development projects within designated fault zones. Alquist-Priolo maps are distributed to affected cities, counties, and state agencies for their use in planning and controlling new construction.

Seismic Hazards Mapping Act

Following the 1989 Loma Prieta earthquake, the Seismic Hazards Mapping Act (SHMA) was passed by the California legislature in 1990. The SHMA (Public Resources Code, Chapter 7.8, Section 2690-2699.6) directs the Department of Conservation, California Geological Survey to identify and map areas prone to liquefaction, earthquake-induced landslides and amplified ground shaking. It also requires that agencies only approve projects in seismic hazard zones following site-specific geotechnical investigations to determine if the identified hazard is present and the inclusion of appropriate mitigation to reduce earthquake-related hazards.

California Building Standards Code

Title 24 of the California Code of Regulations, known as the California Building Standards Code (CBSC) contains the regulations that govern the construction of buildings in California. Through the CBSC, the state provides a minimum standard for building design and construction. The CBSC contains specific requirements for seismic safety, excavation, foundations, retaining walls and site demolition. It also regulates grading activities, including drainage and erosion control.

The California Building Code (CBC) refers to Part 2 of the CBSC in Title 24 of the California Code of Regulations. The CBC covers grading and other geotechnical issues, building specifications, and non-building structures. CBC Section 1803 requires that a site-specific geotechnical investigation report be prepared by a licensed professional for proposed developments. The purpose of a site-specific geotechnical investigation is to identify seismic and geologic conditions that require project mitigation, such as surface fault ruptures, ground shaking, liquefaction, differential settlement, lateral spreading, expansive soils, and slope stability. The CBC is renewed on a triennial basis (every three years).

Local

Cupertino General Plan: Community Vision 2015-2040

The proposed project (and project alternatives) are subject to General Plan policies including, but not limited to, the policies and strategies listed below pertaining to geology and soils.

Policy/ Strategy	Description
Policy HS-5.1	Evaluate new development proposals within mapped potential hazard zones using a formal seismic/geologic review process.
Strategy HS-5.1.3	Continue to implement and update geologic review procedures for Geologic Reports required by the Municipal Code through the development review process.

3.7.1.2 *Existing Conditions*

Site Geology

The project site is characterized by mostly level alluvial floodplain topography associated with the Santa Clara Valley floor. In the City's General Plan, the site is identified as in an area with relatively low levels of geologic hazard risk.[56] Locally steep embankment slopes are associated with the drainage ravine along the south side of I-280. Previous grading for the development on-site resulted in localized cuts and fills, and cuts for the Wolfe Road undercrossing. Site reconnaissance revealed no pervasive distress to flatwork or walls evident due to expansive soils or excessive localized settlement.

The project site has been the subject of multiple past geotechnical investigations where subsurface exploration was performed. Prior investigations included small-diameter exploration in 2005, 1999, 1974, and 1972. Exploratory borings drilled in 2007 for the nearby Main Street development east of the site was also reviewed. The subsurface exploration spanning 1972 to 2005 encountered similar earth materials, including typical alluvial fan deposits consisting of interbedded gravel, sand, silt and clay. The upper five to eight feet typically included loose sand and soft clays. The more recent boring logs reveal that the upper five to 10 feet of the site encountered mostly stiff to hard clays, and dense sands. This difference between the older investigations and the newer investigations can be interpreted to be the result of the existing development where excavation/compaction of the loose upper soils was performed. The recent borings reveal that, in general, the site is underlain by medium dense to dense sands, and stiff to hard clays. Tests on representative undisturbed soil samples obtained from exploratory borings during previous investigations indicate the tested soils range from low expansion potential to high expansion potential.

The depth to groundwater at the site is likely to be greater than 50 feet below the ground surface. A 2005 investigation referenced encountering free groundwater in one boring drilled to a depth of 84.5 feet and encountering groundwater at a depth of 68 feet.

[56] City of Cupertino. *Cupertino General Plan Community Vision 2015-2040.* October 15, 2015. Pages HS-15 through -18.

Seismicity

The project site is located within the San Francisco Bay Area, which is one of the most seismically active areas in the country. Historically, this area has been subjected to very strong ground shaking from major earthquakes and the site will continue to experience very strong ground shaking in the future. The significant active faults located closest to the site include the San Andreas fault (located 6.3 miles to the southwest), Hayward fault (located 12 miles to the northeast), Sargent/Berrocal fault (located 5.2 miles to the southwest), and Monta Vista/Shannon fault (located 2.7 miles to the southwest). The site is not located within a State (California Geological Survey) Mapped Alquist-Priolo fault zone, or an Earthquake-Induced Landslide or Liquefaction Hazard Zone.

3.7.2 Geology and Soils Impacts

3.7.2.1 *Thresholds of Significance*

For the purposes of this EIR, a geology and soils impact is considered significant if the project would:

- Expose people or structures to 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;
    d. Landslides;
- Result in substantial soil erosion or the loss of topsoil; or
- 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;
- Be located on expansive soil, as defined in Section 1803.5.3 of the California Building Code (2016), creating substantial risks to life or property;
- Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water.

Impact GEO-1:	**The project (and project alternatives) would not expose people or structures to substantial adverse effects from rupture of a known fault, strong seismic ground shaking, seismic-related ground failure (including liquefaction), and/or landslides. (Less than Significant Impact)**

Project and All Project Alternatives

As previously discussed in Section 3.0, in 2015 the California Supreme Court ruled that CEQA does not generally require an analysis of the impacts of locating development in areas subject to environmental hazards unless the project would exacerbate those existing environmental hazards or the hazards at issue are subject to certain specified exceptions to this general rule.[57] However, the City has policies and regulations (including those identified in Section 3.7.1.1) that address existing conditions affecting a proposed project.

Fault Rupture

As discussed above, the project site is not located within an Alquist-Priolo fault zone. No active faults have been recognized on, or mapped through, the subject property. Thus, the potential for surface faulting and ground rupture from faulting at the project site is low.

Seismic Ground Shaking

Seismic ground shaking associated with a large earthquake on the San Andreas fault or one of the closer faults should be expected during the design life of the development. With prudent design, in accordance with the most up-to-date building codes, the risk from seismic ground shaking can be reduced to acceptable levels.

Liquefaction

Liquefaction occurs during seismic, cyclic ground shaking when saturated, loose to medium dense cohesionless soil experiences increased pore water pressure and reduced effective stress. This can result in the transformation of the soil from a solid to near-liquid state. Large shear deformations may result, as well as settlement. Subsurface exploration at the site primarily encountered stiff to hard clays, and medium dense to dense sands. Isolated loose to medium dense sands were encountered locally; however, due to the lack of groundwater within the upper 50 feet at this site, the liquefaction risk on the site is low.

Landslides

The project site is located on relatively flat ground. Due to the relatively flat topography at the site, the risk of seismically induced landsliding is low.

As required by the CBC Section 1803, the proposed project (and General Plan Buildout with Maximum Residential Alternative and Retail and Residential Alternative) shall complete a site-specific geotechnical investigation and implement the identified recommendations for design and construction to minimize seismic, seismic-related, and soil hazards to acceptable levels.

[57] *California Building Industry Association v. BAAQMD, 62 Cal. 4th 369*, filed December 17, 2015.

The existing seismic and seismic hazards on-site discussed above would not be exacerbated by the project such that it would impact (or worsen) on- or off-site conditions. **(Less than Significant Impact)**

The Occupied/Re-Tenanted Mall Alternative is provided in the EIR for informational purposes only. This alternative is a permitted land use, and can be implemented without further discretionary approvals from the City or environmental review under CEQA. **(Less than Significant Impact: Not a CEQA Impact)**

Impact GEO-2:	**The project (and project alternatives) would not result in substantial soil erosion or loss of topsoil or create substantial risks to life or property due to expansive soil. (Less than Significant Impact)**

Project and All Project Alternatives

As previously discussed in Section 3.0, in 2015 the California Supreme Court ruled that CEQA does not generally require an analysis of the impacts of locating development in areas subject to environmental hazards unless the project would exacerbate those existing environmental hazards or the hazards at issue are subject to certain specified exceptions to this general rule.[58] However, the City has policies and regulations (including those identified in Section 3.7.1.1) that address existing conditions affecting a proposed project.

Soil Erosion and Loss of Topsoil

The project (and project alternatives) would not lead to substantial soil erosion or loss of topsoil. The proposed project (and the General Plan Buildout with Maximum Residential Alternative and Retail and Residential Alternative) is required to minimize erosion hazards through the implementation of a Stormwater Pollution Prevention Plan (SWPPP) under the National Pollution Discharge Elimination System (NPDES) General Construction Permit, and through conformance with City grading and excavation requirements (refer to Section 3.10 Hydrology and Water Quality for more details). The project (and project alternatives), therefore, would not result in a significant impact from soil erosion. **(Less than Significant Impact)**

Expansive Soils

Expansive soils are clay rich soils that have the ability to undergo large volume changes with changes in moisture content. The large fluctuations in volume, often referred to as shrink/swell potential, can adversely impact foundations. Previous laboratory tests performed on soil samples at the site reveal that the site soils have Plasticity Indexes ranging from 12 to 26, which corresponds with low to high expansion potential. With prudent design, the risk from building in potentially expansive soils can be reduced to acceptable levels. As required by the CBC Section 1803, the proposed project (and project alternatives) shall complete a site-specific geotechnical investigation

[58] *California Building Industry Association v. BAAQMD, 62 Cal. 4th 369*, filed December 17, 2015.

and implement the identified recommendations for design and construction to minimize seismic, seismic-related, and soil hazards to acceptable levels.

The existing expansive soils condition on-site would not be exacerbated by the project (or project alternatives) such that it would impact (or worsen) on- or off-site conditions. **(Less than Significant Impact)**

The Occupied/Re-Tenanted Mall Alternative is provided in the EIR for informational purposes only. This alternative is a permitted land use, and can be implemented without further discretionary approvals from the City or environmental review under CEQA. **(Less than Significant Impact: Not a CEQA Impact)**

Impact GEO-3:	**The project (and project alternatives) 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 or subsidence. (Less than Significant Impact)**

Project and All Project Alternatives

As previously discussed in Section 3.0, in 2015 the California Supreme Court ruled that CEQA does not generally require an analysis of the impacts of locating development in areas subject to environmental hazards unless the project would exacerbate those existing environmental hazards or the hazards at issue are subject to certain specified exceptions to this general rule.[59] However, the City has policies and regulations (including those identified in Section 3.7.1.1) that address existing conditions affecting a proposed project.

Lateral Spreading

Lateral spreading occurs when earth materials lose strength, often as a result of liquefaction, and flow or slide toward a "free face." The free face is an area lacking confinement, such as an open channel, or excavation. A small (10- to 15-foot deep) creek channel is located along the far northern portion of the site; however, due to the lack of weak liquefiable material and depth to groundwater that exceeds 50 feet, the risk of lateral spreading is low.

Subsidence

Land subsidence is a settling of the earth's surface due to the compaction of subsurface materials. The Santa Clara Valley Water District (SCVWD) actively monitors for land subsidence through surveying, groundwater elevation monitoring, and data from compaction wells. SCVWD reduces the potential for land subsidence county-wide by reducing demand on groundwater and recharging groundwater basins.[60] There are no groundwater extraction wells on-site; therefore, the risk of site subsidence is low.

[59] *California Building Industry Association v. BAAQMD, 62 Cal. 4th 369*, filed December 17, 2015.
[60] Santa Clara Valley Water District. "Subsidence." Accessed: November 3, 2017. Available at: http://www.valleywater.org/Services/LandSubsidence.aspx.

Landslides

The risk from landslides is discussed under Impact GEO-1.

As required by the CBC Section 1803, the proposed project (and project alternatives) shall complete a site-specific geotechnical investigation and implement the identified recommendations for design and construction to minimize seismic, seismic-related, and soil hazards to acceptable levels. **(Less than Significant Impact)**

The Occupied/Re-Tenanted Mall Alternative is provided in the EIR for informational purposes only. This alternative is a permitted land use, and can be implemented without further discretionary approvals from the City or environmental review under CEQA. **(Less than Significant Impact: Not a CEQA Impact)**

Impact GEO-4:	**The project (and project alternatives) would not be located on soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water. (No Impact)**

Project and All Project Alternatives

The project (and project alternatives) would connect to the existing sewer sanitary system. No septic tanks or alternative waste water disposal systems are required for the project (or project alternatives). **(No Impact)**

Impact GEO-5:	**The project (and project alternatives) would not have a cumulatively considerable contribution to a significant cumulative geology and soil impact. (Less than Significant Impact)**

Project and All Project Alternatives

As discussed in Impacts GEO-1 through GEO-4, the existing geology and soils conditions would not be exacerbated by the project (or project alternatives) such that it would impact (or worsen) on- or off-site geology and soils conditions. For this reason, the project (and project alternatives) would not contribute to a cumulatively significant geology and soils impact. **(Less than Significant Cumulative Impact)**

The Occupied/Re-Tenanted Mall Alternative is provided in the EIR for informational purposes only. This alternative is a permitted land use, and can be implemented without further discretionary approvals from the City or environmental review under CEQA. **(Less than Significant Cumulative Impact: Not a CEQA Impact)**

3.8 GREENHOUSE GAS EMISSIONS

The following discussion is based on an air quality and GHG emissions assessment prepared for the project by Illingworth & Rodkin, Inc. in May 2018. A copy of the report is included in Appendix B of this EIR.

3.8.1 Environmental Setting

Unlike emissions of criteria and toxic air pollutants, which have regional and local impacts, emissions of GHGs have a broader, global impact. Global warming associated with the greenhouse effect is a process whereby GHGs accumulating in the upper atmosphere contribute to an increase in the temperature of the earth's atmosphere leading to climate change. The principal GHGs contributing to global warming and associated climate change are carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O), and fluorinated compounds. Emissions of GHGs contributing to global climate change are attributable in large part to human activities associated with the transportation, industrial and manufacturing, utility, residential, commercial, and agricultural sectors.

3.8.1.1 *Regulatory Framework*

Federal

Clean Air Act

EPA is the federal agency responsible for implementing the Clean Air Act. The US Supreme Court in its 2007 decision in *Massachusetts et al. v. Environmental Protection Agency et al.*, ruled that CO_2 is an air pollutant as defined under the Clean Air Act, and that EPA has the authority to regulate emissions of GHGs. Following the court decision, EPA has taken actions to regulate, monitor, and reduce GHG emissions.

State

California Global Warming Solution Act

Under the California Global Warming Solution Act, also known as AB 32, CARB established a statewide GHG emissions cap for 2020, adopted mandatory reporting rules for significant sources of GHG, and adopted a comprehensive plan, known as the *Climate Change Scoping Plan*, identifying how emission reductions will be achieved from significant GHG sources.

In 2016, SB 32 amended the California Global Warming Solution Act. SB 32 requires CARB to ensure that statewide GHG emissions are reduced to 40 percent below the 1990 level by 2030. CARB updated its *Climate Change Scoping Plan* in December of 2017 to provide direction for achieving the 2030 annual statewide target of 260 million metric tons of carbon dioxide equivalent ($MMTCO_2e$).

Senate Bill 375 – Redesigning Communities to Reduce GHG Emissions

SB 375, known as the Sustainable Communities Strategy and Climate Protection Act, was signed into law in September 2008. SB 375 builds upon AB 32 by requiring CARB to develop regional GHG reduction targets for automobile and light-truck sectors for 2020 and 2035, as compared to 2005 emissions levels. The per-capita GHG emissions reduction targets for passenger vehicles in the San Francisco Bay Area include a seven percent reduction by 2020 and a 15 percent reduction by 2035.

Consistent with the requirements of SB 375, the Metropolitan Transportation Commission (MTC) partnered with the Association of Bay Area Governments (ABAG), BAAQMD, and the Bay Conservation and Development Commission to prepare the region's Sustainable Communities Strategy, known as *Plan Bay Area*. This plan establishes a course for reducing per-capita GHG emissions through the promotion of compact, mixed-use residential and commercial neighborhoods near transit, particularly within identified Priority Development Areas (PDAs). A portion of the project site is located within a defined PDA, see Figure 3.8-1.[61] *Plan Bay Area 2040* was adopted in July 2017.

Advanced Clean Cars Program

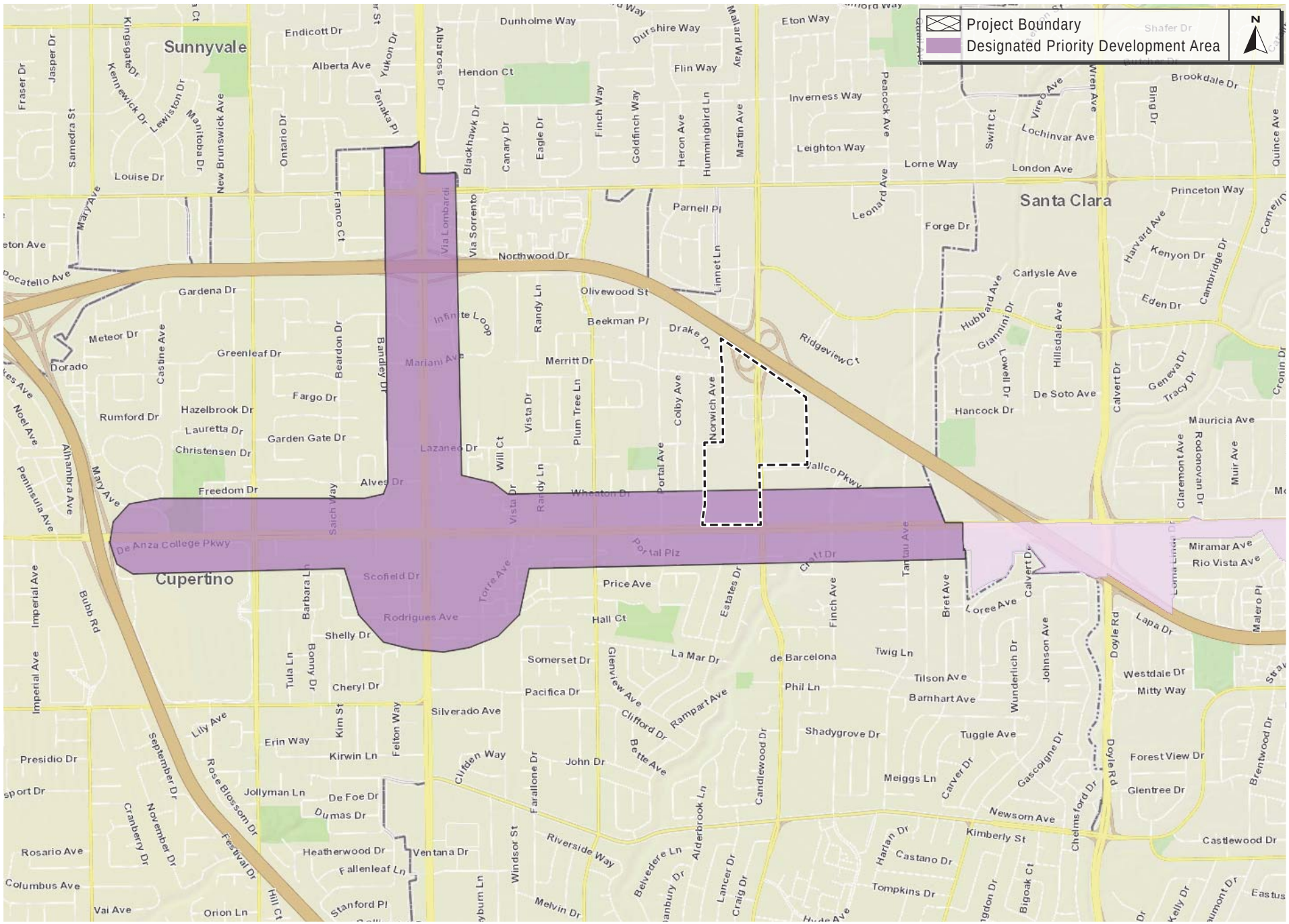
CARB adopted the Advanced Clean Cars program in 2012 in coordination with the EPA and National Highway Traffic Safety Administration. The program combines the control of smog-causing (criteria) pollutants and GHG emissions into a single coordinated set of requirements for model years 2015 through 2025. The program promotes development of environmentally superior passenger cars and other vehicles, as well as saving the consumer money through fuel savings.[62]

Regional

Bay Area 2017 Clean Air Plan

Regional air quality management districts, such as BAAQMD, must prepare air quality plans specifying how state and federal air quality standards will be met. BAAQMD's most recently adopted plan is the 2017 CAP. The 2017 CAP focuses on two related BAAQMD goals: protecting public health and protecting the climate. To protect the climate, the 2017 CAP includes control measures designed to reduce emissions of methane and other super-GHGs that are potent climate pollutants in the near-term, and to decrease emissions of carbon dioxide by reducing fossil fuel combustion.

[61] Association of Bay Area Governments. PDA Showcase. Accessed April 6, 2018. http://gis.abag.ca.gov/website/PDAShowcase/.
[62] California Air Resource Board. "The Advanced Clean Cars Program". Accessed April 6, 2018. https://www.arb.ca.gov/msprog/acc/acc.htm.



PRIORITY DEVELOPMENT AREA

FIGURE 3.8-1

CEQA Air Quality Guidelines

The BAAQMD CEQA Air Quality Guidelines are intended to serve as a guide for those who prepare or evaluate air quality impact analyses for projects and plans in the San Francisco Bay Area. The City of Cupertino and other jurisdictions in the San Francisco Bay Area Air Basin utilize the thresholds and methodology for assessing GHG impacts developed by BAAQMD within the CEQA Air Quality Guidelines. The guidelines include information on legal requirements, BAAQMD rules, methods of analyzing impacts, and recommended mitigation measures.

Local

Cupertino General Plan: Community Vision 2015-2040

The proposed project (and project alternatives) are subject to General Plan policies and strategies including, but not limited to, the policies and strategies listed below pertaining to greenhouse gas emissions.

Policy/Strategy	Description
Policy M-8.2	Support development and transportation improvements that help reduce greenhouse gas emissions by reducing capita Vehicles Miles Traveled (VMT).
Policy M-8.2	Support development and transportation improvements that help reduce greenhouse gas emissions by reducing per capita Vehicle Miles Traveled (VMT).

City of Cupertino Climate Action Plan

In 2015, the City adopted *City of Cupertino Climate Action Plan* (Cupertino Climate Action Plan), a qualified GHG reduction plan. This plan meets the requirements of a GHG Reduction Strategy under CEQA Guidelines Section 15183.5. Communitywide emissions were 307,288 metric tons of carbon dioxide equivalent ($MTCO_2e$) in the baseline year 2010. The plan includes a goal to reduce communitywide emissions to 15 percent below 2010 baseline levels by 2020, 49 percent by 2035, and 83 percent by 2050. Reducing GHG emissions and air pollutant emissions are interrelated. The City's Climate Action Plan includes five goals:

1 – Reduce Energy Use;
2 – Encourage Alternative Transportation
3 – Conserve Water
4 – Reduce Solid Waste; and
5 – Expand Green Infrastructure

Emission reduction measures are identified for each goal. The City developed a Climate Action Plan – Development Project Consistency Checklist that identifies applicable measures for developments to implement.

Cupertino Municipal Code

The following parts of the Municipal Code contain directives pertaining to building green and conserving water and energy.

- *Chapter 14.15, Landscape Ordinance*, the intent of this chapter is to reduce water waste in landscaping by promoting the use of region-appropriate plants that require minimal supplemental irrigation and by establishing standards for irrigation efficiency. New development projects that include landscape areas of 500 square feet or more are subject to the Ordinance.

- *Chapter 16.58, Green Building Standards,* the provisions of this chapter apply to the planning, design, operation, construction, use, and occupancy of every newly constructed building or structure, unless otherwise indicated. This chapter also applies to additions, renovations, and tenant improvements. Per Table 101.10 in Section 16.58.220, multi-family buildings of greater than nine units are required to meet a minimum of Green Point Rated certified of 50 points, Leadership in Energy and Environmental Design (LEED) Silver, or alternate reference standard, and non-residential buildings of greater than 50,000 square feet are required to meet a minimum of LEED Silver or alternate reference standard. Renovations of at least 35,000 square feet are required to be LEED Certified, LEED Existing Buildings: Operation and Maintenance (EBOM) Certified, or alternate reference standard.

3.8.1.2 *Existing Conditions*

The existing uses on the site (regional shopping center and the associated parking garage) generate GHG emissions as a result of energy consumption, vehicle trips to and from the site, solid waste generation, and water usage, but at reduced level because the site occupancy is only 24 percent.

3.8.2 Greenhouse Gas Emissions Impacts

3.8.2.1 *Thresholds of Significance*

For the purposes of this EIR, a GHG emissions impact is considered significant if the 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.

As described previously, BAAQMD adopted GHG emissions thresholds of significance to assist in the review of projects under CEQA. These thresholds were designed to establish the level at which BAAQMD has determined that GHG emissions would cause significant environmental impacts. Also, a project that is in compliance with the City's Climate Action Plan (a qualified GHG Reduction Strategy) is considered to have a less than significant GHG impact. The BAAQMD thresholds and the City's Climate Action Plan were developed to meet the state's 2020 goals under AB 32.

The project (and General Plan Buildout with Maximum Residential and Retail and Residential Alternative) is anticipated to be built out in 10 years, however, which is after 2020. For this reason,

the BAAQMD thresholds and consistency with the City's Climate Action Plan are not the appropriate thresholds for determining whether the proposed project (and General Plan Buildout with Maximum Residential and Retail and Residential Alternative) would generate a significant amount of GHG emissions.

CARB has completed a Scoping Plan, which will be used by BAAQMD to establish the 2030 GHG efficiency threshold. BAAQMD has yet to publish a quantified GHG efficiency threshold for 2030. Nor has the City's Climate Action Plan been updated to meet the state's 2030 GHG emissions level target under SB 32.

Although BAAQMD has yet to publish a threshold for 2030, for the purposes of this EIR, a substantial progress efficiency metric of 2.6 $MTCO_2e$ per service population per year is used as the significance threshold based on the GHG reduction goals of SB 32/EO B-30-15 and the projected 2030 statewide population and employment levels.[63]

As discussed in Section 3.8.1, GHG emissions have a broader, global impact; therefore, the project's GHG impacts are discussed as cumulative impacts below.

Impact GHG-1:	**The project (and General Plan Buildout with Maximum Residential Alternative) would not generate cumulatively considerable GHG emissions that would result in a significant cumulative impact to the environment. (Less than Significant Cumulative Impact with Mitigation Incorporated)**

Construction

Project and All Project Alternatives

Table 3.8-1 summarizes the GHG emissions associated with construction of the proposed project, General Plan Buildout with Maximum Residential Alternative, and Retail and Residential Alternative. These emissions are from on-site operation of construction equipment, vendor and hauling truck trips, and worker trips. Neither the City nor BAAQMD have an adopted threshold of significance for construction-related GHG emissions. **(Less than Significant Impact)**

The Occupied/Re-Tenanted Mall Alternative would not result in the construction of new buildings. This alternative, however, would result in construction-related GHG emissions from exterior and interior tenant improvements. It is estimated that the amount of construction-related GHG emissions under this alternative would be less than the construction-related GHG emissions from the proposed project. A discussion of this alternative is provided in the EIR for informational purposes only. This

[63] Sources: 1) 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://www.califaep.org/images/climate-change/AEP-2016_Final_White_Paper.pdf. 2) California Department of Finance, Demographic Research Unit. "Total Estimated and Projected Population for California and Counties: July 1, 2010 to July 1, 2060 in 5-year Increments." February 2017. Available at: http://www.dof.ca.gov/Forecasting/Demographics/Projections/. 3) Caltrans. "California County-Level Economic Forecast 2017-2050." September 2017. Available at: http://www.dot.ca.gov/hq/tpp/offices/eab/socio_economic_files/2017/FullReport2017.pdf.

alternative is a permitted land use, and can be implemented without further discretionary approvals from the City or environmental review under CEQA. **(Less than Significant Impact: Not a CEQA Impact)**

Table 3.8-1: Summary of Project and Project Alternative Construction-Related GHG Emissions	
	Estimated GHG Emissions (metric tons)
Proposed Project	77,467
General Plan Buildout with Maximum Residential Alternative	82,593
Retail and Residential Alternative	75,124

Operation

Project

Table 3.8-2 summarizes the estimated operational GHG emissions in terms of $MTCO_2e$ per year per service population for the proposed project (and project alternatives) and includes area emissions, energy-related emissions, mobile emissions from vehicles traveling to and from the site, as well as emissions from solid waste and water usage. Refer to Appendix B for modeling details, data inputs, and assumptions.

As shown in Table 3.8-2, buildout operation of the proposed project would have annual GHG emissions of 3.4 $MTCO_2e$/year/service population, which exceeds the significance threshold of 2.6 $MTCO_2e$/year/service population.

Table 3.8-2: Summary of Estimated Annual GHG Emissions ($MTCO_2e$)					
Source Category	**Existing**	**Proposed Project**	**Project Alternatives**		
			General Plan Buildout w/Maximum Residential	**Retail and Residential**	**Occupied/ Re-Tenanted Mall**
	(MTCO2e)				
Area (appliances, fireplaces, etc.)	<1	10	33	50	<1
Energy Consumption	38	3,442	3,417	3,102	665
Mobile	4,803	31,901	30,059	16,752	12,496
Solid Waste Generation	157	1,696	1,654	1,336	679
Water Usage	30	641	562	427	127
Total	5,028	37,690	35,725	21,667	13,967
Estimated $MTCO_2e$/year/service population*		**3.4**	**3.3**	2.3	**5.5**
Significance Threshold ($MTCO_2e$/year/service population)		2.6			

Notes: Bolded and highlighted emissions are above the threshold.

* The service population for the project is assumed to be 11,194, 10,874 for the General Plan Buildout with Maximum Residential Alternative, 9,400 for the Retail and Residential Alternative, and 2,550 for the Occupied/Re-Tenanted Mall Alternative. (Source: Economic & Planning Systems, Inc. *Population and Employment Projections.* April 26, 2018.)

Mitigation Measure:

MM GHG-1.1: Under the proposed project (and General Plan Buildout with Maximum Residential Alternative and Retail and Residential Alternative), the project proponent shall prepare and implement a GHG Reduction Plan to offset the project (or General Plan Buildout with Maximum Residential Alternative)-related incremental increase of greenhouse gas emissions resulting in the exceedance of the significance threshold of 2.6 $MTCO_2e$/year/service population. Refinement of the estimated GHG emissions from the project (or General Plan Buildout with Maximum Residential Alternative) shall be completed as part of the GHG Reduction Plan in order to reflect the most current and accurate data available regarding the project's estimated emissions (including emission rates). The GHG Reduction Plan shall include the implementation of a qualifying TDM program to reduce mobile GHG emissions. Additional offsets and reductions may include, but are not limited to, the following:

- Construct on-site or fund off-site carbon sequestration projects (such as a forestry or wetlands projects for which inventory and reporting protocols have been adopted). If the project (or General Plan Buildout with Maximum Residential Alternative) develops an off-site project, it must be

registered with the Climate Action Reserve or otherwise approved by BAAQMD in order to be used to offset project (or project alternative) emissions; and/or

- Purchase of carbon credits to offset project (or General Plan Buildout with Maximum Residential Alternative) annual emissions. Carbon offset credits shall be verified and registered with The Climate Registry, the Climate Action Reserve, or another source approved by CARB or BAAQMD. The preference for offset carbon credit purchases include those that can be achieved as follows: 1) within the City; 2) within the San Francisco Bay Area Air Basin; 3) within the State of California; then 4) elsewhere in the United States. Provisions of evidence of payments, and funding of an escrow-type account or endowment fund would be overseen by the City.

Implementation of MM GHG-1 would reduce the project (and General Plan Buildout with Maximum Residential Alternative) GHG emissions impact to a less than significant level by implementing a GHG Reduction Plan that would offset and/or reduce GHG emission to below the significance threshold. **(Less than Significant Cumulative Impact with Mitigation Incorporated)**

General Plan Buildout with Maximum Residential Alternative

As shown in Table 3.8-2, buildout operation of the General Plan Buildout with Maximum Residential Alternative would have annual GHG emissions of 3.3 $MTCO_2e$/year/service population, which exceeds the significance threshold of 2.6 $MTCO_2e$/year/service population. The General Plan Buildout with Maximum Residential Alternative would have a similar significant GHG impact as the proposed project. This alternative, however, would have a lesser GHG emissions impact than the proposed project because it would result in a lower per service population emission rate. See Impact GHG-1 and mitigation measure MM GHG-1.1. **(Less than Significant Cumulative Impact with Mitigation Incorporated)**

Retail and Residential Alternative

As shown in Table 3.8-2, buildout operation of the Retail and Residential Alternative would have annual GHG emissions of 2.3 $MTCO_2e$/year/service population, which is below the significance threshold of 2.6 $MTCO_2e$/year/service population. The Retail and Residential Alternative, therefore, would not result in a significant GHG emissions impact and would have a lesser GHG impact than the proposed project. **(Less than Significant Cumulative Impact)**

Occupied/Re-Tenanted Mall Alternative

As shown in Table 3.8-2, implementation of the Occupied/Re-Tenanted Mall Alternative would have annual GHG emissions of 5.5 $MTCO_2e$/year/service population, which exceeds the significance threshold of 2.6 $MTCO_2e$/year/service population. The Occupied/Re-Tenanted Mall Alternative would have a similar significant GHG impact as the proposed project. This alternative, however, would have a greater GHG emissions impact than the proposed project because it would result in a greater per service population emission rate.

A discussion of this alternative is provided in the EIR for informational purposes only. This alternative is a permitted land use, and can be implemented without further discretionary approvals from the City or environmental review under CEQA. No mitigation measures or additional conditions of approval can be required. **(Significant and Unavoidable Cumulative Impact: Not a CEQA Impact)**

Impact GHG-2:	**The project (and General Plan Buildout with Maximum Residential Alternative and Retail and Residential Alternative) would not conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing GHG emissions. (Less than Significant Cumulative Impact)**

Plan Bay Area 2040

Project

The project (and General Plan Buildout with Maximum Residential Alternative and Retail and Residential Alternative) is consistent with *Plan Bay Area 2040* because it includes development of housing and reduces GHG emissions by developing a compact, mixed use development near transit, promoting automobile-alternative modes of transportation, implementing a TDM program, and implementing a GHG Reduction Plan (refer to MM GHG-1).[64] **(Less than Significant Cumulative Impact)**

General Plan Buildout with Maximum Residential Alternative

The General Plan Buildout and Maximum Residential Alternative would result in the same consistency with *Plan Bay Area 2040* as described above for the proposed project. Refer to Impact GHG-2. **(Less than Significant Cumulative Impact)**

Retail and Residential Alternative

The Retail and Residential Alternative would result in the same consistency with *Plan Bay Area 2040* as described above for the proposed project. Refer to Impact GHG-2. **(Less than Significant Cumulative Impact)**

Occupied/Re-Tenanted Mall Alternative

Plan Bay Area 2040 is applicable to new development. For this reason, the Occupied/Re-Tenanted Mall Alternative's consistency with this plan is not applicable. **(No Cumulative Impact)**

[64] Since the Occupied/Re-Tenanted Mall Alternative is not a new development or redevelopment project, *Plan Bay Area 2040* is not applicable.

Bay Area 2017 Clean Air Plan

Project and All Project Alternatives

BAAQMD's 2017 CAP is the applicable air quality plan for the project area. The BAAQMD CEQA Air Quality Guidelines set forth specific criteria for determining consistency with the 2017 CAP. The proposed project is considered consistent with the 2017 CAP if it supports the CAP's primary goals, includes relevant control measures, and does not interfere with implementation of control measures. As a sustainable, transit-oriented development, the proposed project would generally be consistent with 2017 CAP control measures intended to reduce GHG emissions related to vehicle and energy use, as discussed in Table 3.3-3 in Section 3.3 Air Quality.

As discussed in Section 3.3 and shown in Table 3.3-3, the proposed project (and General Plan Buildout with Maximum Residential Alternative and Retail and Residential Alternative) would include implementation of policies and measures that are consistent with the applicable 2017 CAP control measures. The Occupied/Re-Tenanted Mall Alternative would also be consistent with the 2017 CAP control measures, but to a lesser extent than the proposed project because the Occupied/Re-Tenanted Mall Alternative does not include a TDM program and does not have a grid-street system that would be more walkable and facilitate wayfinding. The project and project alternatives, therefore, are consistent with the 2017 CAP. **(Less than Significant Cumulative Impact)**

The Occupied/Re-Tenanted Mall Alternative is provided in the EIR for informational purposes only. This alternative is a permitted land use, and can be implemented without further discretionary approvals from the City or environmental review under CEQA. **(Less than Significant Cumulative Impact: Not a CEQA Impact)**

City of Cupertino Climate Action Plan

Project and All Project Alternatives

The City's Climate Action Plan – Development Project Consistency Checklist identifies pertinent Climate Action Plan goals and measures applicable to development projects. As discussed in Section 3.3, the proposed Specific Plan (under the project, General Plan Buildout with Maximum Residential Alternative, and Retail and Residential Alternative) would be consistent with the identified applicable goals and policies by:

- Developing higher-density uses in proximity to transit;
- Installing advanced meter infrastructure;
- Installing solar photovoltaic power, where feasible;
- Installing solar thermal (i.e., solar water heaters) for buildings with high hot water heating load;
- Providing bicycle enhancements in the vicinity and implementing a TDM program;
- Providing EV charging stations, infrastructure for EV charging, compressed natural gas charging stations, and/or preferential parking requirements for alternative-fuel vehicles;
- Pre-wiring units to accommodate future installation of EV charging or providing EV charging systems;

- Installing water-efficient fixtures and water-efficient landscapes;
- Including on-site recycling collection;
- Supporting food waste collection services and/or providing collection bins for food waste;
- Participating in the City's Construction and Demolition Diversion Ordinance; and
- Reducing the heat island effect by implementing measures such cool surface treatments for parking facilities, cool roofs, cool paving, and landscaping to provide well-shaded areas.

For these reasons, the project (and General Plan Buildout with Maximum Residential Alternative and Retail and Residential Alternative) would be consistent with the City's Climate Action Plan.

The Occupied/Re-Tenanted Mall Alternative does not interfere with the City's Climate Action Plan. It is assumed any exterior or interior modifications would be completed in accordance with the City's Municipal Code (which includes the City's Green Building Ordinance and Water Efficient Landscaping Ordinance), Title 24, and CALGreen, which foster energy and water conservation.

Based on the above discussion, the project and project alternatives would not conflict or obstruct the implementation of the City's Climate Action Plan. **(Less than Significant Cumulative Impact)**

The Occupied/Re-Tenanted Mall Alternative is provided in the EIR for informational purposes only. This alternative is a permitted land use, and can be implemented without further discretionary approvals from the City or environmental review under CEQA. **(Less than Significant Cumulative Impact: Not a CEQA Impact)**

3.9 HAZARDS AND HAZARDOUS MATERIALS

The discussion in this section is based on a Phase I Environmental Site Assessment (ESA) prepared by *Cornerstone Earth Group* in February 2018. Previous Phase I ESA reports completed for the site were reviewed as part of the current Phase I report work. The current Phase I report is included in Appendix E of this EIR.

3.9.1 Environmental Setting

3.9.1.1 *Overview and Regulatory Framework*

The storage, use, generation, transport, and disposal of hazardous materials and waste are highly regulated under federal and state laws. Key federal regulations and policies related to development include the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), commonly known as Superfund, and the Resource Conservation and Recovery Act (RCRA). In California, the EPA has granted most enforcement authority over federal hazardous materials regulations to the California Environmental Protection Agency (CalEPA). In turn, local agencies including the Santa Clara County Department of Environmental Health (SCCDEH) have been granted responsibility for implementation and enforcement of many hazardous materials regulations under the Certified Unified Program Agency (CUPA) program.

Other regional agencies are responsible for programs regulating emissions to the air, surface water, and groundwater include BAAQMD, which has oversight over air emissions, and RWQCB which regulates discharges and releases to surface waters and groundwater.

Oversight over investigation and remediation of sites impacted by hazardous materials releases can be completed by state agencies, such as the Department of Toxic Substances Control [(DTSC) a division of CalEPA)], regional agencies, such as the RWQCB, or local agencies, such as SCCDEH. The SCCDEH oversees investigation and remediation of Leaking Underground Storage Tank (LUST) sites in Cupertino. Other agencies that regulate hazardous materials include the California Department of Transportation and California Highway Patrol (transportation safety), and California Occupational Safety and Health Administration (Cal/OSHA).

Federal and State

Cortese List (Government Code Section 65962.5)

Section 65962.5 of the Government Code requires CalEPA to develop and update a list of hazardous waste and substances sites, known as the Cortese List. The Cortese List is used by the state, local agencies, and developers to comply with CEQA requirements. The Cortese List includes hazardous substance release sites identified by DTSC, State Water Resources Control Board (SWRCB), and the Department of Resources Recycling and Recovery (CalRecycle).

California Accidental Release Prevention Program (CalARP)

The California Accidental Release Prevention (CalARP) Program aims to prevent accidental releases of regulated hazardous materials that represent a potential hazard beyond the boundaries of a given property. Facilities required to participate in the CalARP program use or store specified quantities of

toxic and flammable substances (hazardous materials) that can have off-site consequences if accidentally released. The SCCDEH reviews CalARP risk management plans as the CUPA.

Local

Cupertino General Plan: Community Vision 2015-2040

The proposed project, General Plan Buildout with Maximum Residential Alternative, and Retail and Residential Alternative are subject to General Plan policies including, but not limited to, the policies listed below pertaining to hazards and hazardous materials.

Policy/Strategy	Description
Policy HS-3.2	Involve the Fire Department in the early design stage of all projects requiring public review to assure Fire Department input and modifications as needed.
Policy HS-6.1	Require the proper storage and disposal of hazardous materials to prevent leakage, potential explosions, fire or the release of harmful fumes. Maintain information channels to the residential and business communities about the illegality and danger of dumping hazardous material and waste in the storm drain system or in creeks.
Policy HS-6.2	Assess future residents' exposure to hazardous materials when new residential development or sensitive populations are proposed in existing industrial and manufacturing areas. Do not allow residential development or sensitive populations if such hazardous conditions cannot be mitigated to an acceptable level of risk.

Cupertino Emergency Operations Plan

The Cupertino Emergency Operations Plan (EOP) establishes policy direction for emergency planning, mitigation, response, and recovery activities within the City. The Cupertino EOP uses the Standardized Emergency Management System as required by California Government Code Section 8607(a) for managing responses to multi-agency and multi-jurisdiction emergencies in California, including those related to hazardous materials.

3.9.1.2 *Existing Conditions*

On-site

Below is a brief summary of the historic site usage and potential sources of on-site contamination. Refer to Appendix E for additional details and descriptions, including on-site observations.

Historic Site Usage

The project site was historically used for agricultural purposes (orchards and row crops), and what appears to have been a residence with several associated outbuildings were present on the southeast portion of the site. Pesticides may have been applied to crops in the normal course of farming operations. Residual pesticide concentrations may be present in on-site soil.

A Sears department store and an associated automotive center building (with an associated gasoline station) were constructed on-site in approximately 1970. The other existing Vallco mall structures

were constructed between approximately 1974 and 1979, which included structures formerly occupied by anchor tenants (Macys and JC Penney) and two detached buildings located north of the shopping mall that were occupied by restaurants (TGI Fridays and Alexander's Steakhouse). JC Penney operated an automotive repair facility on the eastern side of their building until approximately 1985.

Chemical Storage and Use

Prior hazardous materials use and storage at the site was predominantly associated with the Sears Automotive Center and the JC Penney Automotive Center. These facilities stored a variety of automotive related hazardous materials in underground storage tanks (USTs), above ground storage tanks (ASTs), drums, and smaller containers. Both facilities currently are unoccupied. Past photo-related mall tenants (e.g., Expressly Portraits, Fox Photo, Inc., Kits Camera, and The Picture People, Inc.) were engaged in photo developing activities that utilized photo-processing chemicals and generated associated hazardous waste.

Hydraulic fluid is currently used on-site within elevator equipment and trash compactors. Diesel fuel is stored in ASTs associated with three on-site emergency generators. Pool water treatment chemical are used at the Bay Club fitness center. Other water treatment chemicals, such as corrosion and scale inhibitors and biocides, are used in the operation of HVAC equipment. Various facility maintenance products, consisting mainly of paint related products and janitorial supplies, also are used and stored on-site.

At the Sears Automotive Center, remnant piping that appears to have formerly distributed grease, oil, and transmission fluid from storage locations to the service bays remains along interior building walls, ceilings, and within the basement. Residual lubricants within the piping were observed to be dripping onto the concrete floor slab and walls at several locations, mainly within the basement. Also, at the former location of two air compressors within the basement, the floor slab surrounding a floor drain was heavily stained with oil. Staining was also observed on the floor of a former battery storage room. Near the refrigeration equipment at the Cupertino Ice Center, oil staining and a spill (approximately one to two gallons) of what appeared to be oily water on the concrete floor slab was observed. The staining and spilled oil on concrete flooring at the Sears Automotive Center and the Cupertino Ice Center appeared unlikely to have significantly impacted underlying soil quality.

Underground Storage Tanks

Two 350 gallon diesel USTs and one 500 gallon waste oil UST were previously located near the JC Penney Automotive Center and were removed in 1989. Two 12,000 gallon gasoline USTs, two 5,000 gallon gasoline USTs, and two 550 gallon oil USTs were removed from the Sears Automotive Center in 1985. As discussed in more detail in Appendix E, soil and groundwater quality studies and soil removal activities subsequently were conducted at these facilities. Residual petroleum hydrocarbons remain in place near the former USTs; however, the reported residual contaminant concentrations generally do not exceed the Water Board's current Tier 1 Environmental Screening Levels (ESLs) or residential screening levels established by the DTSC and EPA. Thus, the residual contaminants do not appear to pose a significant risk. The SCVWD issued case closure letters to JC Penney and Sears in 1994 and 1999, respectively.

A building plan from 1969 for the Sears Automotive Center depicts a 1,000 gallon waste oil UST on the west side of the building. Similarly, the Statewide Environmental Evaluation and Planning System (SWEEPS) UST database lists seven USTs at Sears (the six USTs that were removed in 1985, and the 1,000 gallon waste oil UST). No records pertaining to the removal of a 1,000 gallon waste oil UST were identified. During site reconnaissance, an access cover was observed in the pavement in the vicinity of the waste oil UST depicted on the 1969 building plan. It is possible that the waste oil UST remains on-site.

Oil-Water Separators and Acid Neutralization Chamber

At the Sears Automotive Center, an oil-water separator (connected to floor drains within the building) and an acid neutralization chamber (connected to drains within a former battery storage room) were identified. In 1994, the 750 gallon oil-water separator at the JC Penny Automotive Center was steam cleaned and closed in place by filling it with cement grout under Santa Clara County Fire Department (SCCFD) oversight. Based on reported soil sampling data, this separator does not appear to have significantly impacted underlying soil quality.

Hydraulic Lifts

Multiple former hydraulic lifts were observed with the service bays at the Sears and JC Penny Automotive Centers. The inner lift cylinders appeared to have been removed and the outer steel casings were filled with concrete (at Sears) and pea gravel (at JC Penney). Some of the associated hydraulic fluid piping appeared to have been removed, while other portions of the piping remains.

Lead-Based Paint and Termite Control Pesticides

The Consumer Product Safety Commission banned the use of lead as an additive in paint in 1978. Based on the age of the building(s), lead-based paint may be present. The removal of lead-based paint is not required prior to building demolition if the paint is bonded to the building materials. If the lead-based paint is flaking, peeling, or blistering, however, it should be removed prior to demolition. In either case, applicable OSHA regulations must be followed; these include requirements for worker training, air monitoring and dust control, among others. Any debris containing lead must be disposed appropriately.

Additionally, soil adjacent to structures that are painted with lead-containing paint can become impacted with lead as a result of the weathering and/or peeling of painted surfaces. Soil near wood framed structures also can be impacted by pesticides historically used to control termites. Lead and/or pesticides often are identified in soil near old residences and associated outbuildings, such as those historically located on the southeast portion of the site.

Lead may be present in building materials and in soils where former agricultural buildings were located on-site.

Asbestos Containing Building Materials

Due to the age of the on-site structures, building materials may contain asbestos. Friable asbestos is any asbestos containing material (ACM) that, when dry, can be crumbled or pulverized to a powder by hand, allowing asbestos particles to become airborne. Both friable asbestos products and

paint/surface coating materials containing lead were banned in 1978. ACMs are of concern because exposure to ACMs have been linked to cancer.

Groundwater Monitoring Wells

In 1990, four ground water monitoring wells were installed on-site to evaluate the potential for impacted groundwater from the former USTs at JC Penney. Due to stored construction materials, the reported well locations were not accessible at the time of site reconnaissance; one location appears to be below the parking garage constructed to the south of the JC Penney building.

Database Search

A review of federal, state, and local regulatory agency databases was completed to evaluate the likelihood of contamination incidents at and near the project site. A list of the database sources reviewed, a description of the sources, and a radius map showing the location of reported facilities relative to the project site are included in Appendix E.

Several past tenants were listed on various regulatory agency databases, including the California Hazardous Material Incident Report System (CHMIRS) database, Emergency Response Notification System (ERNS) database, Emissions Inventory (EMI) database, HAZNET database, and Resource Conservation and Recovery Act (RCRA) database. The listings appear generally consistent with the reported history and past occupancy of the site as summarized above. Sears Automotive Center and JC Penney were listed as closed LUST cases, and on other databases related to the use and storage of hazardous materials.

Off-Site

Database Search

Based on the information from the database search, no nearby off-site spill incidents were reported that appear likely to significantly impact soil, soil vapor, or groundwater beneath the site. The potential for impact was based on interpretation of the types of incidents, the locations of the reported incidents in relation to the site, and the assumed groundwater flow direction. Refer to Appendix E for more details.

3.9.1.3 *Other Hazards*

Airports

The project site is not located within an airport land use plan, within two miles of a public airport or public use airport, or within the vicinity of a private airstrip.

Wildfire Hazard

The project site is located in an infill, urbanized location and, therefore, is not subject to wildland fires. The project site is not located within a California Department of Forestry and Fire Protection

very high fire hazard severity zone, nor is the project site identified in a wildland urban interface fire area.[65,66]

3.9.2 Hazards and Hazardous Materials Impacts

3.9.2.1 *Thresholds of Significance*

For the purposes of this EIR, a hazards and hazardous materials impact is considered significant if the project would:

- Create a significant hazard to the public or the environment through 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 it 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 the project result in a safety hazard for people residing or working in the project area;
- For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area;
- Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan; or
- Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands.

[65] City of Cupertino. *General Plan Amendment, Housing Element Update, and Associated Rezoning EIR Volume 1*. June 18, 2014. Page 4.7-15 and Figures 4.7-2 through 4.7-4.
[66] California Department of Forestry and Fire Protection. *Santa Clara County Fire Hazard Severity Zones.* Map. Adopted November 7, 2007. Available at: http://www.fire.ca.gov/fire_prevention/fhsz_maps_santaclara.

Impact HAZ-1:	**The project (and General Plan Buildout with Maximum Residential Alternative and Retail and Residential Alternative) would not create a significant hazard to the public or the environment through routine transport, use, disposal, or foreseeable upset of hazardous materials; or emit hazardous emissions or hazardous materials within one-quarter mile of an existing or proposed school. (Less than Significant Impact with Mitigation Incorporated)**

Project

As described in Section 3.9.1.2 (and discussed in more detail in Appendix E: Phase I Environmental Site Assessment), potential on-site sources of contamination relate to historic and/or existing agricultural use, chemical storage and use, underground storage tanks, oil-water separators and acid neutralization chambers, hydraulic lifts, lead-based paint, and ACMs. There is a potential for on-site soil, soil vapor, and groundwater contamination above regulatory screening levels for residential and commercial uses due to historic and existing hazardous materials use, generation, and storage.

Construction of the project (and the General Plan Buildout with Maximum Residential Alternative and Retail and Residential Alternative) would result in the demolition of existing structures and excavation up to a maximum depth of 20 to 30 feet for below ground parking. Unless properly handled and disposed of, the removal and transport of on-site hazardous materials could present a risk to the environment (including LP Collins Elementary School/Bright Horizons at Cupertino Pre-School, which are within 0.25 miles of the project site to the west), construction workers, and future occupants.

The proposed project (and project alternatives) do not propose any on-site use of hazardous materials other than small quantities of herbicides and pesticides for landscaping maintenance and cleaning and pool chemicals. The use, storage, and transportation and disposal of pool cleaning and maintenance chemicals would be managed in accordance with federal, state, and local laws and regulations that ensure on-site use, storage, transportation and disposal of chemicals will result in a less than significant impact. These laws and regulation include the Hazardous Materials Transportation Act which protects the public and environment from the risks associated with the transportation of hazardous materials, Department of Transportation 49 Code of Federal Regulations [CFR] 173.3 which specify how hazardous materials are to be contained, EPA 40 CFR 264.175 which specifies how hazardous materials are to be contained, and OSHA 29 CFR 1910.106 (e)(2)(iii) which specifies how hazardous materials are to be transferred safely. No other routine use, storage, transportation, or disposal of hazardous materials is anticipated as part of the project (and project alternatives).

Mitigation Measures:

MM HAZ-1.1: A Site Management Plan (SMP) and Health and Safety Plan (HSP) shall be prepared and implemented for demolition and redevelopment activities under the proposed project (and the General Plan Buildout with Maximum Residential Alternative and Retail and Residential Alternative). The purpose of the SMP and HSP is to establish appropriate management practices for handling impacted soil, soil vapor, and groundwater or other materials that may potentially be encountered during construction activities, especially in areas of former

hazardous materials storage and use, and the profiling of soil planned for off-site disposal and/or reuse on-site. The SMP shall document former and suspect UST locations, hazardous materials transfer lines, oil-water separators, neutralization chambers, and hydraulic lifts, etc. The SMP shall also identify the protocols for accepting imported fill materials, if needed. The SMP shall be submitted to the City and CCDEH for approval prior to commencement of construction (including demolition) activities.

MM HAZ-1.2: The site contains equipment and facilities associated with past activities that are known to or may contain residual hazardous materials. The following measures shall be implemented under the proposed project (and the General Plan Buildout with Maximum Residential Alternative and Retail and Residential Alternative) during building demolition and shall be indicated on demolition plans:

- Sears and JC Penney Automotive Centers:
  - Sears: Remnant piping that appears to have formerly distributed grease, oil and transmission fluid from storage locations to the service bays located along interior building walls, ceilings and within the basement shall be properly removed and disposed, and stains and residual oil shall be cleaned from the interior building surfaces. This work shall be coordinated with the SCCFD.
  - Sears: The below ground oil-water separator (connected to floor drains within the building) and an acid neutralization chamber (connected to drains within a former battery storage room) shall be cleaned and removed. This work shall be coordinated with the SCCFD and SCCDEH. Soil quality below each of the structures shall be evaluated via sampling and laboratory analyses.
  - Sears: The potential presence of a waste oil UST shall be further investigation by removing the access cover and, if uncertainty remains, the subsequent performance of a geophysical survey. If a UST is identified, it shall be removed in coordination with the SCCFD and SCCDEH, and underlying soil quality shall be evaluated. If no UST is identified, soil quality at the location of the waste oil UST, as depicted on the 1969 building plan, shall be evaluated via the collection of soil samples from borings for laboratory analyses.
  - Sears and JC Penney: Each of the below-ground lift casings and any associated hydraulic fluid piping and reservoirs from hydraulic lifts shall be removed and properly disposed. An Environmental Professional shall be retained to observe the removal activities and, if evidence of leakage is identified, soil sampling and laboratory analyses shall be conducted.
  - JC Penney: The 750 gallon oil-water separator shall be properly removed and appropriately disposed during redevelopment activities.

- Existing staining and spilled oil on-site, including at the Sears Automotive Center and Cupertino Ice Center, shall be properly cleaned. When these facilities are demolished, an Environmental Professional shall be present to observe underlying soil for evidence of potential impacts and, if observed, collect soil samples for laboratory analyses.
- If the lead-based paint on-site is flaking, peeling, or blistering, it shall be removed prior to demolition. Applicable OSHA regulations shall be followed; these include requirements for worker training and air monitoring and dust control. Any debris containing lead shall be disposed appropriately.
- An asbestos survey shall be completed of the buildings prior to their demolition in accordance with the National Emissions Standards for Hazardous Air Pollutants (NESHAP) guidelines. NESHAP guidelines require the removal of potentially friable ACMs prior to building demolition or renovation that may disturb the ACM.
- Once existing buildings and improvements are removed, soil sampling shall be completed to evaluate if agricultural chemicals and lead are present. The agricultural pesticide sampling shall focus on former orchard and row crop areas, as well as in the vicinity of outbuilding (barns and sheds) that were formerly located of the southeast portion of the site. Testing for lead contamination shall be completed at the former structure locations. The sampling, which shall follow commonly accepted environmental protocols, shall be performed prior to soil excavation activities in order to appropriately profile the soil for off-haul to a disposal facility. The analytical data shall be compared to either residential screening levels and/or the specific acceptance criteria of the accepting facility. If this soil is planned to be reused on-site, it shall be compared to residential screening levels and/or natural background levels of metals.

MM HAZ-1.3: Prior to issuance of demolition and/or grading permits, groundwater monitoring wells shall be properly destroyed in accordance with the SCVWD Ordinance 90-1.

MM HAZ-1.4: As part of the facility closure process for occupants that use and/or store hazardous materials, the SCCFD and SCCDEH typically require that a closure plan be submitted by the occupant that describes required closure activities, such as removal of remaining hazardous materials, cleaning of hazardous material handling equipment, decontamination of building surfaces, and waste disposal practices, among others. Facility closures shall be coordinated with the Fire Department and SCCDEH to ensure that required closure activities are completed prior to issuance of demolition and/or grading permits.

Implementation of the proposed project (and General Plan Buildout with Maximum Residential Alternative, and Retail and Residential Alternative), with the implementation of mitigation measures MM HAZ-1.1 through -1.4, would reduce on-site hazardous materials impacts from demolition,

excavation, and construction to a less than significant level by creating and implementing an SMP and HSP to establish practices for properly handling contaminated materials, implementing measures during demolition activities to identify, remove, and clean up hazardous materials on-site, properly closing groundwater monitoring wells, and obtaining site closure from regulatory agencies. **(Less Than Significant Impact with Mitigation Measures Incorporated)**

General Plan Buildout with Maximum Residential Alternative

The General Plan Buildout with Maximum Residential Alternative would result in the same hazardous materials impacts as described above for the proposed project. See Impact HAZ-1 and mitigation measures MM HAZ-1.1 through -1.4. **(Less than Significant Impact with Mitigation Incorporated)**

Retail and Residential Alternative

The Retail and Residential Alternative would result in the same hazardous materials impacts as described above for the proposed project. See Impact HAZ-1 and mitigation measures MM HAZ-1.1 through -1.4. **(Less than Significant Impact with Mitigation Incorporated)**

Occupied/Re-Tenanted Mall Alternative

The Occupied/Re-Tenanted Mall Alternative assumes no buildings would be demolished. This alternative would include exterior and interior tenant improvements, however. The exterior and interior building improvements would be subject to the existing regulations of the SCCFD, SCCDEH, OSHA, NESHAP, and SCVWD, as described above for the proposed project.

A discussion of this alternative is provided in the EIR for informational purposes only. This alternative is a permitted land use, and can be implemented without further discretionary approvals from the City or environmental review under CEQA. **(Less than Significant Impact: Not a CEQA Impact)**

Impact HAZ-2:	**The project (and project alternatives) is located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5; however, the project (and project alternatives) would not create a significant hazard to the public or the environment as a result. (Less than Significant Impact)**

Project and All Project Alternatives

The project site does not contain any open hazardous materials cases listed on the Cortese list databases, although the closed UST cases at the Sears Automotive Center and JC Penney are identified. Therefore, the existence of a Cortese list site in the Specific Plan area would not result in any hazardous material impacts different from the impacts discussed in Impact HAZ-1. **(Less than Significant Impact)**

The Occupied/Re-Tenanted Mall Alternative is provided in the EIR for informational purposes only. This alternative is a permitted land use, and can be implemented without further discretionary approvals from the City or environmental review under CEQA. **(Less than Significant Impact: Not a CEQA Impact)**

Impact HAZ-3:	**The project (and project alternatives) is not located within an airport land use plan or within two miles of a public airport or public use airport. (No Impact)**

Project and All Project Alternatives

The project site is not located within an airport land use plan, within two miles of a public airport or public use airport, or within the vicinity of a private airstrip. For this reason, the project (and project alternatives) would not result in an airport-related safety hazard for people residing or working in the project area. **(No Impact)**

Impact HAZ-4:	**The project (and project alternatives) would not impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan. (Less than Significant Impact)**

Project and All Project Alternatives

According to the General Plan EIR, consistency with General Plan policies and strategies would ensure new development would not conflict with emergency operations in Cupertino.[67] The General Plan policies applicable to private development projects are HS-3.2, requiring early project review by the SCCFD, and HS-3.7, requiring adequate fire protection be built into the design of multi-story buildings and that fire suppression materials and equipment must be on-site. Consistency with General Plan policy HS-6.1, requiring proper storage and disposal of hazardous materials, also would prevent accidents related to the use, storage, and disposal of hazardous materials.

Implementation of the project (and project alternatives) shall conform to applicable General Plan policies, including HS-3.2, -3.7, and -6.1, to ensure the development does not impair implementation of, or physically interfere with, the City's emergency operations. **(Less than Significant Impact)**

The Occupied/Re-Tenanted Mall Alternative is provided in the EIR for informational purposes only. This alternative is a permitted land use, and can be implemented without further discretionary approvals from the City or environmental review under CEQA. **(Less than Significant Impact: Not a CEQA Impact)**

[67] City of Cupertino. *General Plan Amendment, Housing Element Update, and Associated Rezoning EIR* Volume 1. June 18, 2014. Pages 4.7-24 and 4.7-25.

Impact HAZ-5:	**The project (and project alternatives) would not expose people or structures to a significant risk of loss, injury, or death involving wildland fires. (No Impact)**

Project and All Project Alternatives

Given the project location on an infill site in an urbanized location, the project site is not subject to wildland fires. **(No Impact)**

Impact HAZ-6:	**The project (and General Plan Buildout with Maximum Residential Alternative) would not have a cumulatively considerable contribution to a significant cumulative hazardous materials impact. (Less than Significant Impact with Mitigation Incorporated)**

Project and All Project Alternatives

The geographic area for cumulative hazards and hazardous materials impacts includes the project site and the surrounding area. Some of the projects included in the cumulative analysis are proposed on properties that were previously developed with industrial or commercial uses. It is likely that hazardous materials may have been stored and used on, and/or transported to and from, some of these properties as part of activities on the sites. In addition, many of the properties in Cupertino and surrounding cities were used for agricultural purposes prior to their urban development and agricultural chemicals, such as pesticides and fertilizers, may have been used on these sites in the past. The use of these chemicals can result in residual soil contamination, sometimes in concentrations that exceed regulatory thresholds. Further, development and redevelopment of some of the cumulative projects sites would require demolition of existing buildings that may contain lead-based paint and/or ACMs. Demolition of these structures could expose construction workers or other persons in the vicinity to harmful levels of lead and/or ACMs.

Based on the above-described conditions, which are present on most sites in Cupertino to varying degrees, significant cumulative environmental impacts could occur because such conditions can lead to the exposure of people and the environment to hazardous materials. For each of the cumulative development projects, mitigation measures would be implemented as a condition of development approval for the risks associated with exposure to hazardous materials. Measures would include incorporating the requirements of applicable existing local, state, and federal laws, regulations, and agencies such as the DTSC and Cal/OSHA, during development.

Mitigation Measure:

MM HAZ-6.1: Implement MM HAZ-1.1 through -1.4.

For the proposed project (and General Plan Buildout with Maximum Residential Alternative and Retail and Residential Alternative), implementation of the above mitigation measure would reduce the project (and General Plan Buildout with Maximum Residential Alternative and Retail and Residential Alternative) to a less than significant level, as discussed under Impact HAZ-1. With the inclusion of development-specific mitigation and compliance with existing statutes and regulations, the cumulative projects (including the proposed project and project alternatives), would not result in significant cumulative hazardous materials impacts. **(Less than Significant Cumulative Impact with Mitigation Incorporated)**

The Occupied/Re-Tenanted Mall Alternative is provided in the EIR for informational purposes only. This alternative is a permitted land use, and can be implemented without further discretionary approvals from the City or environmental review under CEQA. **(Less than Significant Cumulative Impact: Not a CEQA Impact)**

3.10 HYDROLOGY AND WATER QUALITY

3.10.1 Environmental Setting

3.10.1.1 *Regulatory Framework*

Federal and State

Water Quality Overview

The federal Clean Water Act and California's Porter-Cologne Water Quality Control Act are the primary laws related to water quality. Regulations adopted by the EPA and the State Water Resources Control Board (SWRCB) to implement this legislation. EPA regulations include the National Pollutant Discharge Elimination System (NPDES) permit program, which controls sources that discharge pollutants into the waters of the United States (e.g., streams, lakes, bays, etc.). These regulations are implemented at the regional level by the water quality control boards. The project site is within the jurisdiction of the San Francisco Bay RWQCB.

Basin Plan

The San Francisco Bay RWQCB regulates water quality in accordance with the Water Quality Control Plan for the San Francisco Bay Basin Plan. The Basin Plan lists the beneficial uses that the RWQCB has identified for local aquifers, streams, marshes, rivers, and the San Francisco Bay, as well as the water quality objectives and criteria that must be met to protect these uses. The RWQCB implements the Basin Plan by issuing and enforcing waste discharge requirements, including permits for nonpoint sources such as the urban runoff discharged by a City's stormwater drainage system. The Basin Plan also describes watershed management programs and water quality attainment strategies.

Statewide Construction General Permit

The SWRCB adopted a NPDES General Construction Permit for the State of California. For projects disturbing one acre or more of soil, a Notice of Intent (NOI) must be filed with the RWQCB and a Storm Water Pollution Prevention Plan (SWPPP) must be prepared by a qualified professional prior to commencement of construction. The Construction General Permit includes requirements for training, inspections, record keeping, and for projects of certain risk levels, monitoring. The general purpose of the requirements are to minimize the discharge of pollutants and to protect beneficial uses and receiving waters from the adverse effects of construction-related storm water discharges.

Municipal Regional Stormwater NPDES Permit (MRP)/C.3 Requirement

The San Francisco Bay RWQCB has issued a Municipal Regional Stormwater NPDES Permit (Permit Number CAS612008) (MRP) that covers the project site. Under Provision C.3 of the MRP, development projects that disturb more than 10,000 square feet are required to design and construct stormwater treatment controls to treat post-construction stormwater runoff. Provision C.3 requires regulated projects to include Low Impact Development (LID) practices, such as pollutant source control measures and stormwater treatment features aimed to maintain or restore the site's natural hydrologic functions. The MRP also requires that stormwater treatment measures are properly installed, operated, and maintained.

In addition to water quality controls, the MRP requires all new and redevelopment projects that create or replace one acre or more of impervious surface area to manage development-related increases in peak runoff flow, volume, and duration, where such hydromodification is likely to cause increased erosion, silt pollutant generation, or other impacts to beneficial uses of local rivers, streams, and creeks. Projects may be exempt from the permit requirements if they do not meet the minimum size threshold, drain into tidally-influenced areas or directly into the Bay, drain into hardened channels, or are infill projects in subwatersheds or catchments areas that are greater than or equal to 65 percent impervious (per the Santa Clara Valley Permittees Hydromodification Management Applicability Map).

National Flood Insurance Program

The Federal Emergency Management Agency (FEMA) established the National Flood Insurance Program (NFIP) in order to reduce impacts of flooding on private and public properties. The program provides subsidized flood insurance to communities that comply with FEMA regulations protecting development in floodplains. As part of the program, FEMA publishes Flood Insurance Rate Maps (FIRM) that identify Special Flood Hazard Areas (SFHA). An SFHA is an area that will be inundated by the one-percent annual chance flood, which is also referred to as the base flood or 100-year flood. The SFHA is the area where the NFIP floodplain management regulations must be enforced and the area where the mandatory purchase of flood insurance applies.

Dam Safety

Dam failure is the uncontrolled release of impounded water behind a dam. Flooding, earthquakes, blockages, landslides, lack of maintenance, improper operation, poor construction, vandalism, and terrorism can all cause a dam to fail.[68] Because dam failure that results in downstream flooding may affect life and property, dam safety is regulated at both the federal and state levels. Dams under the jurisdiction of the California Division of Safety of Dams are identified in California Water Code Sections 6002, 6003, and 6004 and regulations for dams and reservoirs are included in the California Code of Regulations. In accordance with the state Dam Safety Act, dams are inspected regularly and detailed evacuation procedures have been prepared for each dam.

Santa Clara Valley Water District

SCVWD is the flood control agency for Santa Clara County. SCVWD also is responsible for creek restoration, pollution prevention, and groundwater recharge. Permits for well construction and destruction work, most exploratory boring for groundwater exploration, and projects within SCVWD property or easements are required under the SCVWD's Water Resources Protection Ordinance and District Well Ordinance.

[68] State of California. 2013. *2013 State Hazards Mitigation Plan*. Accessed January 12, 2018. Available at: http://www.caloes.ca.gov/for-individuals-families/hazard-mitigation-planning/state-hazard-mitigation-plan

Local

Cupertino General Plan: Community Vision 2015-2040

The proposed project, General Plan Buildout with Maximum Residential Alternative, and Retail and Residential Alternative are subject to General Plan policies including, but not limited to, the policies and strategies listed below pertaining to hydrology and water quality.

Policy/Strategy	Description
Strategy ES-5.3.1	Continue to emphasize the planting of native, drought tolerant, pest resistant, non-invasive, climate appropriate plants and ground covers, particularly for erosion control and to prevent disturbance of the natural terrain.
Policy ES-7.1	In public and private development, use low impact development (LID) principles to mimic natural hydrology, minimize grading and protect or restore natural drainage systems.
Strategy ES-7.1.1	Continue to require topographical information; identification of creeks, streams and drainage areas; and grading plans for both public and private development proposals to ensure protection and efficient use of water resources.
Policy ES-7.2	Minimize stormwater runoff and erosion impacts resulting from development and use LID designs to treat stormwater or recharge groundwater.
Strategy ES-7.2.3	Minimize impervious surface areas, and maximize on-site filtration and the use of on-site retention facilities.
Policy ES-7.3	Ensure that surface and groundwater quality impacts are reduced through development review and volunteer efforts.
Strategy ES-7.3.1	Require LID designs such as vegetated stormwater treatment systems and green infrastructure to mitigate pollutant loads and flows.
Strategy ES-7.4.3	Review development plans to ensure that projects are examined in the context of impacts on the entire watershed, in order to comply with the City's non-point source Municipal Regional Permit.
Policy INF-4.1	Create plans and operational policies to develop and maintain an effective and efficient stormwater system.
Strategy INF-4.1.1	Reduce the demand on storm drain capacity through implementation of programs that meet and even exceed on-site drainage requirements.

Municipal Code

Besides the General Plan, the City's Municipal Code guides development in the City. The following parts of the Municipal Code contain directives pertaining to hydrology and water quality issues.

- *Chapter 9.18, Stormwater Pollution Prevention and Watershed Protection*, outlines the City's minimum requirements designed to control the discharge of pollutants into the City of Cupertino's storm drain system and to assure that discharges from the City's storm drain system comply with applicable provisions of the federal Clean Water Act and NPDES Permit.

- *Section 16.08.110, Interim Erosion and Sediment Control Plan,* requires preparation of an Interim Erosion and Sediment Control Plan. The Plan shall be either integrated with the site map/grading plan or submitted separately, to the Director of Public Works that calculates the maximum runoff from the site for the 10-year storm event and describes measures to be undertaken to retain sediment on the site, a brief description of the surface runoff and erosion control measures to be implemented, and vegetative measures to be undertaken.

3.10.1.2 *Existing Conditions*

Water Quality

The water quality of streams, creeks, ponds, and other surface water bodies can be greatly affected by pollution carried in contaminated surface runoff. Pollutants from unidentified sources, known as non-point source pollutants, are washed from streets, construction sites, parking lots, and other exposed surfaces into storm drains. Urban stormwater runoff often contains contaminants such as oil and grease, plant and animal debris (e.g., leaves, dust, animal feces, etc.), pesticides, litter, and heavy metals. In sufficient concentration, these pollutants have been found to adversely affect the aquatic habitats to which they drain.

Groundwater

The project site is located within the Santa Clara Valley groundwater basin and the Santa Clara groundwater sub-basin. At a groundwater monitoring well on the site, groundwater was reported at depths between approximately 120 and 140 feet. A perched water-bearing zone also was found between depths of approximately 80 and 95 feet, but this zone reportedly was not consistently encountered at the site.[69] A 2005 investigation found groundwater at a depth of 68 feet on-site. The depth of groundwater can vary seasonally, and can be influenced by underground drainage patterns, regional fluctuations, and other factors.

Stormwater Drainage

The site is developed with buildings, paved driveways and parking lots, as well as landscaping and utilities. It is estimated that 4.7 acres of the 58 acre development area is pervious and the remaining 53.3 acres is impervious. Therefore, over 90 percent of the project site is currently impervious. Stormwater runoff discharges into storm drain inlets that convey runoff via the City stormwater drainage system into Calabazas Creek, and ultimately into San Francisco Bay. Currently, the project site is served by storm drain lines in Stevens Creek Boulevard, Wolfe Road, and Perimeter Road.

Flooding

The site is in the West Valley Watershed but does not contain any streams, waterways, or wetlands.[70] The nearest waterways are the Junipero Serra Channel located north of the site along I-280 and Calabazas Creek located approximately 750 feet east of the project site. The Junipero Serra Channel was constructed in 1967 to protect the area from flooding due to land subsidence. Junipero Serra

[69] Cornerstone Earth Group. *Phase I Environmental Site Assessment, Vallco Special Area Specific Plan Parcels, Cupertino, California*. February 26, 2018.
[70] Santa Clara Valley Water District. West Valley Watershed Fast Facts. https://www.valleywater.org/learning-center/watersheds-santa-clara-valley/west-valley-watershed-fast-facts. Accessed March 19, 2018.

Channel is a fully concrete lined channel that drains eastward and discharges into Calabazas Creek, just south of Interstate 280. Calabazas Creek is channelized in the project area. Calabazas Creek flows north toward the San Francisco Bay, which is located approximately six miles north of the project site.

The project site is not located within a 100-year flood hazard area or SFHA. According to the Flood Insurance Rate Map (FIRM) prepared by FEMA for the project area, the site is located within Zone X, which is defined as "Areas of 0.2 percent annual chance flood; areas of one percent annual chance flood with average depths of less than one-foot or with drainage areas less than one square mile; and areas protected by levees from one percent annual chance flood."[71]

Other Inundation Hazards

Portions of the City are within the dam inundation area for Stevens Creek Reservoir/Dam. The project site, however, is not within the dam failure inundation zone.[72]

The site is not located near a large enclosed body of water, near the ocean, or in a landslide hazard zone. The site is approximately six miles inland from the San Francisco Bay shoreline, and is approximately 185 feet above mean sea level. Based on the site's location inland, it would not be vulnerable to inundation or coastal hazards such as sea-level rise, seiche, tsunami, or mudflow.

3.10.2 Hydrology and Water Quality Impacts

3.10.2.1 *Thresholds of Significance*

For the purposes of this EIR, a hydrology and water quality impact is considered significant if the project would:

- Violate any water quality standards or waste discharge requirements;
- Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted);
- Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site;
- Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or 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;

[71] Federal Emergency Management Agency. *Flood Insurance Rate Map, Community Panel No. 06085C0029H*. Map. Effective Date: May 18, 2009.
[72] Santa Clara Valley Water District. *Inundation Map of Stevens Creek Dam.* Map. November 1994. Available at: https://www.valleywater.org/your-water/local-dams-and-reservoirs.

- Otherwise substantially degrade water quality;
- Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map;
- Place within a 100-year flood hazard area structures which would impeded or redirect flood flows;
- Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam; or
- Inundation by seiche, tsunami, or mudflow.

Impact HYD-1:	**The project (and project alternatives) would not violate water quality standards or waste discharge requirements, or otherwise substantially degrade water quality. (Less than Significant Impact)**

Project

Construction Period

Implementation of the project (and General Plan Buildout with Maximum Residential Alternative and Retail and Residential Alternative) would require substantial demolition, grading, and paving of the site, which are activities that temporarily increase the amount of unconsolidated materials on-site. Construction of the below grade parking garages, new buildings, and other improvements (including utility connections) would require excavation. Grading activities could increase erosion and sedimentation, resulting in sediment, soil, and associated pollutants that could be carried by runoff into natural waterways and possibly increasing sedimentation impacts to Calabazas Creek or the San Francisco Bay.

Implementation of the proposed project (and General Plan Buildout with Maximum Residential Alternative and Retail and Residential Alternative) would result in the disturbance of most of the site (approximately 58 acres of the 70-acre site). As a result, the project (and General Plan Buildout with Maximum Residential Alternative and Retail and Residential Alternative) would disturb more than one acre and would be required to comply with the State of California General Construction Permit. The proposed project would be required to obtain grading permits and improvement plans from the City of Cupertino, and would be required to comply with the City of Cupertino's requirements for reducing erosion and sedimentation during construction.[73,74,75]

In accordance with the City's grading permit requirements, future development would be required to prepare a site plan, grading plan, and an erosion and sediment control plan. Grading permits would not be issued until these plans are reviewed and approved.

[73] City of Cupertino. Construction Best Management Practices. September 2016. Available at: http://www.cupertino.org/home/showdocument?id=12309. Accessed March 21, 2018.
[74] City of Cupertino. Permit Provision C.3. Impervious Surface Data Form. Available at: http://www.cupertino.org/home/showdocument?id=2377. Accessed March 21, 2018.
[75] City of Cupertino. C.3 Stormwater Management Table. Rev. June 2014. Available at: http://www.cupertino.org/home/showdocument?id=2666. Accessed March 21, 2018.

Operation Period

As discussed in Section 2.4.4, between 2.8 and 5.6 acres of the open space and landscaped areas under the proposed project (and General Plan Buildout with Maximum Residential Alternative and Retail and Residential Alternative) would be irrigated. The 30-acre green roof proposed as part of the project (and the General Plan Buildout with Maximum Residential Alternative) would provide additional pervious surface that would absorb rainfall. It is anticipated that the total amount of impervious surfaces on-site would decrease with the implementation of the proposed project (and General Plan Buildout with Maximum Residential Alternative). A decrease in impervious surfaces on-site would result in a corresponding decrease in surface runoff from the site. As a result, the amount of surface runoff from the project site under the proposed project (and General Plan Buildout with Maximum Residential Alternative) would decrease compared to existing conditions.

Because the project would create and/or replace more than 10,000 square feet of impervious surface area, it would be subject to the post-construction site design, source control, and on-site runoff treatment control requirements of the MRP (Provision C.3). Based on the City of Cupertino's Hydromodification Program (HMP) Applicability Map, the project site is located in an area mapped as Catchments and Subwatersheds ≥ 65% Impervious, and is therefore exempt from MRP hydromodification management requirements.[76]

Standard Permit Conditions: In conformance with the City's Municipal Code Chapter 9.18, future development under the proposed project (and General Plan Buildout with Maximum Residential Alternative and Retail and Residential Alternative), shall implement the following standard permit conditions to reduce construction and post-construction related water quality impacts to less than significant levels:

During Construction

- The project shall comply with the NPDES General Construction Activity Storm Water Permit administered by the Regional Water Quality Control Board. Prior to construction grading the applicant shall file a Notice of Intent (NOI) and receive a Waste Discharger Identification (WDID) number to comply with the General Permit and prepare a Storm Water Pollution Prevention Plan that includes storm water quality best management practices (BMPs). The Storm Water Management Plan shall detail how runoff and associated water quality impacts resulting from the proposed project will be controlled and/or managed. The Plan shall be submitted to the Director of Public Works for review and approval. The specific BMPs to be used in each phase of development shall be determined based on design and site-specific considerations and shall be determined prior to issuance of building and grading permits.

Post-Construction

- The project shall comply with Provision C.3 of the MRP NPDES permit, which provides enhanced performance standards for the management of storm water for new development. Prior to issuance of building and grading permits, each phase of development shall include

[76] Santa Clara Valley Urban Runoff Pollution Prevention Program. *HMP Applicability Map City of Cupertino.* November 2010. Available at: http://www.scvurppp-w2k.com/HMP_app_maps/Cupertino_HMP_Map.pdf.

provisions for post-construction storm water controls in the project design in compliance with the MRP Provision C.3 requirements, and shall include source control and on-site treatment control BMPs for reducing contamination in stormwater runoff as permanent features of the project. The project shall include a stormwater management plan that incorporates Low Impact Development (LID) measures such as bioretention areas, porous concrete, infiltration facilities, and water harvesting devices to reduce the pollutant loads and volumes of stormwater runoff from the site. The stormwater management plan shall be consistent with the landscaping plan and trees to be preserved.

- To protect groundwater from pollutant loading of urban runoff, BMPs that are primarily infiltration devices (such as infiltration trenches and infiltration basins) must meet, at a minimum, the following conditions:
  - Pollution prevention and source control BMPs shall be implemented to protect groundwater;
  - Use of infiltration BMPs cannot cause or contribute to degradation of groundwater;
  - Infiltration BMPs must be adequately maintained;
  - Vertical distance from the base of any infiltration device to the seasonal high groundwater mark must be at least 10 feet. In areas of highly porous soils and/or high groundwater table, BMPs shall be subject to a higher level of analysis (considering potential for pollutants such as on-site chemical use, level of pretreatment, similar factors); and
  - Infiltration devices shall be located a minimum of 100 feet horizontally from any water supply wells.
  - Class V injection wells are not permitted.

- BMPs shall be selected and designed to the satisfaction of the Director of Public Works in accordance with the requirements contained in the most recent versions of the following documents:
  - City of Cupertino Post-Construction BMP Section Matrix;
  - SCVURPPP "Guidance for Implementing Storm water Regulations for New and Redevelopment Projects;"
  - NPDES Municipal Storm water Discharge Permit issued to the City of Cupertino by the California Regional Water Quality Control Board, San Francisco Bay Region;
  - California BMP Handbooks;
  - Bay Area Stormwater Management Agencies Association (BASMAA) "Start at the Source" Design Guidance Manual;
  - BASMAA "Using Site Design Standards to Meet Development Standards for Storm water Quality – A Companion Document to Start at the Source;" and
  - City of Cupertino Planning Procedures Performance Standard.

- To maintain effectiveness, all storm water treatment facilities shall include long-term maintenance programs.

- The applicant, project arborist, and landscape architect, shall work with the City and the SCVURPPP to select pest resistant plants to minimize pesticide use, as appropriate, and the plant selection will be reflected in the landscape plans.

With the implementation of the above standard permit conditions for appropriate site design, pollutant source control, and stormwater treatment measures, future development under the proposed project (and General Plan Buildout with Maximum Residential Alternative and Retail and Residential Alternative) would not significantly impact water quality during and post construction. **(Less than Significant Impact)**

General Plan Buildout with Maximum Residential Alternative

The General Plan Buildout with Maximum Residential Alternative would result in the same/similar impacts to water quality as described above for the proposed project as it would have similar excavation and grading impacts and similar decrease in impervious surfaces as the proposed project. Future development under the General Plan Buildout with Maximum Residential Alternative would implement the above standard permit conditions to reduce water quality impacts to a less than significant level. **(Less than Significant Impact)**

Retail and Residential Alternative

Unlike the proposed project and the General Plan Buildout with Maximum Residential Alternative, the Retail and Residential Alternative would not include a 30-acre green roof. The Retail and Residential Alternative would result in at least 2.8 acres of pervious surfaces (refer to Section 2.4.4). Compared to existing conditions, this alternative would result in an increase in impervious surface area on-site from approximately 53.3 to 55.2 acres. This alternative would result in similar excavation and grading impacts as the proposed project. Future development under the Retail and Residential Alternative would implement the same standard permit conditions identified above for the project to reduce water quality impacts to a less than significant level. **(Less than Significant Impact)**

Occupied/Re-Tenanted Mall Alternative

The Occupied/Re-Tenanted Mall Alternative would not result in the construction of new buildings. Exterior and interior building modifications would be subject to applicable regulations, including those identified in Section 3.10.1.1, to reduce water quality impacts. It is assumed the existing stormwater quality controls on-site met storm water quality standards and requirements at the time they were installed.

A discussion of this alternative is provided in the EIR for informational purposes only. This alternative is a permitted land use, and can be implemented without further discretionary approvals from the City or environmental review under CEQA. **(Less than Significant Impact: Not a CEQA Impact)**

Impact HYD-2:	The project (and project alternatives) would not substantially deplete groundwater supplies or interfere substantially with groundwater recharge. (Less than Significant Impact)

Project and All Project Alternatives

The implementation of the project (and project alternatives) would not require pumping of groundwater on-site. Development of the proposed below grade parking would require excavation of 20 to 30 feet below ground. Given the depth to groundwater of 68 feet or greater below ground surface, it is not anticipated that groundwater would be encountered during project construction. In addition, because the project site is already developed, redevelopment of the site (or reoccupancy of the site) would not substantially interfere with groundwater recharge.

Potable water to the site is supplied by the Los Altos Suburban (LAS) District of California Water Service Company (Cal Water). The water supply for the LAS District of Cal Water is from Cal Water wells (approximately 32 percent) and treated water from the SCVWD (approximately 68 percent). A discussion of the project's water demand and projected supply by Cal Water is discussed in Section 3.18.

Based on the above discussion, the project (and project alternatives) would not substantially deplete groundwater supplies or interfere substantially with groundwater recharge. **(Less than Significant Impact)**

The Occupied/Re-Tenanted Mall Alternative is provided in the EIR for informational purposes only. This alternative is a permitted land use, and can be implemented without further discretionary approvals from the City or environmental review under CEQA. **(Less than Significant Impact: Not a CEQA Impact)**

Impact HYD-3:	The project (and project alternatives) would not substantially alter the existing drainage pattern of the site or area which would result in substantial erosion, siltation, or flooding; violate water quality standards or waste discharge requirements; or degrade water quality. (Less than Significant Impact)

Project

There are no waterways present on the project site. Therefore, development of the project (and General Plan Buildout with Maximum Residential Alternative and Retail and Residential Alternative) would not alter the course of a stream or river. As discussed under Impact HYD-1, redevelopment of the site under the project (or General Plan Buildout with Maximum Residential Alternative), which include includes a 30-acre green roof, would result in a decrease in impervious surfaces on-site. The decrease in impervious surfaces on-site would result in a corresponding decrease in surface runoff from the site. It is concluded, therefore, that the existing storm drain system would continue to have capacity to serve the runoff from the site under the proposed project (and General Plan Buildout with Maximum Residential Alternative) and not result in off-site flooding.

Conformance with the statewide Construction General Permit, MRP (including Provisions C.3), and City requirements for controlling pollutants would reduce water quality impacts to less than significant levels (refer to Section 3.10.1.1 for a description of the requirements and refer to the discussion under Impact HYD-1).

Based on the above discussion, the project (and General Plan Buildout with Maximum Residential Alternative) would not result in significant drainage, erosion, siltation, or polluted runoff impacts. **(Less than Significant Impact)**

General Plan Buildout with Maximum Residential Alternative

The General Plan Buildout with Maximum Residential Alternative would result in the same/similar drainage, surface runoff, erosion, and siltation impacts as described above for the proposed project. **(Less than Significant Impact)**

Retail and Residential Alternative

Unlike the proposed project and the General Plan Buildout with Maximum Residential Alternative, the Retail and Residential Alternative would not include a 30-acre green roof. As discussed under Impact HYD-1, the Retail and Residential Alternative would result in a three percent (or 1.9-acre) increase in impervious surfaces on-site compared to existing conditions. This increase in impervious surfaces would result in a corresponding increase in surface runoff from the site. If there is not sufficient capacity in the existing storm drain system to accommodate stormwater runoff from the site, off-site flooding could occur.

The Retail and Residential Alternative would result in the similar drainage, erosion, and siltation impacts as described above for the proposed project. Conformance with the statewide Construction General Permit, MRP (including Provisions C.3), and City requirements for controlling pollutants would reduce water quality impacts to less than significant levels (refer to Section 3.10.1.1 for a description of the requirements and refer to the discussion under Impact HYD-1).

Standard Permit Condition: As a standard permit condition, future development under the Retail and Residential Alternative shall complete additional analysis to determine if the existing storm drain system has sufficient capacity to accommodate project runoff flows. Future development shall be responsible for completing improvements (if needed) to the storm drain system to ensure there is sufficient storm drain system capacity to serve the proposed development and not result in off-site flooding, or the development shall provide adequate facilities on-site to offset peak flows from the development, thereby removing any capacity issues. It is anticipated that improvements to the storm drain system (if needed) would occur within the existing right-of-way and would not result in significant impacts, and any facilities to offset peak flows would occur on-site and would not result in significant impacts.

Future development under the Retail and Residential Alternative, with the implementation of the above standard permit condition, would not result in substantial erosion, siltation, or flooding or significant water quality impacts. **(Less than Significant Impact)**

Occupied/Re-Tenanted Mall Alternative

The Occupied/Re-Tenanted Mall Alternative would not substantially alter the existing drainage pattern of the site or area. No new buildings would be constructed. As discussed under Impact HYD-1, exterior and interior building modifications would be subject to applicable regulations, including those identified in Section 3.10.1.1, to reduce water quality impacts (including erosion and siltation).

A discussion of this alternative is provided in the EIR for informational purposes only. This alternative is a permitted land use, and can be implemented without further discretionary approvals from the City or environmental review under CEQA. **(Less than Significant Impact: Not a CEQA Impact)**

Impact HYD-4:	**The project (and project alternatives) would not place housing within a 100-year flood hazard area; impede or redirect flood flows; expose people or structures to significant risk involving flooding; or be inundated by seiche, tsunami, or mudflow. (Less than Significant Impact)**

Project and All Project Alternatives

As discussed previously, the project site is not located within a 100-year flood hazard area, and would not place housing within a 100-year flood hazard area. Development on the site would not expose people or structures to flooding risks. The project site is inland from San Francisco Bay, and is not subject to sea-level rise, seiche, tsunami, or other coastal hazards. The project site is not located in a dam inundation area. The proposed project (and all project alternatives), therefore, would not result in flooding impacts. **(Less than Significant Impact)**

The Occupied/Re-Tenanted Mall Alternative is provided in the EIR for informational purposes only. This alternative is a permitted land use, and can be implemented without further discretionary approvals from the City or environmental review under CEQA. **(Less than Significant Impact: Not a CEQA Impact)**

Impact HYD-5:	The project (and project alternatives) would not have a cumulatively considerable contribution to a significant cumulative hydrology and water quality impact. (Less than Significant Cumulative Impact)

Project and All Project Alternatives

The geographic area for cumulative hydrology and water quality impacts includes the project site and its surrounding area. Buildout of the cumulative projects would involve redevelopment of existing developed sites that contain substantial impervious surfaces, and these projects would be required to conform to applicable General Plan goals, policies, and strategies regarding stormwater runoff, infrastructure, and flooding. Cumulative projects would be required to comply with applicable requirements in the statewide Construction General Permit, City of Cupertino Municipal Code, the City's stormwater management guidelines, and NPDES permits standards to avoid hydrology and water quality impacts or reduce them to a less than significant level.

The project site is not subject to flood or inundation hazards. Other cumulative projects built in the City may be located in flood zones, but all of these projects would be subject to FEMA regulations. The project site would not be subject to sea-level rise due to its inland location (as discussed in Section 3.10.1.2 and under Impact HYD-4), therefore, the project (and project alternatives) would not contribute to a significant cumulative impact from sea-level rise. For these reasons, the project would not have a cumulatively considerable contribution to a significant cumulative flooding or inundation impact.

Based on the above discussion, the cumulative projects (including the proposed project and project alternatives) would not result in significant cumulative hydrology and water quality impacts. **(Less than Significant Cumulative Impact)**

The Occupied/Re-Tenanted Mall Alternative is provided in the EIR for informational purposes only. This alternative is a permitted land use, and can be implemented without further discretionary approvals from the City or environmental review under CEQA. **(Less than Significant Cumulative Impact: Not a CEQA Impact)**

3.11 LAND USE AND PLANNING

3.11.1 Environmental Setting

3.11.1.1 *Regulatory Framework*

Local

Cupertino General Plan: Community Vision 2015-2040

Community Vision 2040 is the City's General Plan, which describes the community's overall philosophy regarding the character and accessibility of existing and new neighborhoods and mixed-use corridors, and contains goals, policies, and strategies for implementing the community's vision.[77]

As described in Section 2.2, the City of Cupertino is organized into 21 Planning Areas, consisting of nine Special Areas and 12 Neighborhoods. The project site is identified in the General Plan as the Vallco Shopping District Special Area. The Vallco Special Area is designated Commercial/Office/Residential in the City's General Plan Land Use Map.[78] Both residential and non-residential development are subject to the numeric limits and other policies in the General Plan. The Vallco Special Area has a maximum density of 35 du/ac and is also identified as a Priority Housing Element Site (Site A2) with a realistic capacity of 389 units at a minimum density of 20 du/ac in the General Plan Housing Element.

As shown in General Plan Table LU-1, the General Plan development allocation for the Vallco Special Area are as follows: up to a maximum of 1,207,774 square feet of commercial uses (minimum 600,000 square feet of retail uses with a maximum of 30 percent of entertainment uses, pursuant to General Plan Strategy LU-19.1.4); up to 2.0 million square feet of office uses; up to 339 hotel rooms; and up to 389 residential dwelling units.[79] Pursuant to General Plan Strategy LU-1.2.1, development allocations may be transferred among Planning Areas, provided no significant environmental impacts are identified beyond those already studied in the General Plan EIR.[80]

The proposed project (and project alternatives) are subject to General Plan policies including, but not limited to, the policies and strategies listed below pertaining to land use.

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[77] City of Cupertino. *Cupertino General Plan Community Vision 2015-2040.* October 15, 2015. Page 1-3.

[78] The Commercial/Office/Residential land use designation applies to mixed-use areas that are predominantly commercial and office uses. Supporting residential uses may be allowed to offset job growth in order to better balance the citywide jobs to housing ratio, and when they are compatible with the primarily non-residential character of the area (source: City of Cupertino. *Cupertino General Plan Community Vision 2015-2040*. Appendix A: Land Use Definitions, Page A-7. October 15, 2015.).

[79] City of Cupertino. *Cupertino General Plan Community Vision 2015-2040.* Table LU-1: Citywide Development Allocation Between 2014-2040. October 15, 2015. Page LU-13.

[80] The General Plan EIR analyzed the development of up to 600,000 square feet of commercial uses, 2.0 million square feet of office uses, 339 hotel rooms, and 800 residential dwelling units within the Vallco Special Area. Because the Vallco Shopping Mall existed on the site and it was unclear when a project would be developed on the site, the General Plan indicated 1.2 million square feet of commercial uses as the square footage of the existing mall. In the General Plan EIR, the buildout of this Special Area only evaluated the site with a maximum of 600,000 square feet of commercial uses. Residential allocation is available in other Planning Areas that may be transferred to the Vallco Shopping District without the need to amend the General Plan.

Policy/Strategy	Description
Policy LU-1.1	Focus higher land use intensities and densities within a half-mile of public transit service, and along major corridors.
Policy LU-1.4	Encourage land uses that support the activity and character of mixed-use districts and economic goals.
Policy LU-5.2	Where housing is allowed along major corridors or neighborhood commercial areas, development should promote mixed-use villages with active ground-floor uses and public space. The development should help create an inviting pedestrian environment and activity center that can serve adjoining neighborhoods and businesses.
Policy LU-8.2	Encourage land uses that generate City revenue.
Policy LU-8.3	Provide incentives for reinvestment in existing, older commercial areas.
Strategy LU-8.3.1	Consider mixed-use (office, commercial, residential) in certain commercial areas to encourage reinvestment and revitalization of sales-tax producing uses, when reviewing sites for regional housing requirements.
Strategy LU-8.3.3	Consider infrastructure and streetscape improvements in areas, such as the Crossroads or South Vallco area to encourage redevelopment as a pedestrian-oriented area that meets community design goals.
Strategy LU-8.3.4	Consider locations for high sales-tax producing retail uses (such as life-style and hybrid commodity-specialty centers) provided the development is compatible with the surrounding area in terms of building scale and traffic.
Policy LU-19.1	Create a Vallco Shopping District Specific Plan prior to any development on the site that lays out the land uses, design standards and guidelines, and infrastructure improvements required. The Specific Plan will be based on strategies LU-19.1.1 through -19.1.14 in the General Plan.
Strategy LU-19.1.2	Parcel Assembly. Parcel assembly and a plan for complete redevelopment of the site is required prior to adding residential and office uses. Parcelization is highly discouraged in order to preserve the site for redevelopment in the future.
Strategy LU-19.1.4	Land Use. The following uses are allowed on the site (see Figure LU-2 in the General Plan for residential densities and criteria): • Retail: High-performing retail, restaurant and entertainment uses. Maintain a minimum of 600,000 square feet of retail that provide a good source of sales tax for the City. Entertainment uses may be included but shall consist of no more than 30 percent of retail uses. • Hotel: Encourage a business class hotel with conference center and active uses including main entrances, lobbies, retail and restaurants on the ground floor. • Residential: Allow residential on upper floors with retail and active uses on the ground floor. Encourage a mix of units for young professionals, couples and/or active seniors who like to live in an active "town center" environment. • Office: Encourage high-quality office space arranged in a pedestrian-oriented street grid with active uses on the ground floor, publicly-accessible streets and plazas/green space.
Strategy LU-19.1.5	"Town Center" Layout. Create streets and blocks laid out using "transect planning" (appropriate street and building types for each area), which includes a discernible center and edges, public space at center, high quality public realm, and land uses appropriate to the street and building typology.

Policy/Strategy	Description
Strategy LU-19.1.8	Open Space. Open space in the form of a central town square on the west and east sides of the district interspersed with plazas and "greens" that create community gathering spaces, locations for public art, and event space for community events.
Strategy LU-19.1.14	Neighborhood Buffers. Consider buffers such as setbacks, landscaping and/or building transitions to buffer abutting single family residential areas from visual and noise impacts.
Policy HE-1.3	Encourage mixed-use development near transportation facilities and employment centers.
Policy M-9.1	Strive to maximize the efficiency of existing infrastructure by locating appropriate land uses along roadways and retrofitting streets to be accessible for all modes of transportation.

Cupertino Municipal Code

The Vallco Special Area is zoned P(Regional Shopping) – Planned Development Regional Shopping north of Vallco Parkway, and P(CG) – Planned Development General Commercial south of Vallco Parkway (west of North Wolfe Road). The Planned Development Zoning District is specifically intended to encourage variety in the development pattern of the community. The Planned Development Regional Shopping zoning designation allows all permitted uses in the Regional Shopping District, which include up to 1,645,700 square feet of commercial uses, a 2,500 seat theater complex, and buildings of up to three stories and 85 feet tall.[81]

The Planned Development General Commercial designation allows retail businesses, full service restaurants (without separate bar facilities), specialty food stores, eating establishments, offices, laundry facilities, private clubs, lodges, personal service establishments.

3.11.1.2 *Existing Conditions*

The project site is currently developed with commercial buildings. Most of the site (approximately 51 acres) is developed as a shopping mall (including satellite restaurant buildings). On the date of publication of the NOP, approximately 24 percent (or 284,059 square feet) of the leasable space at the mall was occupied. Mall tenants included restaurants, a bowling alley, an ice center, a movie theater, an ice cream parlor, and a clothing store. A new hotel is currently being constructed on approximately 2.1 acres at the northeastern end of the project site.

The project site is located in a mixed-use area that includes residential and commercial uses to the west; a freeway (I-280), hotel, residential, and office uses to the north; commercial, office, and residential mixed uses to the east; and commercial uses to the south (see Figure 2.1-3).

[81] Council Actions 31-U-86 and 9-U-90. The maximum building height identified was in conformance with the 1993 General Plan and were identified in the Development Agreement (Ordinance 1540 File no. 1-DA-90) at that time.

3.11.2 Land Use and Planning Impacts

3.11.2.1 *Thresholds of Significance*

For the purposes of this EIR, a land use and planning impact is considered significant if the project would:

- Physically divide an established community;
- Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect; or
- Conflict with any applicable habitat conservation plan or natural community conservation plan.

Impact LU-1: The project (and project alternatives) would not physically divide an established community. (Less than Significant Impact)

Project and All Project Alternatives

A physical division of an established community typically refers to the construction of a physical feature (such as a wall, roadway, or railroad tracks) or the removal of a means of access (such as a local roadway or bridge) that would impair mobility within an existing community or between communities. The project or project alternatives would result in redevelopment and/or reoccupancy of the project site, which is currently developed, underutilized, and surrounded by a mix of existing residential, commercial, and office uses (refer to Figure 2.1-3).

The project site is physically separated from adjacent properties and land uses by roadways and a masonry wall to the west of the project site. No changes to the existing, surrounding roadways or masonry wall are proposed by the project or project alternatives. The project and project alternatives do not propose new major roadways or other physical features through the existing residential neighborhood to the west or the mixed use neighborhoods to the east and south. In addition, implementation of the proposed project (or project alternatives) would not require the new roadways or features that would divide an established community.

For these reasons, the proposed development and/or reoccupancy of the site would result in increased residential, commercial, office, and/or civic space without dividing existing communities. **(Less than Significant Impact)**

The Occupied/Re-Tenanted Mall Alternative is provided in the EIR for informational purposes only. This alternative is a permitted land use, and can be implemented without further discretionary approvals from the City or environmental review under CEQA. **(Less than Significant Impact: Not a CEQA Impact)**

Impact LU-2:	**The project (and project alternatives) would not conflict with applicable land use plan, policy, or regulation of an agency with jurisdiction over the project adopted for the purpose of avoiding or mitigating an environmental effect. (Less than Significant Impact)**

Project

The project would be consistent with the existing General Plan land use designation on the site. The consistency of the project (and project alternatives) with applicable General Plan policies and strategies is shown in Table 3.11-1. The project, General Plan Buildout with Maximum Residential Alternative, and Retail and Residential Alternative are consistent with applicable General Plan policies and strategies (refer to Table 3.11-1) or would include General Plan amendments as appropriate to insure consistency. **(Less than Significant Impact)**

General Plan Buildout with Maximum Residential Alternative

The General Plan Buildout with Maximum Residential Alternative would result in similar consistency with applicable General Plan policies and strategies, as discussed above for the proposed project and shown in Table 3.11-1. Refer to Impact LU-2. **(Less than Significant Impact)**

Retail and Residential Alternative

The Retail and Residential Alternative would result in similar consistency with applicable General Plan policies and strategies, as discussed above for the proposed project and shown in Table 3.11-1. Refer to Impact LU-2. **(Less than Significant Impact)**

Occupied/Re-Tenanted Mall Alternative

Most of the General Plan policies and strategies are applicable to new development or redevelopment. For this reason, most of the General Plan policies and strategies in Table 3.11-1 are not applicable to the Occupied/Re-Tenanted Mall Alternative, which is assumed to include only external and internal modifications to the existing mall buildings.

A discussion of this alternative is provided in the EIR for informational purposes only. This alternative is a permitted land use, and can be implemented without further discretionary approvals from the City or environmental review under CEQA. **(Less than Significant Impact: Not a CEQA Impact)**

Table 3.11-1: Summary of Project and Project Alternative Consistency with Applicable General Plan Policies and Strategies				
General Plan Policy/Strategy	**Project**	**General Plan Buildout with Maximum Residential Alternative**	**Retail and Residential Alternative**	**Occupied/Re-Tenanted Mall Alternative**
Policy ES-2.1: Encourage the maximum feasible conservation and efficient use of electrical power and natural gas resources for new and existing residences, businesses, industrial and public uses.	Consistent: As discussed in Section 2.4.4.6, electricity would be provided to the project site by SVCE or another provider that sources electricity from 100 percent carbon free sources. Future development would be constructed in accordance with current Title 24 and CALGreen energy efficiency requirements.	Same as project.	Same as project.	Consistent: Electricity to the site is currently provided by SVCE and is assumed to continue to be provided by SVCE under this alternative.
Policy ES-4.1: Minimize the air quality impacts of new development projects and air quality impacts that affect new development.	Consistent: As discussed in Section 3.3, future development shall implement mitigation measures and conditions of approval to minimize air quality impacts to and from the project.	Same as project.	Same as project.	N/A
Strategy ES-4.1.1: Continue to review projects for potential generation of toxic air contaminants at the time of approval and confer with BAAQMD on controls needed if impacts are uncertain.	Consistent: As discussed in Section 3.3, new stationary sources on-site would be required to obtain permits to operate in compliance with BAAQMD rules. The permit process ensures these sources would be equipped with the required emission controls and not result in significant TAC emissions.	Same as project.	Same as project.	Same as project.

Table 3.11-1: Summary of Project and Project Alternative Consistency with Applicable General Plan Policies and Strategies				
General Plan Policy/Strategy	**Project**	**General Plan Buildout with Maximum Residential Alternative**	**Retail and Residential Alternative**	**Occupied/Re-Tenanted Mall Alternative**
Strategy ES-4.1.2: Continue to require water application to non-polluting dust control measures during demolition and the duration of the construction period.	Consistent: As discussed in Section 3.3, future development shall implement BAAQMD standard dust control measures during construction activities, which include watering all active construction areas.	Same as project.	Same as project.	Same as project.
Policy ES-5.1: Manage the public and private development to ensure the protection and enhancement of its urban ecosystem.	Consistent: As discussed in Section 3.4, future development shall comply with the City's Tree Protection Ordinance.	Same as project.	Same as project.	Same as project.
Strategy ES-5.3.1: Continue to emphasize the planting of native, drought tolerant, pest resistant, non-invasive, climate appropriate plants and ground covers, particularly for erosion control and to prevent disturbance of the natural terrain.	Consistent: The Specific Plan shall comply with this strategy.	Same as project.	Same as project.	Consistent: If new landscaping would occur with this alternative, the City would recommend the property owner plant consistent with this strategy.
Policy ES-7.1: In public and private development, use low impact development (LID) principles to mimic natural hydrology, minimize grading and protect or restore natural drainage systems.	Consistent: As discussed in Section 3.10, future development shall comply with Provision C.3 which requires LID practices.	Same as project.	Same as project.	N/A

Table 3.11-1: Summary of Project and Project Alternative Consistency with Applicable General Plan Policies and Strategies				
General Plan Policy/Strategy	**Project**	**General Plan Buildout with Maximum Residential Alternative**	**Retail and Residential Alternative**	**Occupied/Re-Tenanted Mall Alternative**
Strategy ES-7.1.1: Continue to require topographical information; identification of creeks, streams and drainage areas; and grading plans for both public and private development proposals to ensure protection and efficient use of water resources.	Consistent: As discussed in Section 3.10, future development shall comply with the Municipal Code that requires stormwater pollution prevention and watershed protection and erosion and sediment control.	Same as project.	Same as project.	N/A
Policy ES-7.2: Minimize stormwater runoff and erosion impacts resulting from development and use LID designs to treat stormwater or recharge groundwater.	Consistent: As discussed in Section 3.10, future development shall comply with existing regulations to minimize stormwater runoff and erosion and incorporate LID practices.	Same as project.	Same as project.	N/A
Strategy ES-7.2.3: Minimize impervious surface areas, and maximize on-site filtration and the use of on-site retention facilities.	Consistent: As discussed in Section 3.10, future development shall comply with existing regulations for stormwater control and quality, which could include on-site filtration and retention facilities.	Same as project.	Same as project.	N/A
Policy ES-7.3: Ensure that surface and groundwater quality impacts are reduced through development review and volunteer efforts.	Consistent: Water quality impacts of future development area discussed in Section 3.10.	Same as project.	Same as project.	N/A

Table 3.11-1: Summary of Project and Project Alternative Consistency with Applicable General Plan Policies and Strategies				
General Plan Policy/Strategy	**Project**	**General Plan Buildout with Maximum Residential Alternative**	**Retail and Residential Alternative**	**Occupied/Re-Tenanted Mall Alternative**
Strategy ES-7.3.1: Require LID designs such as vegetated stormwater treatment systems and green infrastructure to mitigate pollutant loads and flows.	Consistent: As discussed in Section 3.10, future development shall comply with existing regulations for stormwater control and quality, which would include LID practices.	Same as project.	Same as project.	N/A
Strategy ES-7.4.3: Review development plans to ensure that projects are examined in the context of impacts on the entire watershed, in order to comply with the City's non-point source Municipal Regional Permit.	Consistent: As discussed in Section 3.10, future development shall comply with existing regulations (including the MRP) for stormwater control.	Same as project.	Same as project.	N/A
Policy HE-1.3: Encourage mixed-use development near transportation facilities and employment centers.	Consistent: A mix of residential, commercial, office, and civic uses are proposed.	Same as project.	Consistent: A mix of residential and commercial uses are proposed.	N/A
Policy HE-4.1: Encourage energy and water conservation in all existing and new residential development.	Consistent: Future development shall be constructed in accordance with Title 24 and CALGreen, which facilitate energy and water conservation.	Same as project.	Same as project.	Same as project.

Table 3.11-1: Summary of Project and Project Alternative Consistency with Applicable General Plan Policies and Strategies				
General Plan Policy/Strategy	**Project**	**General Plan Buildout with Maximum Residential Alternative**	**Retail and Residential Alternative**	**Occupied/Re-Tenanted Mall Alternative**
Strategy HE-4.1.1: The City will continue to enforce Title 24 requirements for energy conservation and will evaluate utilizing some of the other suggestions as identified in the Environmental Resources/ Sustainability element.	Consistent: Future development shall comply with Title 24.	Same as project.	Same as project.	Same as project.
Policy HS-3.2: Involve the Fire Department in the early design stage of all projects requiring public review to assure Fire Department input and modifications as needed.	Consistent: As discussed in Section 3.15, the SCCFD shall review future development plans.	Same as project.	Same as project.	N/A
Strategy HS-5.1.3: Continue to implement and update geologic review procedures for Geologic Reports required by the Municipal Code through the development review process.	Consistent: As discussed in Section 3.7, the CBC requires a site-specific geotechnical investigation report be completed for future development.	Same as project.	Same as project.	N/A

Table 3.11-1: Summary of Project and Project Alternative Consistency with Applicable General Plan Policies and Strategies				
General Plan Policy/Strategy	**Project**	**General Plan Buildout with Maximum Residential Alternative**	**Retail and Residential Alternative**	**Occupied/Re-Tenanted Mall Alternative**
Policy HS-6.1: Require the proper storage and disposal of hazardous materials to prevent leakage, potential explosions, fire or the release of harmful fumes. Maintain information channels to the residential and business communities about the illegality and danger of dumping hazardous material and waste in the storm drain system or in creeks.	Consistent: Future development shall comply with existing regulations regarding the storage and disposal of hazardous materials. Future development shall implement the mitigation measures in Section 3.9 to minimize and avoid significant hazardous materials impacts.	Same as project.	Same as project.	Consistent: Future uses are subject to existing regulations for the property storage and disposal of hazardous materials.
Policy HS-6.2: Assess future residents' exposure to hazardous materials when new residential development or sensitive populations are proposed in existing industrial and manufacturing areas. Do not allow residential development or sensitive populations if such hazardous conditions cannot be mitigated to an acceptable level of risk.	Consistent: As discussed in Section 3.9, future development would not result in significant hazardous materials impacts with the implementation of the identified mitigation measures.	Same as project.	Same as project.	N/A
Policy HS-8.1: Use the General Plan Land Use Compatibility for Community Noise Environments chart, the Future Noise Contour Map and the City Municipal Code to evaluate land use decisions.	Consistent: The land use compatibility of the proposed uses with ambient noise levels is evaluated in Section 3.13.	Same as project.	Same as project.	N/A

Table 3.11-1: Summary of Project and Project Alternative Consistency with Applicable General Plan Policies and Strategies				
General Plan Policy/Strategy	**Project**	**General Plan Buildout with Maximum Residential Alternative**	**Retail and Residential Alternative**	**Occupied/Re-Tenanted Mall Alternative**
Policy HS-8.2: Minimize noise impacts through appropriate building and site design.	Consistent: Future development shall implement the identified permit conditions and mitigation measures in Section 3.13 to minimize noise impacts.	Same as project.	Same as project.	N/A
Strategy HS-8.2.1: Locate delivery areas for new commercial and industrial developments away from existing or planned homes.	Consistent: Future development shall implement mitigation in Section 3.13 to reduce truck loading and unloading noise.	Same as project.	Same as project.	N/A
Strategy HS-8.2.3: Exercise discretion in requiring sound walls to be sure that all other measures of noise control have been explored and that the sound wall blends with the neighborhood. Sound walls should be designed and landscaped to fit into the environment.	Consistent: As discussed in Section 3.13, other noise attenuation methods shall be considered during final site design including shielding noise-sensitive spaces with buildings and locating noise-sensitive uses away from major noise sources.	Same as project.	Same as project.	N/A

Table 3.11-1: Summary of Project and Project Alternative Consistency with Applicable General Plan Policies and Strategies				
General Plan Policy/Strategy	**Project**	**General Plan Buildout with Maximum Residential Alternative**	**Retail and Residential Alternative**	**Occupied/Re-Tenanted Mall Alternative**
Policy HS-8.3: Regulate construction and maintenance activities. Establish and enforce reasonable allowable periods of the day, during weekdays, weekends and holidays for construction activities. Require construction contractors to use the best available technology to minimize excessive noise and vibration from construction equipment such as pile drivers, jack hammers, and vibratory rollers.	Consistent: Future construction activities shall be conducted in accordance with provisions in the Municipal Code which limit construction days and hours. Future development shall implement the mitigation measures in Section 3.13 to reduce construction noise and vibration.	Same as project.	Same as project.	Consistent: Minor modifications to the interior and/or exterior of the existing buildings would be conducted in accordance with provisions in the Municipal Code which limit construction days and hours. Construction activities are required to implement BAAQMD standard control measures.
Policy HS-8.6: Evaluate solutions to discourage through traffic in neighborhoods through enhanced paving and modified street design.	Consistent: Traffic and parking intrusion are evaluated in Section 3.17. Future development shall implement the identified condition of approval of funding neighborhood traffic and parking monitoring studies and provide fees to implement traffic calming improvements and a residential parking permit program, if needed.	Same as project.	Same as project.	N/A

Table 3.11-1: Summary of Project and Project Alternative Consistency with Applicable General Plan Policies and Strategies				
General Plan Policy/Strategy	**Project**	**General Plan Buildout with Maximum Residential Alternative**	**Retail and Residential Alternative**	**Occupied/Re-Tenanted Mall Alternative**
Policy LU-1.1: Focus higher land use intensities and densities within a half-mile of public transit service, and along major corridors.	Consistent: Future development is of a higher intensity and density compared to existing conditions.	Same as project.	Same as project.	N/A
Policy LU-1.4: Encourage land uses that support the activity and character of mixed-use districts and economic goals.	Consistent: Future development includes a mix of uses, including sales tax revenue generating commercial uses.	Same as project.	Same as project	N/A
Policy LU-2.2: Require developments to incorporate pedestrian-scaled elements along the street and within the development such as parks, plazas, active uses along the street, active uses, entries, outdoor dining, and public art.	Consistent: The Specific Plan shall comply with this strategy.	Same as project.	Same as project.	N/A
Policy LU-3.1: Ensure that project sites are planned appropriately to create a network of connected internal streets that improve pedestrian and bicycle access, provide public open space and building layouts that support city goals related to streetscape character for various Planning Areas and corridors.	Consistent: The Specific Plan shall comply with this strategy.	Same as project.	Same as project.	N/A

Table 3.11-1: Summary of Project and Project Alternative Consistency with Applicable General Plan Policies and Strategies				
General Plan Policy/Strategy	**Project**	**General Plan Buildout with Maximum Residential Alternative**	**Retail and Residential Alternative**	**Occupied/Re-Tenanted Mall Alternative**
Policy LU-3.3: Ensure that building layouts and design are compatible with the surrounding environment and enhance the streetscape and pedestrian activity.	Consistent: The Specific Plan shall comply with this strategy.	Same as project.	Same as project.	N/A
Strategy LU-3.3.1: Emphasize attractive building and site design by paying careful attention to building scale, mass, placement, architecture, materials, landscaping, screening of equipment, loading areas, signage and other design considerations.	Consistent: The Specific Plan shall comply with this strategy. In addition, future development shall be subject to the City's Architectural and Site Review process.	Same as project.	Same as project.	Consistent: Interior and exterior modifications to the existing buildings would be subject to the City's Architectural and Site Review process, which would ensure compliance with this strategy.
Strategy LU-3.3.2: Ensure that the scale and interrelationships of new and old development complement each other. Buildings should be grouped to create a feeling of spatial unity.	Consistent: The Specific Plan shall comply with this strategy. As discussed in Section 2.4.4.6, the Specific Plan shall include a design policy that requires future development be visually compatibility. In addition, future development shall be subject to the City's Architectural and Site Review process.	Same as project.	Same as project.	N/A

Table 3.11-1: Summary of Project and Project Alternative Consistency with Applicable General Plan Policies and Strategies				
General Plan Policy/Strategy	**Project**	**General Plan Buildout with Maximum Residential Alternative**	**Retail and Residential Alternative**	**Occupied/Re-Tenanted Mall Alternative**
Strategy LU-3.3.3: Buildings should be designed to avoid abrupt transitions with existing development, whether they are adjacent or across the street. Consider reduced heights, buffers and/or landscaping to transition to residential and/or low-intensity uses in order to reduce visual and privacy impacts.	Consistent: The Specific Plan shall comply with this strategy. As discussed in Section 2.4.4.6, the Specific Plan shall include a design policy that requires future development be visually compatibility. In addition, future development shall be subject to the City's Architectural and Site Review process.	Same as project.	Same as project.	N/A
Strategy LU-3.3.5: Encourage building location and entries closer to the street while meeting appropriate landscaping and setback requirements.	Consistent: The Specific Plan shall comply with this strategy.	Same as project.	Same as project.	N/A
Strategy LU-3.3.6: Promote high-quality architecture, appropriate building articulation and use of special materials and architectural detailing to enhance visual interest.	Consistent: The Specific Plan shall require buildings of high-quality architecture, per Strategy LU-19.1.9 in Section 2.5.	Same as project.	Same as project.	Consistent: Interior and exterior modifications to the existing buildings would be subject to the City's Architectural and Site Review process, which would ensure compliance with this strategy.

Table 3.11-1: Summary of Project and Project Alternative Consistency with Applicable General Plan Policies and Strategies				
General Plan Policy/Strategy	**Project**	**General Plan Buildout with Maximum Residential Alternative**	**Retail and Residential Alternative**	**Occupied/Re-Tenanted Mall Alternative**
Strategy LU-3.3.7: Ensure development enhances pedestrian activity by providing active uses within mixed-use areas and appropriate design features within residential areas along a majority of the building frontage facing the street. Mixed-use development should include retail, restaurant, outdoor dining, main entries, etc. Residential development should include main entrances, lobbies, front stoops and porches, open space and other similar features.	Consistent: The Specific Plan shall comply with this strategy.	Same as project.	Same as project.	N/A
Strategy LU-3.3.10: In multi-family projects where residential uses may front on streets, require pedestrian-scaled elements such as entries, stoops and porches along the street.	Consistent: The Specific Plan shall comply with this strategy.	Same as project.	Same as project.	N/A

Table 3.11-1: Summary of Project and Project Alternative Consistency with Applicable General Plan Policies and Strategies				
General Plan Policy/Strategy	**Project**	**General Plan Buildout with Maximum Residential Alternative**	**Retail and Residential Alternative**	**Occupied/Re-Tenanted Mall Alternative**
Strategy LU-3.3.11: Allow construction of multiple-story buildings if it is found that nearby residential districts will not suffer from privacy intrusion or be overwhelmed by the scale of a building or group of buildings.	Consistent: The Specific Plan shall comply with this strategy. In addition, as discussed in Section 2.4.4.6, the Specific Plan shall include a design policy that requires future development be visually compatibility.	Same as project.	Same as project.	N/A
Policy LU-3.4: In surface lots, parking arrangements should be based on the successful operation of buildings; however, parking to the side or rear of buildings is desirable. No visible garages shall be permitted along the street frontage. Above grade structures shall not be located along street frontages and shall be lined with active uses on the ground floor on internal street frontages. Subsurface/deck parking is allowed provided it is adequately screened from the street and/or adjacent residential development.	Consistent: The Specific Plan shall comply with this strategy.	Same as project.	Same as project.	N/A

Table 3.11-1: Summary of Project and Project Alternative Consistency with Applicable General Plan Policies and Strategies				
General Plan Policy/Strategy	**Project**	**General Plan Buildout with Maximum Residential Alternative**	**Retail and Residential Alternative**	**Occupied/Re-Tenanted Mall Alternative**
Policy LU-4.1: Ensure that the design of streets, sidewalks and pedestrian and bicycle amenities are consistent with the vision for each Planning Area and Complete Streets policies.	Consistent: The Specific Plan shall comply with this strategy.	Same as project.	Same as project.	N/A
Policy LU-4.2: Ensure that tree planting and landscaping along streets visually enhances the streetscape and is consistent for the vision for each Planning Area (Special Areas and Neighborhoods) 1. Maximize street tree planting along arterial street frontages between buildings and/or parking lots. 2. Provide enhanced landscaping at the corners of all arterial intersections. 3. Enhance major arterials and connectors with landscaped medians to enhance their visual character and serve as traffic calming devices. 4. Develop uniform tree planting plans for arterials, connectors and neighborhood streets consistent	Consistent: The Specific Plan shall comply with this strategy.	Same as project.	Same as project.	N/A

Table 3.11-1: Summary of Project and Project Alternative Consistency with Applicable General Plan Policies and Strategies				
General Plan Policy/Strategy	**Project**	**General Plan Buildout with Maximum Residential Alternative**	**Retail and Residential Alternative**	**Occupied/Re-Tenanted Mall Alternative**
with the vision for the Planning Area. 5. Landscape urban areas with formal planting arrangements. 6. Provide a transition to rural and semi-rural areas in the city, generally west of Highway 85, with informal planting.				
Policy LU-5.2: Where housing is allowed along major corridors or neighborhood commercial areas, development should promote mixed-use villages with active ground-floor uses and public space. The development should help create an inviting pedestrian environment and activity center that can serve adjoining neighborhoods and businesses.	Consistent: The Specific Plan shall comply with this strategy. Future development would include a mix of uses, including residential uses.	Same as project.	Same as project.	N/A
Policy LU-5.3: Look for opportunities to enhance publicly-accessible pedestrian and bicycle connections with new development or redevelopment.	Consistent: The Specific Plan shall comply with this strategy.	Same as project.	Same as project.	N/A

Table 3.11-1: Summary of Project and Project Alternative Consistency with Applicable General Plan Policies and Strategies				
General Plan Policy/Strategy	**Project**	**General Plan Buildout with Maximum Residential Alternative**	**Retail and Residential Alternative**	**Occupied/Re-Tenanted Mall Alternative**
Policy LU-6.2: Projects on Historic Sites shall meet the Secretary of Interior Standards for Treatment of Historic Properties.	Consistent: As discussed in Section 3.5, the Vallco Shopping District is designated as a City Community landmark and the Vallco freeway-oriented sign is identified as a Landmark Sign. The Specific Plan shall be consistent with Policy LU-6.3 and future development shall provide a plaque, reader board and/or other educational tools on-site to explain the historic significance of the mall (see Section 3.5 for additional detail).	Same as project.	Same as project.	N/A
Policy LU-6.3: Projects on Historic Sites, Commemorative Sites and Community Landmarks shall provide a plaque, reader board and/or other educational tools on the site to explain the historic significance of the resource. The plaque shall include the city seal, name of resource, date it was built, a written description, and photograph. The plaque shall be placed in a location where the public can view the information.	Consistent: The Specific Plan shall comply with this strategy.	Same as project.	Same as project.	N/A
Policy LU-8.2 Encourage land uses that generate City revenue.	Consistent: Future development includes residential, commercial, and office uses that would generate revenue (sales tax, property tax).	Same as project.	Consistent: Future development includes residential and	Consistent: Commercial uses would generate sales tax.

Table 3.11-1: Summary of Project and Project Alternative Consistency with Applicable General Plan Policies and Strategies				
General Plan Policy/Strategy	**Project**	**General Plan Buildout with Maximum Residential Alternative**	**Retail and Residential Alternative**	**Occupied/Re-Tenanted Mall Alternative**
			commercial uses that would generate revenue (sales tax, property tax).	
Strategy LU-8.3.1: Consider mixed-use (office, commercial, residential) in certain commercial areas to encourage reinvestment and revitalization of sales-tax producing uses, when reviewing sites for regional housing requirements.	Consistent: Future development includes a mix of residential, commercial, and office use.	Same as project.	Consistent: Future development includes a mix of residential and commercial.	N/A
Strategy LU-8.3.3: Consider infrastructure and streetscape improvements in areas, such as the Crossroads or South Vallco area to encourage redevelopment as a pedestrian-oriented area that meets community design goals.	Consistent: The Specific Plan shall comply with this strategy.	Same as project.	Same as project.	N/A
Strategy LU-8.3.4: Consider locations for high sales-tax producing retail uses (such as life-style and hybrid commodity-specialty centers) provided the development is compatible with the	Consistent: Future development would include commercial uses, which could include high sales-tax producing retail use. The aesthetic and traffic impacts of the development are discussed in Sections 3.1 and 3.17.	Same as project.	Same as project	Consistent: New tenants could include high sales-tax producing retail uses. This alternative would not result in significant changes

Table 3.11-1: Summary of Project and Project Alternative Consistency with Applicable General Plan Policies and Strategies				
General Plan Policy/Strategy	**Project**	**General Plan Buildout with Maximum Residential Alternative**	**Retail and Residential Alternative**	**Occupied/Re-Tenanted Mall Alternative**
surrounding area in terms of building scale and traffic.				in the aesthetics of the site. Traffic impacts of this alternative are discussed in Section 3.17.
Policy LU-11.1: Create pedestrian and bicycle access between new developments and community facilities. Review existing neighborhood circulation to improve safety and access for students to walk and bike to schools, parks, and community facilities such as the library.	Consistent: The Specific Plan shall comply with this strategy.	Same as project.	Same as project.	N/A
Policy LU-19.1: Create a Vallco Shopping District Specific Plan prior to any development on the site that lays out the land uses, design standards and guidelines, and infrastructure improvements required. The Specific Plan will be based on strategies LU-19.1.1 through -19.1.14.	Consistent: Future development would be consistent with the Specific Plan to be adopted.	Same as project.	Same as project.	N/A

Table 3.11-1: Summary of Project and Project Alternative Consistency with Applicable General Plan Policies and Strategies				
General Plan Policy/Strategy	**Project**	**General Plan Buildout with Maximum Residential Alternative**	**Retail and Residential Alternative**	**Occupied/Re-Tenanted Mall Alternative**
Strategy LU-19.1.2: Parcel Assembly. Parcel assembly and a plan for complete redevelopment of the site is required prior to adding residential and office uses. Parcelization is highly discouraged in order to preserve the site for redevelopment in the future.	Consistent: Most of the parcels within the project site have been assembled by one owner. Residential and office uses are proposed.	Same as project.	Same as project, except office uses are not proposed.	N/A
Strategy LU-19.1.4: Land Use. The following uses are allowed on the site (see Figure LU-2 in the General Plan for residential densities and criteria): • Retail: High-performing retail, restaurant and entertainment uses. Maintain a minimum of 600,000 square feet of retail that provide a good source of sales tax for the City. Entertainment uses may be included but shall consist of no more than 30 percent of retail uses. • Hotel: Encourage a business class hotel with conference center and active uses including main	Consistent: The mix of uses proposed are allowed and identified in Strategy LU-19.1.4.	Same as project.	Same as project.	Consistent: The commercial uses on-site are allowed and identified in Strategy LU-19.1.4.

Table 3.11-1: Summary of Project and Project Alternative Consistency with Applicable General Plan Policies and Strategies				
General Plan Policy/Strategy	**Project**	**General Plan Buildout with Maximum Residential Alternative**	**Retail and Residential Alternative**	**Occupied/Re-Tenanted Mall Alternative**
entrances, lobbies, retail and restaurants on the ground floor. • Residential: Allow residential on upper floors with retail and active uses on the ground floor. Encourage a mix of units for young professionals, couples and/or active seniors who like to live in an active "town center" environment. • Office: Encourage high-quality office space arranged in a pedestrian-oriented street grid with active uses on the ground floor, publicly-accessible streets and plazas/green space.				

Table 3.11-1: Summary of Project and Project Alternative Consistency with Applicable General Plan Policies and Strategies				
General Plan Policy/Strategy	**Project**	**General Plan Buildout with Maximum Residential Alternative**	**Retail and Residential Alternative**	**Occupied/Re-Tenanted Mall Alternative**
Strategy LU-19.1.5: "Town Center" Layout. Create streets and blocks laid out using "transect planning" (appropriate street and building types for each area), which includes a discernible center and edges, public space at center, high quality public realm, and land uses appropriate to the street and building typology.	Consistent: The Specific Plan shall comply with this strategy.	Same as project.	Same as project.	N/A
Strategy LU-19.1.8: Open Space. Open space in the form of a central town square on the west and east sides of the district interspersed with plazas and "greens" that create community gathering spaces, locations for public art, and event space for community events.	Consistent: The Specific Plan shall comply with this strategy.	Same as project.	Same as project.	N/A
Strategy LU-19.1.9: Buildings should have high-quality architecture, and an emphasis on aesthetics, human scale, and create a sense of place. Taller buildings should provide appropriate transitions to fit into the surrounding area.	Consistent: The Specific Plan shall comply with this strategy.	Same as project.	Same as project.	N/A

Table 3.11-1: Summary of Project and Project Alternative Consistency with Applicable General Plan Policies and Strategies				
General Plan Policy/Strategy	**Project**	**General Plan Buildout with Maximum Residential Alternative**	**Retail and Residential Alternative**	**Occupied/Re-Tenanted Mall Alternative**
Strategy LU-19.1.10: High-quality buildings with architecture and materials befitting the gateway character of the site. The project should provide gateway signage and treatment.	Consistent: The Specific Plan shall comply with this strategy.	Same as project.	Same as project.	N/A
Strategy LU-19.1.12: Parking in surface lots shall be located to the side or rear of buildings. Underground parking beneath buildings is preferred. Above grade structures shall not be located along major street frontages. In cases, where above-grade structures are allowed along internal street frontages, they shall be lined with retail, entries and active uses on the ground floor. All parking structures should be designed to be architecturally compatible with a high-quality "town center" environment.	Consistent: The Specific Plan shall comply with this strategy.	Same as project.	Same as project.	N/A
Strategy LU-19.1.13: Retain trees along the Interstate 280, Wolfe Road and Stevens Creek Boulevard to the extent feasible, when new development are proposed.	Consistent: The Specific Plan shall comply with this strategy.	Same as project.	Same as project.	N/A

Table 3.11-1: Summary of Project and Project Alternative Consistency with Applicable General Plan Policies and Strategies				
General Plan Policy/Strategy	**Project**	**General Plan Buildout with Maximum Residential Alternative**	**Retail and Residential Alternative**	**Occupied/Re-Tenanted Mall Alternative**
Strategy LU-19.1.14: Consider buffers such as setbacks, landscaping and/or building transitions to buffer abutting single-family residential areas from visual and noise impacts.	Consistent: The Specific Plan shall comply with this strategy.	Same as project.	Same as project.	N/A
Policy LU-26.4: Encourage projects to include building transitions, setbacks and landscaping to provide a buffer for adjoining low-intensity residential uses.	Consistent: The Specific Plan shall comply with this strategy.	Same as project.	Same as project.	N/A
Policy LU-27.1: Ensure that new development within and adjacent to residential neighborhoods is compatible with neighborhood character.	Consistent: The Specific Plan shall comply with this strategy.	Same as project.	Same as project.	N/A
Policy LU-27.2: Ensure that new development in and adjacent to neighborhoods improve the walkability of neighborhoods by providing inviting entries, stoops and porches along the street frontage, compatible building design and reducing visual impacts of garages.	Consistent: The Specific Plan shall comply with this strategy.	Same as project.	Same as project.	N/A

Table 3.11-1: Summary of Project and Project Alternative Consistency with Applicable General Plan Policies and Strategies				
General Plan Policy/Strategy	**Project**	**General Plan Buildout with Maximum Residential Alternative**	**Retail and Residential Alternative**	**Occupied/Re-Tenanted Mall Alternative**
Policy LU-27.7: Protect residential neighborhoods from noise, traffic, light and visually intrusive effects from more intense development with landscape buffers, site design, setbacks, and other appropriate measures.	Consistent: The Specific Plan shall comply with this strategy. In addition, future development shall fund neighborhood traffic and parking monitoring studies and provide fees for traffic calming improvements and a residential parking permit program, if needed (refer to Section 3.17).	Same as project.	Same as project.	N/A
Policy M-1.2: Participate in the development of new multi-modal analysis methods and impact thresholds as required by Senate Bill 743. However, until such impact thresholds are developed, continue to optimize mobility for all modes of transportation while striving to maintain the following intersection Levels of Service (LOS) at AM and PM peak traffic hours: • Major intersections: LOS D; • Stevens Creek Boulevard and De Anza Boulevard: LOS E+; • Stevens Creek Boulevard and Stelling Road: LOS E+; and	Consistent: The level of service impacts of future development is evaluated in Section 3.17 and mitigation measures shall be implemented to minimize transportation impacts resulting from implementation of the project.	Same as project.	Same as project.	N/A

Table 3.11-1: Summary of Project and Project Alternative Consistency with Applicable General Plan Policies and Strategies				
General Plan Policy/Strategy	**Project**	**General Plan Buildout with Maximum Residential Alternative**	**Retail and Residential Alternative**	**Occupied/Re-Tenanted Mall Alternative**
• De Anza Boulevard and Bollinger Road: LOS E+				
Policy M-2.2: Design roadway alignments, lane widths, medians, parking and bicycle lanes, and sidewalks to complement adjacent land uses to keep with the aesthetic vision of the Planning Area.	Consistent: The Specific Plan shall comply with this strategy.	Same as project.	Same as project.	N/A
Policy M-2.3: Promote pedestrian and bicycle improvements that improve connectivity between planning areas, neighborhoods and services, and foster a sense of community.	Consistent: The Specific Plan shall comply with this strategy.	Same as project.	Same as project.	N/A
Policy M-2.4: Reduce traffic impacts and support alternative modes of transportation in neighborhoods and around schools, parks and community facilities rather than constructing barriers to mobility. Do not close streets unless there is a demonstrated safety or overwhelming through traffic problem and there are no acceptable alternatives since street closures move the problem from one street to another.	Consistent: The Specific Plan shall comply with this strategy.	Same as project.	Same as project.	N/A

Table 3.11-1: Summary of Project and Project Alternative Consistency with Applicable General Plan Policies and Strategies				
General Plan Policy/Strategy	**Project**	**General Plan Buildout with Maximum Residential Alternative**	**Retail and Residential Alternative**	**Occupied/Re-Tenanted Mall Alternative**
Policy M-2.5: Ensure all new public and private streets are publicly accessible to improve walkability and reduce impacts on existing streets.	Consistent: The Specific Plan shall comply with this strategy.	Same as project.	Same as project.	N/A
Policy M-3.2: Require new development and redevelopment to increase connectivity through direct and safe pedestrian connections to public amenities, neighborhoods, shopping and employment destinations throughout the city.	Consistent: The Specific Plan shall comply with this strategy.	Same as project.	Same as project.	N/A
Policy M-3.3: Enhance pedestrian and bicycle crossings and pathways at key locations across physical barriers such as creeks, highways and road barriers.	Consistent: The Specific Plan shall comply with this strategy.	Same as project.	Same as project.	N/A
Policy M-3.4: Preserve and enhance Citywide pedestrian and bike connectivity by limiting street widening purely for automobiles as a means of improving traffic flow.	Consistent: As discussed in Section 3.17, roadway mitigation measure that conflict with this policy shall not be implemented.	Same as project.	Same as project.	N/A
Policy M-3.8: Require new development to provide public and private bicycle parking.	Consistent: Future development shall be subject to bicycle parking requirements in the Municipal Code.	Same as project.	Same as project.	N/A

Table 3.11-1: Summary of Project and Project Alternative Consistency with Applicable General Plan Policies and Strategies				
General Plan Policy/Strategy	**Project**	**General Plan Buildout with Maximum Residential Alternative**	**Retail and Residential Alternative**	**Occupied/Re-Tenanted Mall Alternative**
Policy M-4.5: Support ROW design and amenities consistent with local transit goals to improve transit as a viable alternative to driving.	Consistent: The Specific Plan shall comply with this strategy. The project also includes upgrading the existing transit hub on-site (see Section 2.4.4.3).	Same as project.	Same as project.	N/A
Policy M-4.6: Work with large regional employers and private commuter bus/shuttle programs to provide safe pick-up, drop-off, and park and rides in order to reduce single occupancy vehicle trips.	Consistent: Under existing conditions, the site acts as a transfer center for VTA bus routes and as a transit hub for private shuttles. The Specific Plan includes upgrades to the existing transit hub.	Same as project.	Same as project.	Same as project, except no upgrades to the transit hub are anticipated under this alternative.
Policy M-6.2: Ensure new off-street parking is properly designed and efficiently used.	Consistent: Off-street parking shall be designed to meet City requirements.	Same as project.	Same as project.	N/A

Table 3.11-1: Summary of Project and Project Alternative Consistency with Applicable General Plan Policies and Strategies				
General Plan Policy/Strategy	**Project**	**General Plan Buildout with Maximum Residential Alternative**	**Retail and Residential Alternative**	**Occupied/Re-Tenanted Mall Alternative**
Policy M-8.2: Support development and transportation improvements that help reduce greenhouse gas emissions by reducing capita Vehicles Miles Traveled (VMT).	Consistent: The location of the project site and the mix of uses proposed supports trip reduction (refer to Section 3.17). In addition, the project includes a TDM program to reduce project trips (refer to Section 2.4.4). The project also includes upgrading the existing transit hub on-site (see Section 2.4.4.3).	Same as project.	Same as project.	N/A
Policy M-8.4: Require large employers to develop and maintain Transportation Demand Management (TDM) programs to reduce vehicle trips generated by their employees and develop a tracking method to monitor results.	Consistent: As discussed in Section 2.4.4, the Specific Plan includes a TDM program to reduce vehicle trips. An annual monitoring report on the effectiveness of the TDM program is required.	Same as project.	Same as project.	N/A

Table 3.11-1: Summary of Project and Project Alternative Consistency with Applicable General Plan Policies and Strategies				
General Plan Policy/Strategy	**Project**	**General Plan Buildout with Maximum Residential Alternative**	**Retail and Residential Alternative**	**Occupied/Re-Tenanted Mall Alternative**
Policy M-8.5: Encourage new commercial developments to provide shared office facilities, cafeterias, daycare facilities, lunch-rooms, showers, bicycle parking, home offices, shuttle buses to transit facilities and other amenities that encourage the use of transit, bicycling or walking as commute modes to work. Provide pedestrian pathways and orient buildings to the street to encourage pedestrian activity.	Consistent: The Specific Plan shall comply with this strategy.	Same as project.	Same as project.	N/A
Policy M-9.1: Strive to maximize the efficiency of existing infrastructure by locating appropriate land uses along roadways and retrofitting streets to be accessible for all modes of transportation.	Consistent: The Specific Plan shall comply with this strategy.	Same as project.	Same as project.	N/A

Table 3.11-1: Summary of Project and Project Alternative Consistency with Applicable General Plan Policies and Strategies				
General Plan Policy/Strategy	**Project**	**General Plan Buildout with Maximum Residential Alternative**	**Retail and Residential Alternative**	**Occupied/Re-Tenanted Mall Alternative**
Policy M-9.3: Except as required by environmental review for new developments, limit widening of streets as a means of improving traffic efficiency and focus instead on operational improvements to preserve community character.	Consistent: The Specific Plan does not propose roadway widening. Measures required to mitigate future development's transportation impacts are identified in Section 3.17.	Same as project.	Same as project.	N/A

Impact LU-3:	The project (and project alternatives) would not conflict with applicable habitat conservation plan or natural community conservation plan. (No Impact)

Project and All Alternatives

As discussed in Section 3.4.2.6, the project site is not located within an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan. The proposed project (and project alternatives), therefore, would not conflict with a habitat conservation plan or natural community conservation plan. **(No Impact)**

Impact LU-4:	The project (and project alternatives) would not have a cumulatively considerable contribution to a significant cumulative land use impact. (Less than Significant Impact)

Project and All Project Alternatives

The cumulative impact of the project and project alternatives on applicable land use plans is evaluated in conjunction with all past, present, and pending land uses in the City. All development (including the project and all project alternatives) in the City of Cupertino is subject to conformance with applicable land use plans for the purposes of avoiding or mitigating environmental effects.

As discussed in Impacts LU-1 and LU-2, the project and project alternatives would not divide an established community and are consistent with the General Plan land use designation for the site and applicable General Plan policies. For this reason, the project and project alternatives would not contribute to a significant cumulative conflict with applicable land use plans. **(Less than Significant Cumulative Impact)**

The Occupied/Re-Tenanted Mall Alternative is provided in the EIR for informational purposes only. This alternative is a permitted land use, and can be implemented without further discretionary approvals from the City or environmental review under CEQA. **(Less than Significant Cumulative Impact: Not a CEQA Impact)**

3.12 MINERAL RESOURCES

3.12.1 Environmental Setting

3.12.1.1 *Regulatory Framework*

State

Mineral Resources and the Surface Mining and Reclamation Act

The Surface Mining and Reclamation Act (SMARA) was enacted by the California Legislature in 1975 to address the need for a continuing supply of mineral resources, and to prevent or minimize the negative impacts of surface mining to public health, property and the environment. SMARA mandated the initiation by the State Geologist of mineral land classification in order to help identify and protect mineral resources in areas within the state subject to urban expansion or other irreversible land uses which would preclude mineral extraction. SMARA also allowed the State Mining and Geology Board, after receiving classification information from the State Geologist, to designate lands containing mineral deposits of regional or statewide significance. There are no known mineral resources in the City of Cupertino.

3.12.1.2 *Existing Conditions*

The Vallco Special Area is not identified as a natural resource area containing mineral resources in the City's General Plan.[82] The Vallco Special Area is currently developed and there are no known mineral resources on-site.

3.12.2 Mineral Resources Impacts

3.12.2.1 *Thresholds of Significance*

For the purposes of this EIR, a mineral resource impact is considered significant if the project would:

- Result in the loss of availability of a known mineral resource that would be of value to the region and residents of the state; or
- Result in the loss of availability of locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan.

[82] City of Cupertino. *Cupertino General Plan Community Vision 2040.* October 15, 2015. Pages ES-10 and ES-11.

Impact MIN-1:	**The project (and project alternatives) would not result in the loss of availability of a known mineral resource or locally-important mineral resource recovery site. (No Impact)**

Project and All Project Alternatives

The Vallco Special Area is not identified as a natural resource area containing mineral resources in the City's General Plan, nor are there any known mineral resources on-site. The proposed project (or project alternatives), therefore, would not result in impacts to mineral resources. **(No Impact)**

Impact MIN-2:	**The project (and project alternatives) would not contribute to a significant cumulative mineral resources impact. (No Cumulative Impact)**

Project and All Project Alternatives

As discussed above, the project site is not designated as a mineral resource recovery site in the City's General Plan, nor does the project site contain any known mineral resource. The proposed project (and project alternatives), therefore, would not contribute to a significant cumulative impact on mineral resources. **(No Cumulative Impact)**

3.13 NOISE AND VIBRATION

The following discussion is based in part upon a noise and vibration assessment completed for the Vallco Special Area by Illingworth & Rodkin, Inc. in May 2018. This report is attached as Appendix F to this EIR.

3.13.1 Environmental Setting

3.13.1.1 *Background Information*

Noise

Noise may be defined as unwanted sound. Acceptable levels of noise vary from land use to land use. In any one location, the noise level will vary over time, from the lowest background, or ambient noise level, to temporary increases caused by traffic or other sources. State and federal standards have been established as guidelines for determining the compatibility of a particular use with its noise environment.

There are several methods of characterizing sound. The most common in California is the A-weighted sound level or dBA.[83] This scale gives greater weight to the frequencies of sound to which the human ear is most sensitive. Because sound levels can vary markedly over a short period of time, different types of noise descriptors are used to account for this variability. Typical noise descriptors include maximum noise level (L_{max}), the energy-equivalent noise level (L_{eq}), and the day-night average noise level (DNL). The DNL noise descriptor is commonly used in establishing noise exposure guidelines for specific land uses. For the energy-equivalent sound/noise descriptor called L_{eq} the most common averaging period is hourly, but L_{eq} can describe any series of noise events of arbitrary duration.

Although the A-weighted noise level may adequately indicate the level of environmental noise at any instant in time, community noise levels vary continuously. Most environmental noise includes a conglomeration of noise from distant sources which create a relatively steady background noise in which no particular source is identifiable.

Since sensitivity to noise increases during the evening and nighttime hours, 24-hour descriptors have been developed that incorporate artificial noise penalties added to quiet-time noise events. The Community Noise Equivalent Level (CNEL) is a measure of the cumulative noise exposure in a community, with a five dB penalty added to evening (7:00 PM – 10:00 PM) and a 10 dB addition to nocturnal (10:00 PM – 7:00 AM) noise levels. The Day/Night Average Sound Level (or DNL) is essentially the same as CNEL, with the exception that the evening time period is dropped and all occurrences during this three-hour period are grouped into the daytime period.

Using one of these descriptors is a way for a location's overall noise exposure to be measured, realizing of course that there are specific moments when noise levels are higher (e.g., when a jet is taking off from the Airport or when a leaf blower is operating) and specific moments when noise

[83] The sound pressure level in decibels as measured on a sound level meter using the A-weighting filter network. All sound levels in this discussion are A-weighted, unless otherwise stated.

levels are lower (e.g., during lulls in traffic flows on I-280 or in the middle of the night). L_{max} is the maximum A-weighted noise level during a measurement period.

Groundborne Vibration

Ground vibration consists of rapidly fluctuating motions or waves with an average motion of zero. Several different methods are typically used to quantify vibration amplitude. One method is the Peak Particle Velocity (PPV). The PPV is defined as the maximum instantaneous positive or negative peak of the vibration wave. In this report, a PPV descriptor with units of millimeters per second (mm/sec) or inches per second (in/sec) is used to evaluate construction generated vibration for building damage and human complaints.

Low-level vibrations frequently cause irritating secondary vibration, such as a slight rattling of windows, doors, or stacked dishes. The rattling sound can give rise to exaggerated vibration complaints, even though there is very little risk of actual structural damage. Construction activities can cause vibration that varies in intensity depending on several factors. The use of pile driving and vibratory compaction equipment typically generates the highest construction related ground-borne vibration levels. Because of the impulsive nature of such activities, the use of the PPV descriptor has been routinely used to measure and assess ground-borne vibration and almost exclusively to assess the potential of vibration to induce structural damage and the degree of annoyance for humans.

The two primary concerns with construction-induced vibration, the potential to damage a structure, and the potential to interfere with the enjoyment of life, are evaluated against different vibration limits. Studies have shown that the threshold of perception for average persons is in the range of 0.008 to 0.012 in/sec PPV. Human perception to vibration varies with the individual and is a function of physical setting and the type of vibration. Persons exposed to elevated ambient vibration levels, such as people in an urban environment, may tolerate a higher vibration level.

Additional information on the fundamentals of noise and vibration are included in Appendix F of this EIR.

3.13.1.2 *Regulatory Framework*

State

California Building Code, Title 24, Part 2

The State Building Code, Title 24, Part 2 of the State of California Code of Regulations establishes uniform minimum noise insulation performance standards to protect persons within new buildings which house people, including hotels, motels, dormitories, apartments, and dwellings other than single-family dwellings. Title 24 mandates that interior noise levels attributable to exterior sources shall not exceed 45 dBA DNL or CNEL[84] in any habitable room.

[84] Title 24 states that the determination of whether to apply DNL or CNEL should be consistent with the metric used in the noise element of the local general plan.

California Green Building Standards Code

The state established exterior sound transmission control standards for non-residential buildings as set forth in the California Green Building Standards Code, Sections 5.507.4.1 and 5.507.4.2. CALGreen requires that wall and roof-ceiling assemblies exposed to the adjacent roadways have a composite Sound Transmission Class (STC) rating of at least 50 or a composite Outdoor-Indoor Transmission Class (OITC) rating of no less than 40. Exterior windows must have a minimum STC of 40 or OITC of 30 when the commercial property falls within the 65 dBA DNL noise contour for a freeway or expressway, railroad, industrial source or fixed-guideway noise source, as determined by the local general plan noise element.

City of Cupertino

Cupertino General Plan: Community Vision 2015-2040

Future development under the proposed Vallco Special Area is subject to General Plan policies and strategies including, but not limited to, the policies and strategies listed below pertaining to noise and vibration.

Policy/Strategy	Description
Policy LU-27.7	Protect residential neighborhoods from noise, traffic, light and visually intrusive effects from more intense development with landscape buffers, site design, setbacks, and other appropriate measures.
Strategy LU-19.1.14	Consider buffers such as setbacks, landscaping and/or building transitions to buffer abutting single-family residential areas from visual and noise impacts.
Policy HS-8.1	Use the General Plan Land Use Compatibility for Community Noise Environments chart, the Future Noise Contour Map and the City Municipal Code to evaluate land use decisions.
Policy HS-8.2	Minimize noise impacts through appropriate building and site design.
Strategy HS-8.2.1	Locate delivery areas for new commercial and industrial developments away from existing or planned homes.
Strategy HS-8.2.2	Require analysis and implementation of techniques to control the effects of noise from industrial equipment and processes for projects near low-intensity residential uses.
Strategy HS-8.2.3	Exercise discretion in requiring sound walls to be sure that all other measures of noise control have been explored and that the sound wall blends with the neighborhood. Sound walls should be designed and landscaped to fit into the environment.
Policy HS-8.3	Regulate construction and maintenance activities. Establish and enforce reasonable allowable periods of the day, during weekdays, weekends and holidays for construction activities. Require construction contractors to use the best available technology to minimize excessive noise and vibration from construction equipment such as pile drivers, jack hammers, and vibratory rollers.

City of Cupertino Municipal Code

The City of Cupertino Municipal Code contains a Zoning Ordinance that limits noise levels at adjacent properties. Municipal Code Section 10.48.010 defines daytime as the period from 7:00 AM to 8:00 PM weekdays, and the period from 9:00 AM to 6:00 PM on weekends. Nighttime is defined as periods of weekdays from 8:00 PM to midnight, and from midnight to 7:00 AM, and periods on weekends from 6:00 PM to midnight and from midnight to 9:00 AM. The following sections establish the applicable limits:

- *10.48.040 Daytime and Nighttime Maximum Noise Levels* – Individual noise sources, or the combination of a group of noise sources located on the same property, shall not produce a noise level exceeding those specified on property zoned as follows, unless specifically provided in another section of this chapter in the Municipal Code:

Land Use at Point of Origin	**Maximum Noise Level at Complaint Site of Receiving Property**	
	Nighttime	**Daytime**
Residential	50 dBA	60 dBA
Nonresidential	55 dBA	65 dBA

- *10.48.050 Brief Daytime Incidents.*
  A. During the daytime period only, brief noise incidents exceeding limits in other sections of this chapter are allowed; providing the sum of the noise duration in minutes plus the excess noise level does not exceed twenty in a two-hour period. For example, the following combinations would be allowable:

Noise Increment Above Normal Standard	**Noise Duration in Two-Hour Period**
5 dBA	15 minutes
10 dBA	10 minutes
15 dBA	5 minutes
19 dBA	1 minute

  B. For multifamily dwelling interior noise, Section 10.48.054, the sum of excess noise level and duration in minutes of a brief daytime incident shall not exceed 10 in any two-hour period, measured at the receiving location.

  C. Section 10.48.050A does not apply to Section 10.48.055 (Motor Vehicle Idling).

- *10.48.053 Grading, Construction and Demolition*
  A. Grading, construction and demolition activities shall be allowed to exceed the noise limits of Section 10.48.040 during daytime hours; provided, that the equipment utilized has high-quality noise muffler and abatement devices installed and in good condition, and the activity meets one of the following two criteria:
     - No individual device produces a noise level more than 87 dBA at a distance of 25 feet; or
     - The noise level on any nearby property does not exceed 80 dBA.

B. Notwithstanding Section 10.48.053A, it is a violation of this chapter to engage in any grading, street construction, demolition or underground utility work within 750 feet of a residential area on Saturdays, Sundays and holidays, and during the nighttime period, except as provided in Section 10.48.030.
C. Construction, other than street construction, is prohibited on holidays, except as provided in Sections 10.48.029 and 10.48.030.
D. Construction, other than street construction, is prohibited during nighttime periods unless it meets the nighttime standards of Section 10.48.040.
E. The use of helicopters as a part of a construction and/or demolition activity shall be restricted to between the hours of 9:00 AM and 6:30 PM Monday through Friday only, and prohibited on the weekends and holidays. The notice shall be given at least 24 hours in advance of said usage. In cases of emergency, the 24 hour notice period may be waived.

- *10.48.062 Nighttime Deliveries and Pickups* – It is unlawful and a nuisance for any person to make or allow vehicular deliveries or pickups to or from commercial establishments (defined as any store, factory, manufacturing, or industrial plant used for the sale, manufacturing, fabrication, assembly or storage of goods, wares and merchandise) by the use of private roads, alleys or other ways located on either side or the back of any building housing the commercial establishment where such private road, alley or other way lies between the building and any adjacent parcel of land zoned for residential purposes, between the hours of eight p.m. and eight a.m. weekdays (Monday through Friday) and six p.m. and nine a.m. on weekends (Saturday and Sunday) and holidays except as may be permitted under Section 10.48.029.

There are additional Municipal Code sections described in Appendix F pertaining to noise from landscape maintenance activities, outdoor public events, interior noise in multiple-family dwellings, motor vehicle idling, noise disturbances, and nighttime deliveries and pickups.

3.13.1.3 *Existing Conditions*

The project site is located along North Wolfe Road, between I-280 and Stevens Creek Boulevard. The site is developed primarily with the Vallco Shopping Mall and associated parking facilities, and the remaining acres are developed roadways, a 148-room hotel (currently under construction), and a surface parking lot. Residential and commercial land uses border the project site to the west, south, and east, and I-280 forms the site's northern boundary (refer to Figure 2.1-3).

A noise monitoring survey was conducted between Tuesday, February 13, and Friday February 16, 2018 to document existing noise conditions within and around the project site. The noise monitoring survey included five long-term noise measurements (LT-1 through LT-5) and six short-term noise measurements (ST-1 through ST-6). Noise measurement locations are shown in Figure 3.13-1. The measurement results are discussed below.

Noise Measurement Location	L_{max}	Daytime L_{eq}	Nighttime L_{eq}	CNEL
LT-1	-	51-61	48-59	62-63
LT-2	-	46-61	42-56	59-60
LT-3	-	51-59	44-54	58-60
LT-4	-	65-70	51-66	69
LT-5	-	65-72	61-71	74
ST-1	52	46	-	-
ST-2	79	71	-	-
ST-3	73	62	-	-
ST-4	81	65	-	-
ST-5	83	66	-	-
ST-6	90	68	-	-

NOISE MEASUREMENT LOCATIONS FIGURE 3.13-1

Table 3.13-1 summarizes the results of the long-term measurements. Long-term noise measurement LT-1 was located at the east end of Merritt Drive, in front of 19625 Merritt Drive, in the residential area adjoining the west boundary of project site near I-280. A sound wall separates the residences from the Mall. Noise levels measured at this location were primarily the result of traffic on I-280. Neighborhood noise was detected but did not make a substantial contribution to measured levels. Nearby construction directly to the east was recorded at levels of 58-60 dBA. Hourly average noise levels typically ranged from 51 to 61 dBA L_{eq} during the day and from 48 to 59 dBA L_{eq} at night. The calculated day-night average noise level at this location ranged from 62 to 63 dBA CNEL.

Long-term noise measurement LT-2 was located at the east end of Amherst Drive, in front of 19627 Amherst Drive, in the residential area adjoining the approximate midpoint of the west boundary of Vallco Mall. A sound wall separates the residences from the Mall. Noise levels measured at this location were primarily the result of traffic on I-280. Neighborhood noise and traffic on Vallco Mall Perimeter Road were detected but did not make a substantial contribution to measured levels. Hourly average noise levels typically ranged from 46 to 61 dBA L_{eq} during the day and from 42 to 56 dBA L_{eq} at night. The calculated day-night average noise level at this location ranged from 59 to 60 dBA CNEL.

Long-term measurement LT-3 was located at the east end of Wheaton Drive, east of Denison Avenue, in front of 19682 Wheaton Drive. The noise sources identified at this location included local traffic on Wheaton Drive, Denison Avenue, and Perimeter Road, and distant traffic on I-280 and Stevens Creek Boulevard. Hourly average noise levels typically ranged from 51 to 59 dBA L_{eq} during the day and from 44 to 54 dBA L_{eq} at night. The calculated day-night average noise level at this location ranged from 58 to 60 dBA CNEL.

Long-term measurement LT-4 was located at the south boundary of the project site, about 80 feet from the centerline of Stevens Creek Boulevard, and 400 feet west of North Wolfe Road. Noise levels measured at this location were primarily the result of traffic on Stevens Creek Boulevard. Parking lot traffic was also detected but did not make a substantial contribution to the measured noise levels. Hourly average noise levels typically ranged from 65 to 70 dBA L_{eq} during the day and from 51 to 66 dBA L_{eq} at night. The calculated day-night average noise level at this location was 69 dBA CNEL.

Long-term measurement LT-5 was located at the north boundary of the project site, east of North Wolfe Road, about 185 feet from the centerline of I-280. Noise levels measured at this location were the result of traffic on I-280 and some local traffic. Construction of the Hyatt House hotel was also audible at the time of measurement. Hourly average noise levels typically ranged from 65 to 72 dBA L_{eq} during the day and from 61 to 71 dBA L_{eq} at night. The calculated day-night average noise level at this location was 74 dBA CNEL.

Table 3.13-1: Summary of Long-Term Noise Measurements near Vallco Mall (dBA)			
Long-Term Noise Measurement Location	**Daytime L_{eq}**	**Nighttime L_{eq}**	**CNEL**
LT-1: east end of Merritt Drive, in front of 19625 Merritt Drive	51-61	48-59	62-63
LT-2: east end of Amherst Drive, in front of 19627 Amherst Drive	46-61	42-56	59-60
LT-3: east end of Wheaton Drive, east of Denison Avenue, in front of 19682 Wheaton Drive	51-59	44-54	58-60
LT-4: south boundary of the project site, about 80 feet from the centerline of Stevens Creek Boulevard, and 400 feet west of North Wolfe Road	65-70	51-66	69
LT-5: north boundary of the project site, east of North Wolfe Road, about 185 feet from the centerline of I-280	65-72	61-71	74

Short-term measurements were made during the daytime at six representative locations of noise-sensitive receptors in the vicinity of the project site (refer to Figure 3.13-1) for 10 minutes. During each measurement, observations were made noting predominant noise sources and associated noise levels. Table 3.13-2 summarizes the results of the short-term measurements. Measurement ST-1 was made on the sidewalk in front of the residence located at 10127 Denison Avenue, between Amherst Drive and Wheaton Drive. Local and distant traffic on I-280 were audible throughout the measurement. Measurement ST-2 was made west of North Wolfe Road, 350 feet south of Perimeter Road. Traffic on North Wolfe Road was the dominant source of noise, with traffic on I-280 occasionally audible. Jets from either Mineta San Jose International Airport or Moffett Federal Airfield were also occasionally audible, producing noise levels that reached 72 dBA. Measurement ST-3 was made in the 10050/10080 North Wolfe Road parking area, adjacent to the apartments to the north. Traffic on North Wolfe Road was the only significant contributor to the measured noise levels. Measurement ST-4 was made at the southeast corner of the intersection of Miller Avenue and Richmond Court, in front of the triplex located at 19480 Richmond Court. Traffic on Miller Avenue was the only significant contributor to the measured noise levels. Measurement ST-5 was on the north side of Vallco Parkway at the intersection with Perimeter Road. Construction activity nearby and construction truck traffic on Vallco Parkway, as well as general traffic in the area, contributed to the measured noise levels. Measurement ST-6 was made at the intersection of Stevens Creek Boulevard and Finch Avenue. Traffic on Stevens Creek Boulevard and nearby construction contributed to the measured noise levels. Large vehicles in the area such as garbage trucks produced maximum instantaneous noise levels up to 89 dBA.

Table 3.13-2: Summary of Short-Term Noise Measurements near Vallco Mall (dBA)		
Noise Measurement Location	**L_{max}**	**L_{eq}**
ST-1: In front of 10127 Denison Ave.	52	46
ST-2: 100 feet west of North Wolfe Road centerline near north perimeter road	79	71
ST-3: 10050/10080 North Wolfe Road Parking area, about 95 feet from centerline	73	62
ST-4: 65 feet east of Miller Avenue centerline at Richmond Court	81	65
ST-5: 95 feet north of Vallco Parkway at Perimeter Road	83	66
ST-6: 95 feet from Stevens Creek Boulevard centerline at Finch Avenue	90	68

3.13.2 Noise and Vibration Impacts

3.13.2.1 *Thresholds of Significance*

For the purposes of this EIR, a noise and vibration impact is considered significant if the project would result in:

- Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or local general plan or noise ordinance, or applicable standards of other agencies;
- Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels;
- A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project;
- A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project;
- 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 the project expose people residing or working in the project area to excessive noise levels; or
- For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels.

CEQA does not define what noise level increase would be considered substantial. The following criteria based on standards identified in the Building Code, CALGreen Code, General Plan, City Code, and City practice were used to evaluate the significance of environmental noise resulting from the project:

- A significant noise impact would be identified if the project would expose persons to or generate noise levels that would exceed applicable noise standards presented in the General Plan or Municipal Code.
- A significant impact would be identified if the construction of the project would expose persons to excessive vibration levels. Ground-borne vibration levels exceeding 0.3 in/sec PPV would have the potential to result in cosmetic damage to normal buildings.

- A significant impact would be identified if traffic generated by the project or project improvements/operations would substantially increase noise levels at sensitive receptors in the vicinity. A substantial increase would occur if: a) the noise level increase is five dBA CNEL or greater and the future noise level is less than the "normally acceptable" standard, or b) the noise level increase is three dBA CNEL or greater and the future noise level is equal to or greater than the "normally acceptable" standard.
- A significant noise impact would be identified if construction-related noise would temporarily increase ambient noise levels at sensitive receptors. Hourly average noise levels exceeding 60 dBA $L_{eq,}$ and the ambient noise by at least five dBA L_{eq}, for a period of more than one year would constitute a significant temporary noise increase at adjacent residential land uses. Where noise from construction activities exceeds 70 dBA L_{eq} and the ambient noise environment by at least five dBA L_{eq} at commercial land uses in the project vicinity for a period exceeding one year, the impact would be considered significant.

Impact NOI-1:	**The project (and General Plan Buildout with Maximum Residential Alternative and Retail and Residential Alternative) would not expose persons to or generation of noise levels in excess of standards established in the General Plan Municipal Code, or applicable standard of other agencies. (Significant and Unavoidable Impact with Mitigation Incorporated)**

Future Exterior and Interior Noise Environment – Planning Consideration

As previously discussed in Section 3.0, in 2015 the California Supreme Court ruled that CEQA does not generally require an analysis of the impacts of locating development in areas subject to environmental hazards unless the project would exacerbate those existing environmental hazards or the hazards at issue are subject to certain specified exceptions to this general rule.[85] However, the City has policies and regulations (including those identified in Section 3.13.1.2) that address existing conditions affecting a proposed project, which are discussed below. Issues related to exposure of the proposed project to excessive levels of noise and vibration and the compatibility of the project with noise levels at the site are discussed in terms of the General Plan consistency of the project.

Project and All Project Alternatives

Future Exterior Noise Environment

The City of Cupertino General Plan requires that exterior noise levels at multi-family residential and transient lodging outdoor activity areas be maintained at or below 65 dBA CNEL in order to be considered "normally acceptable" with the noise environment. Exterior noise levels at outdoor activity areas associated with office and commercial retail land uses must be maintained at or below 70 dBA CNEL to be considered "normally acceptable" with the noise environment.

Noise levels at outdoor use areas affected by transportation noise are required to be maintained at or below 65 dBA CNEL in order to be considered normally acceptable for multi-family residential land

[85] *California Building Industry Association v. BAAQMD, 62 Cal. 4th 369*, filed December 17, 2015.

uses and hotels. Noise levels at or below 70 dBA CNEL are considered normally acceptable for commercial uses, as well as outdoor recreational areas (such as parks).

The future noise environment at the project site would continue to result primarily from vehicular traffic along I-280, Stevens Creek Boulevard, North Wolfe Road, and Vallco Parkway. The traffic study prepared by Fehr & Peers (see Appendix H) for the proposed project estimates traffic volumes along roadway segments in the project vicinity for future cumulative plus project (or project alternative) conditions. Under the proposed project, which would result in the highest noise level increase, future traffic volume increases would occur along Perimeter Road, Stevens Creek Boulevard, North Wolfe Road, and Vallco Parkway. Future traffic noise levels along I-280 were conservatively calculated assuming capacity conditions for the highway. The maximum noise level occurs during the period where the maximum traffic volume flows freely along the highway. When traffic volumes exceed the capacity conditions, traffic slows and produces lower noise levels.

Both Mineta San José International Airport and Moffett Federal Airfield are approximately five miles from the project site. The project site lies outside of any established noise contours for either airport; however, various aircraft are expected to continue to be audible at times. Because the project site lies outside the established noise contour lines, people residing and working at the project site would not be exposed to excessive levels of noise from aircraft overflights.

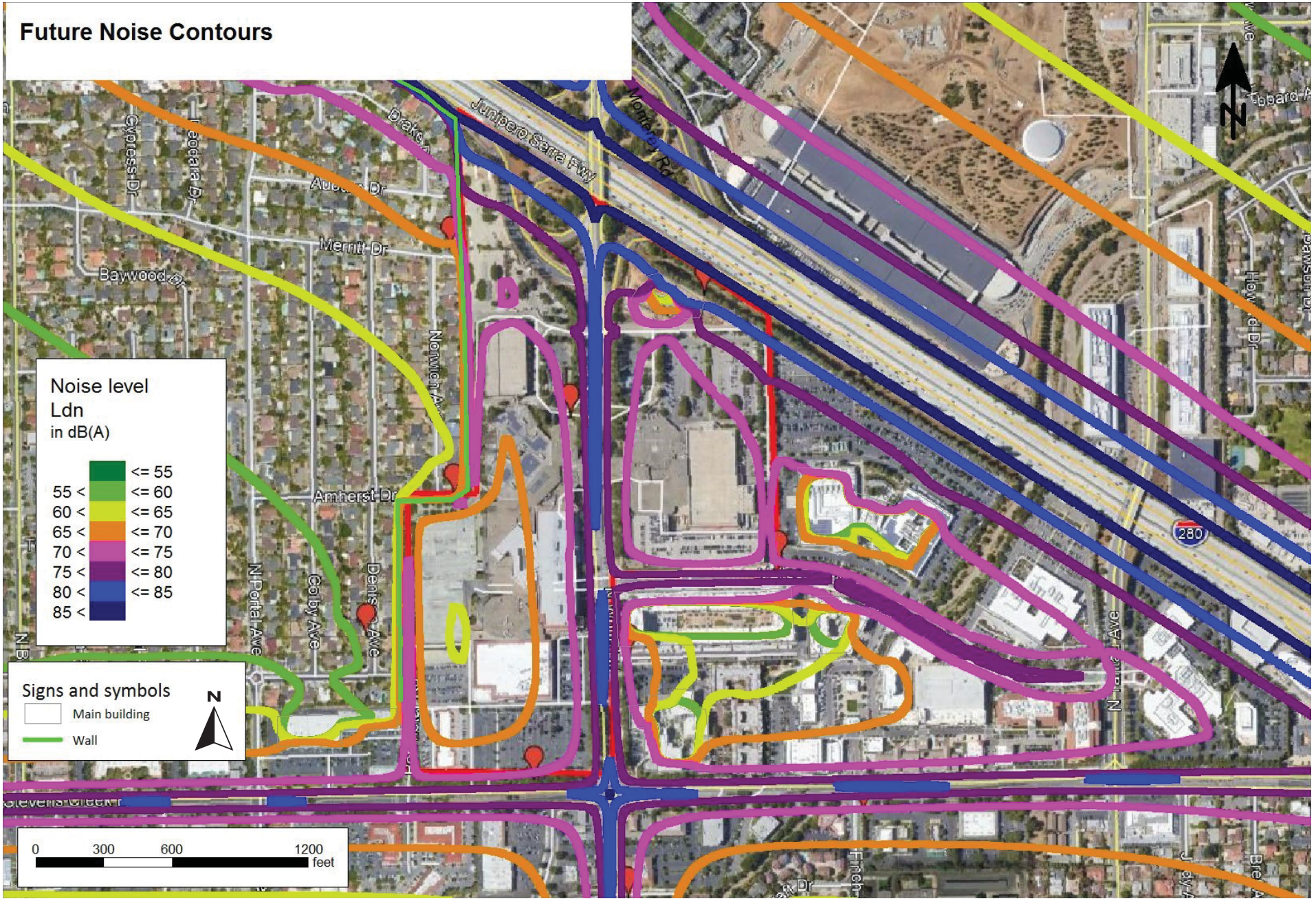
Computer modeling was used to estimate traffic noise level contours for the future cumulative no project and cumulative plus proposed project (or project alternative) scenarios. Details about the modeling is included in Appendix F. The modeling took into account the traffic volumes, traffic speeds, assumed vehicle mix information, and the topography of the surrounding area (which is relatively flat). The peak hour traffic volumes for each alternative and travel speeds were input into the model, as were the existing sound wall along Perimeter Road, existing buildings surrounding the site, and hotel currently under construction at the north end of the site.

Table 3.13-3 presents the community noise equivalent levels for the future cumulative plus project/ project alternative scenarios, calculated at a reference distance of 75 feet from the center of the near travel lane for the major roadways surrounding the site. As shown in Table 3.13-2, there is very little difference in modeled future noise levels between the no project, proposed project, and project alternative scenarios. A one dBA CNEL or less difference would be expected under each project alternative.

Figure 3.13-2 shows the future noise contours under cumulative (no project), cumulative plus project, and cumulative plus project alternative scenarios.

Table 3.13-3: Cumulative and Cumulative Plus Project and Project Alternative Modeled Future Noise Levels Along Surrounding Roadways

Roadway	Future Noise Level 75 feet from the Centerline of the Roadway, dBA CNEL				
	Cumulative	Cumulative Plus Proposed Project	Cumulative Plus General Plan Buildout with Maximum Residential Alternative	Cumulative Plus Retail and Residential Alternative	Cumulative Plus Occupied/Re-tenanted Mall Alternative
I-280	85	85	85	85	85
Perimeter Road, north of Stevens Creek Boulevard	66	66	66	66	66
Perimeter Road, near Amherst Drive	62	63	62	62	62
Perimeter Road, west of North Wolfe Road	69	69	69	69	69
Perimeter Road, east of North Wolfe Road	76	76	76	76	76
Perimeter Road, north of Vallco Parkway	66	67	67	67	67
Stevens Creek Boulevard	71	71	71	71	71
Vallco Parkway	68	69	69	69	69
North Wolfe Road, north of Stevens Creek Boulevard	72	72	72	72	72
North Wolfe Road, at Vallco Parkway	72	72	72	72	72
North Wolfe Road, south of Perimeter Road	73	73	73	73	73
North Wolfe Road, north of Perimeter Road	74	74	74	74	74



Source: Illingworth & Rodkin, Inc.

FUTURE NOISE CONTOURS FOR CUMULATIVE PLUS PROJECT/PROJECT ALTERNATIVE SCENARIOS FIGURE 3.13-2

- *Proposed Multi-Family Residential Land Uses* – The future noise levels summarized in Table 3.13-2 were used to estimate the distances at which residential common outdoor use areas (which would be included under the proposed project, General Plan Buildout with Maximum Residential, and Retail and Residential Alternative only), with direct line-of-sight to the roadways would need to be set back from area roadways to meet the 65 dBA CNEL threshold for multi-family residential land uses. Table 3.13-4 lists the setbacks required to meet 65 dBA CNEL without additional noise control such as barriers.

  Noise produced by vehicular traffic along roadways surrounding the project site could potentially expose proposed residential land uses to noise levels exceeding the exterior compatibility threshold. Assuming the centers of the residential outdoor use areas have setbacks from the centerlines of the surrounding roadways that are less than those summarized in Table 3.13-3, the proposed land use would not be compatible with the noise environment and would require the implementation of noise control to attenuate transportation noise to normally acceptable levels (see standard permit conditions identified below).

- *Proposed Commercial/Office Land Uses* – The noise levels summarized in Table 3.13-3 were used to estimate the distances at which common outdoor use areas with direct line-of-sight to the roadways would need to be set back from area roadways to meet the 70 dBA CNEL threshold for commercial/office land uses. The results for the project and all project alternatives are summarized in Table 3.13-5.

Table 3.13-4: Cumulative Plus Project Setback Distances Needed to Meet the 65 dBA CNEL Threshold for Outdoor Use Areas at Residential Land Uses

Roadway	**Distance from Centerline to 65 dBA CNEL** (feet)
I-280	1,035
Perimeter Road, north of Stevens Creek Boulevard	100
Perimeter Road, near Amherst Drive	35
Perimeter Road, west of North Wolfe Road	165
Perimeter Road, east of North Wolfe Road	355
Perimeter Road, north of Vallco Parkway	105
Stevens Creek Boulevard	190
Vallco Parkway	150
North Wolfe Road, north of Stevens Creek Boulevard	230
North Wolfe Road, at Vallco Parkway	230
North Wolfe Road, south of Perimeter Road	250
North Wolfe Road, north of Perimeter Road	290

Table 3.13-5: Cumulative Plus Project Setback Distances to Meet the 70 dBA CNEL Threshold of Common Outdoor Use Areas at Commercial Land Uses	
Roadway	**Distance from Centerline to 70 dBA CNEL** (feet)
I-280	580
Perimeter Road, north of Stevens Creek Boulevard	30
Perimeter Road, near Amherst Drive	<15
Perimeter Road, west of North Wolfe Road	55
Perimeter Road, east of North Wolfe Road	200
Perimeter Road, north of Vallco Parkway	35
Stevens Creek Boulevard	85
Vallco Parkway	60
North Wolfe Road, north of Stevens Creek Boulevard	115
North Wolfe Road, at Vallco Parkway	115
North Wolfe Road, south of Perimeter Road	125
North Wolfe Road, north of Perimeter Road	150

Future Interior Noise Environment

The state of California requires that interior noise levels be maintained at 45 dBA CNEL or less at multi-family residences and lodging facilities where occupants sleep, and the CALGreen Code requires that interior noise levels in offices and commercial buildings be maintained at or below at 50 dBA $L_{eq(1\text{-}hr)}$ or less during hours of operation.

The state of California requires that interior noise levels for residential land uses be at or below 45 dBA CNEL. For commercial land uses, the 2016 Cal Green Code would apply, which requires interior noise levels be maintained at 50 dBA $L_{eq(1\text{-}hr)}$ or less during hours of operation, which are assumed to be daytime hours of 7:00 AM to 10:00 PM for the proposed commercial uses.

- *Proposed Multi-Family Residential Land Uses* – Standard residential construction provides approximately 15 dBA of exterior-to-interior noise reduction, assuming the windows are partially open for ventilation. With the windows closed, standard construction provides approximately 20 to 25 dBA of noise reduction in interior spaces. Where exterior noise levels range from 60 to 65 dBA CNEL, the inclusion of adequate forced-air mechanical ventilation is often the method selected to reduce interior noise levels to acceptable levels by allowing the resident to close the windows to control noise. Where noise levels exceed 65 dBA CNEL, forced-air mechanical ventilation systems and sound-rated construction methods are normally required. Such methods or materials may include a combination of smaller window and door sizes as a percentage of the total building façade facing the noise source, sound-rated windows and doors, sound-rated exterior wall assemblies, and mechanical ventilation so windows may be kept closed at the occupant's discretion.

For residential buildings proposed under the project, General Plan Buildout with Maximum Residential Alternative and Retail and Residential Alternative set back from the nearby roadway centerline at the distances shown in Table 3.13-4, the exterior-facing units would be exposed to future exterior noise levels of 65 dBA CNEL and the future interior noise levels at these units would be 50 dBA CNEL, which would exceed 45 dBA CNEL. Proposed residential buildings set back from the nearby roadway centerline equivalent to the distances shown in Table 3.13-4 that are built with standard construction materials would not meet the City's interior noise level threshold and would require noise insulation features to be compatible with the noise environment at the site (see standard permit conditions identified below).

- *Proposed Commercial/Office Land Uses* – Hourly average noise levels during business hours within proposed (or reoccupied) commercial land uses would need to meet the 50 dBA $L_{eq(1-hr)}$ threshold established by the 2016 Cal Green Code. Standard commercial construction materials would provide at least 20 to 25 dBA of noise reduction in interior spaces. The inclusion of adequate forced-air mechanical ventilation systems is normally required so windows may be kept closed at the occupants' discretion.

  Assuming a minimum of 20 dBA of exterior-to-interior noise reduction, the future interior noise levels would be 50 dBA $L_{eq(1-hr)}$ or less at the setback distances shown in Table 3.13-5. Commercial/office buildings proposed nearer to roadways than the minimum distances shown in Table 3.13-5 would potentially be exposed to interior noise levels above 50 dBA $L_{eq(1-hr)}$ and would require noise insulation features to be compatible with the noise environment at the site (see standard permit conditions identified below).

Standard Permit Conditions: Future development under the proposed project, General Plan Buildout with Maximum Residential Alternative, or Retail and Residential Alternative shall implement the following standard permit conditions to comply with required exterior and interior noise levels standards:

- An acoustical study shall be completed during the application process when project-specific information, such as building elevations, layouts, floor plans, and position of buildings on the site, is known. The study shall determine compliance with the noise and land use compatibility standards, identify potential noise impacts, and propose site-specific measures to reduce exposure to exterior and interior noise levels that exceed maximum permissible levels.
- To reduce exterior noise levels to meet the normally acceptable thresholds of 65 dBA CNEL at multi-family residences or 70 dBA CNEL at commercial uses, locate noise-sensitive outdoor use areas away from major roadways or other significant sources of noise when developing site plans. Shield noise-sensitive spaces with buildings or noise barriers to reduce exterior noise levels. The final detailed design of the heights and limits of proposed noise barriers shall be completed at the time that the final site and grading plans are submitted.
- The following shall be implemented to reduce interior noise levels to meet the normally acceptable thresholds of 45 dBA CNEL at multi-family residences or 50 dBA $L_{eq(1-hr)}$ at commercial uses during hours of operations:

- If future exterior noise levels at residential building facades are between 60 and 65 dBA CNEL, incorporate adequate forced-air mechanical ventilation to reduce interior noise levels to acceptable levels by closing the windows to control noise.
- If future exterior noise levels at residential building facades exceed 65 dBA CNEL, forced-air mechanical ventilation systems and sound-rated construction methods are normally required. Such methods or materials may include a combination of smaller window and door sizes as a percentage of the total building façade facing the noise source, sound-rated windows and doors, sound-rated exterior wall assemblies, and mechanical ventilation so windows may be kept closed at the occupant's discretion.
- If the 50 dBA $L_{eq(1\text{-}hr)}$ threshold would not be met, other site-specific measures, such as increasing setbacks of the buildings from the adjacent roadways, using shielding by other buildings or noise barriers to reduce noise levels, implementing additional sound treatments to the building design, etc. shall be considered to reduce interior noise levels to meet the Cal Green Code threshold.

The project and project alternatives would result in the same or similar future exterior and interior noise environment as described above. Inclusion of the above-described standard permit conditions would ensure future residential and commercial uses of the proposed project (or General Plan Buildout with Maximum Residential Alternative or Retail and Residential Alternative) conform to applicable exterior and interior noise standards. The Occupied/Re-Tenanted Mall Alternative is a permitted land use, and can be implemented without further discretionary approvals from the City or environmental review under CEQA. No mitigation measures or additional conditions of approval can be required.

Construction Noise

Project

It is assumed that the proposed project (and General Plan Buildout with Maximum Residential Alternative and Retail and Residential Alternative) would limit construction activity to daytime hours, Monday through Friday, consistent with Section 10.48.053 of the Municipal Code.

Construction activities generate considerable amounts of noise, especially during demolition, earth-moving, and infrastructure construction phases when heavy equipment is used. The highest maximum noise levels generated by construction of the project (or General Plan Buildout with Maximum Residential Alternative or Retail and Residential Alternative) would typically range from about 80 to 90 dBA L_{max} at a distance of 50 feet from the noise source. Typical hourly average construction-generated noise levels for residential mixed-use buildings are about 81 to 88 dBA L_{eq} measured at a distance of 50 feet from the center of the site during busy construction periods (e.g., earth moving equipment, impact tools, etc.). Hourly average construction noise levels for hotels and office buildings typically range from 78 to 89 dBA L_{eq}.[86] Construction-generated noise levels drop off at a rate of about six dBA per doubling of the distance between the source and receptor. Shielding by buildings or terrain can provide an additional five to 10 dBA noise reduction at distant receptors.

[86] Typical hourly average construction-generating noise levels include noise generated from removal of trees.

A detailed list of equipment expected for project (and General Plan Buildout with Maximum Residential Alternative and Retail and Residential Alternative) construction and construction phasing information were not available at the time of the noise study. Appendix F provides detailed information regarding the maximum noise levels generated by various pieces of construction equipment, as well as typical noise levels ranges for construction phases of a variety of development types. Several individual pieces of equipment would potentially produce noise levels that would exceed the City's 87 dBA L_{max} limit at 25 feet; the noisiest of which would be impact pile driving. Impact pile driving would result in maximum noise levels up to 105 dBA L_{max} at 50 feet, which would equate to 111 dBA L_{max} at 25 feet. This would be a potentially significant impact.

Without knowing the location on the site for each proposed land use, distances to the shared property lines of the adjacent residential land uses cannot be determined, and exact construction noise levels cannot be estimated. Based upon typical construction noise levels for various land uses, minimum distances from the residential property lines to the center of the construction sites for each proposed land use type were calculated to meet the 80 dBA L_{eq} threshold at the nearby residence property line. Table 3.13-6 summarizes the minimum distances required to meet the City's threshold.

Table 3.13-6: Minimum Distances from Nearby Existing Residential Property Lines to the Center of the Construction Site Required to Meet the 80 dBA L_{eq} Threshold

	Type of Proposed Land Use			
	Residential	**Hotel**	**Office/ Commercial**	**Parking Structure**
Minimum Distance Required to Meet 80 dBA L_{eq}	126 feet	141 feet	141 feet	141 feet

It is conservatively assumed that construction activities on the project site would exceed the 80 dBA L_{eq} threshold at the property lines of the nearby existing residences (refer to discussion above). The distances shown in Table 3.13-6 do not take into account pile driving activities, which would further increase noise levels.

Mitigation Measure:

MM NOI-1.1: Construction activities under the proposed project (or General Plan Buildout with Maximum Residential Alternative or Retail and Residential Alternative) shall be conducted in accordance with provisions of the City's Municipal Code which limit temporary construction work to daytime hours,[87] Monday through Friday. Construction is prohibited on weekends and all holidays. Further, the City requires that all equipment have high-quality noise mufflers and abatement devices installed and are in good condition. Additionally, the construction crew shall adhere to the following construction best management practices listed in MM NOI-1.2 below to reduce construction noise levels emanating from the site

[87] Per Municipal Code Section 10.48.010, daytime is defined as the period from 7:00 AM to 8:00 PM weekdays.

and minimize disruption and annoyance at existing noise-sensitive receptors in the project vicinity.

MM NOI-1.2: Future development shall implement a construction noise control plan, including, but not limited to, the following available controls:

- Construct temporary noise barriers, where feasible, to screen stationary noise-generating equipment. Temporary noise barrier fences would provide a five dBA noise reduction if the noise barrier interrupts the line-of-sight between the noise source and receptor and if the barrier is constructed in a manner that eliminates any cracks or gaps.
- Equip all internal combustion engine-driven equipment with intake and exhaust mufflers that are in good condition and appropriate for the equipment.
- Unnecessary idling of internal combustion engines shall be strictly prohibited.
- Locate stationary noise-generating equipment, such as air compressors or portable power generators, as far as possible from sensitive receptors as feasible. If they must be located near receptors, adequate muffling (with enclosures where feasible and appropriate) shall be used to reduce noise levels at the adjacent sensitive receptors. Any enclosure openings or venting shall face away from sensitive receptors.
- Utilize "quiet" air compressors and other stationary noise sources where technology exists.
- Construction staging areas shall be established at locations that would create the greatest distance between the construction-related noise sources and noise-sensitive receptors nearest the project site during all project construction.
- Locate material stockpiles, as well as maintenance/equipment staging and parking areas, as far as feasible from residential receptors.
- Control noise from construction workers' radios to a point where they are not audible at existing residences bordering the project site.
- If impact pile driving is proposed, temporary noise control blanket barriers shall shroud pile drivers or be erected in a manner to shield the adjacent land uses.
- If impact pile driving is proposed, foundation pile holes shall be pre-drilled to minimize the number of impacts required to seat the pile. Pre-drilling foundation pile holes is a standard construction noise control technique. Pre-drilling reduces the number of blows required to seat the pile. Notify all adjacent land uses of the construction schedule in writing.
- The contractor shall prepare a detailed construction schedule for major noise-generating construction activities and provide it to adjacent land uses. The construction plan shall identify a procedure for coordination with adjacent residential land uses so that construction activities can be scheduled to minimize noise disturbance.

- Designate a "disturbance coordinator" who would be responsible for responding to any complaints about construction noise. The disturbance coordinator would determine the cause of the noise complaint (e.g., bad muffler, etc.) and would require that reasonable measures be implemented to correct the problem. The telephone number for the disturbance coordinator shall be conspicuously posted at the construction site and included in the notice sent to neighbors regarding the construction schedule.

Construction noise associated with the proposed project could expose sensitive receptors to noise levels that exceed the noise standards set forth in in the City's Municipal Code. Implementation of the reasonable and feasible controls outlined above as mitigation measures and conditions of approval for future development would reduce construction noise levels emanating from the site and minimize disruption and annoyance to the extent feasible. Even with these measures, however, it may not be feasible in all cases to mitigate construction noise of individual projects to a less than significant level, and impacts from construction noise would be significant and unavoidable. **(Significant and Unavoidable Impact with Mitigation Incorporated)**

General Plan Buildout with Maximum Residential Alternative

The General Plan Buildout with Maximum Residential Alternative would result in the same construction noise impacts as described above for the proposed project. See Impact NOI-1 and mitigation measures MM NOI-1.1 and -1.2. **(Significant and Unavoidable Impact with Mitigation Incorporated)**

Retail and Residential Alternative

The Retail and Residential Alternative would result in the same construction noise impacts as described above for the proposed project. See Impact NOI-1 and mitigation measures MM NOI-1.1 and -1.2. **(Significant and Unavoidable Impact with Mitigation Incorporated)**

Occupied/Re-Tenanted Mall Alternative

The Occupied/Re-Tenanted Mall Alternative would not result in the construction of new buildings. Under this alternative, exterior and interior tenant improvements would be made. The construction of the exterior and interior tenant improvements would generate noise, although it is not anticipated that the construction noise generated would be as great as it would be under the proposed project. Construction noise under this alternative would be required to comply with City's Municipal Code, including maximum noise levels and construction hours.

A discussion of this alternative is provided in the EIR for informational purposes only. This alternative is a permitted land use, and can be implemented without further discretionary approvals from the City or environmental review under CEQA. **(Less than Significant Impact: Not a CEQA Impact)**

Mechanical Equipment Noise

Project and All Project Alternatives

The proposed project and project alternatives would include new mechanical equipment such as heating, ventilation, air conditioning systems, and backup generators. Information regarding the number, type, size, and location of the mechanical equipment units for the proposed project (and project alternatives) was not available at the time of this study. Mechanical equipment would typically be located on building rooftops, on the ground-level surrounding the exterior building facades, or within mechanical or electrical equipment rooms on the interior of the buildings.

This type of equipment could run continuously during both daytime and nighttime hours. Therefore, the daytime and nighttime Municipal Code noise thresholds of 60 and 50 dBA L_{eq}, respectively, would apply for any proposed uses at the property lines of the adjacent, existing residential land uses. The daytime and nighttime noise threshold of 65 and 55 dBA L_{eq}, respectively, would apply for any proposed non-residential developments at the property lines of the adjacent, existing residential land uses.

Without knowing details (size, location, etc.) regarding the mechanical equipment on the project site, on-site mechanical equipment noise is conservatively considered a significant impact.

Mitigation Measure:

MM NOI-1.3: A qualified acoustical consultant shall be retained for development under the proposed project (and General Plan Buildout with Maximum Residential Alternative and Retail and Residential Alternative) to review mechanical noise, as these systems are selected, to determine specific noise reduction measures necessary to ensure noise complies with the City's noise level requirements. Mechanical equipment shall be selected and designed to reduce impacts on surrounding uses to meet the City's noise level requirements. Noise reduction measures could include, but are not limited to:

- Selection of equipment that emits low noise levels;
- Installation of noise barriers, such as enclosures and parapet walls, to block the line-of-sight between the noise source and the nearest receptors;
- Locating equipment in less noise-sensitive areas, where feasible.

The implementation of mitigation measure MM NOI-1.3 above would reduce the mechanical equipment noise impact of the project (and General Plan Buildout with Maximum Residential Alternative and Retail and Residential Alternative) to a less than significant impact at adjacent residences. **(Less than Significant Impact with Mitigation Incorporated)**

Under the Occupied/Re-Tenanted Mall Alternative, new mechanical equipment would be required to meet noise standards in the City's Municipal Code. The Occupied/Re-Tenanted Mall Alternative is a permitted land use, and can be implemented without further discretionary approvals from the City or environmental review under CEQA. No mitigation measures or additional conditions of approval can be required. **(Less than Significant Impact: Not a CEQA Impact)**

Truck Loading and Unloading

Project

Truck deliveries are expected at proposed office buildings, commercial (including hotel) buildings, and mixed-use residential buildings on the project site. It is currently unknown where on-site loading zones would be located. It is assumed the project (and General Plan Buildout with Maximum Residential and Retail and Residential Alternative) would adhere to Section 10.48.062 of the City's Municipal Code, which prohibits deliveries between 8:00 PM and 8:00 AM on weekdays and between 6:00 PM and 9:00 AM on weekends and holidays. Typical deliveries would take approximately 15 minutes or less, which means the City would require loading and unloading activities at the office and commercial buildings to be at or below 70 dBA during daytime hours only.[88] For the proposed hotel and mixed-use buildings, loading and unloading activities must be maintained at or below 65 dBA at the nearest residential land use.

Heavy trucks typically generate maximum noise levels ranging from 70 to 75 dBA at a distance of 50 feet, while smaller delivery trucks generate maximum noise levels ranging from 60 to 65 dBA at a distance of 50 feet. Truck backup alarms are typically 65 to 70 dBA at a distance of 50 feet. While noise levels during deliveries cannot be precisely estimated at the adjacent residential land uses, loading zones within 50 feet of the shared property line would potentially result in noise levels exceeding the 70 dBA threshold for commercial deliveries and the 65 dBA threshold for hotel and mixed-use deliveries. This would be a significant impact.

Mitigation Measure:

MM NOI-1.4: Section 10.48.062 prohibits deliveries between 8:00 PM and 8:00 AM on weekdays and between 6:00 PM and 9:00 AM on weekends and holidays, which shall be enforced as part of the proposed project and all project alternatives. Additionally, the effect of loading zone activities would be evaluated for noise impacts and help determine design decisions once project-specific information for the project (or General Plan Buildout with Maximum Residential Alternative or Retail and Residential Alternative), such as type and size of the commercial uses, hours of operation, frequency of deliveries, and location of loading zones, is available. Noise reduction measures could include, but are not limited to, the following:

- Move loading zones inside (e.g., within parking structures), where possible, and as far from adjacent residential uses as possible.
- Implement a no idling policy at all locations that requires engines to be turned off after five minutes.
- Recess truck docks into the ground or locate them within parking structures.

[88] Pursuant to Municipal Code Section 10.48.040, the maximum daytime noise level allowed at adjacent nonresidential property lines is 65 dBA. Pursuant to Municipal Code Section 10.48.050, brief daytime incidents that result in brief noise incidents exceeding the 65 dBA noise limit identified in Section 10.48.040 are allowed provided that the sum of the noise duration in minutes plus the excess noise level does not exceed 20 in a two-hour period. Therefore, if a delivery takes 15 minutes, a five decibel increase above the maximum daytime noise level is allowed.

- Equip loading bay doors with rubberized gasket type seals to allow little loading noise to escape.

MM NOI-1.5: Prior to issuance of building permits, a noise study shall be completed to determine noise levels due to truck deliveries at the proposed buildings, and the specific noise control that shall be implemented to reduce noise levels below the City's thresholds at adjacent residential property lines shall be identified.

The implementation of mitigation measures MM NOI-1.4 and -1.5 would reduce the project (and General Plan Buildout with Maximum Residential and Retail and Residential Alternative) noise impact from truck loading and unloading to a less than significant level by restricting delivery times, conducting noise studies when use locations are known, and implementing noise reduction measures to meet the City's noise limits. **(Less than Significant Impact with Mitigation Incorporated)**

General Plan Buildout with Maximum Residential Alternative

The General Plan Buildout with Maximum Residential Alternative would result in the same truck loading and unloading noise impacts as described above for the proposed project. See Impact NOI-1 and mitigation measures MM NOI-1.4 and -1.5. **(Less than Significant Impact with Mitigation Incorporated)**

Retail and Residential Alternative

The Retail and Residential Alternative would result in the same truck loading and unloading noise impacts as described above for the proposed project. See Impact NOI-1 and mitigation measures MM NOI-1.4 and -1.5. **(Less than Significant Impact with Mitigation Incorporated)**

Occupied/Re-Tenanted Mall Alternative

Existing and new loading and unloading areas under the Occupied/Re-Tenanted Mall Alternative are required to comply with the City's Municipal Code regarding maximum noise levels, brief daytime incidences, and nighttime deliveries and pickups.

A discussion of this alternative is provided in the EIR for informational purposes only. This alternative is a permitted land use, and can be implemented without further discretionary approvals from the City or environmental review under CEQA. No mitigation measures or additional conditions of approval can be required. **(Less than Significant Impact: Not a CEQA Impact)**

Outdoor Activity Areas

Project

The proposed project is expected to include outdoor use areas such as outdoor dining, playgrounds, and walking paths and picnic areas. It is assumed that the proposed outdoor use areas would not include active play fields or courts. While a detailed site plan showing the locations of proposed outdoor use areas was not available at the time of this study, this analysis assumed that these activity areas could be located along the perimeter of the project site and on the proposed green roof. Due to the elevations expected for the green roof, which could range from 15 to 75 feet above the ground,

the existing sound wall located along the property lines of the residences to the west would provide little to no shielding benefits. For the purposes of this analysis, the sound wall is assumed to provide no attenuation for project generated noise at proposed outdoor activity areas.

The City's Municipal Code includes thresholds that would be applied based on the duration of activities at the uses described above in any two-hour period. Typically, outdoor activities as described above would be expected to last for a period of more than 15 minutes in any two-hour period. Because these outdoor use areas would be part of a nonresidential land use, noise levels generated by proposed outdoor activity areas are required to be maintained at or below 65 dBA during daytime hours and at or below 55 dBA at night.

Outdoor Dining Areas

Illingworth & Rodkin, Inc. measured noise levels produced by active commercial outdoor use areas at Santana Row in San José, California. Noise measurements were made from a fourth-floor balcony overlooking active commercial outdoor use areas, which included a busy outdoor dining area, conversations, an open grassy area, a small child play area, and local traffic (e.g., autos and trucks revving engines up to 87 dBA L_{max}). Noise levels produced by these sources typically ranged from 66 to 71 dBA, and the average noise level was 69 dBA L_{eq}. Indoor music from the restaurant was audible, but noise levels due to the music could not be measured separately due to the other dominating noise sources. These noise level measurements were a combination of multiple sources, and the distances from each noise source varied. Therefore, the center point of all activities in the area was used to determine the distance from the source to the receptor. Taking into account the elevation of the measurement location, the distance was approximately 65 feet.

Based on the data above, the center of future busy outdoor dining areas would need to be setback a minimum distance of 310 feet from the nearest existing residential property line in order to reduce the average noise level to meet the nighttime threshold of 55 dBA. Other design options for outdoor dining areas would be to locate them on the ground floor with an open roof and surrounded by the elevated green roof. Under this design option, the building supporting the green roof would provide shielding for the nearby residents.

Playgrounds

Playground noise would primarily result from activities such as raised voices and the use of playground equipment. Typical noise levels resulting from various playground activities range from 59 to 67 dBA L_{eq} at a distance of 50 feet. Maximum instantaneous noise levels typically result from children shouting and can reach levels of 75 dBA L_{max} at a distance of 50 feet. Assuming playground activities would be restricted to daytime hours only, the minimum setback of the center of the playground areas to the nearest residential property lines would need to be 60 feet for the typical noise levels to meet the daytime threshold of 65 dBA.

Walking Paths and Picnic Areas

Typically, walking paths and picnic areas are used for activities such as walking, running, conversations, and dining. These types of activities do not typically generate noise levels beyond ambient, background levels and would not be audible at distances beyond 50 feet. Since the existing residences would be separated from the project site by either Perimeter Road, Vallco Parkway, or North Wolfe Road, and it is assumed that the centers of the walking paths and picnic areas would not be located right along the roadway, future outdoor walking paths and picnic areas on-site are not expected to result in noise levels exceeding 55 dBA at the nearest residential property lines.
As identified in Section 2.4.4, the Specific Plan under the project (and General Plan Buildout with Maximum Residential Alternative and Retail and Residential Alternative) would include policies that require minimum setbacks and/or noise attenuation for on-site outdoor activity uses to meet Municipal Code standards:

- Outdoor dining areas located on the green roof with direct line-of-sight to the existing residences to the west of the site, opposite Perimeter Road, and to the southeast of the site, opposite Vallco Parkway and North Wolfe road, shall be setback a minimum distance of 310 feet from the nearest residential property line to meet the nighttime threshold of 55 dBA. Alternately, outdoor dining areas shall be acoustically shielded by noise barriers or buildings.

- Playgrounds proposed on the green roof shall be setback a minimum distance of 60 feet from the nearest residential property line or acoustically shielded by noise barriers.

(Less than Significant Impact)

General Plan Buildout with Maximum Residential Alternative

The General Plan Buildout with Maximum Residential Alternative would result in the same noise impacts from on-site outdoor activity areas and include the same policies for reducing noise from those sources as described above for the proposed project. **(Less than Significant Impact)**

Retail and Residential Alternative

The Retail and Residential Alternative would result in the same noise impacts from on-site outdoor activity areas and include the same policies for reducing noise from those sources as described above for the proposed project. **(Less than Significant Impact)**

Occupied/Re-Tenanted Mall Alternative

The Occupied/Re-Tenanted Mall Alternative could include outdoor dining areas or other outdoor activity areas. Outdoor activity areas under this alternative would be required to meet Municipal Code noise standards. A discussion of this alternative is provided in the EIR for informational purposes only. This alternative is a permitted land use, and can be implemented without further discretionary approvals from the City or environmental review under CEQA. **(Less than Significant Impact: Not a CEQA Impact)**

Impact NOI-2:	**The project (and General Plan Buildout with Maximum Residential Alternative and Retail and Residential Alternative) would not expose persons to or generation of excessive groundborne vibration. (Less than Significant Impact with Mitigation Incorporated)**

Project

Construction of the project (and General Plan Buildout with Maximum Residential Alternative and Retail and Residential Alternative) may generate vibration when heavy equipment or impact tools (e.g., jackhammers, hydraulic demolition hammer/hoe ram) are used. Construction activities would include grading, foundation work, paving, and new building framing and finishing.

To avoid structural damage, the California Department of Transportation recommends a vibration limit of 0.5 in/sec PPV for buildings structurally sound and designed to modern engineering standards, 0.3 in/sec PPV for buildings that are found to be structurally sound but where structural damage is a major concern, and a conservative limit of 0.08 in/sec PPV for ancient buildings or buildings that are documented to be structurally weakened. No known ancient buildings or buildings that are documented to be structurally weakened adjoin the project site. Therefore, conservatively, groundborne vibration levels exceeding 0.3 in/sec PPV would have the potential to result in a significant vibration impact.

Project (and General Plan Buildout with Maximum Residential Alternative and Retail and Residential Alternative) construction activities, such as pile driving, drilling, the use of jackhammers, rock drills and other high-power or vibratory tools, and rolling stock equipment (tracked vehicles, compactors, etc.), may generate substantial vibration in the immediate vicinity. Impact pile driving typically generates vibration levels of 0.644 in/sec PPV at 25 feet, with an upper range of 1.158 in/sec PPV at this distance. Vibratory pile driving typically generates vibration levels of 0.170 in/sec PPV at 25 feet, with an upper range of 0.734 in/sec PPV at this distance. Jackhammers typically generate vibration levels of 0.035 in/sec PPV, and drilling typically generates vibration levels of 0.09 in/sec PPV at a distance of 25 feet. Vibration levels would vary depending on soil conditions, construction methods, and equipment used.

The nearest sensitive receptors are located west of the site, opposite Perimeter Road. Some of these residential structures are as close as 10 feet from the project site. At 10 feet, impact and vibratory pile driving would generate vibration levels up to 3.173 and 2.011 in/sec PPV, respectively. All other equipment would generate vibration levels up to 0.575 in/sec PPV. An existing apartment building is located in the southeast corner of the Vallco Parkway/North Wolfe Road intersection, approximately 110 feet from the boundary of the project site. At this distance, vibration levels would be up to 0.227 in/sec PPV for impact pile driving, up to 0.144 in/sec PPV for vibratory pile driving, and up to 0.041 in/sec PPV for every other type of construction equipment. The hotel building currently under construction at the northern end of the site, adjacent to I-280, is approximately 75 feet from the nearest probable construction activity. At this distance, impact and vibratory pile driving would generate vibration levels up to 0.346 and 0.219 in/sec PPV, respectively, while all other construction activities would generate vibration levels up to 0.1 in/sec PPV.

Commercial buildings are located opposite Perimeter Road to the west, opposite Perimeter Road to the east, opposite North Wolfe Road to the east, and opposite Stevens Creek Boulevard to the south. The nearest commercial building west of the site is 50 feet from the project's boundary, and the other surrounding commercial buildings are 100 feet or more from the project site. At 50 feet, pile driving activities would generate vibration levels up to 0.540 and 0.342 in/sec PPV for impact and vibratory, respectively, while all other equipment would be at or below 0.1 in/sec PPV. At 100 feet, pile driving activities would generate vibration levels up to 0.250 and 0.160 in/sec PPV for impact and vibratory, respectively, while all other equipment would be at or below 0.05 in/sec PPV.

Pile driving activities would potentially generate vibration levels in excess of the 0.3 in/sec PPV threshold at residential and commercial structures to the east of the project site. Additionally, all other construction equipment operated near the western boundary shared with residential land uses would generate vibration levels exceeding 0.3 in/sec PPV. This is a significant impact.

Mitigation Measure:

MM NOI-2.1: Where vibration levels due to construction activities under the proposed project (or General Plan Buildout with Maximum Residential Alternative or Retail and Residential Alternative) would exceed 0.3 in/sec PPV at nearby sensitive uses, development shall:

- Comply with the construction noise ordinance to limit hours of exposure. The City's Municipal Code allows construction noise to exceed limits discussed in Section 10.48.040 during daytime hours. No construction is permitted on Sundays or holidays.
- In the event pile driving would be required, all receptors within 300 feet of the project site shall be notified of the schedule a minimum of one week prior to its commencement. The contractor shall implement "quiet" pile driving technology (such as pre-drilling of piles, the use of more than one pile driver to shorten the total pile driving duration, or the use of portable acoustical barriers), in consideration of geotechnical and structural requirements and conditions.
- To the extent feasible, the project contractor shall phase high-vibration generating construction activities, such as pile driving/ground-impacting operations, so they do not occur at the same time with demolition and excavation activities in locations where the combined vibrations would potentially impact sensitive areas.
- The project contractor shall select demolition methods not involving impact tools, where possible (for example, milling generates lower vibration levels than excavation using clam shell or chisel drops).
- The project contractor shall avoid using vibratory rollers and packers near sensitive areas.
- Impact pile driving shall be prohibited within 90 feet of an existing structure surrounding the project site. Vibratory pile driving shall be prohibited within 60 feet of an existing structure surrounding the project site.

- Prohibit the use of heavy vibration-generating construction equipment, such as vibratory rollers or clam shovel, within 20 feet of any adjacent sensitive land use.
- If pile driving is required in the vicinity of vibration-sensitive structures adjacent to the project site, survey conditions of existing structures and, when necessary, perform site-specific vibration studies to direct construction activities. Contractors shall continue to monitor effects of construction activities on surveyed sensitive structures and offer repair or compensation for damage.
- Construction management plans for substantial construction projects, particularly those involving pile driving, shall include predefined vibration reduction measures, notification requirements for properties within 200 feet of scheduled construction activities, and contact information for on-site coordination and complaints.

Critical factors affecting the impact of construction vibration on sensitive receptors include the proximity of the existing structures to the project site, the soundness of the structures, and the methods of construction used. The implementation of the above-described mitigation measure would reduce the impact to a less than significant level by restricting construction noise/vibration exposure, implementing measure to minimize vibration, monitoring effects (if necessary), and notifying receptors. **(Less than Significant Impact with Mitigation Incorporated)**

General Plan Buildout with Maximum Residential Alternative

The General Plan Buildout with Maximum Residential Alternative would result in the same construction vibration impacts as described above for the proposed project. See Impact NOI-2 and mitigation measure MM NOI-2.1. **(Less than Significant Impact with Mitigation Incorporated)**

Retail and Residential Alternative

The Retail and Residential Alternative would result in the same construction vibration impacts as described above for the proposed project. See Impact NOI-2 and mitigation measure MM NOI-2.1. **(Less than Significant Impact with Mitigation Incorporated)**

Occupied/Re-Tenanted Mall Alternative

The Occupied/Re-Tenanted Mall Alternative assumes no new buildings would be constructed; therefore substantial construction-related vibration impacts are not anticipated.

The Occupied/Re-Tenanted Mall Alternative is provided in the EIR for informational purposes only. This alternative is a permitted land use, and can be implemented without further discretionary approvals from the City or environmental review under CEQA. **(Less than Significant Impact: Not a CEQA Impact)**

Impact NOI-3:	**The project (and General Plan Buildout with Maximum Residential Alternative and Retail and Residential Alternative) would result in a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project. (Significant and Unavoidable Impact with Mitigation Incorporated)**

Project and All Project Alternatives

A significant impact would occur if the permanent noise level increase due to project-generated traffic was three dBA CNEL or greater for future ambient noise levels exceeding 60 dBA CNEL or was five dBA CNEL or greater for future ambient noise levels at or below 60 dBA CNEL. Based on measurements made at LT-1, LT-2, and LT-3, the existing ambient noise levels adjacent to the site exceed 60 dBA CNEL and, considering non-project-related traffic volume increases in the future, the future ambient noise levels would exceed 60 dBA CNEL. Therefore, a significant impact would occur if the project resulted in an increase of three dBA CNEL or more. For reference, a three dBA CNEL noise increase would be expected if the project would double existing traffic volumes along a roadway, and a five dBA CNEL increase would result if existing traffic volumes were to triple with the project.

To determine noise level increases at existing residential land uses due to project-generated traffic, existing plus project (or project alternative) peak hour traffic conditions from the project (or project alternative) traffic analysis were compared to the existing peak hour traffic conditions. Based upon the data from the traffic analysis (see Appendix H), receptors along Vallco Parkway and all other roadway segments in the project vicinity would experience noise level increase of two dBA CNEL or less with traffic from the project (or project alternatives), with the exception of Perimeter Road. Perimeter Road receptors would experience a seven to eight dBA increase in noise levels above existing conditions with the addition of traffic from the project (or project alternatives). Perimeter Road is within 50 feet of nearby sensitive residential receptors. These sensitive receptors are shielded from Perimeter Road by an eight-foot sound wall, which provides at least five dBA of noise attenuation. This sound wall is expected to remain under the proposed project and project alternatives.

The noise levels measured at LT-3 documented existing noise levels along Perimeter Road are 58 to 60 dBA CNEL. The sound level meter at LT-3 measured noise levels above the sound wall along Perimeter Road, so existing noise levels in the backyards of the residences along Perimeter Road are estimated to be 53 to 55 dBA CNEL (assuming a five dBA reduction from the wall). Since the project and project alternatives would generate a noise level increase of at least five dBA CNEL at residences along Perimeter Road where the existing ambient noise level is less than 60 dBA CNEL, project (and project alternative) generated traffic would result in a significant permanent noise increase at those residences along Perimeter Road. With the project (or project alternatives), the future noise levels at the shielded backyards of the residences along Perimeter Road would range from 60 to 62 dBA CNEL assuming an increase of seven dBA and from 61 to 63 dBA CNEL with an increase of eight dBA with the project (or project alternatives).

Mitigation Measure:

MM NOI-3.1: Future development under the proposed project (and General Plan Buildout with Maximum Residential Alternative and Retail and Residential Alternative) shall implement available measures to reduce project-generated noise level increases from project traffic on Perimeter Road. The noise attenuation measures shall be studied on a case-by-case basis at receptors that would be significantly impacted. Noise reduction methods could include the following:

- New or larger noise barriers or other noise reduction techniques constructed to protect existing residential land uses. Final design of such barriers shall be completed during project level review.
- Alternative noise reduction techniques, such as re-paving Perimeter Road with "quieter" pavement types including Open-Grade Rubberized Asphaltic Concrete. The use of "quiet" pavement can reduce noise levels by two to five dBA, depending on the existing pavement type, traffic speed, traffic volumes, and other factors.
- Traffic calming measures to slow traffic, such as speed bumps.
- Building sound insulation for affected residences, such as sound-rated windows and doors, on a case-by-case basis as a method of reducing noise levels in interior spaces.

Due to the 15 mph speed limit along Perimeter Road, quiet pavement and the installation of speed bumps may not reduce the noise level increase to a less than significant level because vehicle speed is already limited. For this reason, this impact is considered significant and unavoidable. **(Significant and Unavoidable with Mitigation Incorporated)**

The Occupied/Re-Tenanted Mall Alternative is provided in the EIR for informational purposes only. This alternative is a permitted land use, and can be implemented without further discretionary approvals from the City or environmental review under CEQA. **(Significant and Unavoidable Impact: Not a CEQA Impact)**

Impact NOI-4:	**The project (and General Plan Buildout with Maximum Residential Alternative and Retail and Residential Alternative) would result in a substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project. (Significant and Unavoidable Impact with Mitigation Incorporated)**

Project

Noise impacts resulting from construction depend upon the noise generated by various pieces of construction equipment, the timing and duration of noise-generating activities, and the distance between construction noise sources and noise-sensitive areas. Construction noise impacts primarily result when construction activities occur during noise-sensitive times of the day (e.g., early morning, evening, or nighttime hours), the construction occurs in areas immediately adjoining noise-sensitive land uses, or when construction lasts over extended periods of time.

As discussed under Impact NOI-1, pile driving activities are expected to exceed maximum noise thresholds established in the City's Municipal Code for individual pieces of equipment, even with implementation of the Construction Best Management Practices. The discussion below evaluates the temporary noise impacts resulting from project construction activities when compared to ambient noise conditions and general thresholds, based on indoor speech interference.

As discussed previously, the threshold for indoor speech interference is 45 dBA. Assuming a conservative 15 dBA exterior-to-interior reduction for standard residential construction and a 25 dBA exterior-to-interior reduction for standard commercial construction, this would correlate to an exterior threshold of 60 dBA L_{eq} at residential land uses and 70 dBA L_{eq} at commercial land uses. Additionally, temporary construction would be annoying to surrounding land uses if the ambient noise environment increased by at least five dBA L_{eq} for an extended period of time. Therefore, the temporary construction noise impact would be considered significant, if project construction activities exceeded 60 dBA L_{eq} at nearby residences or exceeded 70 dBA L_{eq} at nearby commercial land uses and exceeded the ambient noise environment by five dBA L_{eq} or more for a period longer than one year.

Residential receptors exist adjacent to the western boundary of the project site and opposite Perimeter Road to the west. These receptors are represented by ambient noise measurements made at LT-1, LT-2, and LT-3 (refer to Figure 3.13-2), which range from 46 to 61 dBA L_{eq} during daytime hours. Existing commercial land uses along Stevens Creek Boulevard, to the west, south, and east of the site, are represented by ambient noise levels measured at LT-4, which range from 65 to 70 dBA L_{eq} during daytime hours. For the existing mixed-use residential development, nineteen800, ambient noise measurements made at ST-3 and ST-5 represent typical daytime noise levels at these receptors, which range from 62 to 66 dBA L_{eq}. The commercial property to the east of the project site, opposite Perimeter Road, and the hotel building along the northern boundary currently under construction, are represented by ambient noise levels measured at LT-5 since I-280 would dominate the noise environment at this location. The daytime noise levels at LT-5 range from 65 to 72 dBA L_{eq}.

While detailed information for construction of the proposed project (or General Plan Buildout with Maximum Residential Alternative or Retail and Residential Alternative) is unknown, the buildout of the development is estimated to take 10 years to complete. Based on the hourly average noise levels described above, construction activities within 50 feet of the property lines of the nearby residential and commercial land uses would exceed 60 and 70 dBA L_{eq}, respectively, and exceed ambient noise levels by more than five dBA throughout construction. This would result in indoor speech interference and disruption for a period of up to 10 years.

Construction noise associated with the proposed project (or General Plan Buildout with Maximum Residential Alternative or Retail and Residential Alternative) could expose nearby sensitive receptors to elevated noise levels over a period of up to 10 years.

Mitigation Measure:

MM NOI-4.1: Implement MM NOI-1.1 and -1.2.

The implementation of the reasonable and feasible controls outlined in MM NOI-1.1 and -1.2 would reduce construction noise levels emanating from the site and minimize disruption and annoyance to the extent feasible. The impacts from construction noise would be significant and unavoidable, however, because of the extended time period anticipated for project construction (10 years). **(Significant and Unavoidable Impact with Mitigation Incorporated)**

General Plan Buildout with Maximum Residential Alternative

The General Plan Buildout with Maximum Residential Alternative would result in the same temporary increase in ambient noise levels due to construction activities as described above for the proposed project. See Impact NOI-4 and mitigation measures MM NOI-1.1 and -1.2. **(Significant and Unavoidable Impact with Mitigation Incorporated)**

Retail and Residential Alternative

The Retail and Residential Alternative would result in the same temporary increase in ambient noise levels due to construction activities as described above for the proposed project. See Impact NOI-4 and mitigation measures MM NOI-1.1 and -1.2. **(Significant and Unavoidable Impact with Mitigation Incorporated)**

Occupied/Re-Tenanted Mall Alternative

The Occupied/Re-Tenanted Mall Alternative would not result in the construction of new buildings. Under this alternative, exterior and interior tenant improvements would be made. The construction of the exterior and interior tenant improvements would generate noise, although it is not anticipated that the construction noise generated would be as great as it would be under the proposed project. Construction noise under this alternative would be required to comply with City's Municipal Code, including maximum noise levels and construction hours.

A discussion of this alternative is provided in the EIR for informational purposes only. This alternative is a permitted land use, and can be implemented without further discretionary approvals from the City or environmental review under CEQA. **(Less than Significant Impact: Not a CEQA Impact)**

Impact NOI-5:	**The project site is not located within an airport land use plan, within two miles of a public airport or public use airport, or in the vicinity of a private airstrip. (No Impact)**

The project site is not located within an airport land use plan, within two miles of a public or public use airport, or in the vicinity of a private airstrip. Therefore, the project (and project alternatives) would not expose people residing or working in the project area to excessive airport-related noise levels. **(No Impact)**

Impact NOI-6:	**The project (and General Plan Buildout with Maximum Residential Alternative and Retail and Residential Alternative) would result in a cumulatively considerable permanent noise level increase at existing residential land uses. (Significant and Unavoidable Cumulative Impact with Mitigation Incorporated)**

Project

The geographic area for cumulative noise impacts includes the project site and surrounding area. As described previously, the project site is located within an urbanized area exposed to noise from vehicular traffic on I-280, Stevens Creek Boulevard, Wolfe Road, and other nearby roadways, as well as existing residential and commercial development in the area.

A significant long-term cumulative noise impact would occur if two criteria are met: 1) if the cumulative traffic noise level increase is three dBA CNEL or greater for future levels exceeding 60 dBA CNEL or is five dBA CNEL or greater for future levels at or below 60 dBA CNEL; and 2) if the project would make a "cumulatively considerable" contribution to the overall traffic noise increase. A "cumulatively considerable" contribution is defined as an increase of one dBA CNEL or more attributable solely to the proposed project.

Cumulative traffic noise level increases were calculated by comparing the cumulative no project traffic volumes and the cumulative plus project (or project alternative) volumes to existing traffic volumes (see Table 3.13-7). A traffic noise increase of three dBA CNEL was calculated along several roadway segments included in the traffic study under the cumulative no project scenario, the cumulative plus project (or project alternative) scenario. However, traffic noise levels along Vallco Parkway, east of North Wolfe Road, are projected to increase by three dBA CNEL under cumulative plus project and project alternative conditions, while cumulative (no project) conditions resulted in an increase of two dBA CNEL. Because each scenario involving project and project alternative conditions would be substantially increased, and the project's contribution would be one dBA CNEL, the project would cause a significant cumulative traffic noise impact.

Additionally, along Perimeter Road north of Stevens Creek Boulevard, an increase of seven to eight dBA was calculated under the cumulative plus project (or project alternative) scenario, while the cumulative (no project) scenario resulted in no measurable noise increase. The speed limit is expected to remain 15 mph in the future, and the eight-foot sound wall is expected to remain under future cumulative plus project (or project alternative) condition. However, given that the increase is expected to exceed five dBA CNEL compared to existing conditions and the project's contribution to the increase is more than one dBA CNEL, a cumulatively considerable contribution to the overall traffic noise increase at the adjacent existing residential land uses would occur under the proposed project and each alternative. This is a significant cumulative impact.

Table 3.13-7: Calculated Cumulative Noise Level Increases Above Existing Conditions		
Roadway Segment	**Cumulative (No Project) Noise Increase**	**Cumulative with Project (and Project Alternatives) Noise Increase**
	(dBA)	
Perimeter Road, north of Stevens Creek Boulevard	< 1	7 to 8
North Wolfe Road, north of Vallco Parkway	1	2
North Wolfe Road, between Vallco Parkway and Stevens Creek Boulevard	1	2
Miller Avenue, south of Stevens Creek Boulevard	1	1
Stevens Creek Boulevard, east of North Wolfe Road	1	1 to 2
Stevens Creek Boulevard, between North Wolfe Road and Perimeter Road	1	1
Stevens Creek Boulevard, west of Perimeter Road	1	1 to 2
Vallco Parkway, east of North Wolfe Road	2	3
Note: The calculated increases shown in the table are for the roadway segments in the immediate vicinity of the project site. All other intersections included in the traffic study resulted in the same noise level increases for all cumulative conditions (i.e., no project, with project, with project alternatives).		

Mitigation Measure:

MM NOI-6.1: Implement MM NOI-3.1 to reduce project-generated noise level increases on Perimeter Road north of Stevens Creek Boulevard and Vallco Parkway east of North Wolfe Road.

The implementation of the above mitigation measure would reduce this cumulatively considerable contribution to a significant permanent cumulative noise impact at existing residences, but not to a less than significant level. The existing sound wall and sound insulation features of the existing residences may not change as a result of the project and project alternatives. Additionally, due to the 15 mph speed limit along Perimeter Road, quiet pavement and the installation of speed bumps may not reduce the noise level increase to a less than significant level on this street. For these reasons, this impact is considered significant and unavoidable. **(Significant and Unavoidable Cumulative Impact with Mitigation Incorporated)**

General Plan Buildout with Maximum Residential Alternative

The General Plan Buildout with Maximum Residential Alternative would result in the same significant cumulative traffic noise impact as described above for the proposed project. See Impact NOI-6 and MM NOI-6.1. **(Significant and Unavoidable Cumulative Impact with Mitigation Incorporated)**

Retail and Residential Alternative

The Retail and Residential Alternative would result in the same significant cumulative traffic noise impact as described above for the proposed project. See Impact NOI-6 and MM NOI-6.1. **(Significant and Unavoidable Cumulative Impact with Mitigation Incorporated)**

Occupied/Re-Tenanted Mall Alternative

The Occupied/Re-Tenanted Mall Alternative would General Plan Buildout with Maximum Residential Alternative would result in the same significant cumulative traffic noise impact as described above for the proposed project. See Impact NOI-6.

A discussion of this alternative is provided in the EIR for informational purposes only. This alternative is a permitted land use, and can be implemented without further discretionary approvals from the City or environmental review under CEQA. No mitigation measures or additional conditions of approval can be required. **(Significant and Unavoidable Cumulative Impact: Not a CEQA Impact)**

3.14 POPULATION AND HOUSING

3.14.1 Environmental Setting

3.14.1.1 *Regulatory Framework*

State Housing Element Law

California's Housing Element Law requires all cities to: 1) zone adequate lands to accommodate their Regional Housing Needs Allocation (RHNA); 2) produce an inventory of sites that can accommodate their share of the regional housing need; 3) identify governmental and non-governmental constraints to residential development; 4) develop strategies and work plan to mitigate or eliminate those constraints; and 5) adopt a housing element that is to be updated on a regular recurring basis. The City of Cupertino's Housing Element was last updated in 2014.

Plan Bay Area 2040

ABAG allocates regional housing needs to each city and county within the nine-county Bay Area, based on statewide goals. ABAG also develops forecasts for population, households, and economic activity in the Bay Area. ABAG, MTC, and local jurisdiction planning staff created the *Regional Forecast of Jobs, Population and Housing* (upon which *Plan Bay Area 2040* is based), which is an integrated land use and transportation plan looking out to the year 2040 for the nine-county San Francisco Bay Area.

MTC and ABAG originally adopted *Plan Bay Area* in 2013. *Plan Bay Area* is a plan for reducing per-capita GHG emissions through the promotion of compact, mixed-use residential and commercial neighborhoods near transit−particularly within identified Priority Development Areas (PDAs). *Plan Bay Area 2040* was adopted in July 2017 as a focused update building upon the development strategies developed in the original *Plan Bay Area* but with updated planning assumptions that incorporate key economic and demographic trends from the last four years. *Plan Bay Area 2040* includes the region's Sustainable Communities Strategy and 2040 Regional Transportation Plan. *Plan Bay Area 2040* is a state-mandated, integrated long-range transportation, land-use and housing plan that will support a growing economy, provide more housing and transportation choices and reduce transportation-related pollution in the Bay Area.

3.14.1.2 *Existing Conditions*

In 2016, the City of Cupertino had an approximate population of 58,915.[89] ABAG estimates that in 2035, the City's population will be 68,700 residents in 23,380 households.[90] ABAG is projecting that jobs in the City will increase from approximately 27,950 in 2015 to 32,150 in 2035.

As shown in General Plan Table LU-1, buildout of the City's General Plan would result in approximately 4.4 million square feet of commercial uses, 11.5 million square feet of office uses,

[89] California Department of Finance. *E-1 Population Estimates for Cities, Counties, and the State – January 1, 2016 and 2017.* May 2017. Available at: http://www.dof.ca.gov/Forecasting/Demographics/Estimates/E-1/.
[90] Association of Bay Area Governments. *Plan Bay Area Projections 2013.* 2013.

1,429 hotel rooms, and 23,294 residential units.[91] General Plan Table LU-1 indicates an allocation of approximately 1.2 million square feet of commercial uses since elimination of this allocation would render the existing mall inconsistent with the General Plan. However, the General Plan update process in 2014 analyzed and allocated 600,000 square feet of commercial uses, 2.0 million square feet of office uses, 339 hotel rooms, and 389 residential units for a redeveloped project on the site. As discussed in Section 3.11, pursuant to General Plan Strategy LU-1.2.1, development allocations are assigned for various Planning Areas. Some flexibility may be allowed however, for transferring allocations among Planning Areas, provided no significant environmental impacts are identified beyond those already studied in the General Plan EIR. Currently, development allocations are available for 798,917 square feet of commercial uses, approximately 2.5 million square feet of office uses, 313 hotel rooms, and 1,882 residential units.

The project site is currently developed with approximately 1.2 million square feet of commercial uses and a 148-room hotel (under construction). At the time the NOP was published, about 24 percent of the commercial uses were occupied.

3.14.2 Population and Housing Impacts

3.14.2.1 *Thresholds of Significance*

For the purposes of this EIR, a population and housing impact is considered significant if the project would:

- Induce substantial 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);
- Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere; or
- Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere.

Impact POP-1: The project (and project alternatives) would not induce substantial population growth in the area. (Less than Significant Impact)

Project

The project proposes 600,000 square feet of commercial uses, 2.0 million square feet of office uses, 339 hotel rooms, and 800 residential units. The proposed project would not directly induce population or housing growth beyond what is already planned for in the City's 2040 General Plan because there are sufficient development allocations available citywide for the proposed project (see Table 3.14-1).

[91] City of Cupertino. *Cupertino General Plan Community Vision 2015-2040.* Table LU-1: Citywide Development Allocation Between 2014-2040. October 15, 2015. Page LU-13.

Table 3.14-1: General Plan Development Allocated to the Project Site and Available Citywide				
	Commercial Square Footage	**Office Square Footage**	**Hotel Rooms**	**Residential Units**
Development Allocation identified for the Vallco Shopping District	1,207,774	2,000,000	339	389
Available General Plan Development Allocations Citywide (not including allocations identified for the Vallco Shopping District)	798,917	553,826	122	1,493
Source: City of Cupertino. *Cupertino General Plan Community Vision 2015-2040.* Table LU-1: Citywide Development Allocation Between 2014-2040. October 15, 2015. Page LU-13.				

Implementation of the proposed project would require connections to existing utility lines in the area. The project includes the extension of existing recycled water infrastructure nearby to the project site. Recycled water would be used on-site for landscape irrigation. Standard connections to existing water, sewer, and storm drain systems to serve the project site would not induce growth beyond the proposed project. No new off-site roads would be constructed to serve the project.

In addition, as discussed in Section 3.8.2, the project (and General Plan Buildout with Maximum Residential Alternative and Retail and Residential Alternative) is consistent with *Plan Bay Area 2040* because it includes development of housing (and reduces GHG emissions by developing a compact mixed use development near transit, promoting automobile-alternative modes of transportation, implementing a TDM program, and implementing a GHG Reduction Plan).

Based on the above discussion, the proposed project would not induce substantial population growth. **(Less than Significant Impact)**

General Plan Buildout with Maximum Residential Alternative

Compared to the amount of development allocated to the project site in the General Plan (refer to Table 3.14-1), the General Plan Buildout with Maximum Residential Alternative would develop approximately one-half of the commercial and office development, the same number of hotel rooms, and more residential units than allocated to the site. Assuming the residential unit allocation for other areas in the City are transferred to the site, this Alternative proposes 758 residential units above the number of available residential units citywide. With a projected citywide buildout of 23,294 units, this alternative would represent a 3.2 percent increase in the total number of residential units planned for in the City's General Plan.

While the General Plan Buildout with Maximum Residential Alternative would result in an approximately three percent increase in residential growth above what was planned in the City's General Plan, this increase would not induce substantial population growth in the area, either directly

or indirectly, because it would occur on an infill site, would be consistent with the General Plan goals for focused and sustainable growth, and support the intensification of development in an urbanized area currently served by existing roads, transit, utilities, and public services. For these reasons, the General Plan with Maximum Residential Alternative would not contribute to substantial growth inducement in Cupertino or in the region.

Implementation of the General Plan Buildout with Maximum Residential Alternative would require connections to existing utility lines in the area. The General Plan Buildout with Maximum Residential Alternative includes the extension of existing recycled water infrastructure nearby to the project site. Recycled water would be used on-site for landscape irrigation. As discussed in Section 3.18, sewer system improvements would be needed to serve the estimated sewage from the development. The sewer system improvements would be sized to accommodate existing flows and flows from the General Plan Buildout with Maximum Residential Alternative only. For this reason, the sewer system improvements would not be growth inducing. Other standard connections to existing water and storm drain systems to serve the project site would not induce growth beyond the proposed project. No new off-site roads would be constructed to serve the General Plan Buildout with Maximum Residential Alternative.

In addition, as discussed in Section 3.8.2, the General Plan Buildout with Maximum Residential Alternative and Retail and Residential Alternative is consistent with *Plan Bay Area 2040* because it includes development of housing and reduces GHG emissions by developing a compact, mixed use development near transit, promoting automobile-alternative modes of transportation, implementing a TDM program, and implementing a GHG Reduction Plan. **(Less than Significant Impact)**

Retail and Residential Alternative

Compared to the amount of development allocated to the project site in the General Plan (refer to Table 3.14-1), the Retail and Residential Alternative would develop approximately one-half of the commercial development, none of the office square footage, the same number of hotel rooms, and more residential units than allocated to the site. Assuming the residential unit allocation for other areas in the City are transferred to the site, this Alternative proposes 2,118 residential units above the number of available residential units citywide. With a projected citywide buildout of 23,294 units, this alternative would represent a nine percent increase in the total number of residential units planned for in the City's General Plan.

While the Retail and Residential Alternative would result in a nine percent increase in residential growth above what is planned in the City's General Plan, this increase would not induce substantial population growth in the area, either directly or indirectly, because it would occur on an infill site, would be consistent with the General Plan goals for focused and sustainable growth, and would be located in an urbanized area that is currently served by existing roads, transit, utilities, and public services. For these reasons, the Retail and Residential Alternative would not contribute to substantial growth inducement in Cupertino or in the region.

Implementation of the Retail and Residential Alternative would require connections to existing utility lines in the area. The Retail Residential Alternative includes the extension of existing recycled water infrastructure nearby to the project site. Recycled water would be used on-site for landscape irrigation. As discussed in Section 3.18, sewer system improvements would be needed to serve the

estimated sewage from the development. The sewer system improvements would be sized to accommodate existing flows and flows from the Retail and Residential Alternative only. For this reason, the sewer system improvements would not be growth inducing. Other standard connections to existing water and storm drain systems to serve the project site would not induce growth beyond the proposed project. No new off-site roads would be constructed to serve the Retail and Residential Alternative.

In addition, as discussed in Section 3.8.2, the Retail and Residential Alternative is consistent with *Plan Bay Area 2040* because it includes development of housing and reduces GHG emissions by developing a compact, mixed use development near transit, promoting automobile-alternative modes of transportation, implementing a TDM program, and implementing a GHG Reduction Plan. **(Less than Significant Impact)**

Occupied/Re-Tenanted Mall Alternative

Under the Occupied/Re-Tenanted Mall Alternative, the existing buildings would be occupied/re-tenanted. The use and jobs on-site under this alternative are part of the City's planned growth identified in the General Plan. This alternative, therefore, would not induce growth beyond what is already anticipated in the City's General Plan. Compared to existing conditions, this alternative would result in an increase in employees on-site. The employees resulting from this alternative could result in an incremental increase in demand for housing in the area. The General Plan identifies housing opportunity sites and development allocations for 1,882 new residential units for a total of 23,294 residential units in the City to offset the existing and planned jobs/employment growth (including 1,207,774 square feet of commercial uses on-site).[92] The Occupied/Re-Tenanted Mall Alternative, therefore, would not induce substantial population growth in the area, either directly or indirectly, because the resulting employees/jobs and their housing demand are accounted for in the City's General Plan.

The Occupied/Re-Tenanted Mall Alternative is provided in the EIR for informational purposes only. This alternative is a permitted land use, and can be implemented without further discretionary approvals from the City or environmental review under CEQA. **(Less than Significant Impact: Not a CEQA Impact)**

Impact POP-2:	**The project (and project alternatives) would not displace substantial numbers of existing housing or residents, necessitating the construction of replacement housing elsewhere. (No Impact)**

Project and All Project Alternatives

The site is currently developed with commercial uses and does not contain dwelling units or residents. For this reason, the project (and project alternatives) would not displace existing housing or people. **(No Impact)**

[92] Ibid. Page LU-13.

Impact POP-3:	**The project (and project alternatives) would not have a cumulatively considerable contribution to a significant cumulative population and housing impact. (Less than Significant Cumulative Impact)**

Project

As discussed above, the amount of development proposed by the project is accounted for in the City's General Plan. Implementation of the proposed project would not result in population and housing growth beyond what is already anticipated in the City's General Plan. The cumulative population and housing impact from the buildout of the General Plan (which includes the amount of development on-site proposed by the project) was analyzed and disclosed in the certified General Plan EIR and concluded to be less than significant. **(Less Than Significant Cumulative Impact)**

General Plan Buildout with Maximum Residential Alternative

The General Plan Buildout with Maximum Residential Alternative (and the Retail and Residential Alternative) would increase the overall number of planned residential units in the City. The additional units, however, are within the *Plan Bay Area* projections for the City and/or County (refer to discussion in Section 4.0). For this reason, the General Plan Buildout with Maximum Residential Alternative would result in less than significant cumulative population and housing impact. **(Less than Significant Cumulative Impact)**

Retail and Residential Alternative

The Retail and Residential Alternative would result in similar cumulative population and housing impacts as described above for the General Plan Buildout with Maximum Residential Alternative. **(Less than Significant Cumulative Impact)**

Occupied/Re-Tenanted Mall Alternative

The Occupied/Re-Tenanted Mall Alternative would not change the amount of development on-site compared to existing conditions and is accounted for in the General Plan population and development assumptions. The Occupied/Re-Tenanted Mall Alternative, therefore, not contribute to a significant cumulative population and housing impact. **(Less than Significant Cumulative Impact: Not a CEQA Impact)**

3.15 PUBLIC SERVICES

The following discussion is based in part on a school impact analysis prepared by Schoolhouse Services for the project in April 2018. A copy of this report is included in Appendix G.

3.15.1 Environmental Setting

3.15.1.1 *Regulatory Framework*

State

Quimby Act

The Quimby Act (California Government Code Sections 66475-66478) was approved by the California legislature to preserve open space and parkland in the State. This legislation was in response to California's increased rate of urbanization and the need to preserve open space and provide parks and recreation facilities for California's growing communities. The Quimby Act authorizes local governments to establish ordinances requiring developers of new subdivisions to dedicate parks, pay an in-lieu fee, or perform a combination of the two.

School Impact Fees

California Government Code Section 65996 states that the exclusive method of mitigating a project's impacts on school facilities is the payment of a school impact fee prior to the issuance of a building permit. Sections 65995-65998 set forth provisions for the payment of school impact fees by new development by "mitigating impacts on school facilities that occur (as a result of the planning, use, or development of real property" (Section 65996[a]). The statute goes on to say that the payment of school impact fees "are hereby deemed to provide full and complete school facilities mitigation" under CEQA (Section 65996[b]).

In accordance with California Government Code Section 65996, developers pay a school impact fee to the school district to offset the increased demands on school facilities caused by their proposed residential development project. The school district is responsible for implementing the specific methods for mitigating school impacts under the Government Code.

Regional and Local

Midpeninsula Regional Open Space District

The Midpeninsula Regional Open Space District (MROSD) is a non-enterprise special district that serves parts of Santa Clara, San Mateo, and Santa Cruz counties in order to form a continuous greenbelt of permanently preserved open space by linking public parklands. In June 2014, voters approved Measure AA, a $300 million general obligation bond. Proceeds from bonds will be used to protect natural open space lands, open preserves or areas of preserves that are currently closed, construct public access improvements such as new trails and staging areas restore and enhance open space land. The closest MROSD parks to Cupertino are the Fremont Older, Picchetti Ranch, and Rancho San Antonia, which are located just southwest and west of the city boundaries, respectively.

Santa Clara County Parks and Recreation Department

The Santa Clara County Parks operates on a voter-approved measure in which a fixed portion of the property taxes collected are set aside from the General Fund to acquire and develop a regional park system. The program emphasizes completing Upper Stevens Creek Park, located in Stevens Creek County Park at 11401 Stevens Canyon Road, and its connection to Stevens Creek. Because the upper portions of Steven's Creek are environmentally sensitive, the County has committed to purchasing land that would connect these two parks. County park facilities that serve Cupertino include Rancho San Antonio County Park, south of I-280 and west of Foothill Boulevard, and the Stevens Creek County Park.

Cupertino General Plan: Community Vision 2015-2040

Future development under the proposed project (and project alternatives) are subject to General Plan policies and strategies including, but not limited to, the policies and strategies listed below pertaining to public services.

Policy/Strategy	Description
Policy HS-3.2	Involve the Fire Department in the early design stage of all projects requiring public review to assure Fire Department input and modifications as needed.
Policy HS-3.7	Ensure that adequate fire protection is built into the design of multi-story buildings and require on-site fire suppression materials and equipment.
Strategy HS-4.2.2	Continue to request County Sheriff review and comment on development applications for security and public safety measures.
Policy RPC-1.2	Continue to implement a parkland acquisition and implementation program that provides a minimum of three acres per 1,000 residents.
Strategy RPC-2.1.1	New developments, in areas where parkland deficiencies have been identified, should be required to dedicate parkland rather than paying in-lieu fees.
Strategy RPC-2.2.2	Require major developments to incorporate private open space and recreational facilities, and seek their cooperation in making the spaces publicly accessible. • Where feasible, ensure park space is publicly accessible (as opposed to private space). • Encourage active areas to serve community needs. • Integrate park facilities into the surroundings. If public parkland is not dedicated, require park fees based on a formula that considers the extent to which the publicly-accessible facilities meet community need.
Strategy RPC-8.1.3	Collaborate with schools on their facility needs through sharing of development information and partnerships through major development projects.

Cupertino Municipal Code

The following parts of the Municipal Code contain directives pertaining to public services.

- *Title 13, Parks,* sets regulations and standards for parks and recreation buildings in the city for all people to enjoy and protects the rights to surrounding areas as well. Title 13 regulates any activities that may occur at parks and recreation buildings at the time of events and/or use, which includes, but is not limited to, sanitation requirements, vehicle requirements, picnic area requirements, advertising and sale restrictions, administrative and enforcement authority, and violation penalties.

- *Chapter 13.08, Park Land Dedication Fee,* regulates the provision of park and recreational facilities upon development for which dedication of land and/or payment of a fee is required in accordance with the open space and conservation element of the adopted General Plan of the City of Cupertino, and any amendments.

- *Chapter 14.05, Park Maintenance Fee,* requires development impact fees to maintain parks and recreational facilities to mitigate impact from new development. The collected fee is only used for acquisition, improvement, maintenance, rehabilitation, expansion, or implementation of parks and recreational facilities.

- *Title 18, Subdivisions,* sets regulations for subdivisions, including park dedication and/or in-lieu fees.

- *Chapter 18.24, Dedications and Reservations,* includes different dedication requirements for the city in Article II (Park Land Dedication). The Park Land Dedication regulations are applied to all development except commercial or industrial subdivisions, condominium conversion, convalescent hospitals, and similar dependent care facilities. The amount of dedicated land is determined by multiplying the average number of persons per unit and the park acreage standard of three acres of parkland for every 1,000 residents as allowed by the Quimby Act. The in-lieu fee would be determined based upon the fair market value of the land which would otherwise be required to be dedicated.

3.15.1.2 *Existing Conditions*

Fire Protection

Fire protection services in the City are provided by the Santa Clara County Fire Department (SCCFD). SCCFD provides emergency response to fire, rescue, hazardous materials and medical incidents. SCCFD also provides fire prevention services including community education, new construction document review, life-safety inspections, and fire investigation. The SCCFD has mutual aid agreements in place with the other fire agencies in the event of a large-scale emergency requiring additional resources beyond its initial capabilities.

SCCFD administrative headquarters is located at 14700 Winchester Boulevard, Los Gatos, approximately 5.5 miles from the project site. The SCCFD service area is divided into three battalion districts with 15 fire stations covering over 128 square miles and a population of over 226,700. The SCCFD also has two maintenance facilities and three other support facilities.

SCCFD employs over 300 fire prevention, emergency management, suppression, investigation, administration, and maintenance personnel; daily emergency response consists of 66 employees. SCCFD's suppression force is augmented by approximately 30 volunteer firefighters.

The Cupertino Fire Station is located at 20215 Stevens Creek Boulevard, about 0.6 mile west of the project site, and houses five pieces of fire apparatus. The target responses times and actual 2017 response times for SCCFD for emergency incidents east of Blaney Avenue within the City of Cupertino are summarized in Table 3.15-1. Based on the response times in 2017, the SCCFD is currently meeting its response time goals for the project area. SCCFD data show that response times have increased and SCCFD attributes the increase in travel time to increased pedestrian and vehicle traffic congestion in the area.[93] SCCFD has identified the need for an additional fire station on the east side of the City to continue meeting response time goals on the east side of the City. Currently, there are no available sites or potential sites identified by the SCCFD for a new fire station.

Table 3.15-1: SCCFD Response Time Goals and 2017 Response Times

Response Criteria	**Response Time Goals** (90^{th} percentile)	**2017 Response Times** (90^{th} percentile)
Emergency Medical Service – fire company with one paramedic	< 8 minutes	6 minutes 36 seconds
Structure fire call – first response unit	< 8 minutes	6 minutes and 55 seconds
Structure fire call – 2-in/2-out*	< 9 minutes from dispatch of alarm	7 minutes and 50 seconds
Structure fire call – effective firefighting force on-scene†	< 15 minutes from dispatch of alarm	9 minutes and 7 seconds

Notes:
*2-in/2-out refers to the OSHA requirement of two firefighters in the structure and two firefighters ready to provide firefighter rescue at the entry point to the structure.
† An effective firefighting force for SCCFD is when the fourth water carrying apparatus arrives on scene. This consists of 2 engines, 1 truck, 1 support unit, and a Battalion Chief. On a working structure fire, 15 employees are needed to accomplish the critical tasks necessary to control a typical fire in an efficient and effective manner.
Source: Justice, John. Deputy Chief, Santa Clara County Fire Department. Personal Communication. May 10, 2018.

[93] Justice, John. Deputy Chief, Santa Clara County Fire Department. Personal Communication. May 10, 2018.

Police Protection Services

The Santa Clara County Sheriff's Office, West Valley Division, provides law enforcement services to the City of Cupertino as well as the communities of Saratoga, Los Altos Hills, Moffett, and the unincorporated areas of the western Santa Clara County. The Sheriff's Office maintains contracts with the Santa Clara County Superior Court, VTA and the Santa Clara County Parks Department for law enforcement services. The Santa Clara County Sheriff's Office has 1,429 sworn personnel assigned to these and other divisions.[94]

The Santa Clara County Sheriff's Office, West Valley Division is located at 1601 South De Anza Boulevard in Cupertino. There are 90 personnel assigned to the West Valley Division, 29 of which are allocated to Cupertino. Of the 29, five are traffic deputies, one is a Sergeant that manages the traffic team and operates as supervisor, two deputies are School Resource Officers, and the remaining 21 deputies provide general 24/7 law enforcement services.

The City's service contract with the Sheriff's Office is based upon a set number of hours for deputies and reserve deputies. The Sheriff's Office currently has target response times within the City of Cupertino:

- Priority 1 (Life Threatening Type Call): arrive within five minutes;
- Priority 2 (Not Life Threatening but Emergency): arrive within nine minutes; and
- Priority 3 (Immediate Response Not an Emergency): arrive within 20 minutes.[95]

The Sheriff's Office is currently meeting the above response time goals. Over the last several years, there has been an increase in calls for service and an increase in traffic congestion, which have increased response times.

Parks

Cupertino has a total of approximately 156 acres of parkland including 14 neighborhood parks, five community parks, one residential park/open space, and eight shared open space areas within school sites. The nearest parks to the project site are Portal Park (0.25 mile west), Wilson Park (0.47 mile southwest), and Creekside Park (0.57 miles south).

Additional open space under the jurisdiction of Midpeninsula Regional Open Space District, and other regional open space and parks governed and owned by Santa Clara County, are located within Cupertino. Private open space and parklands within the city include a golf course, riding stables, and clubs offering tennis and swimming.

[94] City of Cupertino. *Sheriff's Office.* Available at: http://www.cupertino.org/our-city/community-services-programs/sheriff-s-office. Accessed March 21, 2018.
[95] Urena, Rich. West Valley Patrol Division Commander, Santa Clara County Sheriff's Office. Personal Communication. April 19, 2018.

General Plan Policy RPC-1.2 identifies a parkland goal of a minimum of three acres per 1,000 residents. With a current population of 58,915,[96] the City is providing 2.64 acres of parkland per 1,000 residents. The City is not currently meeting its parkland goal.

Schools

The project site is located in the Cupertino Union Elementary School District (CUSD) and the Fremont Union High School District (FUHSD). Students in the project area attend Collins Elementary School or Eisenhower Elementary School,[97] Lawson Middle School, and Cupertino High School. Currently, 717 students are enrolled at Collins Elementary School, 624 students are enrolled at Eisenhower Elementary School, 1,228 students are enrolled at Lawson Middle School, and 2,273 students are enrolled at Cupertino High School.

Library Facility

The Santa Clara County Library District (SCCLD) provides seven community libraries, one branch library, two bookmobiles, the Home Service Library, and a 24/7 online library to all unincorporated communities of Santa Clara County, as well as the nine Santa Clara County cities of Campbell, Cupertino, Gilroy, Los Altos, Los Altos Hills, Milpitas, Monte Sereno, Morgan Hill, and Saratoga. SCCLD currently has approximately 80 employees. As one of the SCCLD's member cities, Cupertino has a community library located on 10800 Torre Avenue.

The Cupertino Library is a two-story, 54,000 square-foot facility that includes a children's area, teen space, and group study rooms. The library provides traditional book and media lending services, online eBooks and eContent, computers, a color printer, and photocopiers. Cupertino Library also offers patrons computer tablets and e-readers. The Cupertino Library provides different programs and events in the smaller Library Story Room and the larger Cupertino Community Hall. Program and events include book clubs, book sales, English as Second Language Conversation Club, Summer Reading Club, Cinema Club, Reading Buddies, passport services, and other community and educational events.

SCCLD has identified an existing need for more programmed space at the Cupertino Library. In 2015, the City approved the Cupertino Civic Center Master Plan project. As part of this project, the ground floor of the library is to be expanded by approximately 2,000 square feet to accommodate additional seating for events and ancillary facilities such as restrooms and a small lobby. This would be accomplished by constructing a new Program Room addition to the existing building that can seat up to 130 people. As an alternative to the Program Room, the existing Story Room could be expanded to increase the room seating capacity from 30 to 100 people. The Initial Study for the project found that the library expansion would not result in significant environmental impacts.[98]

[96] California Department of Finance. *E-1 Population Estimates for Cities, Counties, and the State – January 1, 2016 and 2017*. May 2017. Available at: http://www.dof.ca.gov/Forecasting/Demographics/Estimates/E-1/.
[97] Wolfe Road is the dividing line between the Collins Elementary School and Eisenhower Elementary School attendance areas.
[98] City of Cupertino. *Cupertino Civic Center Master Plan Initial Study*. May 2015. Page 12.

3.15.2 Public Services Impacts

3.15.2.1 *Thresholds of Significance*

For the purposes of this EIR, a public services impact is considered significant if the impacts are associated with:

- The provision of new or physically altered governmental facilities, 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 any of the public services:
  - Fire protection
  - Police protection
  - Schools
  - Parks
  - Other public facilities.

Impact PS-1:	**The project (and project alternatives) would not require new or physically altered fire protection facilities (the construction of which could cause significant environmental impacts) in order to maintain acceptable service ratios, response times, or other performance objectives. (Less than Significant Impact)**

Project and All Project Alternatives

The project (and project alternatives) would increase the number of occupants and would likely result in an increase in fire protection service calls to the project site compared to existing conditions. Given the proximity of the Cupertino Fire Station to the project site, the SCCFD confirmed that the project (and project alternatives) would be adequately served by existing fire protection facilities and response time goals would be met. The expansion or construction of additional fire protection facilities would not be required to provide adequate service and response to the project site.[99] In addition, the project (and project alternatives) would be constructed to current Building and Fire Code standards, comply with the General Plan policies identified above, and undergo plan review and approval by the SCCFD. **(Less than Significant Impact)**

The Occupied/Re-Tenanted Mall Alternative is provided in the EIR for informational purposes only. This alternative is a permitted land use, and can be implemented without further discretionary approvals from the City or environmental review under CEQA. **(Less than Significant Impact: Not a CEQA Impact)**

[99] Justice, John. Deputy Chief, Santa Clara County Fire Department. Personal Communication. May 10, 2018.

Impact PS-2:	**The project (and project alternatives) would not require new or physically altered police protection facilities (the construction of which could cause significant environmental impacts) in order to maintain acceptable service ratios, response times, or other performance objectives. (Less than Significant Impact)**

Project and All Project Alternatives

The project (and project alternatives) would increase the number of occupants and would likely result in an increase in police protection service calls to the project site compared to existing conditions. Given the trend with increased response times, the additional growth and traffic congestion from the project (or project alternatives) could add delays to existing response times. The Sheriff's Office does not anticipate the need for new or expanded police facilities in order to serve the project or project alternatives, however.[100] It is possible that the existing contract between the City and the Sheriff's Office would need to be augmented in order for the Sheriff's Office to continue meeting response time goals. **(Less than Significant Impact)**

The Occupied/Re-Tenanted Mall Alternative is provided in the EIR for informational purposes only. This alternative is a permitted land use, and can be implemented without further discretionary approvals from the City or environmental review under CEQA. **(Less than Significant Impact: Not a CEQA Impact)**

Impact PS-3:	**The project (and General Plan Buildout with Maximum Residential Alternative and Retail and Residential Alternative) would not require new or physically altered school facilities (the construction of which could cause significant environmental impacts) in order to maintain acceptable service ratios, response times, or other performance objectives. (Less than Significant Impact)**

Project

Many factors, including unit type and size, cost, data from existing residential developments, on-site amenities, and target market, are taken into account when determining student generation rates (SGRs). Based on the analysis completed by Schoolhouse Services in Appendix G, SGRs were determined for the project, General Plan Buildout with Maximum Residential Alternative, and Retail and Residential Alternative (see Table 3.15-2). Refer to Appendix G for a detailed discussion of how the SGRs were determined and the assumptions about the residential units in the project, General Plan Buildout with Maximum Residential Alternative, and Retail and Residential Alternative. No SGR was developed for the Occupied/Re-Tenanted Mall Alternative because no residential units are proposed as part of this alternative.

[100] Urena, Rich. West Valley Patrol Division Commander, Santa Clara County Sheriff's Office. Personal Communication. April 19, 2018.

Table 3.15-2: Projected Student Generation Rates			
	Proposed Project	**General Plan Buildout with Maximum Residential Alternative**	**Retail and Residential Alternative**
Elementary (Grades K-5)	0.13	0.20	0.13
Middle (Grades 6-8)	0.04	0.06	0.04
High School (Grades 9-12)	0.04	0.06	0.04

The estimated numbers of students that would be generated by the proposed project, General Plan Buildout with Maximum Residential Alternative, Retail and Residential Alternative are listed in Table 3.15-3.

Table 3.15-3: Estimated Students Generated			
	Proposed Project	**General Plan Buildout with Maximum Residential Alternative**	**Retail and Residential Alternative**
Elementary (Grades K-5)	104	528	520
Middle (Grades 6-8)	32	158	160
High School (Grades 9-12)	32	158	160

Cupertino Union School District

Historically, the CUSD has been a rapidly growing school district. Enrollment has increased almost every year since 2001, increasing from 15,571 in the fall of 2001 to 19,194 in the fall of 2013. A different enrollment trend has become evident in the last four years, however, and is projected for the next five years (the period of enrollment projections completed for CUSD). In fall 2017, the enrollment was 18,001, a decline of almost 1,200 students over the last four years. The enrollment projection study for CUSD projects a further decline of 1,478 students districtwide over the next five years. The decline in enrollment is due to the maturation of households whose students are graduating and rapidly rising rents and housing prices which result in young families being priced out of the district. Refer to Appendix G for additional detail about the enrollment history and projected decline.

Elementary Schools

As discussed in more detail in Appendix G, elementary schools in the northern portion of the CUSD have higher enrollment than schools in the southern portion of the CUSD. CUSD has located some programs (e.g., Chinese Language Immersion Program and the K-8 program) in its southern schools where space is available, which lead to a better balance the enrollment of their schools. As a result, about one-third of students in the CUSD attend a school other than the school in the attendance area of their residence.

Compared to existing enrollment, districtwide elementary school enrollment at CUSD is projected to decline by about 600 students over the next five years. Given the decline in enrollment over the past couple of years and the continued projected decline in enrollment over the next five years, and the estimated 104-528 elementary school students that could be generated from the project or project alternatives (see Table 3.15-3), it is anticipated that CUSD would have sufficient capacity districtwide to accommodate students generated by the project or project alternatives. CUSD does not anticipate building new or expanding existing elementary school facilities to increase net enrollment capacity in the next five years, whether or not the project or project alternatives are approved.[101]

Middle Schools

This year's enrollment at CUSD middle schools is 339 students below last year's enrollment. A further decline of about 900 middle school students district-wide is projected over the next five years. The project site is located within the attendance boundary of Lawson Middle School. Enrollment at Lawson Middle School declined by 122 students from 2016 to 2017, and is projected to decline by an additional 120 students by 2020. Given the districtwide decline in middle school enrollment and the projected decline in enrollment at Lawson Middle School, it is anticipated that there would be sufficient capacity at Lawson Middle School to accommodate the 32-160 middle school students generated by the project, General Plan Buildout with Maximum Residential Alternative, or Retail and Residential Alternative (see Table 3.15-3). CUSD does not anticipate building new or expanding existing middle school facilities to increase net enrollment capacity in the next five years, whether or not the project or project alternatives are approved.[102]

Fremont Union High School District

FUHSD had a fall 2017 enrollment of 11,000 students attending its five high schools. It is expected that enrollment would remain the same for the next two years. At that point, the enrollment decline described above for middle schools will begin to affect the high school level. A decline of 990 students is projected for the following four years.

The project site is located within the attendance boundary of Cupertino High School. Cupertino High School has a capacity for 2,566 students. Fall 2017 enrollment at Cupertino High School is 2,273 students. It is projected that by fall of 2023, enrollment will decline by 98 students, resulting in an enrollment projection of 2,175 students. Given the capacity of Cupertino High School, projected decline in enrollment, and estimated 32-160 high school students generated from the project, General Plan Buildout with Maximum Residential Alternative, or Retail and Residential Alternative (see Table 3.15-3), it is anticipated there would be sufficient capacity at Cupertino High School to accommodate students generated by the project, General Plan Buildout with Maximum Residential Alternative, or Retail and Residential Alternative. FUHSD does not anticipate building new or expanding existing high school facilities to increase net enrollment capacity in the next five years, whether or not the project or project alternatives are approved.[103]

[101] Jew, Chris. Chief Business Officer, Cupertino Union School District. Personal communications. May 21, 2018.
[102] Ibid.
[103] Crutchfield, Jason. Director of Business Services, Fremont Union High School District. Personal communications May 21, 2018.

As required by state law (Government Code Section 65996), the project proponent shall pay the appropriate school impact fees to CUSD and FUHSD to offset the demands on school facilities from the project and project alternatives. The proposed project (or project alternatives), in conformance with state law (Government Code Section 65996), would not result in significant impacts to local schools. **(Less than Significant Impact)**

General Plan Buildout with Maximum Residential Alternative

The General Plan Buildout with Maximum Residential Alternative would result in similar impacts to local schools as described above for the proposed project. See Impact PS-3 above. The General Plan Buildout with Maximum Residential Alternative would result in greater impacts to schools than the proposed project because more students would be generated from this alternative than the proposed project. Future development under the General Plan Buildout with Maximum Residential Alternative shall comply with the same state law identified above for the proposed project. **(Less than Significant Impact)**

Retail and Residential Alternative

The Retail and Residential Alternative would result in similar impacts to local schools as described above for the proposed project. See Impact PS-3 above. The Retail and Residential Alternative would result in greater impacts to schools than the proposed project because more students would be generated from this alternative than the proposed project. Future development under the Retail and Residential Alternative shall comply with the same state law identified above for the proposed project. **(Less than Significant Impact)**

Occupied/Re-Tenanted Mall Alternative

The Occupied/Re-Tenanted Mall Alternative would not result in direct impacts to schools because it does not include residential units on-site. A discussion of this alternative is provided in the EIR for informational purposes only. This alternative is a permitted land use, and can be implemented without further discretionary approvals from the City or environmental review under CEQA. **(No Impact)**

Impact PS-4:	**The project (and project alternatives) would not require new or physically altered library facilities (the construction of which could cause significant environmental impacts) in order to maintain acceptable service ratios, response times, or other performance objectives. (Less than Significant Impact)**

Project and All Project Alternatives

SCCLD has identified the need for more programmed space at Cupertino Library to serve existing and future growth in the City. The environmental impacts of the additional programmed space was analyzed in the 2015 Initial Study for the Cupertino Civic Master Plan project. The analysis in the 2015 Initial Study concluded that the expansion of the library would not result in significant environmental impacts.[104]

The implementation of the project and project alternatives could increase the demand on library facilities compared to existing conditions. SCCLD anticipated that the existing SCCLD facilities (including the Cupertino Library) and employees would adequately serve the project and new or expanded library facilities would not be required beyond what was identified in the approved Cupertino Civic Master Plan. **(Less than Significant Impact)**

The Occupied/Re-Tenanted Mall Alternative is provided in the EIR for informational purposes only. This alternative is a permitted land use, and can be implemented without further discretionary approvals from the City or environmental review under CEQA. **(Less than Significant Impact: Not a CEQA Impact)**

Impact PS-5:	**The project (and General Plan Buildout with Maximum Residential Alternative and Retail and Residential Alternative) would not require new or physically altered park facilities (the construction of which could cause significant environmental impacts) in order to maintain acceptable service ratios, response times, or other performance objectives. (Less than Significant Impact)**

Project

Implementation of the proposed project would redevelop the project site with a mix of uses, including 800 residential units. It is anticipated that the residential units would result in 1,600 new residents on-site.[105] The new residents would create an incremental increase in demand on parkland.

Pursuant to Municipal Code Chapter 13.08, the project would require approximately 4.3 acres of parkland. The project includes 10.5 to 14 acres of common open space, landscaping, and town squares, as well as a 30-acre green roof that would include outdoor use areas such as outdoor dining, playgrounds, walking paths, and picnic areas. The proposed open space on-site, therefore, would offset the project's demand on local parkland. A summary of required parkland and proposed open

[104] City of Cupertino. *Cupertino Civic Center Master Plan Initial Study.* May 2015.
[105] Economic & Planning Systems, Inc. *Population and Employment Projections.* April 26, 2018.

space for the project, General Plan Buildout with Maximum Residential Alternative, and Retail and Residential Alternative is shown in Table 3.15-4.

Table 3.15-4: Estimated Required Parkland and Proposed Open Space, Landscaping, Town Squares, and/or Green Roof

	Estimated Required Parkland Pursuant to Municipal Code Chapter 13.08	Proposed On-Site Open Space, Landscaping, Town Squares, and/or Green Roof
	(acres)	
Project	4.3	40.5 to 44.0
General Plan Buildout with Maximum Residential Alternative	14.3	40.5 to 44.0
Retail and Residential Alternative	21.6	10.5 to 14

Additionally, if the topography of park land is not acceptable, the project (and project alternatives) shall fund park improvements and dedicate land through compliance with Municipal Code Chapter 14.05 and Title 18, which help ensure the provision of parklands in compliance with the City standard of a minimum of three acres per 1,000 residents. In addition, impacts to County and Midpeninsula Regional Open Space District facilities would be mitigated through the property taxes levied on the property.

Standard Permit Condition: Future development under the proposed project (or General Plan Buildout with Maximum Residential Alternative or Retail and Residential Alternative) shall fund park improvements and dedicate land through compliance with Municipal Code Chapter 14.05 and Title 18, which help ensure the provision of parklands in compliance with the City standard of a minimum of three acres per 1,000 residents.

Future development under the proposed project (and General Plan Buildout with Maximum Residential Alternative and Retail and Residential Alternative), with the implementation of the above standard permit condition, would not result in significant impacts to park facilities. **(Less than Significant Impact)**

General Plan Buildout with Maximum Residential Alternative

Implementation of the General Plan Buildout with Maximum Residential Alternative would redevelop the project site with a mix of uses, including 2,640 residential units. It is anticipated that the residential units would result in 5,280 new residents on-site.[106] The new residents would create an incremental increase in demand on parkland.

Pursuant to Municipal Code Chapter 13.08, the General Plan Buildout with Maximum Residential Alternative would be required to provide approximately 14.3 acres of parkland. Like the proposed project, the General Plan Buildout with Maximum Residential Alternative includes 10.5 to 14 acres

[106] Ibid.

of common open space, landscaping, and town squares, as well as a 30-acre green roof. The proposed open space on-site, therefore, would offset the alternative's demand on local parkland. In addition, impacts to County and Midpeninsula Regional Open Space District facilities would be mitigated through the property taxes levied on the property.

Future development under the General Plan Buildout with Maximum Residential Alternative, with the implementation of the same standard permit condition identified above for the proposed project, would not result in significant impacts to park facilities. **(Less than Significant Impact)**

Retail and Residential Alternative

Implementation of the Retail and Residential Alternative would redevelop the project site with a mix of uses, including 4,000 residential units. It is anticipated that the residential units would result in 8,000 new residents on-site.[107] The new residents would create an incremental increase in demand on parkland.

Pursuant to Municipal Code Chapter 13.08, the Retail and Residential Alternative would require approximately 21.6 acres of parkland. The Retail and Residential Alternative includes 10.5 to 14 acres of common open space, landscaping, and town squares. No green roof is proposed as part of this alternative. The proposed open space on-site, therefore, would partially offset the alternative's demand on local parkland.

Future development under the Retail and Residential Alternative, with the implementation of the same standard permit condition identified above for the proposed project, would not result in significant impacts to park facilities. In addition, impacts to County and Midpeninsula Regional Open Space District facilities would be mitigated through the property taxes levied on the property. **(Less than Significant Impact)**

Occupied/Re-Tenanted Mall Alternative

The Occupied/Re-Tenanted Mall Alternative would not result in new residential units or residents on-site. The implementation of this alternative, therefore, would not affect the City's parkland goal of three acres per 1,000 residents. **(No Impact)**

[107] Ibid.

Impact PS-6:	The project (and project alternatives) would not result in significant cumulative impacts to public services. (Less than Significant Cumulative Impact)

Fire Protection Services

Project and All Project Alternatives

The geographic area for cumulative fire protection services is the City boundaries. SCCFD data show that response times are growing and SCCFD attributes the increased travel times to the increase in pedestrian and vehicle traffic. With the buildout of the General Plan and implementation of the cumulative projects (including the proposed project and project alternatives), pedestrian and vehicle traffic congestion is anticipated to increase compared to existing conditions. As a result, SCCFD anticipates response times to the east side of the City and the outer perimeter of the City (which are where existing response times are longer) would increase. The implementation of the project or project alternatives would contribute to that increase by adding additional traffic congestion on local roadways. A mutual aid agreement with the San José Fire Department provides secondary coverage for the east side of the City, however, the SCCFD has identified the need for an additional fire station on the east side of the City.

SCCFD has been searching for property to construct a new fire station on the east side of the City; however, there are no available properties that could accommodate a fire station at this time.[108] When a property is identified, the future fire station would be subject to site-specific CEQA environmental review. Based on previous analyses for new fire stations in developed South Bay locations, the primary environmental effects associated with construction and operation of fire stations are noise and air emissions from diesel trucks and back-up generators. Mitigation measures are available to reduce these potential impacts to a less than significant level. For these reasons, a new fire station on the east side of the City is not anticipated to result in a significant impact. **(Less than Significant Cumulative Impact)**

The Occupied/Re-Tenanted Mall Alternative is provided in the EIR for informational purposes only. This alternative is a permitted land use, and can be implemented without further discretionary approvals from the City or environmental review under CEQA. **(Less than Significant Cumulative Impact: Not a CEQA Impact)**

Police Protection Services

Project and All Project Alternatives

The geographic area for cumulative police protection services is the City boundaries. In recent years, there have been an increased number of calls for police protection services and an increase in response times due to increased traffic congestion.[109] With the buildout of the General Plan and implementation of the cumulative projects (including the proposed project and project alternatives), traffic congestion is anticipated to increase compared to existing conditions. As a result, more police

[108] Justice, John. Deputy Chief, Santa Clara County Fire Department. Personal Communication. May 10, 2018.
[109] Urena, Rich. West Valley Patrol Division Commander, Santa Clara County Sheriff's Office. Personal Communication. April 19, 2018.

protection resources may be needed to continue to maintain existing response times and public safety efforts. It is not anticipated that new or expanded police protection facilities would be required.

If it is determined that the numbers of hours for deputies serving Cupertino need to be increased based upon trends in service calls and response times, the contract between the City and the Sheriff's Office could be modified. The increase in property taxes from redevelopment of infill sites, including development of the cumulative projects (which includes the proposed project and project alternatives), would offset the additional cost incurred by the City to augment the contract.[110] The cumulative projects (including the proposed project and project alternatives); therefore, would have a less than significant cumulative impact on police protection facilities. **(Less than Significant Cumulative Impact)**

The Occupied/Re-Tenanted Mall Alternative is provided in the EIR for informational purposes only. This alternative is a permitted land use, and can be implemented without further discretionary approvals from the City or environmental review under CEQA. **(Less than Significant Cumulative Impact: Not a CEQA Impact)**

School Facilities

Project and All Project Alternatives

The geographic area for cumulative school facilities impacts is the CUSD and FUHSD boundaries because the project site is located within these two school districts. The cumulative projects within those school districts that include new residential units (including Main Street Cupertino, The Hamptons, and Marina Plaza) would generate new students. CUSD and FUHSD are experiencing reductions in enrollment; therefore, the additional student enrollment from the cumulative projects would likely be accommodated by existing school facilities. No net new or expanded school facilities are anticipated though the CUSD and FUHSD will continue to renovate and replace existing facilities, as necessary. Given the developed nature of the existing school campuses, it is not anticipated that future renovations or replacement of buildings would result in significant environmental impacts.[111,112]

As required by state law (Government Code Section 65996), development projects shall pay the appropriate school impact fees to impacted school districts to offset the increased demands on school facilities caused by the development. The cumulative projects (including the proposed project and project alternatives), in conformance with state law (Government Code Section 65996), would not result in significant cumulative impacts to schools.[113] **(Less than Significant Cumulative Impact)**

The Occupied/Re-Tenanted Mall Alternative is provided in the EIR for informational purposes only. This alternative is a permitted land use, and can be implemented without further discretionary approvals from the City or environmental review under CEQA. **(Less than Significant Cumulative Impact: Not a CEQA Impact)**

[110] Ibid.
[111] Jew, Chris. Chief Business Officer, Cupertino Union School District. Personal communications. May 21, 2018.
[112] Crutchfield, Jason. Director of Business Services, Fremont Union High School District. Personal communications May 21, 2018.
[113] For the Occupied/Re-Tenanted Mall Alternative, it is assumed that the existing mall paid the appropriate school impact fees when it was developed.

Library Facilities

Project and All Project Alternatives

The geographic area for cumulative library impacts is the City boundaries. With the buildout of the General Plan and implementation of the cumulative projects (including the proposed project and project alternatives), no new or expanded library facilities beyond the programming expansion identified in the Cupertino Civic Center Master Plan are required.[114] As discussed above, the Initial Study completed for the Cupertino Civic Center Master Plan concluded that the implementation of the Master Plan would not result in significant impacts. For these reasons, the cumulative projects would not result in significant cumulative library impacts. **(Less than Significant Cumulative Impact)**

The Occupied/Re-Tenanted Mall Alternative is provided in the EIR for informational purposes only. This alternative is a permitted land use, and can be implemented without further discretionary approvals from the City or environmental review under CEQA. **(Less than Significant Cumulative Impact: Not a CEQA Impact)**

Park Facilities

Project

The geographic area for cumulative park facility impacts is the City boundaries. The buildout of the General Plan and cumulative projects (including the proposed project and project alternatives) would incrementally increase the demand for park facilities but would also create new public open space. The cumulative projects within the City of Cupertino would be required to fund park improvements and dedicate land through compliance with Municipal Code Chapter 14.05 and Title 18, which help ensure the provision of parklands in compliance with the City standard of a minimum of three acres per 1,000 residents. In addition, impacts to other open spaces (such as Santa Clara County and Midpeninsula Regional Open Space District facilities) would be mitigated through the contribution of property taxes. For these reasons, the cumulative projects (including the proposed project, General Plan Buildout with Maximum Residential Alternative and Retail and Residential Alternative) would not result in significant cumulative impacts to parks. **(Less than Significant Cumulative Impact)**

General Plan Buildout with Maximum Residential Alternative

The General Plan Buildout with Maximum Residential Alternative would result in a similar cumulative impact to park facilities as described above for the proposed project. The General Plan Buildout with Maximum Residential Alternative would result in a greater cumulative impact to park facilities than the proposed project because this alternative includes more residential units which results in a greater number of residents using local park facilities. Refer to Impact PS-5. **(Less than Significant Cumulative Impact)**

[114] Varesio, Clare. Community Librarian, Cupertino Library. Personal communications. May 8, 2018.

Retail and Residential Alternative

The Retail and Residential Alternative would result in a similar cumulative impact to park facilities as described above for the proposed project. The Retail and Residential Alternative would result in a greater cumulative impact to park facilities than the proposed project as this alternative does not include a 30-acre green roof and includes more residential units (which results in a greater number of residents using local park facilities). Refer to Impact PS-5. **(Less than Significant Cumulative Impact)**

Occupied/Re-Tenanted Mall Alternative

The Occupied/Re-Tenanted Mall Alternative would not result in new residents and therefore, would not contribute to park impacts or require to pay park impact fees. **(No Cumulative Impact)**

3.16 RECREATION

3.16.1 Environmental Setting

3.16.1.1 *Regulatory Framework*

State

Quimby Act

As discussed in Section 3.15, the project is subject to the Quimby Act, which authorizes local governments to establish ordinances requiring developers of new subdivisions to dedicate parks, pay an in-lieu fee, or perform a combination of the two.

Regional and Local

Midpeninsula Regional Open Space District

The Midpeninsula Regional Open Space District (MROSD) is a non-enterprise special district that serves parts of Santa Clara, San Mateo, and Santa Cruz counties in order to form a continuous greenbelt of permanently preserved open space by linking public parklands. In June 2014, voters approved Measure AA, a $300 million general obligation bond. Proceeds from bonds will be used to protect natural open space lands, open preserves or areas of preserves that are currently closed, construct public access improvements such as new trails and staging areas restore and enhance open space land. The closest MROSD parks to Cupertino are the Fremont Older, Picchetti Ranch, and Rancho San Antonia, which are located just southwest and west of the city boundaries, respectively.

Santa Clara County Parks and Recreation Department

The Santa Clara County Parks operates on a voter-approved measure in which a fixed portion of the property taxes collected are set aside from the General Fund to acquire and develop a regional park system. The program emphasizes completing Upper Stevens Creek Park, located in Stevens Creek County Park at 11401 Stevens Canyon Road, and its connection to Stevens Creek. Because the upper portions of Steven's Creek are environmentally sensitive, the County has committed to purchasing land that would connect these two parks. County park facilities that serve Cupertino include Rancho San Antonio County Park, south of I-280 and west of Foothill Boulevard, and the Stevens Creek County Park.

Cupertino General Plan: Community Vision 2015-2040

Future development under the proposed project (and project alternatives) are subject to General Plan policies and strategies including, but not limited to, the policies and strategies listed below pertaining to recreation.

Policy/Strategy	Description
Policy RPC-1.2	Continue to implement a parkland acquisition and implementation program that provides a minimum of three acres per 1,000 residents.
Strategy RPC-2.1.1	New developments, in areas where parkland deficiencies have been identified, should be required to dedicate parkland rather than paying in-lieu fees.
Strategy RPC-2.2.2	Require major developments to incorporate private open space and recreational facilities, and seek their cooperation in making the spaces publicly accessible. • Where feasible, ensure park space is publicly accessible (as opposed to private space). • Encourage active areas to serve community needs. • Integrate park facilities into the surroundings. • If public parkland is not dedicated, require park fees based on a formula that considers the extent to which the publicly-accessible facilities meet community need.
Policy RPC-3.1	Design parks to utilize natural features and the topography of the site in order to protect natural features and keep maintenance costs low.
Strategy RPC-8.1.3	Collaborate with schools on their facility needs through sharing of development information and partnerships through major development projects.

Cupertino Municipal Code

The following parts of the Municipal Code contain directives pertaining to public services.

- *Title 13, Parks,* sets regulations and standards for parks and recreation buildings in the city for all people to enjoy and protects the rights to surrounding areas as well. Title 13 regulates any activities that may occur at parks and recreation buildings at the time of events and/or use, which includes, but is not limited to, sanitation requirements, vehicle requirements, picnic area requirements, advertising and sale restrictions, administrative and enforcement authority, and violation penalties.

- *Chapter 14.05, Park Maintenance Fee,* requires development impact fees to maintain parks and recreational facilities to mitigate impact from new development. The collected fee is only used for acquisition, improvement, maintenance, rehabilitation, expansion, or implementation of parks and recreational facilities.

- *Title 18, Subdivisions,* sets regulations for subdivisions, including park dedication and/or in-lieu fees.

- *Chapter 18.24, Dedications and Reservations,* includes different dedication requirements for the city in Article II (Park Land Dedication). The Park Land Dedication regulations are applied to all development except commercial or industrial subdivisions, condominium conversion, convalescent hospitals, and similar dependent care facilities. The amount of dedicated land is determined by multiplying the average number of persons per unit and the

park acreage standard of three acres of parkland for every 1,000 residents as allowed by the Quimby Act. The in-lieu fee would be determined based upon the fair market value of the land which would otherwise be required to be dedicated.

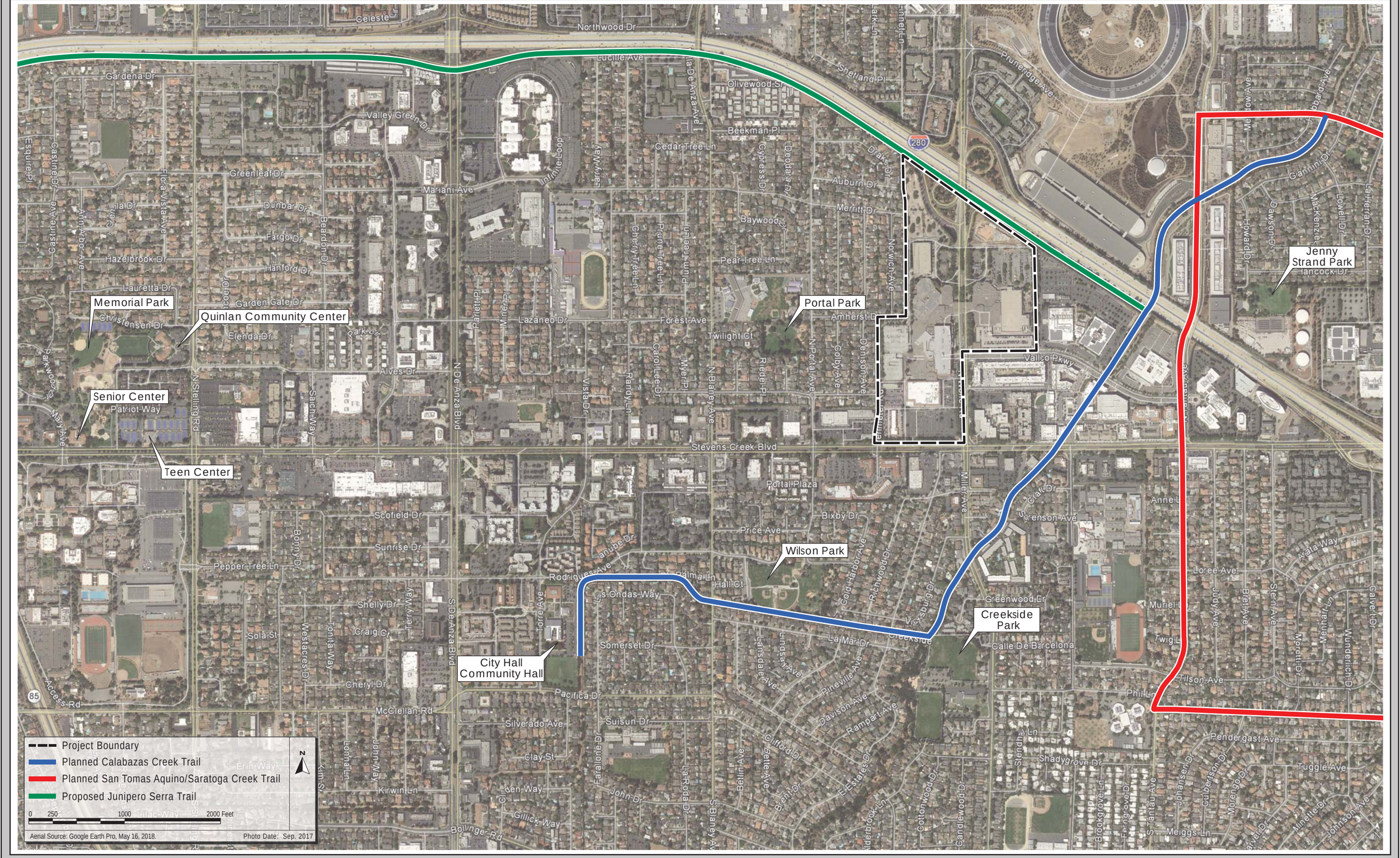
3.16.1.2 *Existing Conditions*

As described in Section 3.15, Cupertino has a total of approximately 156 acres of parkland including 14 neighborhood parks, five community parks, one residential park/open space, and eight shared open space areas within school sites. The City is currently providing 2.64 acres of parkland per 1,000 residents, which is below the City's parkland goal of three acres per 1,000 residents.

The nearest parks to the project site are Portal Park (0.25 mile west), Wilson Park (0.47 mile southwest), and Creekside Park (0.57 miles south) (see Figure 3.15-1). Additional open space under the jurisdiction of Midpeninsula Regional Open Space District, and other regional open space and parks governed and owned by Santa Clara County, are located within Cupertino.

Public recreational facilities within the City include the Sports Center and Teen Center located at 21111 Stevens Creek Boulevard, Senior Center located at 21251 Stevens Creek Boulevard, Quinlan Community Center located at 10185 North Stelling Road, City Hall Community Hall located at 10350 Torre Avenue, and Blackberry Farm located at 21979 San Fernando Avenue. With the exception of the Sports Center, which is run by a membership program, all public facilities are available for event rental. The City Parks and Community Services Department sponsors seasonal recreational activities and programs for all ages.

There are five major trail corridors identified within the City boundary: Stevens Creek Corridor, Calabazas Creek Corridor, San Tomas-Aquino/Saratoga Creek Corridor, Union Pacific Railroad Corridor, and Mary Avenue Bicycle Footbridge. The nearest trail to the site is the San Tomas Aquino/Saratoga Creek Trail is an existing on-street bike route, located on North Tantau Avenue (see Figure 3.15-1). There are two trails, the Calabazas Creek Trail and the I-280 Trail, proposed in the project vicinity that are currently going through the local planning process. The proposed trail alignments are shown on Figure 3.15-1.



EXISTING, PLANNED, AND PROPOSED RECREATION FACILITIES

FIGURE 3.15-1

3.16.2 Recreation Impacts

3.16.2.1 *Thresholds of Significance*

For the purposes of this EIR, a recreation impact is considered significant if the project would:

- An increase in the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated; or
- Include recreational facilities or require the construction of expansion of recreational facilities which might have an adverse physical effect on the environment.

Impact REC-1:	**The project (and project alternatives) would not result in substantial physical deterioration of recreational facilities. (Less than Significant Impact)**

Project

Implementation of the proposed project would redevelop the project site with a mix of uses, including 800 residential units that would result in 1,600 new residents on-site.[115] The new residents would increase demand on recreational facilities, including parks. According to General Plan Policy RPC-1.2, the proposed residents would require 4.8 acres of parkland. The project includes 10.5 to 14 acres of common open space, landscaping, and town squares, as well as a 30-acre green roof that would include outdoor use areas such as outdoor dining, playgrounds, walking paths, and picnic areas. The proposed open space on-site, therefore, would offset the project's demand on recreational facilities. In addition, impacts to County and Midpeninsula Regional Open Space District facilities would be mitigated through the property taxes levied on the property.

Standard Permit Condition: Future development under the proposed project (or General Plan Buildout with Maximum Residential Alternative or Retail and Residential Alternative) shall pay the applicable park maintenance fees, as stated in Chapter 14.05 of the City Municipal Code.

The proposed project would be required to fund park improvements and dedicate land through compliance with Municipal Code Chapter 14.05 and Title 18, which help ensure that City recreational facilities are maintained. Therefore, future development under the proposed project (and General Plan Buildout with Maximum Residential Alternative and Retail and Residential Alternative), with the implementation of the above standard permit condition, would not result in significant impacts to recreational facilities. **(Less than Significant Impact)**

[115] Economic & Planning Systems, Inc. *Population and Employment Projections.* April 26, 2018.

General Plan Buildout with Maximum Residential Alternative

Implementation of the General Plan Buildout with Maximum Residential Alternative would redevelop the project site with a mix of uses, including 2,640 residential units that would result in 5,280 new residents on-site.[116] The new residents would increase demand on recreational facilities, including parks. According to General Plan Policy RPC-1.2, the proposed residents would require approximately 16 acres of parkland. Like the proposed project, the General Plan Buildout with Maximum Residential Alternative includes 10.5 to 14 acres of common open space, landscaping, and town squares, as well as a 30-acre green roof that would include outdoor use areas such as outdoor dining, playgrounds, walking paths, and picnic areas. The proposed open space on-site, therefore, would offset the alternative's demand on recreational facilities. In addition, impacts to County and Midpeninsula Regional Open Space District facilities would be mitigated through the property taxes levied on the property.

Future development under the General Plan Buildout with Maximum Residential Alternative, with the implementation of the same standard permit condition identified above for the proposed project, which would be used to maintain recreational facilities would not result in significant impacts to recreational facilities. **(Less than Significant Impact)**

Retail and Residential Alternative

Implementation of the Retail and Residential Alternative would redevelop the project site with a mix of uses, including 4,000 residential units that would result in 8,000 new residents on-site.[117] The new residents would result in an incremental increase in demand on recreational facilities. According to General Plan Policy RPC-1.2, the proposed residents would require 24 acres of parkland. The Retail and Residential Alternative includes 10.5 to 14 acres of common open space, landscaping, and town squares. A green roof is not proposed as part of this alternative. The proposed open space on-site, therefore, would partially offset this alternative's demand on recreational facilities. In addition, impacts to County and Midpeninsula Regional Open Space District facilities would be mitigated through the property taxes levied on the property.

Future development under the Retail and Residential Alternative, with the implementation of the same standard permit condition identified above for the proposed project, which would be used to maintain recreational facilities, would not result in significant impacts to recreational facilities. **(Less than Significant Impact)**

Occupied/Re-Tenanted Mall Alternative

The Occupied/Re-Tenanted Mall Alternative would not result in new residential units or residents on-site. The implementation of this alternative, therefore, would not affect the City's parkland goal of three acres per 1,000 residents or substantially impact recreational facilities. **(Less than Significant Impact: Not a CEQA Impact)**

[116] Ibid.
[117] Ibid.

Impact REC-2:	**The proposed open space under the project (and General Plan Buildout with Maximum Residential Alternative and Retail and Residential Alternative) would not result in an adverse physical effect on the environment. (Less than Significant Impact)**

Project

The development of the entire project, which includes open space, landscaping, town squares, and a green roof, would result in significant impacts that can be mitigated to a less than significant level as well as significant and unavoidable impacts, all of which are analyzed throughout this EIR. These impacts are primarily from the development of the residential, commercial, and office land uses, not the open space, landscaping, town squares, and green roof. **(Less than Significant Impact)**

General Plan Buildout with Maximum Residential Alternative

The environmental impacts of constructing the proposed open space, landscaping, town squares, and green roof under the General Plan Buildout with Maximum Residential Alternative is the same as discussed above for the proposed project. Refer to Impact REC-2. **(Less than Significant Impact)**

Retail and Residential Alternative

The environmental impacts of constructing the proposed open space, landscaping, and town squares under the Retail and Residential Alternative would be similar to as described above for the proposed project. Refer to Impact REC-2. **(Less than Significant Impact)**

Occupied/Re-Tenanted Mall Alternative

It is not anticipated that new open space or recreational facilities would be constructed under the Occupied/Re-Tenanted Mall Alternative. **(No Impact)**

Impact REC-3:	**The project and project alternatives would not result in significant cumulative recreation impacts. (Less than Significant Impact)**

Project

The geographic area for cumulative recreational impacts is the City boundaries. Buildout of the General Plan and cumulative projects (including the proposed project and project alternatives) would incrementally increase the demand for recreational facilities. The cumulative projects within the City of Cupertino would be required to fund park improvements and dedicate land through compliance with Municipal Code Chapter 14.05 and Title 18, which help ensure the provision of parklands in compliance with the City standard of a minimum of three acres per 1,000 residents. In addition, impacts to County and Midpeninsula Regional Open Space District facilities would be mitigated through the property taxes levied on the property. For these reasons, the cumulative projects (including the proposed project, General Plan Buildout with Maximum Residential Alternative and Retail and Residential Alternative) would not result in significant cumulative impacts to recreational facilities. **(Less than Significant Cumulative Impact)**

General Plan Buildout with Maximum Residential Alternative

The General Plan Buildout with Maximum Residential Alternative would result in the same cumulative impact to park facilities as described above for the proposed project. Refer to Impact PS-5. **(Less than Significant Cumulative Impact)**

Retail and Residential Alternative

The Retail and Residential Alternative would result in the same cumulative impact to park facilities as described above for the proposed project. Refer to Impact PS-5. **(Less than Significant Cumulative Impact)**

Occupied/Re-Tenanted Mall Alternative

The Occupied/Re-Tenanted Mall Alternative would not result in new residents and therefore, would not contribute to park impacts or require to pay park impact fees. **(No Cumulative Impact)**

3.17 TRANSPORTATION/TRAFFIC

The following discussion is based on a Transportation Impact Analysis (TIA) prepared for the project and project alternatives by Fehr & Peers in May 2018. The project site is located in the City of Cupertino, however, transportation facilities outside the City would be affected by the project (and project alternatives). Thus, the transportation impacts of the project (and project alternatives) were evaluated following the standards and methodologies used by the cities of Cupertino, Santa Clara, Sunnyvale, Saratoga, San José, Caltrans, and VTA for facilities within their respective jurisdictions. Because the project (and project alternatives) would generate more than 100 peak hour vehicle trips, an analysis was prepared in accordance with the VTA's TIA Guidelines, which were adopted by all cities and the County, to provide local jurisdictions with a uniform program for evaluating the transportation impacts of land use decisions. A copy of the TIA is included in Appendix H of this EIR.

3.17.1 Environmental Setting

3.17.1.1 *Regulatory Framework*

Below is a summary of the regulatory framework. Refer to Appendix H of this EIR for additional details regarding the transportation regulatory framework.

State and Regional

Senate Bill 743

SB 743 was adopted in 2013 and requires lead agencies to use alternatives to LOS for evaluating transportation impacts, specifically, VMT. Since the adoption of SB 743, OPR has been working on guidelines and regulations to implement SB 743 and the required shift to VMT as the criterion for transportation impacts under CEQA. SB 743 also includes several important changes to CEQA that apply to transit oriented developments, including aesthetics and parking. Specifically with regard to parking, SB 743 requires that the parking impacts of a residential, mixed-use residential, or employment center project, as defined, on an infill site, as defined, within a transit priority area, as defined, shall not be considered significant impacts on the environment. Amendments to the CEQA Guidelines to address SB 743 are expected to be adopted in mid-2018 and are scheduled to apply statewide on January 1, 2020.

Regional Transportation Planning

MTC is the transportation planning, coordinating, and financing agency for the nine-county San Francisco Bay Area, including Santa Clara County. MTC is charged with regularly updating the Regional Transportation Plan, a comprehensive blueprint for the development of mass transit, highway, airport, seaport, railroad, bicycle, and pedestrian facilities in the region. MTC and ABAG adopted *Plan Bay Area 2040* in July 2017, which includes the region's Sustainable Communities Strategy (integrating transportation, land use, and housing to meet GHG reduction targets set by CARB) and Regional Transportation Plan (including a regional transportation investment strategy for revenues from federal, state, regional and local sources over the next 24 years).

Congestion Management Plan

VTA oversees the Congestion Management Program (CMP), a program aimed at reducing regional traffic congestion. State legislation requires that all urbanized counties in California prepare a CMP in order to obtain each county's share of the increased gas tax revenues. The CMP legislation requires that each CMP contain the following five mandatory elements: 1) a system definition and traffic level of service standard element; 2) a transit service and standards element; 3) a trip reduction and transportation demand management element; 4) a land use impact analysis program element; and 5) a capital improvement element. The Santa Clara County CMP includes the five mandated elements and three additional elements, including: a countywide transportation model and data base element, an annual monitoring and conformance element, and a deficiency plan element. The VTA has review responsibility for proposed development projects that are expected to affect CMP designated intersections.

Local

Cupertino General Plan: Community Vision 2015-2040

In response to SB 743, the General Plan includes guidance to balance the needs of all transportation modes and allows the use of measures such as VMT and multi-modal analysis methods when thresholds are adopted by the state or at a local level. However, the General Plan states that until such impact thresholds are developed, the City will continue to optimize mobility for all modes of transportation while striving to meet the LOS applicable to transportation roadway operations at major intersections, as specified in General Plan Policy M-1.2 (see below). While the General Plan strives to maintain these LOS standards, it also includes several policies that support alternative modes of transportation, with policies that limit street widening, the number and width of driveway openings, and promote local/regional transit coordination.

The proposed project (and project alternatives) are subject to General Plan policies including, but not limited to, the policies and strategies listed below pertaining to transportation.

Policy/Strategy	Description
Policy M-1.2	Participate in the development of new multi-modal analysis methods and impact thresholds as required by Senate Bill 743. However, until such impact thresholds are developed, continue to optimize mobility for all modes of transportation while striving to maintain the following intersection Levels of Service (LOS) at AM and PM peak traffic hours: • Major intersections: LOS D; • Stevens Creek Boulevard and De Anza Boulevard: LOS E+; • Stevens Creek Boulevard and Stelling Road: LOS E+; and • De Anza Boulevard and Bollinger Road: LOS E+
Policy M-2.2	Design roadway alignments, lane widths, medians, parking and bicycle lanes, and sidewalks to complement adjacent land uses to keep with the aesthetic vision of the Planning Area. Improvements standards shall also consider the urban, suburban and rural environments found within the city.
Policy M-2.3	Promote pedestrian and bicycle improvements that improve connectivity between planning areas, neighborhoods and services, and foster a sense of community.

Policy/Strategy	Description
Policy M-2.4	Reduce traffic impacts and support alternative modes of transportation in neighborhoods and around schools, parks and community facilities rather than constructing barriers to mobility. Do not close streets unless there is a demonstrated safety or overwhelming through traffic problem and there are no acceptable alternatives since street closures move the problem from one street to another.
Policy M-2.5	Ensure all new public and private streets are publicly accessible to improve walkability and reduce impacts on existing streets.
Policy M-3.1	Adopt and maintain a Bicycle and Pedestrian master plan, which outlines policies and improvements to streets, extension of trails, and pathways to create a safe way for people of all ages to bike and walk on a daily basis, and as shown in Figure M-1 of the General Plan.
Policy M-3.2	Require new development and redevelopment to increase connectivity through direct and safe pedestrian connections to public amenities, neighborhoods, shopping and employment destinations throughout the city.
Policy M-3.3	Enhance pedestrian and bicycle crossings and pathways at key locations across physical barriers such as creeks, highways and road barriers.
Policy M-3.4	Preserve and enhance Citywide pedestrian and bike connectivity by limiting street widening purely for automobiles as a means of improving traffic flow.
Policy M-3.5	Minimize the number and width of driveway openings.
Policy M-3.6	Require parking lots to include clearly defined paths for pedestrians to provide a safe path to building entrances.
Policy M-3.7	Plan for improvements to pedestrian and bicycle facilities and eliminate gaps along the pedestrian and bicycle network as part of the City's Capital Improvement Program.
Policy M-3.8	Require new development to provide public and private bicycle parking.
Policy M-4.5	Support ROW design and amenities consistent with local transit goals to improve transit as a viable alternative to driving.
Policy M-4.6	Work with large regional employers and private commuter bus/shuttle programs to provide safe pick-up, drop-off, and park and rides in order to reduce single occupancy vehicle trips.
Policy M-6.2	Ensure new off-street parking is properly designed and efficiently used.
Policy M-8.4	Require large employers to develop and maintain TDM programs to reduce vehicle trips generated by their employees and develop a tracking method to monitor results.
Policy M-8.5	Encourage new commercial development to provide shared office facilities, cafeterias, daycare facilities, lunchrooms, showers, bicycle parking, home offices, shuttle buses to transit facilities and other amenities that encourage the use of transit, bicycling, or walking as commute modes to work. Provide pedestrian pathways and orient building to the street to encourage pedestrian activity.
Policy M-9.1	Strive to maximize the efficiency of existing infrastructure by locating appropriate land uses along roadways and retrofitting streets to be accessible for all modes of transportation.
Policy M-9.3	Except as required by environmental review for new developments, limit widening of streets as a means of improving traffic efficiency and focus instead on operational improvements to preserve community character.
Policy LU-3.1	Ensure that project sites are planned appropriately to create a network of connected internal streets that improve pedestrian and bicycle access, provide public open space and building layouts that support city goals related to streetscape character for various Planning Areas and corridors.

Policy/Strategy	Description
Policy LU-4.1	Ensure that the design of streets, sidewalks and pedestrian and bicycle amenities are consistent with the vision for each Planning Area and Complete Streets policies.
Policy LU-5.3	Look for opportunities to enhance publicly-accessible pedestrian and bicycle connections with new development or redevelopment.
Strategy LU-8.3.2	Consider shared or reduced parking, where appropriate as incentives to construct new commercial and mixed-use development, while increasing opportunities for other modes of transportation.
Policy LU-11.1	Create pedestrian and bicycle access between new developments and community facilities. Review existing neighborhood circulation to improve safety and access for students to walk and bike to schools, parks, and community facilities such as the library.
Policy HS-8.6	Evaluate solutions to discourage through traffic in neighborhoods through enhanced paving and modified street design.

Cupertino 2016 Bicycle Transportation Plan

The City's Bicycle Transportation Plan was adopted in June 2016 and includes an assessment of the bicycle environment in Cupertino by mapping existing bicycle facilities, bicycle-related collisions between 2009 and 2014, and bicycle network stress assessments. It also includes recommended improvements, including a loop trail. Tier 1 projects, that are identified for implementation in the near term, and are near Vallco, are separated bike lanes on Stevens Creek Boulevard between Foothill Boulevard and Tantau Avenue and a bike/shared use path along the I-280 channel (Junipero Serra Trail) between Mary Avenue and Vallco Parkway, including the stretch of Calabazas Creek between Vallco Parkway and I-280 (see Figure 3.15-1). The City has initiated the conceptual design for the Junipero Serra Trail.

Cupertino Pedestrian Transportation Plan

The City of Cupertino Pedestrian Transportation Plan was adopted in February 2018 and is the blueprint for the City to achieve its vision of an inviting, safe, and connected pedestrian network that enhances the quality of life for all community members and visitors. In the project site area, the Pedestrian Transportation Plan proposed to prioritize the Junipero Serra Trail (I-280 Canal Path) and to install a shared-use path along Perimeter Road.

Cupertino Transportation Impact Fee Nexus Study and Program

The City adopted a Transportation Impact Fee (TIF) Nexus Study in August 2017 and the TIF Program in October 2017. The City's General Plan identifies the need to implement a TIF to fund transportation improvements necessary to mitigate the impacts of future development within the City. Impact fees are one-time charges on new development collected and used by the City to cover the cost of capital facilities and infrastructure that are required to serve the new growth. All of the intersection improvements included in the Nexus Study and TIF Program are within the study area for the proposed Specific Plan.

3.17.1.2 *Methodology*

Because the CEQA Guidelines implementing SB 743 have not yet been adopted, the City is applying a hybrid approach to the analysis of transportation impacts that uses level of service along with a more focused analysis on transit, bicycle, and pedestrian access. VMT estimates are also presented for informational purpose only.

Level of Service

The operations of transportation facilities have traditionally been described with the term level of service. Level of Service (LOS) is a description of traffic flow from the driver's perspective based on factors such as speed, travel time, delay, and freedom to maneuver. Six levels are defined, from LOS A (little or no delay), to LOS F (excessive delay). LOS E represents "at-capacity" operations. When traffic volumes exceed the intersection capacity, stop-and-go conditions result, and operations are designated as LOS F.

Signalized Intersections

The LOS calculations for the signalized study intersections are based on the methodology in the 2000 Highway Capacity Manual (HCM). This method, which is adopted by the City of Cupertino (General Plan Policy M-7.1) and adjacent local agencies, analyzes operations based on average control delay per vehicle. Control delay includes the initial deceleration delay, queue move-up time, stopped delay, and final acceleration delay. The average control delay for signalized intersections is calculated using TRAFFIX analysis software and is correlated to a LOS designation as shown in Table 3.17-1.

Table 3.17-1: Signalized Intersection Level of Service Definitions

Level of Service	Description	Average Control Delay per Vehicle (seconds)
A	Operations with very low delay occurring with favorable progression and/or short cycle lengths.	≤ 10.0
B+	Operations with low delay occurring with good progression and/or short cycle lengths.	10.1 to 12.0
B		12.1 to 18.0
B-		18.1 to 20.0
C+	Operations with average delays resulting from fair progression and/or longer cycle lengths. Individual cycle failures begin to appear.	20.1 to 23.0
C		23.1 to 32.0
C-		32.1 to 35.0
D+	Operations with longer delays due to a combination of unfavorable progression, long cycle lengths, and high V/C ratios. Many vehicles stop and individual cycle failures are noticeable.	35.1 to 39.0
D		39.1 to 51.0
D-		51.1 to 55.0
E+	Operations with high delay values indicating poor progression, long cycle lengths, and high V/C ratios. Individual cycle failures are frequent occurrences.	55.1 to 60.0
E		60.1 to 75.0

Table 3.17-1: Signalized Intersection Level of Service Definitions		
Level of Service	**Description**	**Average Control Delay per Vehicle** (seconds)
E-		75.1 to 80.0
F+ F F-	Operations with delays unacceptable to most drivers occurring due to over-saturation, poor progression, or very long cycle lengths.	> 80.0

Freeway Segments

Freeway segments are evaluated using VTA's analysis procedure, which is based on the density of the traffic flow that is calculated using methods described in the 2000 HCM. Density is expressed in passenger cars per mile per lane. The CMP range of densities for each freeway segment level of service are shown in Table 3.17-2.

Table 3.17-2: Freeway Segment Level of Service Definitions	
Level of Service	**Density (passenger cars per mile per lane)**
A	≤ 11
B	11.1 to 18.0
C	18.1 to 26.0
D	26.1 to 46.0
E	46.1 to 58.0
F	> 58.0

Level of Service Standards

Level of service standards, i.e., the minimum threshold for acceptable operations for intersections and freeway segments, are set by the jurisdiction that controls that portion of the transportation infrastructure. In Santa Clara County, each city typically sets the thresholds for the transportation facilities within their jurisdictions through their adopted General Plan policies. VTA sets thresholds for CMP-designated facilities, including freeway segments and select intersections, through its CMP.

Signalized intersection operations and impacts were evaluated based on the appropriate jurisdiction's LOS standards as summarized in Table 3.17-3. For CMP study intersections, the City of Cupertino uses its locally-adopted LOS standard, while all other jurisdictions (except the City of San José) use VTA's LOS standard.

Table 3.17-3: Intersection LOS Standards by Jurisdiction	
Jurisdiction	**Intersection LOS Standard**
City of Cupertino	LOS D for all City controlled signalized intersections, except at the Stevens Creek Boulevard/De Anza Boulevard, Stevens Creek Boulevard/Stelling Road, and the De Anza Boulevard/Bollinger Road intersections. The threshold for these three intersections is LOS E+ operations (with no more than 60 seconds of weighted average control delay).
City of Santa Clara	LOS D for all City controlled signalized intersections, except designated CMP and Expressway intersections (LOS E threshold).
City of Sunnyvale	LOS D for all City controlled signalized intersections, except for CMP intersections and regionally significant roadways, which includes intersections along El Camino Real and Sunnyvale-Saratoga Road. The threshold for CMP intersections and intersections along these regionally significant corridors is LOS E.
City of Saratoga	LOS D for all City controlled signalized intersections, except designated CMP and Expressway intersections (LOS E threshold) and Caltrans intersections (LOS C threshold).
City of San José	LOS D for all City controlled signalized intersections unless governed by an Area Development Policy or protected intersection designation
VTA	LOS E for all Santa Clara County CMP intersections; though City of Cupertino uses their own City standards (outlined in this table) for CMP intersections within their City boundaries.
Santa Clara County	LOS E for all Santa Clara County expressway intersections.
Caltrans	LOS C for all Caltrans controlled signalized intersections.

Study Area

Relevant Regional Studies within Cupertino

There are two studies currently being led by VTA in cooperation with the City of Cupertino that are directly related to the project area. These two studies are described briefly below.

- *I-280/Wolfe Road Interchange Study* – The I-280/Wolfe Road Interchange Study proposes to modify the I-280/Wolfe Road interchange to improve traffic operations, facilities for bicycles and pedestrians, and improve HOV lane use. The study is being led by VTA in cooperation with the City of Cupertino and Caltrans. The proposed improvements include modifying the interchange to provide three lanes in each direction between southbound and northbound off-ramps by either widening the existing Wolfe Road bridge structure or constructing a new bridge structure over I-280. Currently, it is anticipated that construction of the I-280/Wolfe Road Interchange Project will start in the

year 2022 and be completed by the year 2024. The widening of the I-280 Wolf Road interchange would be funded through VTA Measure B funds.[118]

- *I-280 Corridor Study* – The I-280 Corridor Study is a high-level multi-modal highway planning study of the 22-mile I-280 freeway corridor extending between the US 101/I-680/I-280 interchange in the City of San José at the Santa Clara/San Mateo county boundary. The study is being led by VTA in partnership with the City of Cupertino. The study identifies potential improvements for consideration with the goal of improving corridor mobility for all modes of transportation. Relevant to the immediate study area of the project are the potential bus-only northbound on-ramp and southbound off-ramps from Tantau Avenue. All the improvements, including the bus-only ramps at Tantau Avenue, are conceptual in nature and require further study; and thus, are not included the analysis presented in this EIR.

Study Intersections

Project impacts on the study area transportation facilities were determined by measuring the effect project traffic would have on intersections during the morning (7:00 AM to 10:00 AM) and evening (4:00 PM to 7:00 PM) peak periods. Study intersections were selected in accordance with VTA's TIA Guidelines, which indicates that an intersection be evaluated if a project contributes 10 peak hour trips per lane during a peak hour. The following 67 intersections, which are shown on Figure 3.17-1, were selected as study locations in consultation with the City of Cupertino staff and based on VTA's TIA Guidelines:

1. Stevens Creek Boulevard/SR 85 Ramps (west)* – City of Cupertino
2. Stevens Creek Boulevard/SR 85 Ramps (east)* – City of Cupertino
3. Stevens Creek Boulevard/Stelling Road* – City of Cupertino
4. Sunnyvale-Saratoga Road/Remington Drive* – City of Sunnyvale
5. Sunnyvale-Saratoga Road/Fremont Avenue* – City of Sunnyvale
6. Sunnyvale-Saratoga Road/Cheyenne Drive – City of Sunnyvale
7. Sunnyvale-Saratoga Road/Alberta Avenue – City of Sunnyvale
8. De Anza Boulevard/Homestead Road* – City of Cupertino
9. De Anza Boulevard/I-280 Ramps (north)* – City of Cupertino
10. De Anza Boulevard/I-280 Ramps (south)* – City of Cupertino
11. De Anza Boulevard/Stevens Creek Boulevard* – City of Cupertino
12. De Anza Boulevard/McClellan Road/Pacifica Drive – City of Cupertino
13. De Anza Boulevard/Bollinger Road* – City of Cupertino
14. De Anza Boulevard/SR 85 Ramps (north) * – City of Cupertino
15. De Anza Boulevard/SR 85 Ramps (south) * – City of Cupertino
16. Saratoga-Sunnyvale Road/Prospect Road – City of Cupertino
17. Stevens Creek Boulevard/Torre Avenue – City of Cupertino
18. Homestead Road/Blaney Avenue – City of Cupertino
19. Stevens Creek Boulevard/Blaney Avenue – City of Cupertino

[118] A lawsuit challenging the validity of 2016 Measure B was filed in early 2017. The judge ruled in favor of VTA in the trial court, and, the plaintiff filed an appeal at the end of August 2017. As the appeal works its way through the appeal process, funds continue to be collected and held in escrow until the lawsuit is resolved and 2016 Measure B funds can be distributed.

20. Stevens Creek Boulevard/Portal Avenue – City of Cupertino
21. Stevens Creek Boulevard/Perimeter Road – City of Cupertino
22. Wolfe Road/El Camino Real* – City of Sunnyvale
23. Wolfe Road/Fremont Avenue – City of Sunnyvale
24. Wolfe Road/Marion Way – City of Sunnyvale
25. Wolfe Road/Inverness Way – City of Sunnyvale
26. Wolfe Road/Homestead Road – City of Cupertino
27. Wolfe Road/Apple Park – City of Cupertino
28. Wolfe Road/Pruneridge Avenue – City of Cupertino
29. Wolfe Road/I-280 Ramps (north) * – City of Cupertino
30. Wolfe Road/I-280 Ramps (south) * – City of Cupertino
31. Wolfe Road/Vallco Parkway – City of Cupertino
32. Wolfe Road-Miller Avenue/Stevens Creek Boulevard* – City of Cupertino
33. Miller Avenue/Calle de Barcelona – City of Cupertino
34. Miller Avenue/Phil Lane – City of Cupertino
35. Miller Avenue/Bollinger Road – City of San José
36. Miller Avenue/Rainbow Drive – City of San José
37. Stevens Creek Boulevard/ Finch Avenue – City of Cupertino
38. Tantau Avenue/Homestead Road – City of Cupertino
39. Tantau Avenue/Pruneridge Avenue – City of Cupertino
40. N Tantau Ave/Apple Parkway – City of Cupertino
41. Tantau Avenue/Vallco Parkway – City of Cupertino
42. Stevens Creek Boulevard/Tantau Avenue – City of Cupertino
43. Stevens Creek Boulevard/Stern Avenue – City of Santa Clara
44. Stevens Creek Boulevard/Calvert Drive/I-280 Ramps (west)* – City of Santa Clara
45. Stevens Creek Boulevard/Agilent Driveway – City of Santa Clara
46. Stevens Creek Boulevard/Lawrence Expressway Ramps (west)* – Santa Clara County
47. Lawrence Expressway/El Camino Real* – Santa Clara County
48. Lawrence Expressway/Homestead Road* – Santa Clara County
49. Lawrence Expressway/Pruneridge Avenue* – Santa Clara County
50. Stevens Creek Boulevard/ Lawrence Expressway Ramps (east)* – Santa Clara County
51. Lawrence Expressway/Calvert Drive-I-280 Southbound Ramp* – City of San José
52. Lawrence Expressway/Mitty Way* – Santa Clara County
53. Lawrence Expressway/Bollinger Road* – Santa Clara County
54. Lawrence Expressway/Doyle Road* – Santa Clara County
55. Lawrence Expressway/Prospect Road* – Santa Clara County
56. Lawrence Expressway/Saratoga Avenue* – Santa Clara County
57. Saratoga Avenue/Cox Avenue – City of Saratoga
58. Saratoga Avenue/SR 85 Ramps (north) – Caltrans
59. Saratoga Avenue/SR 85 Ramps (south) – Caltrans
60. Stevens Creek Boulevard/Cabot Avenue – City of Santa Clara
61. Stevens Creek Boulevard/Cronin Drive-Albany Drive – City of Santa Clara
62. Stevens Creek Boulevard/Woodhams Road – City of Santa Clara

63. Stevens Creek Boulevard/Kiely Boulevard* – City of San José
64. Vallco Parkway/Perimeter Road – City of Cupertino
65. Lawrence Expressway/Kifer Road* – Santa Clara County
66. Lawrence Expressway/Reed Avenue-Monroe Street – Santa Clara County
67. Lawrence Expressway/Cabrillo Avenue – Santa Clara County

* denotes CMP intersections

Freeway Segments

Pursuant to the VTA Guidelines, freeway segments were selected for analysis because a) the project site is adjacent to a freeway segment, b) project access is provided using various interchanges, or c) the project is anticipated to add more than one percent to each of the segment's capacity during the both/either peak hour. The following nine freeway segments on SR 85, 15 segments on I-280, four segments on I-880, and two freeway segments on SR 17 were evaluated:

SR 85 (Northbound and Southbound)

- Union Avenue to Bascom Avenue
- Bascom Avenue to SR 17
- SR 17 to Winchester Boulevard
- Winchester Boulevard to Saratoga Avenue
- Saratoga Avenue to Saratoga-Sunnyvale Road
- Saratoga-Sunnyvale Road to Stevens Creek Boulevard
- Stevens Creek Boulevard to I-280
- I-280 to Homestead Road
- Homestead Road to Fremont Avenue

I-280 (Northbound and Southbound)

- Alpine Road to Page Mill Road
- Page Mill Road to La Barranca Road
- La Barranca Road to El Monte Road
- El Monte Road to Magdalena Avenue
- Magdalena Avenue to Foothill Expressway
- Foothill Expressway to SR 85
- SR 85 to De Anza Boulevard
- De Anza Boulevard to Wolfe Road
- Wolfe Road to Lawrence Expressway
- Lawrence Expressway to Saratoga Avenue
- Saratoga Avenue to Winchester Boulevard
- Winchester Boulevard to I-880
- I-880 to Meridian Avenue
- Meridian Avenue to Bird Avenue
- Bird Avenue to SR 87

I-880 (Northbound and Southbound)

- I-280 to Stevens Creek Boulevard
- Stevens Creek Boulevard to Bascom Avenue
- Bascom Avenue to The Alameda
- The Alameda to Coleman Avenue

SR 17 (Northbound and Southbound)

- SR 85 to Lark Avenue
- Lark Avenue to Saratoga-Sunnyvale Road

Pedestrian, Bicycle, and Transit Facilities

Project impacts to pedestrian facilities, bicycle facilities, and transit service and facilities within an approximately half mile radius from the project site are also addressed.

Analysis Scenarios

The operations of the study intersections and freeway segments were evaluated during the weekday morning (AM) and weekday evening (PM) peak hours for the following scenarios:

- *Existing Conditions* – Existing conditions are represented by existing peak hour traffic volumes on the existing roadway network. Existing traffic volumes were obtained from traffic counts.

- *Existing with Project Conditions* – Existing with project conditions represent existing peak hour traffic with the addition of traffic generated by the project (or project alternatives).

- *Background Conditions* – Background conditions are represented by future traffic volumes on the future roadway network. Background traffic volumes were estimated by adding existing traffic volumes and traffic from approved but not yet built or occupied developments in the area and geometry changes related to the Stevens Creek Boulevard Class IV improvements (discussed subsequently in Impact TRN-2).

- *Background with Project Conditions* – Background with project conditions represent background traffic volumes with traffic generated by the project (or project alternatives).

- *Cumulative Conditions* – Cumulative conditions represent future traffic volumes on the future transportation network. Cumulative conditions include background traffic volumes with traffic generated by pending developments in the area and geometry changes related to the Stevens Creek Boulevard Class IV improvements and Wolfe/I-280 Interchange Improvements (discussed subsequently in Section 3.17.2.10).

- *Cumulative with Project Conditions* – Cumulative with project conditions represent cumulative traffic volumes with traffic generated by the project (or project alternatives).

3.17.1.3 *Existing Conditions*

This section describes the existing transportation conditions, including the roadway network, transit service, and pedestrian and bicycle facilities. It also describes existing level of service operations of the study intersections and freeway segments.

Existing Transportation Network

Existing Roadway Network

Most travel in Cupertino is currently made by private vehicles on the roadway system. I-280, SR 85, and Lawrence Expressway provide regional vehicle access to the project site. Wolfe Road-Miller Avenue, Stevens Creek Boulevard, Perimeter Road, and Vallco Parkway provide direct access to the project site. Local access to these roadways is provided via Sunnyvale-Saratoga Road-De Anza Boulevard, Blaney Avenue, Tantau Avenue, Homestead Road, and Bollinger Road. These roadways are briefly described below and shown in Figure 3.17-1.

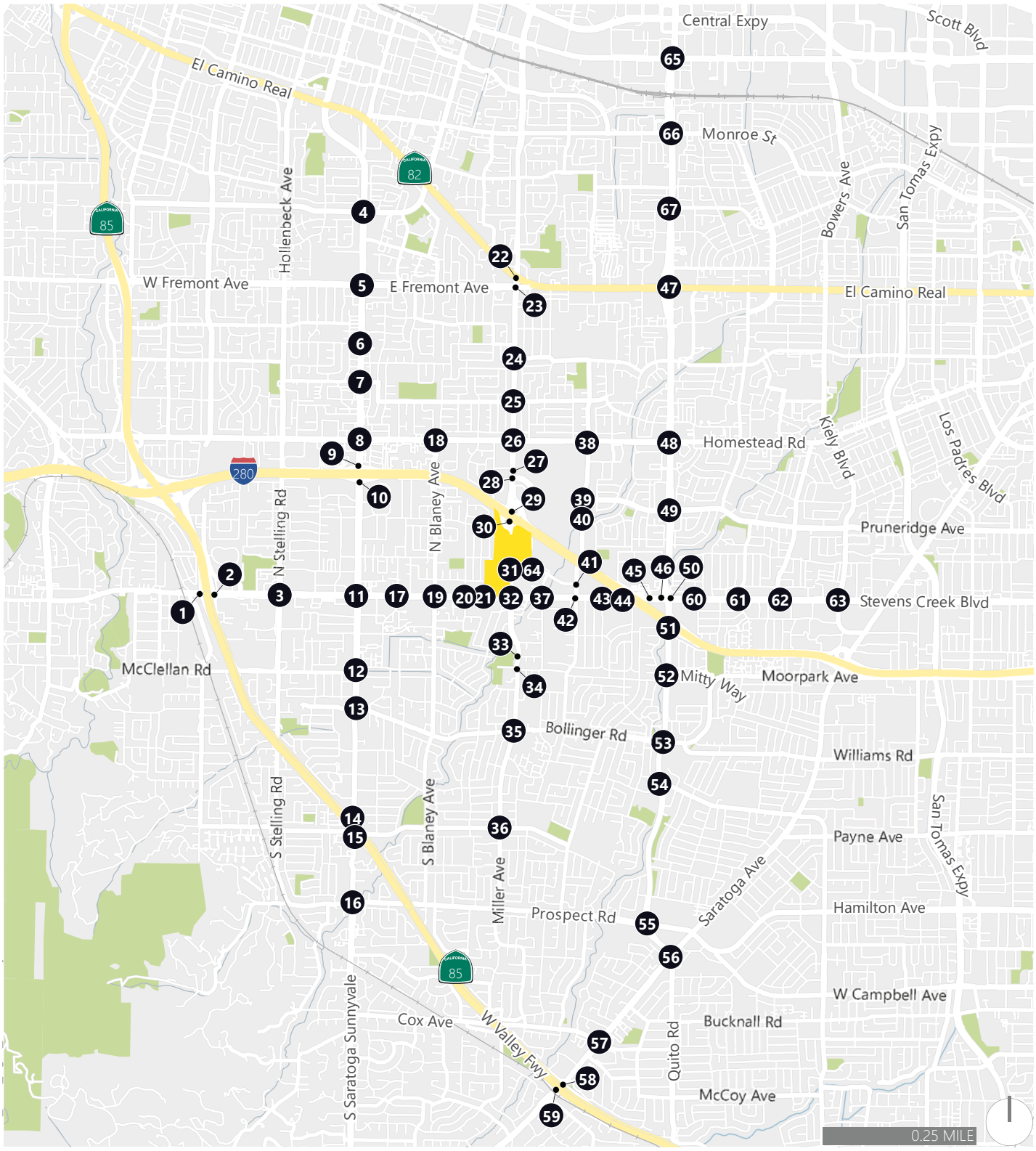
- *I-280* is located immediately north of the project site and provides regional freeway access between the cities of San Francisco and San José. Near the project site, I-280 has three mixed-flow lanes and one high occupancy vehicle (HOV) lane in each direction.[119] Access to/from I-280 is provided via its interchanges with SR 85, De Anza Boulevard, Wolfe Road, and Lawrence Expressway/Steven Creek Boulevard.

- *SR 85* is located west and south of the project site and extends north through Sunnyvale and Mountain View to US 101 and south through Saratoga, Los Gatos, and San José to connect again with US 101. The freeway has two mixed-flow lanes and one HOV lane in each direction. Interchanges with I-280, Stevens Creek Boulevard, De Anza Boulevard, and Saratoga Avenue provide access to the project site.

- *Lawrence Expressway* is located to the east of the project site and is a limited-access north-south facility operated by Santa Clara County that extends between SR 237 near Moffett Field to the north and Saratoga Avenue/Quito Road to the south. It is a six-lane facility south of I-280. North of I-280, Lawrence Expressway is an eight-lane facility with the right-most lane in each direction restricted to HOVs during the commute hours. Lawrence Expressway provides local access closest to the site via the intersection at Stevens Creek Boulevard.

- *Wolfe Road-Miller Avenue* is a four-to-six-lane north-south roadway that bisects the project site. North of Stevens Creek Boulevard, the roadway is called Wolfe Road and is designated an arterial in the City's General Plan. South of Stevens Creek Boulevard, it is designated a major collector and is called Miller Avenue. Wolfe Road/Miller Avenue extends north to the City of Sunnyvale and south to the City of Saratoga. Wolfe Road/Miller Avenue provides the project site with access to I-280 by a partial cloverleaf interchange.

[119] HOV lanes, also known as diamond or carpool lanes, restrict use to vehicles with two or more persons (carpool, vanpool, and buses), motorcycles, and clean-air vehicles during the morning (5:00 AM to 9:00 AM) and evening (3:00 PM to 7:00 PM) commute periods on weekdays.



Source: Fehr & Peers

EXISTING ROADWAY NETWORK AND STUDY INTERSECTIONS FIGURE 3.17-1

- *Stevens Creek Boulevard* is an east-west six-lane divided arterial along the southern boundary of the site that extends between western Cupertino and downtown San José (as West San Carlos Street). Stevens Creek Boulevard provides access to SR 85, I-280 and Lawrence Expressway via interchanges. The roadway connects all of the north-south roadways described above.

- *Perimeter Road* runs along the west, north, and east perimeters of the project site. It is a two-lane private street, connecting Vallco Mall parking to Stevens Creek Boulevard, Wolfe Road, and Vallco Parkway.

- *Vallco Parkway* is a short (less than 0.5 mile) four-lane, east-west minor collector that provides a connection between Wolfe Road and Tantau Avenue.

- *De Anza Boulevard* is an eight-lane, north-south arterial that runs north from the City of Sunnyvale (where it is called Sunnyvale-Saratoga Road north of Homestead Road) and to the south in the City of Saratoga (where it is called Saratoga-Sunnyvale Road south of Prospect Road).

- *Blaney Avenue* is a two-lane, north-south minor collector that extends from Prospect Road in the south to Homestead Road in the north. There is no direct connection between Blaney Avenue and I-280 nor SR 85, but connections to I-280 can be made via Stevens Creek Boulevard as well as connections to SR 85 via Stevens Creek Boulevard and Prospect Road and to Lawrence Expressway via Homestead Road, Bollinger Road, and Stevens Creek Boulevard.

- *Tantau Avenue* is a two-lane, north-south minor collector located to the east of the site that extends from Bollinger Road in the south to Homestead Road in the north. North Tantau Avenue (the segment north of Stevens Creek Boulevard) is designated as a major collector, and South Tantau Avenue (the segment south of Stevens Creek Boulevard,) is designated as a minor collector, in the City's General Plan. Currently, southbound through movements are not permitted at Stevens Creek Boulevard and vehicles are not able to travel south onto South Tantau Avenue from North Tantau Avenue. Vehicles must turn onto Stevens Creek Boulevard at this intersection when travelling in the southbound direction.

- *Homestead Road* is a four-lane, east-west arterial located to the north of the site that extends from Foothill Expressway in the west (Town of Los Altos) to Lafayette Street in the east (adjacent to Santa Clara University).

- *Bollinger Road* is a four-lane, east-west roadway that extends from approximately 200 feet west of Vernie Court in the west to Lawrence Expressway in the east. Bollinger Road continues as a four lane roadway into the City of San José as Moorpark Avenue. Moorpark Avenue becomes a two lane roadway within a quarter mile east of the intersection of Bollinger and Lawrence Expressway.

Existing Transit Network and Service

Existing VTA Bus Service

The project site is directly served by VTA buses. The project site acts as a transfer center for VTA bus routes and has an existing transit hub used by private shuttles.

In 2017, VTA finalized a redesign of its transit network, referred to as the Next Network, which strives for a better balance between service frequency and coverage in VTA's service area. Currently, VTA's Next Network Transit Plan is scheduled to be implemented in mid- to late -2018 when BART is extended to the Berryessa Station in San José.

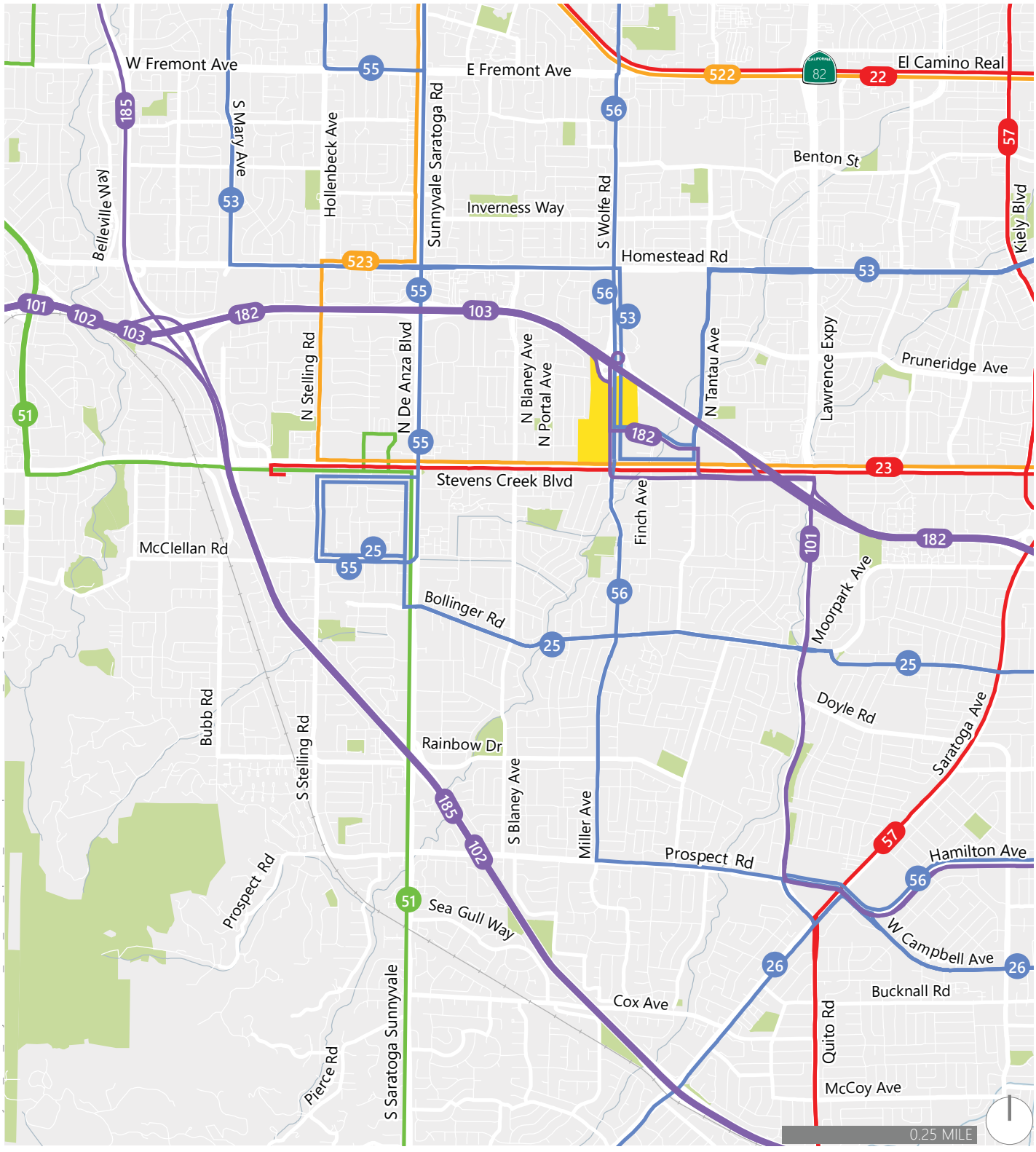
Figure 3.17-2 shows the regional transit access within the project area. Figure 3.17-3 shows the bus routes that serve the site, the locations of the bus stops, and the existing pedestrian connections (sidewalks and crosswalks).

Bus stops are located on Wolfe Road (both northbound and southbound direction) just north of Vallco Parkway, Wolfe Road northbound just north of Stevens Creek Boulevard, Vallco Parkway near Perimeter Road (both eastbound and westbound direction), and Stevens Creek Boulevard (both eastbound and westbound direction) near Wolfe Road. The bus routes that serve the area are described briefly below in Table 3.17-4. Additional details about the bus routes and service, including operating hours and headways, is included in Appendix H.

Existing Caltrain Commuter Rail Service

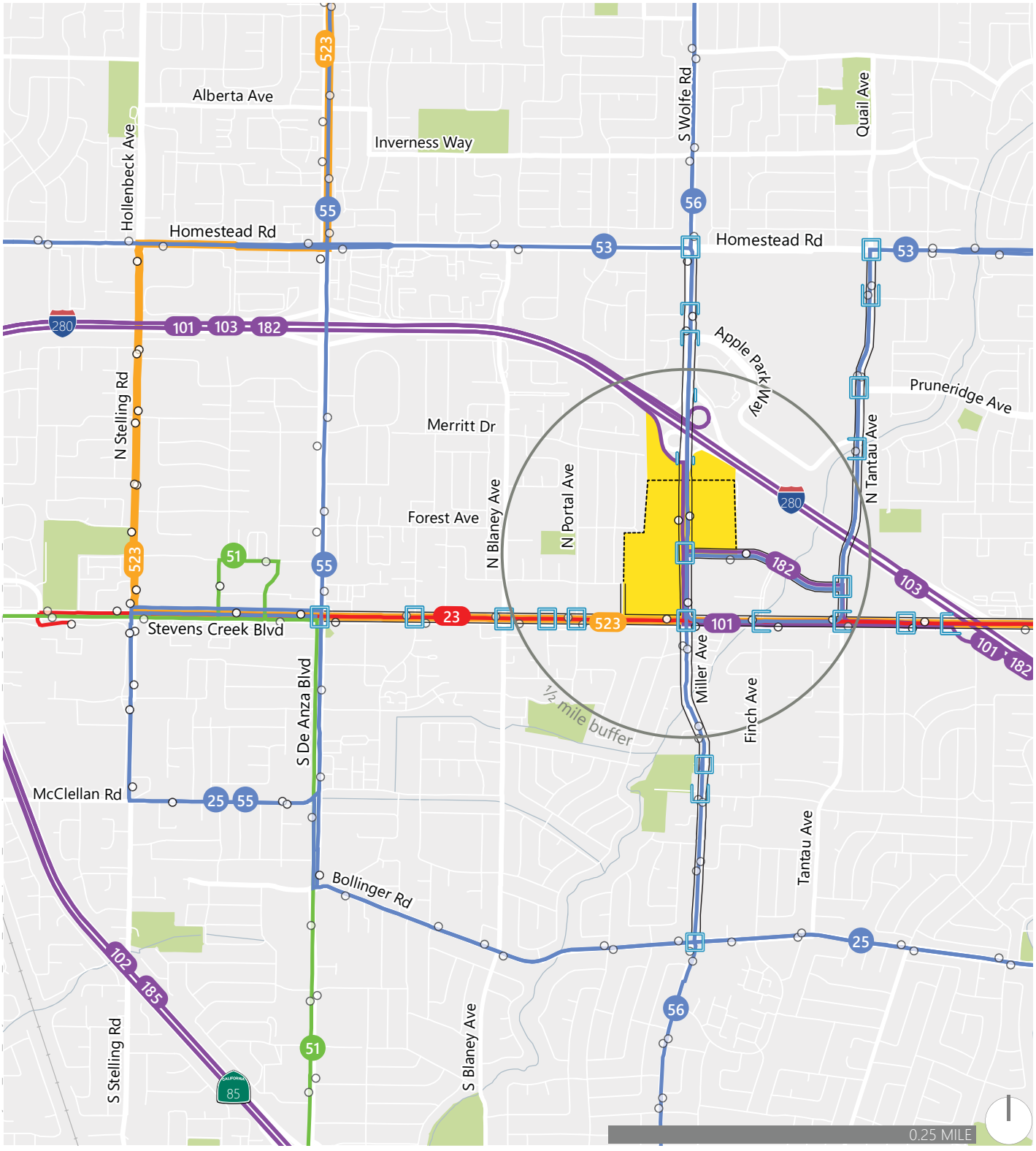
Caltrain is a passenger rail service that runs from downtown San Francisco (4th and King Street Station) to downtown San José (Diridon Station), with a limited number of commute period trains running farther south to Gilroy. During commute periods, Caltrain offers express service ("Baby Bullet") between downtown San José and San Francisco, which allows the trip between San Francisco and San José to be made in one hour as opposed to one hour and 40 minutes. This service stops at a limited number of stations, including the Sunnyvale station. Currently, Baby Bullet trains only serve the Sunnyvale Caltrain station in the northbound direction during the morning peak and in the southbound direction during the evening peak.

The Sunnyvale Station is the closest Caltrain station to the project site, and is a 35-minute bus ride on VTA Route 56 or a roughly 15 minute car ride by taxis and Transportation Network Companies (TNCs) like Uber and Lyft.



Source: Fehr & Peers

REGIONAL TRANSIT ACCESS FIGURE 3.17-2



NEXT Transit Service Route

- Rapid: every 15 minutes or better and limited stops
- Express: every 15 minutes or longer at peak periods
- Frequent: every 15 minutes
- Local: every 30 minutes
- Local: every 60 minutes
- Next Network Bus Stops

Pedestrian Connections to Transit Service

- Sidewalk
- Transit Connection Sidewalk Gap
- Crosswalk
- Project Site

Source: Fehr & Peers

EXISTING BUS ROUTES, BUS STOPS, AND PEDESTRIAN CONNECTIONS FIGURE 3.17-3

Table 3.17-4: Summary of Bus Routes that Serve the Project Site	
Bus Route	**Brief Description**
23	Bus Route 23 operates on Stevens Creek Boulevard and provides service between De Anza College and the Alum Rock Transit Center. A bus stop for Route 23 is located at the Stevens Creek Boulevard/Wolfe Road-Miller Avenue intersection with connections to Routes 53, 56, 101, and 523. Route 23 is augmented by limited stop service (Route 323) between Lockheed Martin Transit Center and the Berryessa BART Station.
53	Bus Route 53 provides service between the Santa Clara Transit Center and the Sunnyvale Transit Center. Near the project site, Route 53 operates on Homestead Road, Wolfe Road, Stevens Creek Boulevard, and Tantau Avenue. The closest bus stop is located at the Stevens Creek Boulevard/Wolfe Road-Miller Avenue intersection, which provides connections to Route 23, 56, 101 and 323.
56	Bus Route 56 provides service between the Lockheed Martin Transit Center and Tamien Station operating on Wolfe Road near the project site. The closest bus stops are located on Wolfe Road.
101	Bus Route 101 is an express bus route that operates on I-280 and Stevens Creek Boulevard; it connects the Park & Ride lot at the Camden Avenue/SR 85 interchange to Palo Alto. This route has a bus stop at the Stevens Creek Boulevard/Wolfe Road-Miller Avenue intersection, which provides connections to Routes 23, 53, 56, and 323.
182	Bus Route 182 is an express bus route that operates on I-280, Wolfe Road, Vallco Parkway, and Stevens Creek Boulevard; it connects the Park & Ride lot at El Camino Real and Page Mill Road in Palo Alto with the IBM Santa Teresa Facility at Bailey Avenue. This route has a bus stop at the project site at Wolfe Road/Vallco Parkway.
323	Bus Route 323 is a limited stop bus route on Stevens Creek Boulevard serving Lockheed Martin Transit Center, Downtown Sunnyvale, De Anza College, Valley Fair, Santana Row, Downtown San José, Mexican Heritage Plaza, and the Berryessa BART Station. The closest bus stops are located at Stevens Creek Boulevard/Wolfe Road-Miller Avenue with connections to Routes 23, 53, 56, and 101.

Existing Bicycle Facilities and Volumes

There are four types of bicycle facilities, as described below.

- Class I Bikeway (Bike Path) provides a completely separate right-of-way and is designated for the exclusive use of bicycles and pedestrians with vehicle and pedestrian cross-flow minimized.
- Class II Bikeways (Bike Lanes) are lanes for bicyclists adjacent to the outer vehicle travel lanes. These lanes have special lane markings, pavement legends, and signage.
- Class IIIa Bikeways (Bike Routes) are designated by signs or pavement markings for shared use with pedestrians or motor vehicles, but have no separated right-of-way or lane striping.
- Class IIIb Bikeways (Bike Boulevards) are a modified Class IIIa bicycle route providing a more convenient and efficient through route for cyclists of all skill levels. A bike boulevard includes signage, pavement markings, traffic calming, and in some cases midblock closures to vehicles.

Additional details, including graphics depicting the different types of bicycle facilities, are included in Appendix H of this EIR. Appendix H shows the location of the existing bicycle facilities in the project area. Class II bicycle lanes are provided on the following roadways:

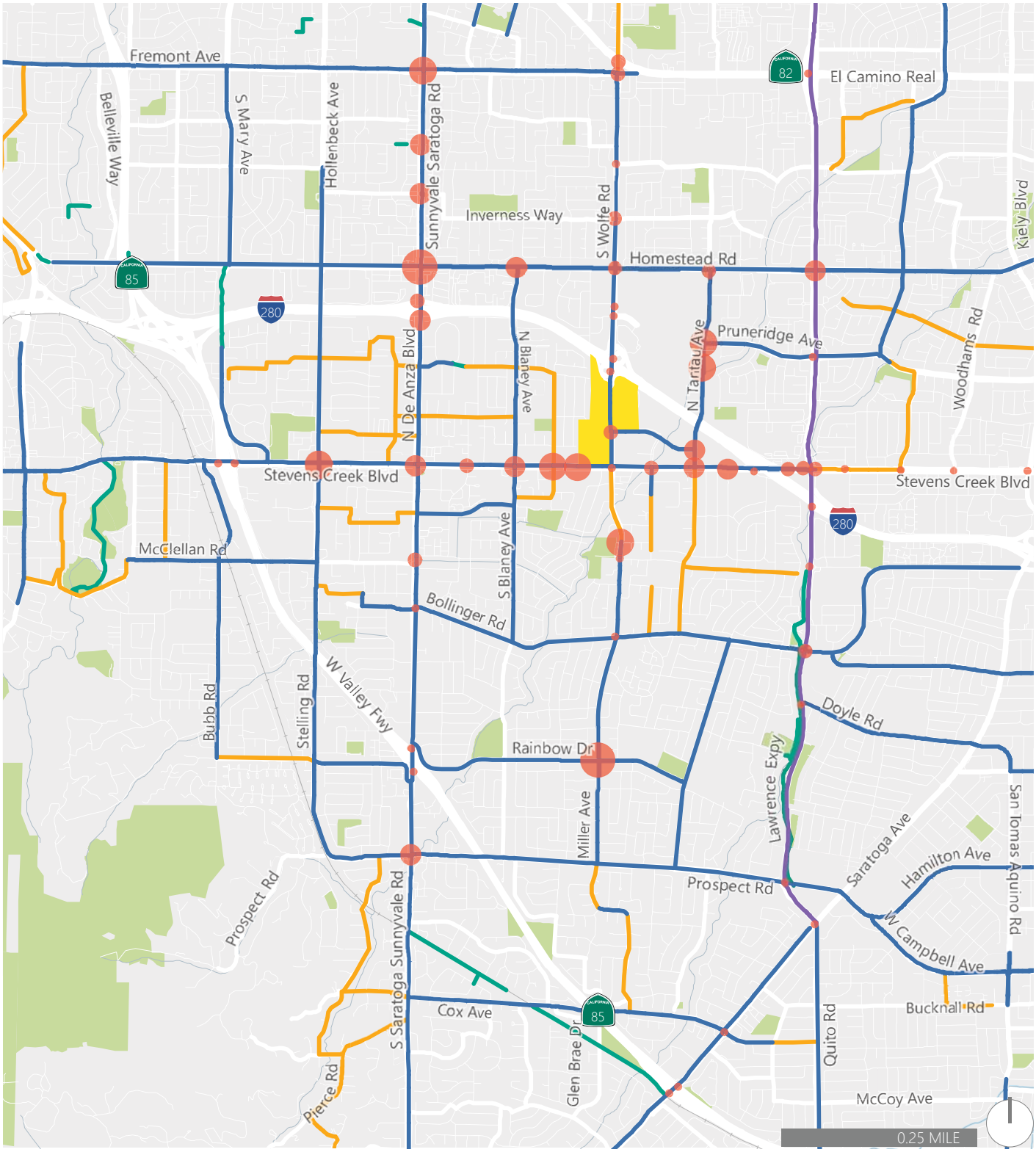
- Wolfe Road-Miller Avenue,
- Homestead Road,
- Tantau Avenue,
- Vallco Parkway,
- De Anza Boulevard-Sunnyvale-Saratoga Road,
- Blaney Avenue between Homestead and Bollinger Roads, and
- Bollinger Road east of De Anza Boulevard.

In addition, Class IV paint buffered bike lanes are provided on Stevens Creek Boulevard. The following roads near the site are designated as Class III bike routes:

- Tantau Avenue between Stevens Creek Boulevard and Bollinger Road,
- Miller Avenue between Stevens Creek Boulevard and Calle De Barcelona, and
- Portions of Merritt Drive, Portal Avenue, and Price Avenue.

Bicycle facilities comprised of Class II bicycle lanes and Class III bicycle routes connect the project site to the Sunnyvale and Lawrence Caltrain station.

Bicycle volumes were collected during the peak morning and evening commute periods at all study intersections. The bicycle volume counts were greater during the morning peak period and are shown in Appendix H. Generally, bicycle volumes are higher on corridors with bike facilities. During AM peak hour bicycle use was the greatest along Homestead Road, Tantau Avenue, De Anza-Sunnyvale-Saratoga Road, Wolfe Road-Miller Avenue, and Stevens Creek Boulevard. There is moderate bicycle use along Tantau Avenue and Homestead Road during the PM peak hour; most other bicycle facilities have only a few users.



Source: Fehr & Peers

EXISTING BICYCLE FACILITIES AND BICYCLE VOLUMES IN THE AM PEAK PERIOD FIGURE 3.17-4

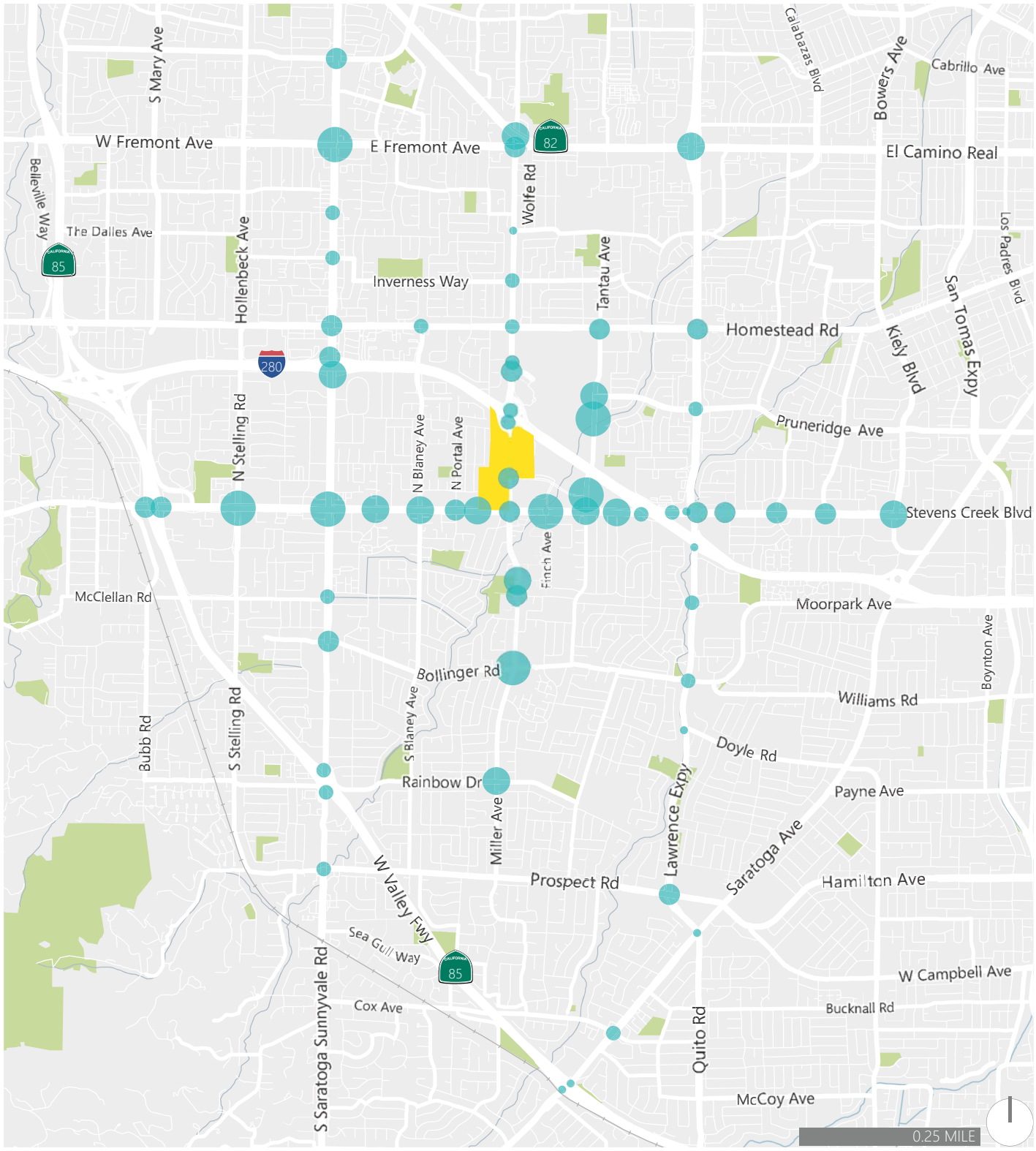
Existing Pedestrian Facilities and Volumes

Pedestrian facilities consist of sidewalks, crosswalks, and pedestrian signals. Within about a one-half-mile radius of the project site, sidewalks are located on both sides of Steven Creek Boulevard, Wolfe Road, Tantau Avenue, Vallco Parkway, and Blaney Road.

Perimeter Road (a private roadway) was designed to serve only vehicular traffic to and from the various parking lots and garages at the Vallco Mall. From the western end of the roadway, Perimeter Road has a partially paved unfinished trail on the west side of the roadway from Steven Creek Boulevard for about 880 feet (to where Vallco Parkway would intersect with Perimeter Road). North of this, the paved trail continues as an unpaved unofficial walkway to the 90-degree bend in the road. The segment of Perimeter Road that runs parallel to I-280 with the Wolfe Road undercrossing has a sidewalk on the north side of the roadway, although parts of it currently are obstructed by construction activities related to the Hyatt Hotel. As Perimeter Road bends 90-degrees towards Vallco Parkway, the roadway has a gravel walkway/dirt path on the east side of the road that continues all the way down to Vallco Parkway and connects with sidewalks there.

All of the major roadways in the study area have at least a sidewalk on one side of the roadway, with the exception of the I-280 and SR 85 freeways. At the Wolfe Road/I-280 interchange, east-west pedestrian movements are prohibited; east-west crossings are located at Pruneridge Avenue/Wolfe Road and Vallco Parkway/Wolfe Road north and south of the interchange, respectively. Crossing the uncontrolled (i.e., no stop sign or signal control) loop on-ramps is especially challenging for pedestrians because vehicles enter the on-ramps at higher speeds and typically do not anticipate needing to stop for pedestrians. The Perimeter Road/Wolfe Road intersection is grade separated, with Perimeter Road crossing under Wolfe Road; however, there is no pedestrian access to the Perimeter Road undercrossing from Wolfe Road. At the Finch Avenue/Stevens Creek Boulevard and Tantau Avenue/Stevens Creek Boulevard, north-south pedestrian movements are prohibited along the east leg of the intersections. At the Pruneridge Avenue/Wolfe Road and Apple Park Way/Wolfe Road intersections, east-west pedestrian movements are prohibited along the south legs.

Pedestrian volumes were collected during the peak morning and evening commute periods at all study intersections. The pedestrian volume counts were greater during the morning peak period and are shown in Appendix H. Pedestrian volumes are generally low in the area, but higher pedestrian activity occurs on Stevens Creek Boulevard and Tantau Avenue.



Source: Fehr & Peers

EXISTING PEDESTRIAN VOLUMES IN THE AM PEAK HOUR FIGURE 3.17-5

Existing Intersection Levels of Service

The results of the intersection level of service analysis for the study intersections under existing conditions are summarized in Appendix H. The results show that, measured against applicable municipal and CMP level of service standards discussed in Section 3.17.2.1 and identified in Table 3.17-5, the following intersection operates at an unacceptable LOS during the PM peak hour:

12. De Anza Boulevard/McClellan Road/Pacifica Drive (City of Cupertino).

The results show that all other study intersections currently operate at acceptable levels of service during the AM and PM peak hours of traffic.

Table 3.17-5: Existing Intersection Levels of Service

Study Intersection – Jurisdiction	LOS Threshold	Peak Hour	Delay	LOS
1. Stevens Creek Boulevard/SR 85 Ramps (west)* – City of Cupertino	D	AM PM	22.4 31.7	C+ C
2. Stevens Creek Boulevard/SR 85 Ramps (east)* – City of Cupertino	D	AM PM	28.5 27.1	C C
3. Stevens Creek Boulevard/Stelling Road* – City of Cupertino	E+	AM PM	38.3 46.7	D+ D
4. Sunnyvale-Saratoga Road/Remington Drive* – City of Sunnyvale	E	AM PM	44.5 43.7	D D
5. Sunnyvale-Saratoga Road/Fremont Avenue* – City of Sunnyvale	E	AM PM	48.3 46.6	D D
6. Sunnyvale-Saratoga Road/Cheyenne Drive – City of Sunnyvale	E	AM PM	11.7 10.7	B+ B+
7. Sunnyvale-Saratoga Road/Alberta Avenue – City of Sunnyvale	E	AM PM	21.2 25.9	C+ C
8. De Anza Boulevard/Homestead Road* – City of Cupertino	D	AM PM	39.8 41.0	D D
9. De Anza Boulevard/I-280 Ramps (north)* – City of Cupertino	D	AM PM	18.5 27.1	B- C
10. De Anza Boulevard/I-280 Ramps (south)* – City of Cupertino	D	AM PM	25.5 18.0	C B
11. De Anza Boulevard/Stevens Creek Boulevard* – City of Cupertino	E+	AM PM	35.6 39.9	D+ D
12. De Anza Boulevard/McClellan Road/Pacifica Drive – City of Cupertino	D	AM PM	36.4 **64.2**	D+ **E**
13. De Anza Boulevard/Bollinger Road* – City of Cupertino	E+	AM PM	33.4 26.4	C- C
14. De Anza Boulevard/SR 85 Ramps (north) * – City of Cupertino	D	AM PM	22.4 15.0	C+ B
15. De Anza Boulevard/SR 85 Ramps (south) * – City of Cupertino	D	AM PM	12.8 15.7	B B
16. Saratoga-Sunnyvale Road/Prospect Road – City of Cupertino	D	AM PM	19.8 28.8	B- C
17. Stevens Creek Boulevard/Torre Avenue – City of Cupertino	D	AM PM	22.4 23.1	C+ C
18. Homestead Road/Blaney Avenue – City of Cupertino	D	AM PM	23.9 24.4	C C

Table 3.17-5: Existing Intersection Levels of Service					
Study Intersection – Jurisdiction		**LOS Threshold**	**Peak Hour**	**Delay**	**LOS**
19.	Stevens Creek Boulevard/Blaney Avenue – City of Cupertino	D	AM PM	34.9 33.5	C- C-
20.	Stevens Creek Boulevard/Portal Avenue – City of Cupertino	D	AM PM	21.8 13.0	C+ B
21.	Stevens Creek Boulevard/Perimeter Road – City of Cupertino	D	AM PM	9.5 15.2	A B
22.	Wolfe Road/El Camino Real* – City of Sunnyvale	E	AM PM	51.0 48.1	D- D
23.	Wolfe Road/Fremont Avenue – City of Sunnyvale	D	AM PM	49.7 47.9	D D
24.	Wolfe Road/Marion Way – City of Sunnyvale	D	AM PM	15.9 18.8	B B-
25.	Wolfe Road/Inverness Way – City of Sunnyvale	D	AM PM	18.3 22.8	B- C+
26.	Wolfe Road/Homestead Road – City of Cupertino	D	AM PM	32.9 43.0	C- D
27.	Wolfe Road/Apple Park – City of Cupertino	D	AM PM	9.8 15.4	A B
28.	Wolfe Road/Pruneridge Avenue – City of Cupertino	D	AM PM	23.5 16.5	C B
29.	Wolfe Road/I-280 Ramps (north) * – City of Cupertino	D	AM PM	13.2 12.0	B B
30.	Wolfe Road/I-280 Ramps (south) * – City of Cupertino	D	AM PM	12.1 8.4	B A
31.	Wolfe Road/Vallco Parkway – City of Cupertino	D	AM PM	19.6 31.2	B- C
32.	Wolfe Road-Miller Avenue/Stevens Creek Boulevard* – City of Cupertino	D	AM PM	41.7 41.4	D D
33.	Miller Avenue/Calle de Barcelona – City of Cupertino	D	AM PM	7.5 3.0	A A
34.	Miller Avenue/Phil Lane – City of Cupertino	D	AM PM	5.3 4.1	A A
35.	Miller Avenue/Bollinger Road – City of San José	D	AM PM	37.1 41.5	D+ D
36.	Miller Avenue/Rainbow Drive – City of San José	D	AM PM	23.1 22.8	C C+
37.	Stevens Creek Boulevard/ Finch Avenue – City of Cupertino	D	AM PM	28.8 21.6	C C+
38.	Tantau Avenue/Homestead Road – City of Cupertino	D	AM PM	34.4 43.2	C- D
39.	Tantau Avenue/Pruneridge Avenue – City of Cupertino	D	AM PM	20.8 24.5	C+ C
40.	N Tantau Ave/Apple Parkway – City of Cupertino	D	AM PM	17.6 18.3	B B-
41.	Tantau Avenue/Vallco Parkway – City of Cupertino	D	AM PM	25.1 31.3	C C
42.	Stevens Creek Boulevard/Tantau Avenue – City of Cupertino	D	AM PM	44.7 42.8	D D
43.	Stevens Creek Boulevard/Stern Avenue – City of Santa Clara	D	AM PM	37.6 40.5	D+ D

Table 3.17-5: Existing Intersection Levels of Service					
	Study Intersection – Jurisdiction	**LOS Threshold**	**Peak Hour**	**Delay**	**LOS**
44.	Stevens Creek Boulevard/Calvert Drive/I-280 Ramps (west)* – City of Santa Clara	E	AM PM	57.4 52.7	E+ D-
45.	Stevens Creek Boulevard/Agilent Driveway – City of Santa Clara	D	AM PM	36.7 24.0	D+ C
46.	Stevens Creek Boulevard/Lawrence Expressway Ramps (west)* – Santa Clara County	E	AM PM	28.9 25.4	C C
47.	Lawrence Expressway/El Camino Real* – Santa Clara County	E	AM PM	34.6 27.1	C- C
48.	Lawrence Expressway/Homestead Road* – Santa Clara County	E	AM PM	71.5 66.3	E E
49.	Lawrence Expressway/Pruneridge Avenue* – Santa Clara County	E	AM PM	44.0 44.5	D D
50.	Stevens Creek Boulevard/ Lawrence Expressway Ramps (east)* – Santa Clara County	E	AM PM	31.6 28.0	C C
51.	Lawrence Expressway/Calvert Drive-I-280 Southbound Ramp* – City of San José	E	AM PM	32.8 30.2	C -C
52.	Lawrence Expressway/Mitty Way* – Santa Clara County	E	AM PM	23.1 16.6	C B
53.	Lawrence Expressway/Bollinger Road* – Santa Clara County	E	AM PM	60.3 54.2	E D-
54.	Lawrence Expressway/Doyle Road* – Santa Clara County	E	AM PM	43.2 14.7	D B
55.	Lawrence Expressway/Prospect Road* – Santa Clara County	E	AM PM	58.3 46.7	E+ D
56.	Lawrence Expressway/Saratoga Avenue* – Santa Clara County	E	AM PM	44 45.7	D D
57.	Saratoga Avenue/Cox Avenue – City of Saratoga	D	AM PM	45.1 37.8	D D+
58.	Saratoga Avenue/SR 85 Ramps (north) - Caltrans	C	AM PM	19.1 26.7	B- C
59.	Saratoga Avenue/SR 85 Ramps (south) - Caltrans	C	AM PM	16.8 18.5	B B-
60.	Stevens Creek Boulevard/Cabot Avenue – City of Santa Clara	D	AM PM	47.0 46.3	D D
61.	Stevens Creek Boulevard/Cronin Drive-Albany Drive – City of Santa Clara	D	AM PM	27.4 22.7	C C+
62.	Stevens Creek Boulevard/Woodhams Road – City of Santa Clara	D	AM PM	18.8 21.1	B- C+
63.	Stevens Creek Boulevard/Kiely Boulevard* – City of San José	D	AM PM	41.6 37.1	D D+
64.	Vallco Parkway/Perimeter Road – City of Cupertino	D	AM PM	11.6 17.1	B+ B
65.	Lawrence Expressway/Kifer Road Avenue* – Santa Clara County	E	AM PM	36.2 71.5	D+ E
66.	Lawrence Expressway/Reed Avenue-Monroe Street* – Santa Clara County	E	AM PM	56.1 55.1	E+ E+
67.	Lawrence Expressway/Cabrillo Avenue* – Santa Clara County	E	AM PM	32.7 29.2	C- C
Notes: * denotes CMP intersection; **bold text** indicates intersection operates at an unacceptable level of service; AM = morning peak hour; PM = evening peak hour; LOS = level of service.					

Existing Freeway Operations

The results of the freeway segment level of service analysis under existing conditions are summarized in Table 3.17-6. The results show that the following mixed-flow freeway segments currently exceed VTA's LOS E standard during the specified peak hour:

SR 17 Southbound

1. SR 85 to Lark Avenue (PM peak hour)
2. Lark Avenue to Saratoga Avenue (PM peak hour)

SR 85 Northbound

1. Union Avenue to South Bascom Avenue (AM peak hour)
2. South Bascom Avenue to SR 17 (AM peak hour)
3. SR 17 to Winchester Boulevard (AM peak hour)
4. Winchester Boulevard to Saratoga Avenue (AM peak hour)
5. Saratoga Avenue to De Anza Boulevard (AM peak hour)
6. Stevens Creek Boulevard to I-280 (AM peak hour)
7. I-280 to West Homestead Road (AM peak hour)
8. West Homestead Road to West Fremont Avenue (AM peak hour)

SR 85 Southbound

1. I-280 to Stevens Creek Boulevard (PM peak hour)
2. Stevens Creek Boulevard to De Anza Boulevard (PM peak hour)
3. Saratoga-Sunnyvale Road to Saratoga Avenue (PM peak hour)
4. Winchester Boulevard to SR 17 (PM peak hour)
5. SR 17 to South Bascom Avenue (PM peak hour)
6. South Bascom Avenue to Union Avenue (PM peak hour)

I-280 Eastbound

1. Page Mill Road to La Barranca Road (PM peak hour)
2. La Barranca Road to El Monte Road (PM peak hour)
3. El Monte Road to Magdalena Avenue (PM peak hour)
4. Foothill Expressway to SR 85 (PM peak hour)
5. SR 85 to De Anza Boulevard (PM peak hour)
6. De Anza Boulevard to Wolfe Road (PM peak hour)
7. Wolfe Road to Lawrence Expressway (PM peak hour)
8. Lawrence Expressway to Saratoga Avenue (PM peak hour)
9. Saratoga Avenue to Winchester Boulevard (PM peak hour)
10. Winchester Boulevard to I-880 (PM peak hour)
11. I-880 to Meridian Avenue (PM peak hour)
12. Meridian Avenue to Bird Avenue (PM peak hour)
13. Bird Avenue to SR 87 (PM peak hour)

I-280 Westbound

- SR 87 to Bird Avenue (AM and PM peak hours)
- Bird Avenue to Meridian Avenue (AM peak hour)
- Meridian Avenue to I-880 (AM peak hour)

- I-880 to Winchester Boulevard (AM peak hour)
- Winchester Boulevard to Saratoga Avenue (AM peak hour)
- Saratoga Avenue to Lawrence Expressway (AM peak hour)
- Lawrence Expressway to Wolfe Road (AM peak hour)
- Wolfe Road to De Anza Boulevard (AM peak hour)
- De Anza Boulevard to SR 85 (AM peak hour)
- SR 85 to Foothill Expressway (AM peak hour)
- Page Mill Road to Alpine Road (PM peak hour)

I-880 Northbound

68. I-280 to Stevens Creek Boulevard (AM peak hour)
69. Stevens Creek Boulevard to North Bascom Avenue (AM and PM peak hours)
70. North Bascom Avenue to The Alameda (AM and PM peak hours)
71. The Alameda to Coleman Avenue (AM and PM peak hours)

I-880 Southbound

- Coleman Avenue to The Alameda (PM peak hour)
- North Bascom Avenue to Stevens Creek Boulevard (AM peak hour)

Additionally, the following HOV lane segments currently exceed VTA's LOS E standard during the specified peak hour:

SR 85 Northbound

- Union Avenue to South Bascom Avenue (AM peak hour)
- South Bascom Avenue to SR 17 (AM peak hour)
- SR 17 to Winchester Boulevard (AM peak hour)
- Winchester Boulevard to Saratoga Avenue (AM peak hour)
- Stevens Creek Boulevard to I-280 (AM peak hour)
- I-280 to West Homestead Road (AM peak hour)
- West Homestead Road to West Fremont Avenue (AM peak hour)

SR 85 Southbound

- I-280 to Stevens Creek Boulevard (PM peak hour)
- Stevens Creek Boulevard to Saratoga-Sunnyvale Road (PM peak hour)
- SR 17 to South Bascom Avenue (PM peak hour)
- South Bascom Avenue to Union Avenue (PM peak hour)

I-280 Eastbound

- SR 85 to De Anza Boulevard (PM peak hour)
- De Anza Boulevard to Wolfe Road (PM peak hour)
- Saratoga Avenue to Winchester Boulevard (PM peak hour)
- Winchester Boulevard to I-880 (PM peak hour)
- I-880 to Meridian Avenue (PM peak hour)

I-280 Westbound

- Meridian Avenue to I-880 (AM peak hour)

- I-880 to Winchester Boulevard (AM peak hour)
- Winchester Boulevard to Saratoga Avenue (AM peak hour)
- Saratoga Avenue to Lawrence Expressway (AM peak hour)
- Lawrence Expressway to Wolfe Road (AM peak hour)
- SR 85 to Foothill Expressway (AM peak hour)

All other freeway segments operate at acceptable LOS E or better during both peak periods.

Table 3.17-6: Existing Freeway Segment Levels of Service

Freeway Segment	Peak Hour	Density		LOS	
		Mixed	HOV	Mixed	HOV
SR 85 – Northbound					
Union Avenue to South Bascom Avenue	AM	**>70**	**>70**	**F**	**F**
	PM	24	14	C	B
South Bascom Avenue to SR 17	AM	**>70**	**>70**	**F**	**F**
	PM	16	22	B	C
SR 17 to Winchester Boulevard	AM	**>70**	**>70**	**F**	**F**
	PM	15	8	B	A
Winchester Boulevard to Saratoga Avenue	AM	**>70**	**65**	**F**	**F**
	PM	31	10	D	A
Saratoga Avenue to Saratoga-Sunnyvale Road	AM	**64**	50	**F**	E
	PM	21	9	C	A
Saratoga-Sunnyvale Road to Stevens Creek Boulevard	AM	49	33	E	D
	PM	22	7	C	A
Stevens Creek Boulevard to I-280	AM	**>70**	**>70**	**F**	**F**
	PM	10	13	A	B
I-280 to West Homestead Road	AM	**>70**	**>70**	**F**	**F**
	PM	15	4	B	A
West Homestead Road to West Fremont Avenue	AM	**>70**	**>70**	**F**	**F**
	PM	41	13	D	B
SR 85 – Southbound					
West Fremont Avenue to West Homestead Road	AM	39	18	D	B
	PM	52	40	E	D
West Homestead Road to I-280	AM	17	9	B	A
	PM	21	29	C	D
I-280 to Stevens Creek Boulevard	AM	14	9	B	A
	PM	**>70**	**>70**	**F**	**F**
Stevens Creek Boulevard to Saratoga-Sunnyvale Road	AM	15	7	B	A
	PM	**>70**	**>70**	**F**	**F**
Saratoga-Sunnyvale Road to Saratoga Avenue	AM	18	8	B	A
	PM	**>70**	54	**F**	E
Saratoga Avenue to Winchester Boulevard	AM	24	7	C	A
	PM	58	39	E	D
Winchester Boulevard to SR 17	AM	12	10	B	A
	PM	**>70**	46	**F**	D
SR 17 to South Bascom Avenue	AM	18	11	B	A
	PM	**>70**	**>70**	**F**	**F**
South Bascom Avenue to Union Avenue	AM	22	7	C	A
	PM	**>70**	**65**	**F**	**F**

Table 3.17-6: Existing Freeway Segment Levels of Service					
Freeway Segment	**Peak Hour**	**Density**		**LOS**	
		Mixed	**HOV**	**Mixed**	**HOV**
Interstate 280 – Eastbound					
Alpine Road to Page Mill Road	AM PM	29 29	N/A	D D	N/A
Page Mill Road to La Barranca Road	AM PM	22 **>70**	N/A	C **F**	N/A
La Barranca Road to El Monte Road	AM PM	15 **>70**	N/A	B **F**	N/A
El Monte Road to Magdalena Avenue	AM PM	24 **>70**	N/A	C **F**	N/A
Magdalena Avenue to Foothill Expressway	AM PM	25 31	10 22	C D	A C
Foothill Expressway to SR 85	AM PM	23 **>70**	11 40	C **F**	A D
SR 85 to De Anza Boulevard	AM PM	22 **>70**	12 **>70**	C **F**	B **F**
De Anza Boulevard to Wolfe Road	AM PM	22 **>70**	22 **63**	C **F**	C **F**
Wolfe Road to Lawrence Expressway	AM PM	12 **61**	12 42	C **F**	B D
Lawrence Expressway to Saratoga Avenue	AM PM	37 **>70**	14 52	D **F**	B E
Saratoga Avenue to Winchester Boulevard	AM PM	34 **>70**	13 **63**	D **F**	B **F**
Winchester Boulevard to I-880	AM PM	22 **>70**	16 **67**	C **F**	B **F**
I-880 to Meridian Avenue	AM PM	23 **>70**	12 **>70**	C **F**	B **F**
Meridian Avenue to Bird Avenue	AM PM	46 **>70**	N/A	D **F**	N/A
Bird Avenue to SR 87	AM PM	21 **>70**	N/A	C **F**	N/A
Interstate 280 – Westbound					
SR 87 to Bird Avenue	AM PM	**>70** >70	N/A	**F** F	N/A
Bird Avenue to Meridian Avenue	AM PM	**>70** 39	N/A	**F** D	N/A
Meridian Avenue to I-880	AM PM	**>70** 21	**>70** 10	**F** C	**F** A
I-880 to Winchester Boulevard	AM PM	**>70** 43	**>70** 20	**F** D	**F** C
Winchester Boulevard to Saratoga Avenue	AM PM	**>70** 40	**>70** 16	**F** D	**F** B
Saratoga Avenue to Lawrence Expressway	AM PM	**>70** 27	**70** 15	**F** D	**F** B
Lawrence Expressway to Wolfe Road	AM PM	**>70** 25	**70** 12	**F** C	**F** B
Wolfe Road to De Anza Boulevard	AM PM	**>70** 27	48 14	**F** D	E B
De Anza Boulevard to SR 85	AM	**>70**	46	**F**	D

Table 3.17-6: Existing Freeway Segment Levels of Service					
Freeway Segment	**Peak Hour**	**Density**		**LOS**	
		Mixed	**HOV**	**Mixed**	**HOV**
	PM	27	10	D	A
SR 85 to Foothill Expressway	AM	**70**	**60**	**F**	**F**
	PM	28	12	D	B
Foothill Expressway to Magdalena Avenue	AM	48	56	E	E
	PM	23	13	C	B
Magdalena Avenue to El Monte Road	AM	51	N/A	E	N/A
	PM	33		D	
El Monte Road to La Barranca Road	AM	50	N/A	E	N/A
	PM	20		C	
La Barranca Road to Page Mill Road	AM	35	N/A	D	N/A
	PM	22		C	
Page Mill Road to Alpine Road	AM	21	N/A	C	N/A
	PM	**66**		**F**	
Interstate 880 – Northbound					
I-280 to Stevens Creek Boulevard	AM	**>70**	N/A	**F**	N/A
	PM	11		A	
Stevens Creek Boulevard to North Bascom Avenue	AM	**>70**	N/A	**F**	N/A
	PM	>70		F	
North Bascom Avenue to The Alameda	AM	**68**	N/A	**F**	N/A
	PM	>70		F	
The Alameda to Coleman Avenue	AM	**>70**	N/A	**F**	N/A
	PM	>70		F	
Interstate 880 – Southbound					
Coleman Avenue to The Alameda	AM	31	N/A	D	N/A
	PM	**>70**		**F**	
The Alameda to North Bascom Avenue	AM	30	N/A	D	N/A
	PM	56		E	
North Bascom Avenue to Stevens Creek Boulevard	AM	**67**	N/A	**F**	N/A
	PM	45		D	
Stevens Creek Boulevard to I-280	AM	24	N/A	C	N/A
	PM	26		C	
SR 17 – Northbound					
Saratoga Avenue to Lark Avenue	AM	50	N/A	E	N/A
	PM	24		C	
Lark Avenue to SR 85	AM	32	N/A	D	N/A
	PM	20		C	
SR 17 – Southbound					
SR 85 to Lark Avenue	AM	19	N/A	C	N/A
	PM	**>70**		**F**	
Lark Avenue to Saratoga Avenue	AM	54	N/A	E	N/A
	PM	**>70**		**F**	
Notes: **Bold text** indicates unacceptable level of service operation; AM = morning peak hour; PM = evening peak hour; Mixed = mixed flow lane; HOV = High-Occupancy Vehicle lane; LOS = level of service					

3.17.2 Transportation/Traffic Impacts

3.17.2.1 *Thresholds of Significance*

For the purposes of this EIR, a transportation/traffic impact is considered significant if the project would:

- Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit;
- Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways;
- Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks;
- Substantially increase hazards due to a design features (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment);
- Result in inadequate emergency access; or
- Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities or otherwise decrease the performance or safety of such facilities.

Intersection Impact Criteria

Based on the CEQA Guidelines and thresholds used by the City of Cupertino and surrounding jurisdictions, the below described significance criteria incorporating the LOS standards outlined above in Table 3.17-3, were used to evaluate project-level and cumulative impacts of the project and project alternatives.

Santa Clara County and CMP

The LOS standard for Santa Clara County expressway and CMP intersections is LOS E, although the cities of Cupertino and San José apply their own (generally more stringent) LOS thresholds to CMP intersections within their jurisdictions. Traffic impacts at expressway and CMP intersections would occur when the addition of traffic associated with a project causes:

- Intersection operations deteriorate from an acceptable level (LOS E or better) to an unacceptable level (LOS F); or
- Exacerbates unacceptable operations by increasing the average critical delay[120] by four seconds or more and increasing the critical volume-to-capacity (V/C) ratio by 0.01 or more at an intersection operating at LOS F; or
- The V/C ratio increases by 0.01 or more at an intersection with unacceptable operations (LOS F) when the change in critical delay is negative (i.e., decreases). This can occur if the critical movements change.

[120] Critical delay represents the delay associated with the critical movements of the intersection, or the movements that require the more "green time" and have the greatest effect on overall intersection operations.

- The cities of Cupertino and San José use their respective LOS significance threshold (see Table 3.17-3) for CMP designated facilities within their city boundaries.

City of Cupertino

The City of Cupertino strives to achieve LOS D for local streets, including CMP designated facilities within City boundaries, except at the Stevens Creek Boulevard/De Anza Boulevard, Stevens Creek Boulevard/Stelling Road, and the De Anza Boulevard/Bollinger Road intersections (General Plan Policy M-1.2). The threshold for these three intersections is LOS E+. Significant impacts at signalized Cupertino intersections would occur if the addition of project traffic causes one of the following:

- Intersection operations deteriorate from an acceptable level (LOS D except at the three specified intersections) to an unacceptable level; or
- Exacerbates unacceptable operations by increasing the critical delay by four seconds or more and increasing the V/C ratio by 0.01 or more, or
- The V/C ratio increases by 0.01 or more at an intersection with unacceptable operations when the change in critical delay is negative (i.e., decreases). This can occur if the critical movements change.

City of Santa Clara

The City of Santa Clara has established a minimum acceptable operation level of LOS D for local streets. The City of Santa Clara defers to VTA and applies LOS E threshold to CMP intersections. Significant impacts at signalized City of Santa Clara intersections would occur when the addition of project traffic causes one of the following:

- Intersection operations deteriorate from an acceptable level (LOS D or better) to an unacceptable level (LOS E or F); or
- Exacerbates unacceptable operations by increasing the critical delay by four seconds or more and increasing the V/C ratio by 0.01 or more; or
- The V/C ratio increases by 0.01 or more at an intersection with unacceptable operations when the change in critical delay is negative (i.e., decreases). This can occur if the critical movements change.

City of Sunnyvale

The City of Sunnyvale has established a minimum acceptable operation level of LOS D for local streets and LOS E for regionally significant roadways, including Saratoga-Sunnyvale Road within the project area. The City of Sunnyvale defers to VTA and applies LOS E threshold to CMP intersections. Significant impacts at signalized City of Sunnyvale intersections would occur when the addition of project traffic causes one of the following:

- Intersection operations deteriorate from an acceptable level (LOS D or better for local streets and LOS E or better for regionally significant roadways and CMP intersections) to an

unacceptable level (LOS E or F for local streets and LOS F for regionally significant roadways and CMP intersections); or
- Exacerbates unacceptable operations by increasing the critical delay by four seconds or more and increasing the V/C ratio by 0.01 or more; or
- An increase in the V/C ratio of 0.01 or more at an intersection with unacceptable operations when the change in critical delay is negative (i.e., decreases). This can occur if the critical movements change.

City of Saratoga

The City of Saratoga has established a minimum acceptable operation level of LOS D for local streets. The City of Saratoga defers to VTA and applies LOS E threshold to CMP intersections. Significant impacts at signalized City of Saratoga intersections would occur when the addition of project traffic causes one of the following:

- Intersection operations deteriorate from an acceptable level (LOS D or better for local streets and LOS E or better for CMP intersections) to an unacceptable level (LOS E or F for local streets and LOS F for CMP intersections); or
- Exacerbates unacceptable operations by increasing the critical delay by four seconds or more and increasing the V/C ratio by 0.01 or more; or
- An increase in the V/C ratio of 0.01 or more at an intersection with unacceptable operations when the change in critical delay is negative (i.e., decreases). This can occur if the critical movements change.

City of San José

San José's Council Policy 5-3, "Transportation Level of Service" guides transportation analysis and impact determination for the City of San José.[121] San José's minimum threshold for acceptable signalized intersection operations is LOS D, unless governed by an Area Development Policy, or protected intersection designation. Significant impacts at signalized City of San José study intersections would occur when the addition of project traffic causes one of the following:

- Intersection operations deteriorate from an acceptable level of service (LOS D or better) to an unacceptable level (LOS E or LOS F); or,
- Contributes the equivalent of one percent or more to the existing traffic congestion at an intersection with unacceptable operations; or
- An increase in the V/C ratio of 0.01 or more at an intersection with unacceptable operations when the change in critical delay is negative (i.e., decreases). This can occur if the critical movements change; or

[121] On February 27, 2018, the San José's City Council adopted Council Policy 5-1, which replaces Council Policy 5-3. In response to SB 743, Council Policy 5-1 removes transportation LOS and replaces it with VMT analysis. Council Policy 5-1 went into effect in April 30, 2018. Thus, in order to remain consistent with policies that are effective as of the project's Notice of Preparation date (February 9, 2018), San José's Council Policy 5-3 is followed for the purpose of this analysis.

- For cumulative conditions, a project's impact is deemed considerable if the proportion of project traffic represents 25 percent or more of the increase in total volume from background conditions to cumulative with project conditions.

Caltrans

Caltrans has identified a LOS objective of C/D (i.e., on the "cusp" or threshold between level of service C and D) as the acceptable service level for ramp terminal intersections. The two SR 85 ramp intersections with Saratoga Avenue are the only facilities analyzed under Caltrans' LOS impact criteria, since they are not included under VTA's CMP. Intersection impacts are defined to occur when the addition of project traffic:

- Causes operations to deteriorate from an acceptable level (LOS C) to an unacceptable level (LOS D or worse); or
- Exacerbates unacceptable operations by increasing vehicle delay (i.e. increases delay by 0.1 seconds or more).

For all jurisdictions, a significant intersection impact is considered to be mitigated to a less than significant level when measures are implemented that would restore intersection conditions to the jurisdiction's LOS standard or to an average delay that is better than without project conditions.

Freeway Impact Criteria

As required by VTA, the applicable LOS standard for freeway segments is LOS E. Pursuant to VTA's TIA Guidelines, traffic impacts on a CMP freeway segment occurs when the addition of project traffic causes:

- Freeway segment operations to deteriorate from an acceptable level (LOS E or better) under existing conditions to an unacceptable level (LOS F); or
- An increase in traffic of more than one percent of the capacity of a segment that operates at LOS F under existing conditions.

For the purpose of this analysis and consistent with recently complete TIAs in Santa Clara County, background and cumulative freeway segment impacts in Santa Clara County are determined to occur when the addition of project traffic causes:

- A freeway segment's volume-to-capacity ratio to exceed one (1.0), or
- An increase in traffic of more than one percent of the capacity of a segment that exceeds a V/C ratio of one (1.0 or greater) under the no project scenario for background or cumulative conditions.

Transit Impact Criteria

The General Plan includes policies to promote local and regional transit that is efficient, frequent, and convenient and reduces traffic congestion. In addition, VTA's TIA Guidelines require that

project effects on the transit system, in terms of transit facilities, transit vehicle delay,[122] and pedestrian and bicyclist access, be evaluated. The TIA Guidelines also require a quantitative analysis of demand and capacity for projects that generate unusually large volumes of pedestrian, bicycle, or transit trips, such as for large mixed-use developments. Transit impacts are considered significant if the proposed project:

- Conflicts with existing or planned transit facilities, or
- Does not provide adequate facilities for pedestrians and bicyclists to access transit routes and stops, or
- Generates potential transit trips that cause the transit route's load factor to exceed available capacity.

Pedestrian and Bicycle Impact Criteria

The Mobility Element of the General Plan describes related policies necessary to ensure a balanced transportation system that supports bicycle and pedestrian facilities which are safe and effective for City residents. Using the General Plan as a guide, significant impacts to these facilities would occur if a project or an element of the project would:

- Disrupt or eliminate existing pedestrian and bicycle facilities, or
- Create a hazardous condition that currently does not exist for pedestrians or bicyclists, or otherwise interfere with bicycle and pedestrian accessibility to the site and adjoining areas; or
- Increase conflicts between drivers, pedestrians, and/or bicyclists, or
- Conflict with an existing or planned pedestrian or bicycle facility; or
- Conflict with policies related to bicycle and pedestrian activity adopted by the City of Cupertino for facilities within the City.

The VTA TIA Guidelines requires analysis of bicycle and pedestrian facilities including the effects of site development and roadway improvements on bicycle/pedestrian infrastructure, circulation, quality of service (QOS), and conformance to existing plans and policies. A QOS analysis evaluates how well transportation infrastructure and streetscape features support bicycling and walking. A QOS analysis is also recommended along project frontages under existing conditions. Along with QOS analysis, a descriptive analysis of the project's effect on pedestrian and bicycle conditions is required.

Evaluating the Effects of Mitigation Measures

Per the VTA TIA Guidelines, any mitigation measure identified in this TIA that would change the roadway geometry or signal operations has been evaluated to determine its effects on the QOS for bicyclists and pedestrians. StreetScore+ was utilized to perform this evaluation. StreetScore+ is a

[122] The City of Cupertino and VTA do not have adopted standards related to transit corridor performance associated with congestion resulting from new development projects. Pursuant to the VTA TIA Guidelines, if increased transit vehicle delay is found, the lead Agency (City of Cupertino) should work with VTA to identify feasible transit priority measures near the affected facility and include contributions to any applicable projects that improve transit speed and reliability in the TIA. Thus, the transit delay information is presented for informational purposes and no impact assessments are made under CEQA.

tool that calculates pedestrian and bicyclist comfort-based indices based on best design practices for active transportation users.

The Bicyclist StreetScore+ scoring has a 1-4 scale, correlating with four types of cyclists:

- StreetScore+ 1 (SS 1) – The lowest level of traffic stress; would allow children trained in traffic safety to bicycle to school by themselves as well as people interested but concerned about bicycling.
- StreetScore+ 2 (SS 2) – The highest level of acceptable traffic stress for the "interested but concerned" segment of the population.
- StreetScore+ 3 (SS 3) – This level of traffic stress accommodates a much smaller segment of population, the "enthused and confident" segment who are excited about and familiar with cycling.
- StreetScore+ 4 (SS 4) – Only the "strong and fearless" cohort will feel comfortable riding on these facilities.

The Pedestrian StreetScore+ has a parallel structure to the Level of Traffic Stress approach for bicyclists, using a 1-4 scale:

- StreetScore+ 1 (SS 1) – Highly comfortable, pedestrian-friendly, and easily navigable for pedestrians of all ages and abilities, including seniors and school-aged children.
- StreetScore+ 2 (SS 2) – Generally comfortable for many pedestrians, although parents may not feel comfortable with children walking alone and seniors may take more caution.
- StreetScore+ 3 (SS 3) – Walking is uncomfortable but possible. Minimum sidewalk and crossing facilities are present, but may be uninviting or uncomfortable.
- StreetScore+ 4 (SS 4) – Streets have limited or no accommodation for pedestrians, or are inhospitable for pedestrians.

3.17.2.2 *Traffic Estimates*

The project (and project alternatives) would create travel from residents going to and from their homes, customers and employees going to and from retail uses, employees going to and from the office space, and visitors and employees going to and from the hotels. As a mixed-use development, some of this travel would occur among uses within the site. Also, some of the travel would occur to and from destinations off-site via walking, bicycling, ridesharing, and transit. The process used to estimate project (and project alternatives) traffic added to the surrounding roadway network, including the park-and-ride activity and associated shuttle uses at the transit hub, is described in this section and incorporates three steps:

- Trip Generation – The amount of vehicle traffic entering/exiting the project site is estimated.
- Trip Distribution – The direction vehicles would use to approach and depart the site are projected.
- Trip Assignment – The results of previous two steps are combined to assign vehicles to specific roadway segments and intersection turning movements.

These three steps are described in more detail below and in Appendix H.

Vehicle Trip Generation

The project's (and project alternatives') trip generation represents the amount of net new traffic produced by the project (and project alternatives). This is determined by calculating the difference between (a) the number of vehicle trips generated by the existing commercial uses on the site, and (b) the number of vehicle trips that would be generated by the proposed project and each of the project alternatives.

Vehicle Trips from Existing Land Uses

The existing use is the partially-occupied Vallco shopping mall. The trip generation of these existing uses is based on driveway counts collected during the week of January 15, 2018. Several mall tenants were in operation at that time, including a movie theater, a few restaurants, the ice skating rink, bowling alley, and health club. Two mall parking garages were being used as park-and-ride lots for employer shuttles, and car storage for nearby car dealers.

Vehicle Trips for Proposed Uses

The amount of traffic generated by the proposed uses was estimated by applying land use-specific trip generation rates to the size of each land use component, reductions to account for trips remaining within the site (also known as trip internalization), and reductions to account for transit use and bicycle and pedestrian access. The trip generation rates and trip reductions are described briefly below. Refer to Appendix H for additional details.

Trip Generation Rates

Trip generation rates for the project and project alternatives were estimated using trip generation rates from the Institute of Transportation Engineers (ITE) Trip Generation Manual, a compendium of trip generation surveys conducted for numerous land use types and varying site contexts throughout the United States or from local trip generation surveys.

Currently, the project site acts as a transfer center for VTA bus routes, and as a transit hub for private shuttles operated by large companies for employee pick up and drop off. In addition, these employees utilize the mall's parking garages as park-and-ride lots. As part of the Specific Plan, the existing transit hub would be upgraded and include additional features such as an information center, drop-off point, and a bike sharing distribution point. The upgraded transit hub would continue to be used by employer shuttles to pick up and drop off employees, and is expected to serve residents of the site and employees living near the site in Cupertino and surrounding local jurisdictions. As part of the project (and General Plan Buildout with Maximum Residential Alternative and Retail and Residential Alternative), the upgraded transit hub is assumed to generate the same numbers of shuttle trips and shuttle-related vehicle trips into the site. The existing shuttle related vehicle trips were estimated from driveway counts and field observations of shuttles and employee vehicle trips to the site and park-and-ride locations collected in January 2018.

Mixed-Use and Transit Trip Reductions

The MainStreet/MXD+ method was used to estimate the amount of internal trip linking and the level of trips made by transit, biking, and/or walking. Trip reductions were taken to account for the project

site's location in proximity to surrounding residential and employment land uses, transit accessibility, and bike/pedestrian access. The reductions vary by project alternative as the density and diversity of land uses are different. Additional details about the mixed-use and transit trip reductions are provided in Appendix H.

The vehicle trip generation estimates for the proposed project and project alternatives are summarized in Table 3.17-7. Refer to Appendix H for detailed trip generation estimates for the proposed project and project alternatives. As shown in Table 3.17-7, the proposed project represents the project alternative having the highest trip generation, with 37,006 net new average daily trips, including 2,628 net new AM peak hour trips and 3,218 net new PM peak hour trips.

Table 3.17-7: Project and Project Alternative Trip Generation Estimates

Land Use	Project				General Plan Buildout with Maximum Residential Alternative				Retail and Residential Alternative				Occupied/Re-Tenanted Mall Alternative			
	Quantity	**Daily Trips**	**AM Peak Hour**	**PM Peak hour**	**Quantity**	**Daily Trips**	**AM Peak Hour**	**PM Peak hour**	**Quantity**	**Daily Trips**	**AM Peak Hour**	**PM Peak hour**	**Quantity**	**Daily Trips**	**AM Peak Hour**	**PM Peak hour**
Office	2,000 ksf	24,700	2,580	2,400	1,000 ksf	12,350	1,290	1,200								
Shopping Center	600 ksf	20,331	452	2,046	600 ksf	20,331	452	2,046	600 ksf	20,331	452	2,046	1,208 ksf	32,717	756	3,434
Hotel	339 rooms	2,834	159	204	339 rooms	2,834	159	204	339 rooms	2,834	159	204	148 rooms	1,209	78	89
Multifamily Housing	800 units	4,352	288	352	2,640 units	14,362	950	1,162	4,000 units	21,760	1,440	1,760				
Green Roof	30 acres	567	135	105	30 acres	567	135	105								
Civic Uses	55 ksf	1,305	168	100	55 ksf	1,305	168	100								
STEM Lab	10 ksf	140	34	22	10 ksf	140	34	22								
Subtotal (A)		54,229	3,816	5,229		51,889	3,188	4,840		44,925	2,051	4,010		33,926	834	3,523
Transit and/or Mixed Use Reduction %		-17%	-23%	-24%		-20%	-25%	-30%		-20%	-20%	-25%		-5%	-5%	-5%
Mixed Use Reduction (B)		-9,218	-876	-1,255		-10,377	-797	-1,452		-8,985	-411	-1,003		-1,696	-42	-176
Transit Hub (C)		808	175	193		808	175	193		808	175	193				
Total Project or Project Alternative Trips (D = A-B+C)		45,819	3,113	4,167		42,320	2,566	3,581		36,748	1,815	3,200		32,230	792	3,347
Existing Trips (E)		-8,813	-485	-949		-8,813	-485	-949		-8,813	-485	-949		-8,813	-485	-949
Net Project or Project Alternative Trips (F = D-E)		**37,006**	**2,628**	**3,218**		**33,507**	**2,082**	**2,632**		**27,935**	**1,330**	**2,251**		**23,417**	**307**	**2,398**

Notes: ksf = 1,000 square feet. Refer to Appendix H for detailed breakdown of the trip generation estimates.

Vehicle Trip Distribution and Assignment

Trip distribution is defined as the directions of approach and departure that vehicles would use to arrive at and depart from the site. The distribution of the traffic generated by the project and project alternatives onto the roadway system was based on the locations of complementary land uses, prevailing travel patterns, population densities in nearby neighborhoods and communities, and patterns used in recent TIAs completed for developments in the area. Each land use has a different distribution. For example, office uses would attract trips from residential areas located primarily to the east and south of the site while residential uses would attract trip from employments centers, retail centers, and schools. Vehicle trip distribution is based on general paths of trip origin to destinations (e.g., from home to work in the morning and return in the evening), which include school drop offs and pick-ups but do not include distinct trips attributed as home to (a specific) school. The trip distribution patterns and assignments are included in Appendix H of this EIR.

Impact TRN-1:	**Under existing with project conditions, the project (and General Plan Buildout with Maximum Residential and Retail and Residential Alternative) would conflict with an applicable plan, ordinance, or policy establishing measures of effectiveness for the performance of the circulation system; and conflict with an applicable congestion management program, including standards established for designated roads or highways. (Significant and Unavoidable Impact with Mitigation Incorporated)**

This section discusses the results of the level of service calculations under existing with project conditions. Existing with project conditions are defined as existing conditions plus traffic generated by buildout of the project (or project alternatives). Impacts to the roadway system are identified by comparing the level of service results under existing with project conditions to those under existing conditions (without the project).

Existing with Project and Project Alternative Intersection Levels of Service

The results of the intersection level of service analysis under existing and existing with project (or project alternative) conditions are summarized in Table 3.17-9. The results for existing conditions are included for comparison purposes in Table 3.17-9, along with the projected increases in critical delay and critical V/C ratios with implementation the project (and project alternatives). Critical delay represents the delay associated with the critical movements of the intersection, or the movements that require the more “green time” and have the greatest effect on overall intersection operations. Project (and project alternative) impacts are identified by comparing existing (without project) conditions and existing with project conditions. Significant impacts are identified based on the impact criteria discussed in Section 3.17.2.1, which includes changes in the LOS from an acceptable to an unacceptable level or changes in critical delay and critical V/C ratio for intersection operating unacceptably. Based on applicable municipal and CMP significance criteria, two intersections would be significantly impacted by the project and/or project alternatives under existing plus project (or project alternative) conditions. These significant project and project alternative impacts are summarized in Table 3.17-8.

Table 3.17-8: Summary of Significantly Impacted Intersections under Existing with Project and Project Alternative Conditions

	Study Intersection – Jurisdiction	Peak Hour	Proposed Project	General Plan Buildout with Maximum Residential Alternative	Retail and Residential Alternative	Occupied/Re-Tenanted Mall Alternative
12.	De Anza Boulevard/McClellan Road/Pacifica Drive – City of Cupertino	AM	-	-	-	-
		PM	■	-	-	-
43.	Stevens Creek Boulevard/Stern Avenue – City of Santa Clara	AM	-	-	-	-
		PM	■	■	-	■

Notes: Refer to Table 3.17-9 for the delays, LOS results, and changes in critical V/C ratio and delay. * denotes CMP intersection; LOS = level of service; AM = morning peak hour; PM = evening peak hour; - = no significant project (or project alternative) impact; ■ = significant project (or project alternative) impact. The impacts of the Occupied/Re-Tenanted Mall Alternative is described in this EIR for informational purposes only. The Occupied/Re-Tenanted Mall Alternative is an entitled land use, can be implemented without further approvals from the City, and is not subject to further CEQA. No mitigation measures or conditions of approval can be required of the Occupied/Re-Tenanted Mall Alternative.

Table 3.17-9: Existing and Existing with Project and Project Alternatives Intersection Levels of Service

Study Intersection - Jurisdiction	LOS Threshold	Peak Hour	Existing		Existing with Project				Existing with General Plan Buildout with Maximum Residential Alternative				Existing with Retail and Residential Alternative				Existing with Occupied/Re-Tenanted Mall Alternative			
			Delay	LOS	Delay	LOS	Change in Crit. V/C	Change in Crit. Delay	Delay	LOS	Change in Crit. V/C	Change in Crit. Delay	Delay	LOS	Change in Crit. V/C	Change in Crit. Delay	Delay	LOS	Change in Crit. V/C	Change in Crit. Delay
1. Stevens Creek Boulevard/SR 85 Ramps (west)* – City of Cupertino	D	AM	22.4	C+	22.3	C+	0.005	-0.1	22.2	C+	0.010	-0.2	22.1	C+	0.012	-0.3	22.3	C+	0.002	0.0
		PM	31.7	C	31.7	C	0.005	-0.1	31.7	C	0.007	-0.2	31.7	C	0.008	-0.2	31.7	C	0.008	-0.2
2. Stevens Creek Boulevard/SR 85 Ramps (east)* – City of Cupertino	D	AM	28.5	C	28.3	C	0.004	0.3	28.5	C	0.006	0.5	28.7	C	0.008	0.6	28.5	C	0.001	0.1
		PM	27.1	C	26.6	C	0.013	-0.6	26.4	C	0.017	-0.8	26.1	C	0.022	-0.9	26.6	C	0.014	-0.6
3. Stevens Creek Boulevard/Stelling Road* – City of Cupertino	E+	AM	38.3	D+	38.5	D+	0.023	0.8	38.4	D+	0.025	0.5	38.2	D+	0.024	0.2	38.3	D+	0.004	0.1
		PM	46.7	D	47.5	D	0.043	1.5	47.5	D	0.035	1.4	47.6	D	0.030	1.3	47.7	D	0.033	1.6
4. Sunnyvale-Saratoga Road/Remington Drive* – City of Sunnyvale	E	AM	44.5	D	44.4	D	0.003	0.1	44.5	D	0.006	0.1	44.6	D	0.008	0.2	44.6	D	0.001	0.0
		PM	43.7	D	44.1	D	0.015	0.9	44.1	D	0.016	0.8	44.1	D	0.018	0.8	45.0	D	0.031	2.3
5. Sunnyvale-Saratoga Road/Fremont Avenue* – City of Sunnyvale	E	AM	48.3	D	48.7	D	0.007	0.6	48.6	D	0.008	0.5	48.5	D	0.008	0.3	48.4	D	0.002	0.2
		PM	46.6	D	47.1	D	0.014	0.9	47.0	D	0.013	0.6	46.9	D	0.012	0.4	47.3	D	0.021	1.0
6. Sunnyvale-Saratoga Road/Cheyenne Drive – City of Sunnyvale	E	AM	11.7	B+	11.6	B+	0.003	0.0	11.6	B+	0.005	0.0	11.7	B+	0.006	0.0	11.7	B+	0.001	0.0
		PM	10.7	B+	10.6	B+	0.008	-0.1	10.6	B+	0.008	-0.1	10.6	B+	0.01	-0.1	10.5	B+	0.014	-0.2
7. Sunnyvale-Saratoga Road/Alberta Avenue – City of Sunnyvale	E	AM	21.2	C+	21.1	C+	0.003	0.0	21.1	C+	0.005	0.0	21.1	C+	0.006	0.0	21.2	C+	0.001	0.0
		PM	25.9	C	25.5	C	0.008	-0.2	25.5	C	0.008	-0.2	25.5	C	0.010	-0.3	25.3	C	0.014	-0.4
8. De Anza Boulevard/Homestead Road* – City of Cupertino	D	AM	39.8	D	41.2	D	0.024	2.5	40.9	D	0.018	1.7	40.5	D	0.010	0.7	40.1	D	0.004	0.3
		PM	41.0	D	42.3	D	0.012	1.4	42.4	D	0.014	1.7	42.5	D	0.016	2.0	42.9	D	0.019	2.4
9. De Anza Boulevard/I-280 Ramps (north)* – City of Cupertino	D	AM	18.5	B-	18.9	B-	0.008	0.5	19.1	B-	0.013	0.9	19.2	B-	0.017	1.2	18.5	B-	0.001	0.0
		PM	27.1	C	28	C	0.033	1.4	27.7	C	0.025	1.0	27.4	C	0.018	0.6	27.1	C	0.013	0.3
10. De Anza Boulevard/I-280 Ramps (south)* – City of Cupertino	D	AM	25.5	C	26.4	C	0.021	0.6	26.2	C	0.014	0.4	25.9	C	0.006	0.2	25.6	C	0.001	0.0
		PM	18.0	B	18.5	B-	0.009	0.4	18.7	B-	0.012	0.5	18.8	B-	0.015	0.6	18.2	B-	0.006	0.3
11. De Anza Boulevard/Stevens Creek Boulevard* – City of Cupertino	E+	AM	35.6	D+	37.9	D+	0.052	3.4	37.9	D+	0.051	3.3	37.8	D+	0.046	2.7	35.9	D+	0.006	0.4
		PM	39.9	D	45.9	D	0.086	9.5	43.6	D	0.050	5.3	41.9	D	0.019	2.0	42.3	D	0.030	3.2
12. De Anza Boulevard/McClellan Road/Pacifica Drive – City of Cupertino	D	AM	36.4	D+	36	D+	0.048	-0.2	36.2	D+	0.027	-0.2	36.5	D+	0.003	0.0	36.4	D+	0.002	0.0
		PM	**64.2**	**E**	**68.8**	**E**	**0.036**	**6.8**	**66.5**	**E**	**0.021**	**3.6**	**64.8**	**E**	**0.008**	**1.3**	**65.2**	**E**	**0.013**	**2.0**
13. De Anza Boulevard/Bollinger Road* – City of Cupertino	E+	AM	33.4	C-	33.9	C-	0.050	1.0	33.5	C-	0.028	0.4	33.2	C-	0.003	0.0	33.4	C-	0.002	0.0
		PM	26.4	C	25.6	C	0.019	0.1	25.9	C	0.016	0.1	26.2	C	0.014	0.0	26.2	C	0.019	0.1
14. De Anza Boulevard/SR 85 Ramps (north) * – City of Cupertino	D	AM	22.4	C+	24.9	C	0.065	1.5	23.7	C	0.040	0.8	22.5	C+	0.011	0.1	22.4	C+	0.003	0.0
		PM	15.0	B	15.8	B	0.062	0.9	15.7	B	0.041	0.9	15.7	B	0.023	0.9	15.4	B	0.027	0.6
15. De Anza Boulevard/SR 85 Ramps (south) * – City of Cupertino	D	AM	12.8	B	13.1	B	0.024	0.4	13.2	B	0.020	0.4	13.2	B	0.012	0.4	12.8	B	0.002	0.0
		PM	15.7	B	16.7	B	0.066	1.3	16.3	B	0.038	0.8	15.9	B	0.015	0.2	15.9	B	0.021	0.2
16. Saratoga-Sunnyvale Road/Prospect Road – City of Cupertino	D	AM	19.8	B-	19.8	B-	0.016	0.0	19.7	B-	0.009	0.0	19.7	B-	0.001	0.0	19.7	B-	0.001	0.0
		PM	28.8	C	28.4	C	0.014	-0.2	28.6	C	0.009	-0.1	28.7	C	0.005	-0.1	28.6	C	0.011	-0.1
17. Stevens Creek Boulevard/Torre Avenue – City of Cupertino	D	AM	22.4	C+	21.1	C+	0.029	-0.9	20.9	C+	0.039	-1.2	20.9	C+	0.044	-1.3	22.2	C+	0.005	-0.2
		PM	23.1	C	21.7	C+	0.044	-0.6	21.8	C+	0.049	-0.7	22.0	C+	0.056	-0.7	22.0	C+	0.049	-0.7
18. Homestead Road/Blaney Avenue – City of Cupertino	D	AM	23.9	C	23.9	C	0.018	0.0	23.9	C	0.013	0.0	24.0	C	0.008	0.1	23.9	C	0.004	0.0
		PM	24.4	C	24.7	C	0.013	0.4	24.7	C	0.012	0.2	24.7	C	0.014	0.2	24.9	C	0.020	0.4
19. Stevens Creek Boulevard/Blaney Avenue – City of Cupertino	D	AM	34.9	C-	34.6	C-	0.048	1.3	34.6	C-	0.051	0.9	34.8	C-	0.048	0.3	34.9	C-	0.008	0.2
		PM	33.5	C-	33.6	C-	0.063	1.6	33.6	C-	0.063	1.2	33.7	C-	0.067	1.1	34.1	C-	0.070	1.8
20. Stevens Creek Boulevard/Portal Avenue – City of Cupertino	D	AM	21.8	C+	19.5	B-	0.029	-1.0	19.7	B-	0.038	-1.3	20.2	C+	0.043	-1.4	21.5	C+	0.005	-0.2
		PM	13.0	B	11.8	B+	0.045	-0.4	12.1	B	0.049	-0.4	12.4	B	0.056	-0.4	12.3	B	0.052	-0.4
21. Stevens Creek Boulevard/Perimeter Road – City of Cupertino	D	AM	9.5	A	26.8	C	0.229	25.4	25.3	C	0.188	21.8	21.2	C+	0.127	14.1	11.0	B+	0.017	1.9
		PM	15.2	B	32.0	C	0.232	17.7	27.5	C	0.149	11.8	23.8	C	0.083	6.5	25.6	C	0.111	9.0
22. Wolfe Road/El Camino Real* – City of Sunnyvale	E	AM	51.0	D-	51.4	D-	0.031	2.4	51.2	D	0.030	1.4	51.0	D	0.026	0.3	51.0	D-	0.005	0.3
		PM	48.1	D	49.1	D	0.032	1.6	49.1	-D	0.035	1.5	49.3	D	0.041	1.6	49.2	D	0.042	1.9

Table 3.17-9: Existing and Existing with Project and Project Alternatives Intersection Levels of Service

Study Intersection - Jurisdiction	LOS Threshold	Peak Hour	Existing		Existing with Project				Existing with General Plan Buildout with Maximum Residential Alternative				Existing with Retail and Residential Alternative				Existing with Occupied/Re-Tenanted Mall Alternative			
			Delay	LOS	Delay	LOS	Change in Crit. V/C	Change in Crit. Delay	Delay	LOS	Change in Crit. V/C	Change in Crit. Delay	Delay	LOS	Change in Crit. V/C	Change in Crit. Delay	Delay	LOS	Change in Crit. V/C	Change in Crit. Delay
23. Wolfe Road/Fremont Avenue – City of Sunnyvale	D	AM	49.7	D	50.0	D	0.030	-0.1	49.9	D	0.027	0.2	49.8	D	0.021	0.5	49.8	D	0.007	0.1
		PM	47.9	D	49.1	D	0.028	1.3	49.0	D	0.032	1.1	49.1	D	0.038	1.0	49.5	D	0.041	2.0
24. Wolfe Road/Marion Way – City of Sunnyvale	D	AM	15.9	B	16.1	B	0.020	0.4	15.8	B	0.029	-0.1	15.4	B	0.035	-0.6	15.9	B	0.005	0.0
		PM	18.8	B-	18.6	B-	0.048	-0.8	18.6	B-	0.042	-0.7	18.5	B-	0.040	-0.7	18.6	B-	0.049	-0.8
25. Wolfe Road/Inverness Way – City of Sunnyvale	D	AM	18.3	B-	18.0	B	0.015	-0.3	17.8	B	0.026	-0.5	17.6	B	0.035	-0.6	18.2	B-	0.004	-0.1
		PM	22.8	C+	22.5	C+	0.034	0.1	22.4	C+	0.040	-0.1	22.2	C+	0.048	-0.2	22.3	C+	0.046	-0.1
26. Wolfe Road/Homestead Road – City of Cupertino	D	AM	32.9	C-	33.0	C-	0.016	-0.1	32.9	C-	0.028	-0.1	32.9	C-	0.036	-0.1	32.9	C-	0.005	0.0
		PM	43.0	D	43.6	D	0.041	-1.0	43.5	D	0.043	-1.3	43.4	D	0.048	-1.6	43.6	D	0.051	-1.2
27. Wolfe Road/Apple Park – City of Cupertino	D	AM	9.8	A	9.6	A	0.015	-0.1	9.7	A	0.026	-0.2	9.7	A	0.033	-0.2	9.8	A	0.005	0.0
		PM	15.4	B	14.5	B	0.030	-0.6	14.5	B	0.037	-0.7	14.3	B	0.045	-0.8	14.3	B	0.046	-0.8
28. Wolfe Road/Pruneridge Avenue – City of Cupertino	D	AM	23.5	C	23.2	C	0.051	4.0	23.7	C	0.039	4.8	22.3	C+	0.02	-1.1	25.2	C	0.016	6.4
		PM	16.5	B	15.9	B	0.031	-0.2	15.9	B	0.038	-0.2	16.0	B	0.047	-0.2	15.9	B	0.048	-0.2
29. Wolfe Road/I-280 Ramps (north) * – City of Cupertino	D	AM	13.2	B	15.6	B	0.158	3.2	14.6	B	0.085	1.4	13.3	B	0.028	-0.3	13.3	B	0.005	0.0
		PM	12	B	13.3	B	0.101	2.5	13.6	B	0.116	2.9	14.1	B	0.137	3.6	13.7	B	0.129	3.2
30. Wolfe Road/I-280 Ramps (south) * – City of Cupertino	D	AM	12.1	B	13.2	B	0.085	1.2	12.7	B	0.086	0.6	12.6	B	0.108	0.9	12.2	B	0.013	0.1
		PM	8.4	A	9.6	A	0.238	2.4	9.7	A	0.204	2.5	10.1	B+	0.183	2.7	8.7	A	0.135	1.0
31. Wolfe Road/Vallco Parkway – City of Cupertino	D	AM	19.6	B-	26.6	C	0.257	9.8	27.7	C	0.246	10.5	27.9	C	0.211	10.0	21.0	C+	0.040	2.1
		PM	31.2	C	52.2	D-	0.340	29.6	46.6	D	0.262	24.2	42.8	D	0.207	21.1	43.4	D	0.199	20.6
32. Wolfe Road-Miller Avenue/Stevens Creek Boulevard* – City of Cupertino	D	AM	41.7	D	45.7	D	0.133	5.2	44.9	D	0.105	4.3	43.9	D	0.065	3.0	42.2	D	0.015	0.6
		PM	41.4	D	44.6	D	0.081	7.0	43.6	D	0.064	6.3	43.1	D	0.053	6.0	44.3	D	0.079	7.0
33. Miller Avenue/Calle de Barcelona – City of Cupertino	D	AM	7.5	A	7.3	A	0.030	-0.1	7.4	A	0.018	-0.1	7.5	A	0.003	0.0	7.5	A	0.004	0.0
		PM	3.0	A	2.9	A	0.035	-0.1	2.9	A	0.024	-0.1	2.9	A	0.015	0.0	2.9	A	0.032	-0.1
34. Miller Avenue/Phil Lane – City of Cupertino	D	AM	5.3	A	5.4	A	0.033	0.2	5.4	A	0.02	0.1	5.3	A	0.004	0.0	5.3	A	0.004	0.0
		PM	4.1	A	4.1	A	0.032	0.0	4.2	A	0.021	0.0	4.2	A	0.013	0.0	4.2	A	0.029	0.0
35. Miller Avenue/Bollinger Road – City of San José	D	AM	37.1	D+	38	D+	0.034	1.2	37.6	D+	0.021	0.8	37.3	D+	0.005	0.3	37.2	D+	0.005	0.2
		PM	41.5	D	42.3	D	0.025	1.2	42.1	D	0.019	0.9	42.0	D	0.016	0.7	42.6	D	0.036	1.7
36. Miller Avenue/Rainbow Drive – City of San José	D	AM	23.1	C	23.5	C	0.017	0.6	23.4	C	0.012	0.4	23.2	C	0.004	0.1	23.2	C	0.005	0.2
		PM	22.8	C+	22.4	C+	0.027	-0.4	22.5	C+	0.020	-0.3	22.6	C+	0.016	-0.3	22.2	C+	0.038	-0.6
37. Stevens Creek Boulevard/ Finch Avenue – City of Cupertino	D	AM	28.8	C	27.4	C	0.042	-1.6	28.0	C	0.026	-1.0	29.1	C	0.066	6.8	29.4	C	0.052	7.2
		PM	21.6	C+	20.1	C+	0.054	-1.6	20.5	C+	0.036	-1.2	20.8	C+	0.022	-0.8	20.5	C+	0.033	-1.1
38. Tantau Avenue/Homestead Road – City of Cupertino	D	AM	34.4	C-	34.8	C-	0.011	-0.3	34.7	C-	0.007	-0.2	34.4	C-	0.003	-0.1	34.4	C-	0.001	0.0
		PM	43.2	D	43.6	D	0.023	1.3	43.7	D	0.020	1.3	43.8	D	0.020	1.5	43.8	D	0.023	1.6
39. Tantau Avenue/Pruneridge Avenue – City of Cupertino	D	AM	20.8	C+	20.9	C+	0.032	-0.4	20.8	C+	0.025	-0.2	20.6	C+	0.016	0.0	20.8	C+	0.005	0.0
		PM	24.5	C	24.6	C	0.032	-0.2	24.8	C	0.024	-0.2	25.0	C	0.019	-0.2	24.9	C	0.021	-0.2
40. N Tantau Ave/Apple Parkway – City of Cupertino	D	AM	17.6	B	16.9	B	0.015	-0.5	16.9	B	0.022	-0.7	16.9	B	0.026	-0.8	17.5	B	0.004	-0.1
		PM	18.3	B-	18.5	B-	0.054	0.4	18.4	B-	0.04	0.2	18.3	B-	0.031	0.1	18.3	B-	0.037	0.2
41. Tantau Avenue/Vallco Parkway – City of Cupertino	D	AM	25.1	C	27.0	C	0.156	0.4	27.2	C	0.104	0.7	27.1	C	0.043	0.9	25.5	C	0.019	0.1
		PM	31.3	C	34.2	C-	0.173	3.3	33.7	C-	0.145	3.0	33.4	C-	0.130	3.0	34.3	C-	0.160	4.0
42. Stevens Creek Boulevard/Tantau Avenue – City of Cupertino	D	AM	44.7	D	45.6	D	0.068	1.2	45.1	D	0.041	0.6	44.6	D	0.009	0.0	44.7	D	0.005	0.1
		PM	42.8	D	44.5	D	0.118	3.3	43.8	D	0.082	2.3	43.3	D	0.054	1.6	44.1	D	0.085	2.9
43. Stevens Creek Boulevard/Stern Avenue – City of Santa Clara	D	AM	37.6	D+	48.8	D	0.227	23.4	41.2	D	0.201	12.5	37.3	D+	0.172	6.6	38.2	D+	0.005	0.1
		PM	40.5	D	**77.0**	**E-**	**0.075**	**54.3**	**61.7**	**E**	**0.051**	**32.5**	51.6	D-	0.033	17.8	**58.2**	**E+**	**0.046**	**27.8**
44. Stevens Creek Boulevard/Calvert Drive/I-280 Ramps (west)* – City of Santa Clara	E	AM	57.4	E+	66.8	E	0.009	0.7	61.3	E	0.013	1.1	58.6	E+	0.015	1.4	57.8	E+	0.003	0.2
		PM	52.7	D-	56.9	E+	0.028	4.6	55.1	E+	0.021	3.0	54.2	D-	0.016	2.1	54.9	D-	0.021	2.9

Table 3.17-9: Existing and Existing with Project and Project Alternatives Intersection Levels of Service

Study Intersection - Jurisdiction	LOS Threshold	Peak Hour	Existing		Existing with Project				Existing with General Plan Buildout with Maximum Residential Alternative				Existing with Retail and Residential Alternative				Existing with Occupied/Re-Tenanted Mall Alternative			
			Delay	LOS	Delay	LOS	Change in Crit. V/C	Change in Crit. Delay	Delay	LOS	Change in Crit. V/C	Change in Crit. Delay	Delay	LOS	Change in Crit. V/C	Change in Crit. Delay	Delay	LOS	Change in Crit. V/C	Change in Crit. Delay
45. Stevens Creek Boulevard/Agilent Driveway – City of Santa Clara	D	AM	36.7	D+	45.8	D	0.050	11.5	40.7	D	0.031	5.0	37.6	D+	0.009	1.1	37.1	D+	0.005	0.5
		PM	24	C	24.8	C	0.024	0.5	24.7	C	0.025	0.5	24.6	C	0.027	0.6	24.7	C	0.031	0.7
46. Stevens Creek Boulevard/Lawrence Expressway Ramps (west)* – Santa Clara County	E	AM	28.9	C	33.3	C-	0.081	5.9	31.2	C	0.051	3.2	29.5	C	0.016	1.0	29.1	C	0.007	0.4
		PM	25.4	C	25.7	C	0.041	0.7	25.8	C	0.045	0.8	25.9	C	0.051	1.0	25.6	C	0.052	0.8
47. Lawrence Expressway/El Camino Real* – Santa Clara County	E	AM	34.6	C-	36.9	D+	0.040	2.5	36.7	D+	0.040	2.3	36.3	D+	0.038	2.0	34.9	C-	0.005	0.3
		PM	27.1	C	29.8	C	0.050	3.3	29.7	C	0.048	3.2	29.7	C	0.049	3.3	28.9	C	0.036	2.4
48. Lawrence Expressway/Homestead Road* – Santa Clara County	E	AM	71.5	E	72.8	E	0.009	1.6	72.6	E	0.011	1.5	72.3	E	0.011	1.1	71.7	E	0.002	0.2
		PM	66.3	E	69.2	E	-0.046	6.4	68.5	E	0.015	1.3	68.1	E	0.016	1.4	68.2	E	0.018	1.6
49. Lawrence Expressway/Pruneridge Avenue* – Santa Clara County	E	AM	44.0	D	43.9	D	0.006	0.3	44.1	D	0.010	0.4	44.3	D	0.012	0.5	44.0	D	0.001	0.1
		PM	44.5	D	45.2	D	0.015	0.2	45.0	D	0.011	0.1	44.9	D	0.009	0.1	45.0	D	0.011	0.2
50. Stevens Creek Boulevard/ Lawrence Expressway Ramps (east)* – Santa Clara County	E	AM	31.6	C	33.1	C-	0.077	1.7	32.7	C-	0.052	1.4	32.2	C-	0.022	1.0	31.7	C	0.007	0.2
		PM	28.0	C	28.9	C	0.035	0.6	28.8	C	0.029	0.5	28.7	C	0.025	0.5	28.8	C	0.034	0.7
51. Lawrence Expressway/Calvert Drive-I-280 Southbound Ramp* – City of San José	D	AM	32.8	C	35.3	D+	0.007	1.6	34.2	C-	0.009	2.1	33.2	C-	0.010	2.3	32.9	C-	0.001	0.2
		PM	30.2	-C	31.0	C	0.029	1.5	30.7	C	0.019	1.0	30.5	C	0.011	0.5	30.6	C	0.013	0.6
52. Lawrence Expressway/Mitty Way* – Santa Clara County	E	AM	23.1	C	23.8	C	0.004	0.0	23.4	C	0.003	0.0	23.1	C	0.001	0.0	23.1	C	0.001	0.0
		PM	16.6	B	16.7	B	0.018	0.2	16.7	B	0.010	0.1	16.7	B	0.005	0.1	16.8	B	0.010	0.1
53. Lawrence Expressway/Bollinger Road* – Santa Clara County	E	AM	60.3	E	67.9	E	0.033	13.5	63.8	E	0.019	6.1	60.5	E	0.003	0.4	60.6	E	0.003	0.6
		PM	54.2	D-	56.9	E+	0.009	0.2	55.6	E+	0.006	0.1	54.8	D-	0.004	0.0	55.8	E+	0.010	-0.1
54. Lawrence Expressway/Doyle Road* – Santa Clara County	E	AM	43.2	D	43.3	D	0.011	1.5	43.1	D	0.006	0.3	43.2	D	0.002	-0.2	43.2	D	0.002	-0.1
		PM	14.7	B	14.7	B	0.033	-0.1	14.7	B	0.019	-0.1	14.8	B	0.008	0.0	14.8	B	0.019	-0.1
55. Lawrence Expressway/Prospect Road* – Santa Clara County	E	AM	58.3	E+	58.5	E+	0.006	-0.5	58.3	E+	0.004	-0.4	58.2	E+	0.002	-0.2	58.3	E+	0.002	-0.1
		PM	46.7	D	47.0	D	0.032	0.2	46.9	D	0.019	0.0	46.8	D	0.008	0.0	46.9	D	0.018	0.0
56. Lawrence Expressway/Saratoga Avenue* – Santa Clara County	E	AM	44	D	53.3	D-	0.076	16.8	47.9	D	0.041	7.2	44.1	D	0.002	0.2	44.1	D	0.003	0.2
		PM	45.7	D	46.9	D	0.006	-0.2	46.4	D	0.005	-0.2	46.2	D	0.005	-0.2	46.7	D	0.013	-0.5
57. Saratoga Avenue/Cox Avenue – City of Saratoga	D	AM	45.1	D	45.3	D	0.006	0.3	45.2	D	0.004	0.2	45.1	D	0.001	0.1	45.1	D	0.001	0.0
		PM	37.8	D+	38.5	D+	0.032	2.0	38.1	D+	0.017	1.0	37.9	D+	0.003	0.2	37.9	D+	0.007	0.4
58. Saratoga Avenue/SR 85 Ramps (north) - Caltrans	C	AM	19.1	B-	20.1	C+	0.029	0.9	19.7	B-	0.015	0.5	19.1	B-	0.000	0.0	19.1	B-	0.000	0.0
		PM	26.7	C	27.0	C	0.025	0.4	26.8	C	0.013	0.2	26.7	C	0.002	0.0	26.7	C	0.005	0.1
59. Saratoga Avenue/SR 85 Ramps (south) - Caltrans	C	AM	16.8	B	17.0	B	0.005	0.2	16.9	B	0.003	0.1	16.8	B	0.000	0.0	16.8	B	0.000	0.0
		PM	18.5	B-	18.8	B-	0.027	0.4	18.7	B-	0.013	0.2	18.5	B-	0.000	0.0	18.5	B-	0.000	0.0
60. Stevens Creek Boulevard/Cabot Avenue – City of Santa Clara	D	AM	47.0	D	51.7	D-	0.006	0.2	49.7	D	0.008	0.2	48.0	D	0.010	0.2	47.5	D	0.002	0.1
		PM	46.3	D	47.6	D	0.022	2.0	47.2	D	0.017	1.4	47.0	D	0.013	1.1	47.3	D	0.018	1.5
61. Stevens Creek Boulevard/Cronin Drive-Albany Drive – City of Santa Clara	D	AM	27.4	C	27.7	C	0.008	0.1	27.7	C	0.010	0.2	27.6	C	0.010	0.2	27.5	C	0.002	0.0
		PM	22.7	C+	23.0	C	0.023	0.5	22.9	C+	0.018	0.4	22.9	C+	0.015	0.3	23.0	C+	0.020	0.4
62. Stevens Creek Boulevard/Woodhams Road – City of Santa Clara	D	AM	18.8	B-	20.1	C+	0.013	1.0	19.5	B-	0.012	0.5	18.8	B-	0.009	-0.2	18.8	B-	0.002	0.0
		PM	21.1	C+	21.6	C+	0.021	0.5	21.5	C+	0.020	0.4	21.4	C+	0.019	0.3	21.6	C+	0.024	0.5
63. Stevens Creek Boulevard/Kiely Boulevard* – City of San José	D	AM	41.6	D	41.8	D	0.010	0.2	41.8	D	0.008	0.2	41.7	D	0.006	0.2	41.6	D	0.002	0.0
		PM	37.1	D+	37.2	D+	0.009	0.0	37.2	D+	0.007	0.0	37.2	D+	0.007	0.0	37.2	D+	0.009	0.0
64. Vallco Parkway/Perimeter Road – City of Cupertino	D	AM	11.6	B+	20.4	C+	0.357	12.6	21.5	C+	0.264	12.7	22.7	C+	0.160	13.5	18.9	B-	0.042	12.1
		PM	17.1	B	26.6	C	0.414	10.4	25.5	C	0.350	9.8	24.6	C	0.313	9.4	25.3	C	0.343	9.9
65. Lawrence Expressway/Kifer Road Avenue* – Santa Clara County	E	AM	36.2	D+	36.4	D+	0.008	-0.3	36.5	D+	0.007	-0.1	36.5	D+	0.006	0.1	36.2	D+	0.001	-0.1
		PM	71.5	E	72.5	E	0.012	2.2	73.4	E	0.018	3.7	74.4	E	0.025	5.5	72.2	E	0.011	1.5
66. Lawrence Expressway/Reed Avenue-Monroe Street* – Santa Clara County	E	AM	56.1	E+	56.5	E+	0.004	0.5	56.9	E+	0.008	1	57.2	E+	0.012	1.4	56.2	E+	0.001	0.1
		PM	55.1	E+	56.9	E+	0.015	3.3	57.2	E+	0.016	3.8	57.7	E+	0.017	4.5	56.4	E+	0.007	2.4

Table 3.17-9: Existing and Existing with Project and Project Alternatives Intersection Levels of Service

Study Intersection - Jurisdiction	LOS Threshold	Peak Hour	Existing		Existing with Project				Existing with General Plan Buildout with Maximum Residential Alternative				Existing with Retail and Residential Alternative				Existing with Occupied/Re-Tenanted Mall Alternative			
			Delay	LOS	Delay	LOS	Change in Crit. V/C	Change in Crit. Delay	Delay	LOS	Change in Crit. V/C	Change in Crit. Delay	Delay	LOS	Change in Crit. V/C	Change in Crit. Delay	Delay	LOS	Change in Crit. V/C	Change in Crit. Delay
67. Lawrence Expressway/Cabrillo Avenue* – Santa Clara County	E	AM	32.7	C-	33.2	C-	0.022	0.9	33.2	C-	0.015	0.4	33.2	C-	0.007	-0.1	32.7	C-	0.001	-0.1
		PM	29.2	C	29.6	C	0.017	-0.4	29.7	C	0.015	-0.2	29.8	C	0.013	-0.2	29.5	C	0.009	-0.2

Notes: **Bold** text indicates unacceptable LOS operations. **Bold and highlighted** text indicates a significant project or project alternative impact. The impacts of the Occupied/Re-Tenanted Mall Alternative is described in this EIR for informational purposes only.

Project

As summarized in Table 3.17-8, the implementation of the proposed project would result in a significant intersection level of service impacts under existing with project conditions at the following intersections:

12. De Anza Boulevard/McClellan Road (City of Cupertino) – PM peak hour; and
43. Stevens Creek Boulevard/Stern Avenue (City of Santa Clara) – PM peak hour.

Mitigation Measures:

MM TRN-1.1: Develop and implement a TDM Program for office uses that achieves a 25 to 35 percent reduction in office vehicle trips. The required TDM reduction would vary depending on the amount of office development constructed and whether the office development has a single tenant or multiple tenants. Generally, the larger the office development, the greater the TDM reduction that can be achieved. Similarly, single-tenants office buildings can generally implement more effective TDM programs than multiple-tenant office buildings. The percentage reduction required shall be based on the characteristics of the office development (size, number of tenants, etc.) and shall be calculated based on Institute of Transportation Engineer's Office (ITE Land Use 710) average trip generation rates.

As part of the TDM Program, the City shall require future development to implement the Specific Plan's TDM Monitoring Program to ensure that the TDM reduction goals are achieved. If future development is not able to meet the identified TDM goal, then the City would collect penalties, as specified the Specific Plan's TDM Monitoring Program.

The TDM program is expected to reduce the severity of intersection and freeway impacts, although not necessarily to a less than significant level. **(Significant and Unavoidable Impact with Mitigation Incorporated)**

MM TRN-1.2: Intersection 12, De Anza Boulevard/McClellan Road: convert the shared left-turn/through lane on the eastbound approach of McClellan Road to a dedicated through lane (for a total of one left-turn lane, one through lane, and one right-turn lane). This would allow converting the phasing on the east-west approaches from split phasing to protected left-turn phasing. This improvement is included in the City's TIF Program and would improve intersection operations to an acceptable LOS D. Future development under the proposed project (or General Plan Buildout with Maximum Residential Alternative or Retail and Residential Alternative) shall pay transportation mitigation fees as calculated pursuant to the TIF program to mitigate this impact. However, because the TIF improvements are not fully funding and the timing of implementation is not known at this time, the impact to Intersection 12 is considered significant and unavoidable. **(Significant and Unavoidable Impact with Mitigation Incorporated)**

Mitigation measures that would change the roadway geometry or signal operations have potential secondary effects on pedestrian and bicycle travel. Pursuant to the VTA TIA Guidelines, since mitigation measure MM TRN-1.2 would change the signal operations, a pedestrian and bicycle QOS analysis was completed. The pedestrian QOS score is 3, both without and with mitigation measure MM TRN-1.2. As explained in Section 3.17.2.1, a score of 3 denotes that walking is uninviting but possible at intersections. The bicycle QOS score is 4, both without and with the mitigation measure, denoting that most cyclists might find it uncomfortable crossing the intersection. There are no right-turn lanes on De Anza Boulevard so bicycles that continue straight could conflict with the right-turning vehicles. The mitigation measure would not change roadway geometry, pedestrian facility, or bicycle facility; thus, the pedestrian and bicycle QOS score remain the same without and with mitigation measure MM TRN-1.2.

Intersection 43, Stevens Creek Boulevard/Stern Avenue: In order to mitigate the impact identified at Intersection 43, Stevens Creek Boulevard/Stern Avenue, three through lanes and a dedicated right-turn in both the eastbound and westbound directions on Stevens Creek Boulevard would be required. This improvement would reduce the impact from the project (and General Plan Buildout with Maximum Residential Alternative and Occupied/Re-Tenanted Mall Alternative) to a less than significant level. While intersection delay would improve under the proposed project with this improvement, the intersection would continue to operate unacceptably at LOS E+ and the impact would remain significant and unavoidable. Right-of-way constraints would limit the feasibility of this potential mitigation measure, however. A dedicated right-turn lane, through lane, and a bike lane would require a minimum width of 25 feet. The available widths between the number two through lane and the curb are about 18 feet in the eastbound direction and 20 feet in the westbound direction. Therefore, mitigation would not be feasible and the impact to Intersection 43 is considered significant and unavoidable. **(Significant and Unavoidable Impact)**

General Plan Buildout with Maximum Residential Alternative

As summarized in Table 3.17-8, the implementation of the General Plan Buildout with Maximum Residential Alternative would result in a significant level of service impact under existing with project conditions at Intersection 43, Stevens Creek Boulevard/Stern Avenue, in the PM peak hour, as does the proposed project. See Impact TRN-1. As discussed above, there is no feasible mitigation measure to reduce this impact to a less than significant level. **(Significant and Unavoidable Impact)**

Retail and Residential Alternative

As summarized in Table 3.17-8, the implementation of the Retail and Residential Alternative would not result in significant intersection level of service impacts under existing with project conditions. **(Less than Significant Impact)**

Occupied/Re-Tenanted Mall Alternative

While implementation of the Occupied/Re-Tenanted Mall Alternative would result in significant level of service impacts under existing with project conditions at Intersection 43, Stevens Creek Boulevard/Stern Avenue during the PM peak hour, a discussion of this alternative is provided in the EIR for informational purposes only. This alternative is a permitted land use, and can be implemented without further discretionary approvals from the City or environmental review under

CEQA. No mitigation measures or additional conditions of approval can be required. **(Significant and Unavoidable Impact: Not a CEQA Impact)**

Existing with Project and Project Alternative Freeway Analysis

The results of the mixed-flow and HOV lane freeway segment analysis during the AM and PM peak hours under existing with project (and project alternative) conditions are summarized in Table 3.17-11 and Table 3.17-12, respectively. For mixed-flow lanes, freeway segment capacities are defined as 2,200 vehicles per hour per lane (vphpl) for four-lane freeway segments and 2,300 vphpl for six-lane freeway segments. HOV lane capacities are defined as 1,650 vphpl. Appendix H includes the detailed freeway segment LOS calculations tables for the project and project alternatives under existing with project conditions.

Project (and project alternative) impacts are identified by comparing existing (without project) conditions and existing with project conditions. The results show, for the proposed project and the project alternatives, several mixed-flow segments and HOV segments would be significantly impacted by the project and/or project alternatives under existing plus project (or project alternative) conditions (see Table 3.17-10).

Table 3.17-10: Summary of Significantly Impacted Freeway Segments under Existing with Project and Project Alternative Conditions

	Peak Hour	Number of Significantly Impacted Segments	
		Mixed-Flow	HOV
Project	AM	14	5
	PM	18	5
General Plan Buildout with Maximum Residential Alternative	AM	11	6
	PM	14	5
Retail and Residential Alternative	AM	4	1
	PM	10	4
Occupied/Re-Tenanted Mall Alternative	AM	0	0
	PM	6	2

Note: The impacts of the Occupied/Re-Tenanted Mall Alternative are described in this EIR for informational purposes only.

Project

As shown in Table 3.17-10, the proposed project would significantly impact 14 mixed-flow segments in the AM peak hour, 18 mixed-flow segments in the PM peak hour, five HOV segments in the AM peak hour, and five HOV segments in the PM peak hour.

Mitigation Measure:

MM TRN-1.3: A fair-share payment contribution to improvements identified in VTA's VTP 2040 for freeway segments on SR 85, I-280, and I-880 that the project (or project alternative) significantly impacts shall be paid by future development associated with the project (or General Plan Buildout with Maximum Residential Alternative or Retail and Residential Alternative).

The VTA's VTP 2040 identifies several freeway projects that are relevant to the identified freeway segment impacts, including:

- VTP ID H1: SR 85 Express Lanes: US 101 (South San José to Mountain View). This project would convert 24 miles of existing HOV lanes to express lanes, and allow single-occupancy vehicles access to the express lanes by paying a toll. An additional express lane will be added to create a two-lane express lane along a portion of the corridor. On November 13, 2017, the cities of Cupertino and Saratoga and the Town of Los Gatos entered into a settlement agreement[123] with VTA and Caltrans that requires VTA to implement the 2016 Measure B State Route 85 Corridor Program Guidelines which include preparing a Transit Guideway Study for this corridor to identify the most effective transit and congestion relief projects on SR 85 that will be candidates for funding. Upon completion of the study, and implementation plan for these projects will be developed.
- VTP ID H11: I-280 Express Lanes: Leland Avenue to Magdalena Avenue. This project converts existing HOV lanes to express lanes.
- VTP ID H13: I-280 Express Lanes: Southbound El Monte Avenue to Magdalena Avenue. This project builds new express lanes.
- VTP ID H15: I-880 Express Lanes: US 101 to I-280. This project would build new express lanes on I-880.
- VTP ID H35: I-280 Northbound: Second Exit Lane to Foothill Expressway. This project constructs a second exit lane from northbound I-280 to Foothill Expressway.
- VTP ID H45: I-280 Northbound Braided Ramps between Foothill Expressway and SR 85: This project would conduct preliminary engineering, environmental studies, and design to widen the existing off-ramp to Foothill Expressway from Northbound I-280 from a single-lane exit to a two-lane exit opening at I-280.

The above VTP 2040 projects will enhance vehicular travel choices for the project (and project alternatives), and make more efficient use of the transportation roadway network, and the SR 85 Transit Guideway Study will help improve transit options in the SR 85 corridor. These freeway operations enhancements would not improve all impacted freeway segments to less than significant levels, however. Complete mitigation of freeway impacts is considered beyond the scope of an

[123] As part of the Settlement Agreement, *City of Saratoga, et al. v. California Department of Transportation, et al.* (Santa Clara County Superior Court Case No. 115CV281214), which was a suit by the three cities challenging Caltrans's approval of the State Route 85 Express Lanes Project, was dismissed on November 17, 2017.

individual development project, due to the inability of any individual project or City to acquire right-of-way for freeway widening and fully fund a major freeway mainline improvement. The TDM Program proposed under the project (and General Plan Buildout with Maximum Residential Alternative and Retail and Residential Alternative) and mitigation measure MM TRN-1.1 would reduce project-generated vehicle trips, thereby reducing the project (and General Plan Buildout with Maximum Residential Alternative and Retail and Residential Alternative) impact on freeway segments, but it is not anticipated that the freeway impacts would be reduced to a less than significant level. For the above reasons, the project (and General Plan Buildout with Maximum Residential Alternative and Retail and Residential Alternative) would remain significant and unavoidable with the implementation of MM TRN-1.1 and -1.3. **(Significant and Unavoidable Impact with Mitigation Incorporated)**

General Plan Buildout with Maximum Residential Alternative

As shown in Table 3.17-10, the General Plan Buildout with Maximum Residential Alternative would significantly impact 11 mixed-flow segments in the AM peak hour, 14 mixed-flow segments in the PM peak hour, six HOV segments in the AM peak hour, and five HOV segments in the PM peak hour. The General Plan Buildout with Maximum Residential Alternative would result in similar impacts to freeway level of service as the proposed project, although it would impact fewer freeway segments. See Impact TRN-1 and MM TRN-1.1 and -1.3, above. **(Significant and Unavoidable Impact with Mitigation Incorporated)**

Retail and Residential Alternative

As shown in Table 3.17-10, the Retail and Residential Alternative would significantly impact four mixed-flow segments in the AM peak hour, 10 mixed-flow segments in the PM peak hour, one HOV segments in the AM peak hour, and four HOV segments in the PM peak hour. The Retail and Residential Alternative would result in similar impacts to freeway level of service as the proposed project, although it would impact fewer freeway segments. See Impact TRN-1 and MM TRN-1.1 and -1.3 above. **(Significant and Unavoidable Impact with Mitigation Incorporated)**

Occupied/Re-Tenanted Mall Alternative

As shown in Table 3.17-10, the Occupied/Re-Tenanted Mall Alternative would significantly impact six mixed-flow segments in the PM peak hour and two HOV segments in the PM peak hour. The Occupied/Re-Tenanted Mall Alternative would result in similar impacts to freeway level of service as the proposed project, although it would impact fewer freeway segments.

A discussion of this alternative is provided in the EIR for informational purposes only. This alternative is a permitted land use, and can be implemented without further discretionary approvals from the City or environmental review under CEQA. No mitigation measures or additional conditions of approval can be required. **(Significant and Unavoidable Impact: Not a CEQA Impact)**

Table 3.17-11: Existing with Project and Project Alternatives Freeway Mixed-Flow Segment Levels of Service											
Freeway Segment	**Capacity**	**Peak Hour**	**Existing**	**Existing with:**							
				Project		**General Plan Buildout with Maximum Residential Alternative**		**Retail and Residential Alternative**		**Occupied/Re-tenanted Mall Alternative**	
			LOS	**LOS**	**Project Trips**	**LOS**	**Project Trips**	**LOS**	**Project Trips**	**LOS**	**Project Trips**
SR 85 – Northbound											
Union Avenue to South Bascom Avenue	4,600	AM PM	**F** C	**F** C	**32** 4	**F** C	**17** 2	**F** C	0 0	**F** C	0 0
South Bascom Avenue to SR 17	4,600	AM PM	**F** B	**F** B	**43** 6	**F** B	**22** 3	**F** B	0 0	**F** B	0 0
SR 17 to Winchester Boulevard	4,600	AM PM	**F** B	**F** B	**58** 12	**F** B	**30** 5	**F** B	0 0	**F** B	0 0
Winchester Boulevard to Saratoga Avenue	4,600	AM PM	**F** D	**F** D	**76** 13	**F** D	**39** 6	**F** D	0 0	**F** D	0 0
Saratoga Avenue to Saratoga-Sunnyvale Road	4,600	AM PM	**F** C	**F** C	**157** 42	**F** C	**87** 38	F C	**11** 36	**F** C	**3** 28
Saratoga-Sunnyvale Road to Stevens Creek Boulevard	4,600	AM PM	E C	E C	0 0	E C	0 0	E C	0 0	E C	0 0
Stevens Creek Boulevard to I-280	4,600	AM PM	**F** A	**F** A	**24** 80	**F** A	**36** 55	**F** A	**44** 34	**F** A	**2** 16
I-280 to West Homestead Road	4,600	AM PM	**F** B	**F** B	**18** 64	**F** B	**27** 44	**F** B	**33** 27	**F** B	**2** 13
West Homestead Road to West Fremont Avenue	4,600	AM PM	**F** D	**F** D	**14** 45	**F** D	**20** 31	**F** D	**25** 20	**F** D	**2** 9
SR 85 – Southbound											
West Fremont Avenue to West Homestead Road	4,600	AM PM	D E	D E	48 17	D E	30 22	D E	11 27	D E	2 9
West Homestead Road to I-280	4,600	AM PM	B C	B C	63 22	B C	40 30	B C	14 37	B C	2 12
I-280 to Stevens Creek Boulevard	4,600	AM PM	B **F**	B **F**	83 **30**	B **F**	53 **39**	B **F**	19 **48**	B **F**	2 **15**
Stevens Creek Boulevard to Saratoga-Sunnyvale Road	4,600	AM PM	B **F**	B **F**	0 **0**	B **F**	0 **0**	B **F**	0 0	B **F**	0 0

Table 3.17-11: Existing with Project and Project Alternatives Freeway Mixed-Flow Segment Levels of Service											
Freeway Segment	**Capacity**	**Peak Hour**	**Existing**	**Existing with:**							
				Project		**General Plan Buildout with Maximum Residential Alternative**		**Retail and Residential Alternative**		**Occupied/Re-tenanted Mall Alternative**	
			LOS	**LOS**	**Project Trips**	**LOS**	**Project Trips**	**LOS**	**Project Trips**	**LOS**	**Project Trips**
Saratoga-Sunnyvale Road to Saratoga Avenue	4,600	AM PM	B **F**	B **F**	33 **150**	B **F**	33 **85**	B **F**	30 **29**	B **F**	3 **31**
Saratoga Avenue to Winchester Boulevard	4,600	AM PM	C E	C **F**	13 **67**	C E	7 31	C E	0 0	C E	0 0
Winchester Boulevard to SR 17	4,600	AM PM	B **F**	B **F**	12 **60**	B **F**	6 **28**	B **F**	0 0	B **F**	0 0
SR 17 to South Bascom Avenue	4,600	AM PM	B **F**	B **F**	6 **31**	B **F**	3 **14**	B **F**	0 0	B **F**	0 0
South Bascom Avenue to Union Avenue	4,600	AM PM	C **F**	C **F**	4 **23**	C **F**	3 **11**	C **F**	0 0	C **F**	0 0
Interstate 280 – Eastbound											
Alpine Road to Page Mill Road	9,200	AM PM	D D	D D	80 31	D D	52 38	D D	20 48	D D	5 17
Page Mill Road to La Barranca Road	9,200	AM PM	C **F**	C **F**	134 **51**	C **F**	86 **64**	C **F**	33 **80**	C **F**	8 29
La Barranca Road to El Monte Road	9,200	AM PM	B **F**	B **F**	134 **51**	B **F**	86 **64**	B **F**	33 **80**	B **F**	8 **29**
El Monte Road to Magdalena Avenue	9,200	AM PM	C **F**	C **F**	206 **78**	C **F**	132 **99**	C **F**	50 **123**	C **F**	12 **44**
Magdalena Avenue to Foothill Expressway	6,900	AM PM	C D	C D	227 83	C D	145 105	C D	55 131	C D	13 **47**
Foothill Expressway to SR 85	6,900	AM PM	C **F**	C **F**	277 **104**	C **F**	177 **132**	C **F**	67 **163**	C **F**	16 **59**
SR 85 to De Anza Boulevard	6,900	AM PM	C **F**	C **F**	343 **129**	C **F**	218 **165**	C **F**	83 **204**	C **F**	20 **73**
De Anza Boulevard to Wolfe Road	6,900	AM PM	C **F**	C **F**	292 **110**	C **F**	185 **138**	C **F**	70 **168**	C **F**	20 65
Wolfe Road to Lawrence Expressway	6,900	AM PM	C **F**	C **F**	91 **357**	C **F**	116 **235**	C **F**	127 **137**	C **F**	18 **156**

Table 3.17-11: Existing with Project and Project Alternatives Freeway Mixed-Flow Segment Levels of Service											
Freeway Segment	**Capacity**	**Peak Hour**	**Existing**	**Existing with:**							
				Project		**General Plan Buildout with Maximum Residential Alternative**		**Retail and Residential Alternative**		**Occupied/Re-tenanted Mall Alternative**	
			LOS	**LOS**	**Project Trips**	**LOS**	**Project Trips**	**LOS**	**Project Trips**	**LOS**	**Project Trips**
Lawrence Expressway to Saratoga Avenue	6,900	AM PM	D **F**	D **F**	116 **444**	D **F**	147 **292**	D **F**	161 **169**	D **F**	22 **193**
Saratoga Avenue to Winchester Boulevard	6,900	AM PM	D **F**	D **F**	106 **399**	D **F**	133 **263**	D **F**	146 **152**	D **F**	20 **173**
Winchester Boulevard to I-880	6,900	AM PM	C **F**	C **F**	92 **360**	C **F**	116 **237**	C **F**	127 **137**	C **F**	18 **156**
I-880 to Meridian Avenue	6,900	AM PM	C **F**	C **F**	46 **180**	C **F**	58 **119**	C **F**	64 **69**	C **F**	9 **78**
Meridian Avenue to Bird Avenue	9,200	AM PM	D **F**	D **F**	41 **159**	D **F**	51 **105**	D **F**	56 61	D **F**	8 69
Bird Avenue to SR 87	9,200	AM PM	C **F**	C **F**	37 **143**	C **F**	46 **95**	C **F**	50 55	C **F**	7 62
Interstate 280 – Westbound											
SR 87 to Bird Avenue	9,200	AM PM	**F** F	**F** **F**	**136** **55**	**F** **F**	**83** **59**	**F** **F**	23 66	**F** **F**	10 57
Bird Avenue to Meridian Avenue	9,200	AM PM	**F** D	**F** D	**151** 61	**F** D	**92** **65**	**F** D	26 73	**F** D	11 63
Meridian Avenue to I-880	6,900	AM PM	**F** C	**F** C	**171** 71	**F** C	**104** 76	**F** C	29 84	**F** C	12 73
I-880 to Winchester Boulevard	6,900	AM PM	**F** D	**F** D	**342** 138	**F** D	**207** 148	**F** D	58 165	**F** D	24 143
Winchester Boulevard to Saratoga Avenue	6,900	AM PM	**F** D	**F** D	**380** 154	**F** D	**230** 165	**F** D	**64** 184	**F** D	26 160
Saratoga Avenue to Lawrence Expressway	6,900	AM PM	**F** D	**F** D	**422** 170	**F** D	**256** 182	**F** D	**71** 203	**F** D	29 177
Lawrence Expressway to Wolfe Road	6,900	AM PM	**F** C	**F** C	**339** 138	**F** C	**207** 148	**F** C	58 165	**F** C	25 144

Table 3.17-11: Existing with Project and Project Alternatives Freeway Mixed-Flow Segment Levels of Service											
Freeway Segment	**Capacity**	**Peak Hour**	**Existing**	**Existing with:**							
				Project		**General Plan Buildout with Maximum Residential Alternative**		**Retail and Residential Alternative**		**Occupied/Re-tenanted Mall Alternative**	
			LOS	**LOS**	**Project Trips**	**LOS**	**Project Trips**	**LOS**	**Project Trips**	**LOS**	**Project Trips**
Wolfe Road to De Anza Boulevard	6,900	AM PM	**F** D	**F** D	**84** 274	**F** D	**123** 192	**F** D	**153** 125	**F** D	14 73
De Anza Boulevard to SR 85	6,900	AM PM	**F** D	**F** D	**104** 353	**F** D	**153** 245	**F** D	**190** 156	**F** D	15 82
SR 85 to Foothill Expressway	6,900	AM PM	**F** D	**F** D	**83** 277	**F** D	**122** 193	**F** D	**151** 123	**F** D	12 64
Foothill Expressway to Magdalena Avenue	6,900	AM PM	E C	E C	66 217	E C	98 151	E C	121 97	E C	9 50
Magdalena Avenue to El Monte Road	9,200	AM PM	E D	E D	62 204	E D	92 142	E D	114 91	E D	9 47
El Monte Road to La Barranca Road	9,200	AM PM	E C	E C	50 163	E C	74 114	E C	91 73	E C	7 38
La Barranca Road to Page Mill Road	9,200	AM PM	D C	D C	50 163	D C	74 114	D C	91 73	D C	7 38
Page Mill Road to Alpine Road	9,200	AM PM	C **F**	C **F**	30 **98**	C **F**	44 **68**	C **F**	55 44	C **F**	4 23
Interstate 880 – Northbound											
I-280 to Stevens Creek Boulevard	6,900	AM PM	**F** A	**F** B	**40** 158	**F** B	**51** 104	**F** A	**55** 60	**F** A	**7** 69
Stevens Creek Boulevard to North Bascom Avenue	6,900	AM PM	**F** F	**F** **F**	36 **142**	**F** **F**	46 **94**	**F** **F**	**50** **54**	**F** **F**	**6** **62**
North Bascom Avenue to The Alameda	6,900	AM PM	**F** F	**F** **F**	27 **107**	**F** **F**	35 **71**	**F** **F**	**38** **41**	**F** **F**	**5** **47**
The Alameda to Coleman Avenue	6,900	AM PM	**F** F	**F** **F**	20 **80**	**F** **F**	**26** **53**	**F** **F**	29 **31**	**F** **F**	4 **35**
Interstate 880 – Southbound											
Coleman Avenue to The Alameda	6,900	AM PM	D **F**	D **F**	77 **31**	D **F**	47 **33**	D **F**	13 **38**	D **F**	5 **32**
The Alameda to North Bascom Avenue	6,900	AM PM	D E	D E	102 41	D E	62 44	D E	17 50	D E	7 43

Table 3.17-11: Existing with Project and Project Alternatives Freeway Mixed-Flow Segment Levels of Service											
Freeway Segment	**Capacity**	**Peak Hour**	**Existing**	**Existing with:**							
				Project		**General Plan Buildout with Maximum Residential Alternative**		**Retail and Residential Alternative**		**Occupied/Re-tenanted Mall Alternative**	
			LOS	**LOS**	**Project Trips**	**LOS**	**Project Trips**	**LOS**	**Project Trips**	**LOS**	**Project Trips**
North Bascom Avenue to Stevens Creek Boulevard	6,900	AM PM	**F** D	**F** D	**136** 55	**F** D	**82** 59	**F** D	**23** 66	**F** D	**9** 57
Stevens Creek Boulevard to I-280	6,900	AM PM	C C	C C	151 61	C C	91 65	C C	25 73	C C	10 63
SR 17 – Northbound											
Saratoga Avenue to Lark Avenue	4,400	AM PM	E C	E C	23 9	E C	13 7	E C	2 5	E C	1 5
Lark Avenue to SR 85	4,400	AM PM	D C	D C	30 12	D C	17 9	D C	3 6	D C	1 6
SR 17 – Southbound											
SR 85 to Lark Avenue	4,400	AM PM	C **F**	C **F**	11 **49**	C **F**	8 **25**	C **F**	5 5	C **F**	1 6
Lark Avenue to Saratoga Avenue	4,400	AM PM	E **F**	E **F**	8 **37**	E **F**	6 **19**	E **F**	4 4	E **F**	1 5

Notes: **Bold** font indicates unacceptable operations based on VTA's LOS E Standard. **Bold and highlighted** text indicates a significant project (or project alternative) impact. The impacts of the Occupied/Re-Tenanted Mall Alternative is described in this EIR for informational purposes only.

Table 3.17-12: Existing with Project and Project Alternatives Freeway HOV Segment Levels of Service											
Freeway Segment	**Capacity**	**Peak Hour**	**Existing**	**Existing with:**							
				Proposed Project		**General Plan Buildout with Maximum Residential Alternative**		**Retail and Residential Alternative**		**Occupied/Re-tenanted Mall Alternative**	
			LOS	**LOS**	**Project Trips**	**LOS**	**Project Trips**	**LOS**	**Project Trips**	**LOS**	**Project Trips**
SR 85 – Northbound											
Union Avenue to South Bascom Avenue	1,650	AM	**F**	**F**	**6**	**F**	**3**	**F**	0	**F**	0
		PM	B	B	1	B	0	B	0	B	0
South Bascom Avenue to SR 17	1,650	AM	**F**	**F**	**8**	**F**	**4**	**F**	0	**F**	0
		PM	C	C	1	C	0	C	0	C	0
SR 17 to Winchester Boulevard	1,650	AM	**F**	**F**	**10**	**F**	**5**	**F**	0	**F**	0
		PM	A	A	2	A	1	A	0	A	0
Winchester Boulevard to Saratoga Avenue	1,650	AM	**F**	**F**	**14**	**F**	**7**	**F**	0	**F**	0
		PM	A	A	2	A	1	A	0	A	0
Saratoga Avenue to Saratoga-Sunnyvale Road	1,650	AM	E	E	28	E	15	E	2	E	1
		PM	A	A	7	A	7	A	6	A	5
Saratoga-Sunnyvale Road to Stevens Creek Boulevard	1,650	AM	D	D	0	D	0	D	0	D	0
		PM	A	A	0	A	0	A	0	A	0
Stevens Creek Boulevard to I-280	1,650	AM	**F**	**F**	**4**	**F**	**6**	**F**	8	**F**	0
		PM	B	B	14	B	10	B	6	B	3
I-280 to West Homestead Road	1,650	AM	**F**	**F**	**3**	**F**	**5**	**F**	6	**F**	0
		PM	A	A	7	A	5	A	3	A	1
West Homestead Road to West Fremont Avenue	1,650	AM	**F**	**F**	**2**	**F**	**4**	**F**	4	**F**	0
		PM	B	B	8	B	6	B	3	B	2
SR 85 – Southbound											
West Fremont Avenue to West Homestead Road	1,650	AM	B	B	8	B	5	B	2	B	0
		PM	D	D	3	D	4	D	5	D	2
West Homestead Road to I-280	1,650	AM	A	A	11	A	7	A	3	A	0
		PM	D	D	4	D	5	D	6	D	2
I-280 to Stevens Creek Boulevard	1,650	AM	A	A	15	A	9	A	3	A	0
		PM	**F**	**F**	**5**	**F**	**7**	**F**	9	**F**	3
Stevens Creek Boulevard to Saratoga-Sunnyvale Road	1,650	AM	A	A	0	A	0	A	0	A	0
		PM	**F**	**F**	**0**	**F**	**0**	**F**	0	**F**	0
Saratoga-Sunnyvale Road to Saratoga Avenue	1,650	AM	A	A	6	A	6	A	5	A	0
		PM	E	E	27	E	15	E	5	E	5

Table 3.17-12: Existing with Project and Project Alternatives Freeway HOV Segment Levels of Service											
Freeway Segment	**Capacity**	**Peak Hour**	**Existing**	**Existing with:**							
				Proposed Project		**General Plan Buildout with Maximum Residential Alternative**		**Retail and Residential Alternative**		**Occupied/Re-tenanted Mall Alternative**	
			LOS	**LOS**	**Project Trips**	**LOS**	**Project Trips**	**LOS**	**Project Trips**	**LOS**	**Project Trips**
Saratoga Avenue to Winchester Boulevard	1,650	AM PM	A D	A D	2 12	A D	1 6	A D	0 0	A D	0 0
Winchester Boulevard to SR 17	1,650	AM PM	A D	A D	2 11	A D	1 5	A D	0 0	A D	0 0
SR 17 to South Bascom Avenue	1,650	AM PM	A **F**	A **F**	1 **5**	A **F**	1 **3**	A **F**	0 0	A **F**	0 0
South Bascom Avenue to Union Avenue	1,650	AM PM	A **F**	A **F**	1 **4**	A **F**	0 **2**	A **F**	0 0	A **F**	0 0
Interstate 280 – Eastbound											
Magdalena Avenue to Foothill Expressway	1,650	AM PM	A C	A C	31 15	A C	20 19	A C	7 23	A C	2 8
Foothill Expressway to SR 85	1,650	AM PM	A D	B D	45 18	A D	29 23	A D	11 29	A D	3 10
SR 85 to De Anza Boulevard	1,650	AM PM	B **F**	B **F**	60 **23**	B **F**	39 **29**	B **F**	15 **36**	B **F**	4 13
De Anza Boulevard to Wolfe Road	1,650	AM PM	C **F**	C **F**	51 **19**	C **F**	33 **24**	C **F**	12 **30**	C **F**	3 12
Wolfe Road to Lawrence Expressway	1,650	AM PM	B D	B D	16 63	B D	20 42	B D	22 24	B D	3 28
Lawrence Expressway to Saratoga Avenue	1,650	AM PM	B E	B E	17 78	B E	21 52	B E	23 30	B E	3 34
Saratoga Avenue to Winchester Boulevard	1,650	AM PM	B **F**	B **F**	14 **71**	B **F**	18 **47**	B **F**	20 **27**	B **F**	3 **31**
Winchester Boulevard to I-880	1,650	AM PM	B **F**	**B** **F**	16 **63**	**B** **F**	20 **42**	**B** **F**	22 **24**	B **F**	3 **28**
I-880 to Meridian Avenue	1,650	AM PM	B **F**	**B** **F**	8 **32**	**B** **F**	10 **21**	**B** **F**	11 **12**	B **F**	2 14
Interstate 280 – Westbound											
Meridian Avenue to I-880	1,650	AM PM	**F** A	**F** A	**30** 10	**F** A	**18** 11	**F** A	5 13	**F** A	2 11

Table 3.17-12: Existing with Project and Project Alternatives Freeway HOV Segment Levels of Service											
Freeway Segment	**Capacity**	**Peak Hour**	**Existing**	**Existing with:**							
				Proposed Project		**General Plan Buildout with Maximum Residential Alternative**		**Retail and Residential Alternative**		**Occupied/Re-tenanted Mall Alternative**	
			LOS	**LOS**	**Project Trips**	**LOS**	**Project Trips**	**LOS**	**Project Trips**	**LOS**	**Project Trips**
I-880 to Winchester Boulevard	1,650	AM	**F**	**F**	**60**	**F**	**37**	**F**	10	**F**	4
		PM	C	C	24	C	26	C	29	C	25
Winchester Boulevard to Saratoga Avenue	1,650	AM	**F**	**F**	**67**	**F**	**41**	**F**	11	**F**	5
		PM	B	B	26	B	28	B	31	B	27
Saratoga Avenue to Lawrence Expressway	1,650	AM	**F**	**F**	**75**	**F**	**45**	**F**	12	**F**	5
		PM	B	B	30	B	32	B	36	B	31
Lawrence Expressway to Wolfe Road	1,650	AM	**F**	**F**	**60**	**F**	**36**	**F**	10	**F**	4
		PM	B	B	24	B	25	B	28	B	25
Wolfe Road to De Anza Boulevard	1,650	AM	E	E	15	E	22	E	27	E	3
		PM	B	B	48	B	34	B	22	B	13
De Anza Boulevard to SR 85	1,650	AM	D	E	18	E	27	D	33	D	3
		PM	A	A	46	A	32	A	21	A	11
SR 85 to Foothill Expressway	1,650	AM	**F**	**F**	**15**	**F**	**22**	**F**	**27**	**F**	2
		PM	B	B	42	B	29	B	19	B	10
Foothill Expressway to Magdalena Avenue	1,650	AM	E	E	12	E	17	E	21	E	2
		PM	B	B	38	B	26	B	17	B	9

Notes: **Bold** font indicates unacceptable operations based on VTA's LOS E Standard. **Bold and highlighted** text indicates a significant project (or project alternative) impact. The impacts of the Occupied/Re-Tenanted Mall Alternative is described in this EIR for informational purposes only.

Vehicle Miles Travelled

Project and All Project Alternatives

The following discussion of VMT associated with the proposed project and project alternatives is provided for informational purposes only. VMT estimates are used as inputs to other technical studies such as air quality and greenhouse gas emissions (refer to Sections 3.3 and 3.8).

VMT is a useful metric in understanding the overall effects of a project on the transportation system. VMT is the sum of all of the vehicle trips generated by a project multiplied by the lengths of their trips to and from the site on an average weekday. A vehicle driven one mile is one VMT. Therefore, a project with a higher VMT would have a greater environmental effect than a project with a low VMT.

The trip lengths vary by the land use type and the trip purpose. For example, a trip from a residence to a job may be longer than the trip from a residence to a school. The VMT values stated below represent the full length of a given trip, and are not truncated at city, county, or region boundaries.

Many factors affect travel behavior and trip lengths such as density of land use, diversity of land uses, design of the transportation network, distance to high-quality transit, and demographics. Low-density development separated from other land uses and located in areas with poor access to transit generates more automobile travel and higher VMT compared to development located in urban areas with more access to transit.

The MXD+ method was used to estimate the number of vehicle trips generated by the proposed project and project alternatives. Data from the 2013 California Household Travel Survey, which provides average trip lengths by trip purpose and geographic area, was used to calculate trip lengths for the various uses.

Existing VMT is approximately 44,065, with an average trip length of five miles.[124] The existing VMT per service population is 127.[125] Table 3.17-13 summarizes the total VMT estimates and VMT per service population for the proposed project and project alternatives. While the proposed project would generate the greatest total VMT, the Occupied/Re-Tenanted Mall Alternative would generate the highest VMT per service population. Therefore, the land uses proposed by the project are more efficient from a roadway system perspective than the land uses in the Occupied/Re-Tenanted Mall Alternative.

[124] Church, Franziska. Fehr & Peers. Personal communications. March 14, 2018.
[125] The existing number of employees on-site is 347. The existing jobs are estimated based on typical factors and no business-specific or on-site reconnaissance was completed. (Source: Sigman, Ben. Principal, Economic & Planning Systems, Inc. Personal communications. May 21, 2018.)

Table 3.17-13: Project and Project Alternative Vehicle Miles Traveled Estimates			
	Total VMT	**Average Trip Length**	**VMT Per Service Population**
Proposed Project	330,220	8.98	30.0
General Plan Buildout with Maximum Residential Alternative	294,407	8.79	27.6
Retail and Residential Alternative	156,110	5.59	16.6
Occupied/Re-Tenanted Mall Alternative	114,447	4.89	44.9
Note: A discussion of the Occupied/Re-Tenanted Mall Alternative is provided in the EIR for informational purposes only. This alternative is a permitted land use, and can be implemented without further discretionary approvals from the City or environmental review under CEQA. No mitigation measures or additional conditions of approval can be required.			

The regional average VMT per service population from the MTC and ABAG regional model for the Year 2020 and 2040 are 21.8 and 20.3, respectively. Current draft guidance for SB 743 recommends a VMT threshold of 15 percent below the regional average as a threshold of significance for CEQA purposes. This translates to thresholds of 15.5 (21.8 x 85%) and 17.3 (20.3 x 85%) for the years 2020 and 2040, respectively. The City of Cupertino has not adopted these regional thresholds, and may adopt different thresholds that would yield different results regarding VMT assessment.

The proposed project and project alternatives have VMT per service population estimates that are greater than the MTC and/or ABAG regional averages. The Retail and Residential Alternative provides the lowest VMT per service population compared to the project and other project alternatives.

It should be noted that a VMT analysis under the OPR's proposed November 2017 guidelines and the January 2018 California Natural Resources Agency's proposed rulemaking may not be required for the Vallco Special Area Specific Plan. MTC identifies the project site as part of a Transit Priority Area (TPA) (refer to Figure 3.1-1). The January 2018 California Natural Resource proposed rulemaking materials for amendments to the CEQA Guidelines state that, generally, projects within a TSP should be presumed to cause a less than significant transportation impact and in most cases would not require a transportation impact assessment or VMT analysis under CEQA (see proposed CEQA Guidelines Section 15064.3(b)(1); California Natural Resource. *Notice of Proposed Rulemaking*. January 26, 2018.)

Traffic and Parking Intrusion[126]

Project

Implementation of the proposed project or project alternatives has the potential to add traffic to residential streets in adjacent neighborhoods, especially because the project and project alternatives would add more traffic and congestion to the areas and vehicle drivers may seek alternate travel routes. In addition, if there is increased demand for the existing and project parking supply, overflow parking may encroach into adjacent neighborhoods. The main area identified for potential cut through traffic and parking intrusion is the neighborhood to the west, located north of Stevens Creek Boulevard, east of Blaney Avenue, and south of I-280. Further, parking intrusion could also occur in the residential neighborhoods off of Miller Avenue just south of Stevens Creek Boulevard, although these neighborhoods do not contain obvious cut-through routes.

1. Traffic Intrusion – There is an existing masonry wall separating the neighborhood to the west from the project site that prohibits both vehicle traffic and pedestrians from directly traveling between the two. The wall would be retained as part of the proposed project and project alternatives. However, because the project (and project alternatives) would add more traffic and congestion in the area, some vehicles from areas north of I-280 may use the Blaney Avenue/Merritt Drive/Portal Avenue route to travel to and from the project site area. These roadways have houses fronting on them that would be affected by added traffic.

   Based on the trip distribution, approximately 19 AM peak hour and 26 PM peak hour vehicles are projected to use Blaney Avenue north of I-280 with the implementation of the proposed project. The General Plan Buildout with Maximum Residential Alternative is projected to add 15 AM peak hour and 23 PM peak hour vehicles to Blaney Avenue north of I-280. The Retail and Residential Alternative is projected to add 10 AM peak hour and 21 PM peak hour vehicles to Blaney Avenue north of I-280 and the Occupied/Re-Tenanted Mall Alternative is project to add five AM peak hour and 32 PM peak hour vehicles to Blaney Avenue north of I-280. With these assumptions, the amount of cut-through traffic in this neighborhood is expected to be negligible for the project and project and project alternatives; however, travel behavior related to neighborhood intrusion is hard to predict and the project (and General Plan Buildout with Maximum Residential Alternative and Retail and Residential Alternative) would be required as a Condition of Approval to include a traffic calming program to help address any issues that should arise. The Occupied/Re-Tenanted Mall Alternative is a permitted use and would not include a traffic calming program to address any neighborhood traffic intrusion.

   There is also potential for neighborhood traffic intrusion for the neighborhood in Sunnyvale north of Homestead Road between Sunnyvale-Saratoga Road and Lawrence Expressway (i.e., the Birdland Neighbors residential area and Ortega Park residential area). The intrusion could occur during peak commute times as Sunnyvale residents headed toward/from the project site area try to avoid congestion at the Sunnyvale-Saratoga Road/Homestead Road intersection and cut through the neighborhoods to access the project site via Blaney Road. Since the neighborhood is over a mile from the project site, it is difficult to determine if any

[126] Per SB 743, parking is not a CEQA impact.

cut-through in that neighborhood is the direct result of the project (or project alternatives). Nonetheless, the Specific Plan would be required as a Condition of Approval to include a traffic calming monitoring program to help assess any cut-through traffic in Sunnyvale as a result of the Proposed Project.

2. Parking Intrusion – Depending on the amount of parking provided on-site under the proposed project or project alternatives, the parking supply could be lower than the parking demand, which could result in overflow parking. The two potential locations for overflow parking are the neighborhood to the west of the Specific Plan area and the neighborhoods off Miller Avenue south of Stevens Creek Boulevard.

   Parking demand is anticipated to be lower with increased use of Transportation Network Companies (TNC) such as Uber and Lyft. TNCs reduce parking demand because one can easily travel to/from a destination without a car that needs to be parked. Further, one of the expected effects of autonomous (or driverless) vehicles being introduced into the vehicle fleet in the near future is a greater reduction in parking demand. These vehicles will likely increase passenger pick-up/drop-off activities and would not be parked during peak times.

   Given the uncertainty related to the parking supply for the project (and project alternative) and the anticipated changes in parking demand; there is potential for neighborhood parking intrusion. The project and project alternatives would be required as a Condition of Approval to include provisions for a residential permit parking program to manage neighborhood parking intrusion should it become an issue.

Condition of Approval: To ensure neighborhood cut-through traffic and parking intrusion are minimized, future development under the proposed project (or General Plan Buildout with Maximum Residential Alternative and Retail and Residential Alternative) shall fund neighborhood cut-through traffic monitoring studies and provide fees in the amount of $350,000 to the City of Cupertino and $150,000 to the City of Sunnyvale to monitor and implement traffic calming improvements and a residential parking permit program to minimize neighborhood cut-through traffic and parking intrusion, if determined to be needed by the City's Public Works Department. The details of the neighborhood parking and traffic intrusion monitoring program shall be determined when the conditions of approval for project development are established. The monitoring program shall include the following components: (1) identifying the monitoring areas (roadways where the monitoring would occur), (2) setting baseline conditions (number of parked vehicles and traffic volumes on the roadways), (3) determining thresholds for parking and traffic volume increases requiring action, (4) establishing the monitoring schedule, and (5) creating reporting protocols. The baseline conditions shall be established prior to but within one year of initial occupancy. Monitoring shall then occur annually for five years.

Implementation of the proposed project (and General Plan Buildout with Maximum Residential Alternative and Retail and Residential Alternative), with the above condition of approval, would not result in significant traffic or parking intrusion in the adjacent residential neighborhood. **(Less than Significant Impact)**

General Plan Buildout with Maximum Residential Alternative

The General Plan Buildout with Maximum Residential Alternative could result in similar traffic and parking intrusion as the proposed project. Implementation of the General Plan Buildout with Maximum Residential Alternative, with the above condition of approval, would not result in significant traffic or parking intrusion in the adjacent residential neighborhood. **(Less than Significant Impact)**

Retail and Residential Alternative

The Retail and Residential Alternative could result in similar traffic and parking intrusion as the proposed project. Implementation of the Retail and Residential Alternative, with the above condition of approval, would not result in significant traffic or parking intrusion in the adjacent residential neighborhood. **(Less than Significant Impact)**

Occupied/Re-Tenanted Mall Alternative

The Occupied/Re-Tenanted Mall Alternative could result in traffic and parking intrusion. However, no discretionary approvals are required for this alternative. This alternative is a permitted land use, can be implemented without further approvals from the City, and is not subject to further CEQA. No mitigation measures or conditions of approval can be required. **(Less than Significant Impact: Not a CEQA Impact)**

Impact TRN-2:	**Under background with project conditions, the project (and General Plan Buildout with Maximum Residential Alternative and Retail and Residential Alternative) would conflict with an applicable plan, ordinance, or policy establishing measures of effectiveness for the performance of the circulation system; and conflict with an applicable congestion management program, including standards established for designated roads or highways. (Significant and Unavoidable Impact with Mitigation Incorporated)**

This section presents the results of the level of service calculations under background conditions with and without the project. Background conditions are defined as future conditions prior to completion and occupancy of the proposed development (approximately year 2028). Traffic volumes for background conditions are based on existing volumes plus traffic generated by approved but not yet construction and/or occupied developments in the area. The complete list of approved projects (including a description of the development) can be found in Appendix H and includes the following major projects:

- Apple Park
- Bowers Avenue Office Campus
- Butcher's Corner
- City Place Santa Clara (Phases 1-3)
- Cityline
- Gateway Village
- Lawson Lane Office Campus
- Main Street Cupertino
- Marina Plaza
- NVIDIA
- Santa Clara Square
- Scott Boulevard Office Campus

- Hyatt House Hotel
- Lawrence Station Project
- The Gallery at Central Park
- The Hamptons

Background with project conditions are defined as background conditions plus traffic generated by buildout of the project (or project alternatives). Impacts to the roadway system are identified by comparing the level of service results under background with project conditions to those under background conditions (without the project).

Background Transportation Network

Roadway Network

Staff from the cities of Cupertino, Santa Clara, and Sunnyvale provided a list of transportation infrastructure improvements that are assumed to be completed under background conditions, including mitigation measures from approved projects. Existing intersection geometries were modified to include the following roadway and intersection improvements that are currently under construction, are fully funded, or are reasonably assumed to be constructed within the next 10 years:

3. Stevens Creek Boulevard/Stelling Road: The Stevens Creek Boulevard Class IV improvements would modify: (1) the eastbound approach to include one left-turn lane, two through lanes, and one designated right-turn lane, and (2) the westbound approach to include two left-turn lane, two through lanes and one designated right-turn lane.
8. De Anza Boulevard/Homestead Road: Add an exclusive southbound right-turn lane.
11. De Anza Boulevard/Stevens Creek Boulevard: The Stevens Creek Boulevard Class IV improvements would modify the eastbound and westbound approaches to include two left-turn lane, two through lanes and one designated right-turn lane.
21. Stevens Creek Boulevard/Perimeter Road: The Stevens Creek Boulevard Class IV improvements would modify the eastbound approach include one left-turn lane, two through lanes and one shared right-turn/through lane.
32. Wolfe Road-Miller Avenue/Stevens Creek Boulevard: The Stevens Creek Boulevard Class IV improvements would modify the eastbound and westbound approaches to include two left-turn lane, two through lanes and one designated right-turn lane, and modifying the pork-chop southbound right-turn lane to a squared southbound right-turn lane.
37. Stevens Creek Boulevard/Finch Avenue: The Stevens Creek Boulevard Class IV improvements would modify the eastbound approach include one left-turn lane, two through lanes and one designated right-turn lane.
50. Stevens Creek Boulevard/Lawrence Expressway Ramps (east): Modify northbound approach to include two left-turn lanes, one shared left-turn/through lane, one shared through/right-turn lane, and one right-turn lane.

Transit Network and Service

It is assumed that the transit network and service under background conditions would be the same as under existing conditions with the exception of the following:

- VTA will replace the Limited 323 with Rapid 523 bus service on the Stevens Creek corridor in mid-2018 to improve travel time, enhance passenger waiting areas, and to accommodate projected increases in ridership demand along the corridor. The service will connect the new Berryessa BART Station with the Lockheed Martin Transit Center.

Bicycle and Pedestrian Facilities

It is assumed that bicycle and pedestrian facilities under background conditions are the same as under existing conditions with the exception of the following:

- Stevens Creek Boulevard Class IV improvements – The City is in the final design stages of modifying the existing bike lanes on Stevens Creek Boulevard to be separated from the vehicle lane with concrete buffers between the Cupertino city limits west of Foothill Boulevard and Tantau Avenue. The outside through lanes on Stevens Creek Boulevard will be converted to right-turn-only lanes at several intersections along the corridor. The project will also include separate bicycle signal phasing at several intersections along the corridor.

Background with Project and Project Alternative Intersection Levels of Service

The results of the intersection level of service analysis under background conditions and background with project conditions are summarized in Table 3.17-15. The results for background conditions are included for comparison purposes in Table 3.17-15, along with the projected increases in critical delay and critical volume-to-capacity (V/C) ratios with implementation the project (and project alternatives). Critical delay represents the delay associated with the critical movements of the intersection, or the movements that require the more "green time" and have the greatest effect on overall intersection operations. Project (and project alternative) impacts are identified by comparing background (without project) conditions and background with project conditions. Significant impacts are identified based on the impact criteria discussed in Section 3.17.2.1, which includes changes in the LOS from an acceptable to an unacceptable level or changes in critical delay and critical V/C ratio for intersection operating unacceptably.

Based on applicable municipal and CMP significance criteria, 12 intersections would be significantly impacted by the project and/or project alternatives. These significant project and project alternative impacts are summarized in Table 3.17-14.

Project

As summarized in Table 3.17-14, implementation of the proposed project would result in a significant intersection level of service impacts under background with project conditions at the following 11 intersections:

11. De Anza Boulevard/Stevens Creek Boulevard (City of Cupertino) – PM peak hour;
12. De Anza Boulevard/McClellan Road (City of Cupertino) – PM peak hour;
31. Wolfe Road and Vallco Parkway (City of Cupertino) – PM peak hour;
32. Wolfe Road-Miller Avenue/Stevens Creek Boulevard (City of Cupertino)* – AM and PM peak hours;
42. Stevens Creek Boulevard/Tantau Avenue (City of Cupertino) – AM peak hour;
43. Stevens Creek Boulevard/Stern Avenue (City of Santa Clara) – AM and PM peak hours;
44. Stevens Creek Boulevard/Calvert Drive/I-280 Ramps (west) (City of Santa Clara)* – AM and PM peak hours;
45. Stevens Creek Boulevard/Agilent Driveway (City of Santa Clara) – AM peak hour;
48. Lawrence Expressway/Homestead Road (Santa Clara County)* – PM peak hour;
51. Lawrence Expressway/Calvert Drive-I-280 Southbound Ramp (City of San José)* – AM peak hour; and
53. Lawrence Expressway/Bollinger Road (Santa Clara County)* – AM and PM peak hours.

Mitigation Measures:

MM TRN-2.1: Implement MM TRN-1.1. The TDM program is expected to reduce the severity of intersection and freeway impacts, although not necessarily to a less than significant level. **(Significant and Unavoidable Impact with Mitigation Incorporated)**

Intersection 11, De Anza Boulevard/Stevens Creek Boulevard: In order to mitigate the impact identified at Intersection 11, De Anza Boulevard/Stevens Creek Boulevard, the eastbound and westbound approaches on Stevens Creek Boulevard would need to be widened to provide for three through lanes (for a total of two left-turn lanes, three through lanes, a right-turn lane, and a bike lane). This would be accomplished by widening Stevens Creek Boulevard for about 150 feet from the intersection to provide for the right-turn pocket in each direction. However, there are right-of-way constraints that limit the feasibility of the mitigation measure. The added right-turn lane would require an additional 10 to 11 feet of right-of-way in each direction. Further, this mitigation measure would increase the pedestrian crossing distance on an already very wide intersection and would likely have secondary effects on pedestrian travel at the De Anza Boulevard/Stevens Creek Boulevard intersection. Thus according to General Plan Policy M-3.4, which strives to preserve and enhance citywide pedestrian and bicycle connectivity by limiting street widening purely for automobiles to improve traffic flow, the this improvement is not feasible, and the impact is considered significant and unavoidable. **(Significant and Unavoidable Impact)**

MM TRN-2.2: Intersection 12, De Anza Boulevard/McClellan Road: Implement MM TRN-1.2. Implementation of MM TRN-1.2 would improve intersection the average intersection delay to better than background (without project or project alternative) conditions. However, because the TIF improvements are not fully funded and the timing of implementation is not known at this time, the impact is considered significant and unavoidable. **(Significant and Unavoidable Impact with Mitigation Incorporated)**

MM TRN-2.3: Intersection 31, Wolfe Road/Vallco Parkway: Provide an overlap phase for the westbound right-turn movement, which would provide for a green right-turn arrow while the southbound left-turn movement has its green phase. Southbound U-turns shall also be prohibited. Implementation of this mitigation measure would improve intersection level of service to an acceptable LOS D. **(Less than Significant Impact with Mitigation Incorporated)**

Mitigation measures that would change the roadway geometry or signal operations have potential secondary effects on pedestrian and bicycle travel. Pursuant to the VTA TIA Guidelines, since mitigation measure MM TRN-2.3 would change the signal operations, a pedestrian and bicycle QOS analysis was completed. The pedestrian QOS score is 3.5, both without and with mitigation measure MM TRN-2.3. As discussed in Section 3.17.2.1, a score of 3 denotes that walking is uninviting but possible at intersections and a score of 4 denotes a facility that is uncomfortable for most pedestrians due to high travel speeds and wide crossings at intersections. The bicycle QOS score is 3, both without and with mitigation measure MM TRN-2.3. Cyclists can cross the intersection with moderate level of comfort, although some conflicts might occur. At the northbound approach, through bicyclists and right-turn vehicles would conflict since there is no dedicated right-turn lane. The mitigation measure would not change roadway geometry, pedestrian facility, or bicycle facility; thus, the pedestrian and bicycle QOS scores remain the same without and with mitigation measure MM TRN-2.3.

Intersection 32, Wolfe Road-Miller Avenue/Stevens Creek Boulevard: In order to mitigate the impact at Intersection 32, Wolfe Road-Miller Avenue/Stevens Creek Boulevard, a second southbound left-turn lane on Wolfe Road and a third through lane on both the eastbound and westbound approaches on Stevens Creek Boulevard are required. There are right-of-way constraints that limit the feasibility of the mitigation measure. For the southbound approach on Wolfe Road, the additional left-turn lane would shift the southbound through lanes to the west by approximately 10 feet. With this shift the through lanes would no longer align with the receiving lanes on Miller Avenue. For Stevens Creek Boulevard, there is no right-of-way to accommodate additional through lanes with the implementation of the proposed Class IV bike lanes. Thus, according to General Plan Policy M-3.1 (Adopt and maintain Bicycle and Pedestrian Master Plan) and M-3.4 (Limit street widening purely for automobiles as a means of improving traffic flow), the proposed mitigation measure is not feasible and the impact is considered significant and unavoidable. **(Significant and Unavoidable Impact)**

MM TRN-2.4: Intersection 42, Stevens Creek Boulevard/Tantau Avenue: Provide a northbound left-turn lane (for a total of one left-turn lane and one shared through/right-turn lane). This would allow converting the phasing on the east-west approaches from

split phasing to protected left-turn phasing. This improvement is included in the City's TIF Program and would improve intersection operations to an acceptable LOS D. Future development under the proposed project (or General Plan Buildout with Maximum Residential Alternative or Retail and Residential Alternative) shall pay transportation mitigation fees as calculated pursuant to the TIF program to mitigate this impact. However, because the TIF improvements are not fully funding and the timing of implementation is not known at this time, the impact is considered significant and unavoidable. **(Significant and Unavoidable Impact with Mitigation Incorporated)**

Mitigation measures that would change the roadway geometry or signal operations have potential secondary effects on pedestrian and bicycle travel. Pursuant to the VTA TIA Guidelines, since mitigation measure MM TRN-2.4 would change the roadway geometry or signal operations a pedestrian and bicycle QOS analysis was completed. The pedestrian QOS score is 3.3, both without and with mitigation measure MM TRN-2.4. The mitigation would increase the crossing distance on Tantau Avenue from a two-lane to three-lane width which would result in a slight reduction of the level of comfort for walking, but this would not affect QOS score of the intersection. Mitigation measure MM TRN-2.4 would not change bicycle QOS score of 2.8, which denotes that cyclists can cross the intersection with moderate level of comfort. Adding a northbound left-turn lane does not affect cyclists travel on Tantau Avenue as the conflict is managed by the north-south protected left-turn phasing.

Intersection 43, Stevens Creek Boulevard/Stern Avenue: In order to mitigate the impact identified at Intersection 43, Stevens Creek Boulevard/Stern Avenue, three through lanes and a dedicated right-turn in both the eastbound and westbound directions on Stevens Creek Boulevard would be required. This improvement would reduce the impact from the project (and General Plan Buildout with Maximum Residential Alternative and Occupied/Re-Tenanted Mall Alternative) to a less than significant level. While intersection delay would improve under the proposed project with this improvement, the intersection would continue to operate unacceptably at LOS F and the impact would remain significant and unavoidable. Right-of-way constraints would limit the feasibility of this potential mitigation measure, however. Thus, the mitigation measure is not feasible and the impact to Intersection 43 is considered significant and unavoidable. See MM TRN-2.5 below. **(Significant and Unavoidable Impact)**

Intersection 44, Stevens Creek Boulevard/Calvert Drive: In order to mitigate the impact identified at Intersection 44, Stevens Creek Boulevard/Calvert Drive, a second eastbound right-turn lane from Stevens Creek Boulevard onto Calvert Drive would be required. The added right-turn lane would improve intersection operations to LOS E during the PM peak hour. During the AM peak hour, the intersection would continue to operate unacceptably with minimal reductions to the intersection delay. Right-of-way constraints would limit the feasibility of this potential mitigation measure, however. In addition, the double right-turn lanes would have secondary impacts on pedestrian travel, even with implementation of "no right-turn on red." Thus, the mitigation measure is not feasible and the impact to Intersection 43 is considered significant and unavoidable. See MM TRN-2.5 below. **(Significant and Unavoidable Impact)**

Intersection 45, Stevens Creek Boulevard/Agilent Driveway: In order to mitigate the impact identified at Intersection 45, Stevens Creek Boulevard/Agilent Driveway the westbound shared through/right-turn lane would need to be converted into a dedicated through lane and right-turn lane (for a total of one left-turn lane, four through lanes, and one right-turn lane on the westbound approach). Right-of-way constraints limit the feasibility of this mitigation measure, however. Thus, the mitigation measure is not feasible and the impact is considered significant and unavoidable. See MM TRN-2.5 below. **(Significant and Unavoidable Impact)**

MM TRN-2.5: Intersections 43-45, Contribute a fair-share to a traffic signal timing study and implementation of the revised timings on Stevens Creek Boulevard at Stern Avenue, Calvert Drive, and Agilent Driveway. The project (and General Plan Buildout with Maximum Residential Alternative and Retail and Residential Alternative) impacts would likely improve with modifications to the signal timings as traffic volumes change, but the impact is concluded to be significant and unavoidable because the effectiveness of the improvement would be determined through the signal timing study and because the intersection is under the jurisdiction of another agency and the City cannot guarantee the implementation of the signal timing study. **(Significant and Unavoidable Impact with Mitigation Incorporated)**

MM TRN-2.6: Intersection 48, Lawrence Expressway/Homestead Road: Pay a fair-share contribution to the near-term improvement identified in the Santa Clara County's Expressway Plan 2040 Study for this intersection. The Expressway Plan 2040 Study identifies a near-term improvement of an additional eastbound through lane on Homestead Road. With this improvement, intersection operations would improve, but the intersection would continue to operate at LOS F with delays greater than under background conditions.

The ultimate improvement identified by the County's Expressway Plan 2040 is to grade-separate the intersection. That is a long-term improvement, however, which would not be implemented within the next 10 years. Therefore, the impact is considered significant and unavoidable. **(Significant and Unavoidable Impact with Mitigation Incorporated)**

Mitigation measures that would change the roadway geometry or signal operations have potential secondary effects on pedestrian and bicycle travel. Pursuant to the VTA TIA Guidelines, since mitigation measure MM TRN-2.6 would change the roadway geometry or signal operations a pedestrian and bicycle QOS analysis was completed. The pedestrian QOS score is 4, both without and with mitigation measure MM TRN-2.6. The Lawrence Expressway/Homestead Road intersection has long crossing distance of over six-lanes wide on all approaches which causes inconvenience for pedestrians with low walking speed. The mitigation measure would further increase the distance for pedestrians crossing Homestead Road, thought the QOS score would remain at 4, the lowest QOS score. The bicycle QOS score is 4, both without and with mitigation measure MM TRN-2.6. The intersection has right-turn slip lanes at all four approaches, but only the eastbound approach has clearly delineated bike lanes for through bicyclists, so conflicts could occur between the right-turn vehicles and through bicycles on the remaining three approaches.

MM TRN-2.7: Intersection 51, Lawrence Expressway/Calvert Drive-I-280 Southbound Ramp: Improvements to mitigate the impact would include providing a fourth northbound through lane (for a total of four through lanes and one right-turn lane). This would require four receiving lanes north of Calvert Drive-I-280 Southbound Ramps. With this improvement, the intersection would operate at acceptable LOS E or better. The widening of Lawrence Expressway from three to four lanes in each direction between Moorpark Avenue to south of Calvert Drive is included in the VTP 2040 as a constrained project (VTP 2040 Project# X10). The VTP 2040 does not include widening of Lawrence Expressway at or north of Calvert Drive, however. The fourth northbound through lane on Lawrence Expressway could potentially be provided with an added receiving lane that would connect directly to the off-ramp to Lawrence Expressway (also known as "trap" lane) just north of the I-280 overcrossing. The City shall coordinate with the County of Santa Clara to and Caltrans to determine if a fourth through lane could be provided. Future development under the proposed project shall be required to pay a fair-share contribution if the improvement is feasible. The impact would remain significant and unavoidable because the feasibility of the improvement is yet to be determined, and because the intersection is within the responsibility and jurisdiction of another agency and the City cannot guarantee the improvement would be constructed concurrent with the proposed project. **(Significant and Unavoidable Impact with Mitigation Incorporated)**

Mitigation measures that would change the roadway geometry or signal operations have potential secondary effects on pedestrian and bicycle travel. Pursuant to the VTA TIA Guidelines, since mitigation measure MM TRN-2.7 would change the roadway geometry or signal operations have potential secondary effects on pedestrian and bicycle travel. Mitigation measures are evaluated to determine their effects on the QOS for bicyclists and pedestrians. The pedestrian QOS score was not calculated for mitigation measure MM TRN-2.7 because there are no pedestrian facilities at this intersection. The bicycle QOS score is 4, both without and with mitigation measure MM TRN-2.7, denoting that most cyclists would find it uncomfortable navigating through the intersection. The main reason of discomfort is that, the right-turn slip lanes on Lawrence Expressway allow high-speed right-turn for vehicles. However, mitigation measure MM TRN-2.7 would not further degrade bicycle QOS.

MM TRN-2.8: Intersection 53, Lawrence Expressway/Bollinger Road: Improvements to mitigate the project's (and General Plan Buildout with Maximum Residential Alternative) impact would include providing a fourth northbound through lane (for the PM peak hour impact) and fourth southbound through lane (for the AM peak hour impact). The widening of Lawrence Expressway from three to four lanes in each direction between Moorpark Avenue to south of Calvert Drive is included in the VTP 2040 as a constrained project (VTP 2040 Project# X10). This VTA project also includes the provision of an additional westbound through lane on Moorpark Avenue.

Assuming that both the northbound and southbound approaches would be modified to accommodate four through lanes, the intersection would operate at or

better than acceptable LOS E under the project and all project alternatives during the AM and PM peak hours. Future development under the proposed project (and General Plan Buildout with Maximum Residential Alternative) shall be required to pay a fair-share to VTP Project# X10. The impact would remain significant and unavoidable, however, because the intersection is within the responsibility and jurisdiction of another agency and the City cannot guarantee the improvement would be constructed concurrent with the proposed project. **(Significant and Unavoidable Impact with Mitigation Incorporated)**

Mitigation measures that would change the roadway geometry or signal operations have potential secondary effects on pedestrian and bicycle travel. Pursuant to the VTA TIA Guidelines, since mitigation measure MM TRN-2.8 would change the roadway geometry or signal operations a pedestrian and bicycle QOS analysis was completed. The pedestrian QOS score is 4, both without and with mitigation measure MM TRN-2.8. The Lawrence Expressway/Bollinger Road intersection has long crossing distance of over six-lanes wide on all approaches which causes inconvenience for pedestrians with low walking speed. Mitigation measure MM TRN-2.8 would further increase the distance for pedestrians crossing Lawrence Expressway, though the QOS score would remain at 4, the lowest QOS score. The bicycle QOS score is 4, both without and with mitigation measure MM TRN-2.8, denoting that most cyclists would find it uncomfortable navigating through the intersection. The main reason of discomfort is that, the right-turn slip lanes on Lawrence Expressway allow high-speed right-turn for vehicles. However, mitigation measure MM TRN-2.8 would not further degrade bicycle QOS.

General Plan Buildout with Maximum Residential Alternative

As summarized in Table 3.17-14, implementation of the General Plan Buildout with Maximum Residential Alternative would result in a significant intersection level of service impacts under background with project conditions at the following six intersections:

12. De Anza Boulevard/McClellan Road (City of Cupertino) – PM peak hour;
32. Wolfe Road-Miller Avenue/Stevens Creek Boulevard (City of Cupertino)* – AM and PM peak hours;
43. Stevens Creek Boulevard/Stern Avenue (City of Santa Clara) – AM and PM peak hours;
44. Stevens Creek Boulevard/Calvert Drive/I-280 Ramps (west) (City of Santa Clara)* – AM and PM peak hours;
45. Stevens Creek Boulevard/Agilent Driveway (City of Santa Clara) – AM peak hour;
48. Lawrence Expressway/Homestead Road (Santa Clara County)* – PM peak hour; and
53. Lawrence Expressway/Bollinger Road (Santa Clara County)* – PM peak hours.

See Impact TRN-2 and MM TRN-2.1, -2.2, -2.5, -2.6, and -2.8 above. **(Significant and Unavoidable Impact with Mitigation Incorporated)**

Retail and Residential Alternative

As summarized in Table 3.17-14, implementation of the Retail and Residential Alternative would result in a significant intersection level of service impacts under background with project conditions at the following four intersections:

12. De Anza Boulevard/McClellan Road (City of Cupertino) – PM peak hour;
32. Wolfe Road-Miller Avenue/Stevens Creek Boulevard (City of Cupertino)* – AM and PM peak hours;
43. Stevens Creek Boulevard/Stern Avenue (City of Santa Clara) – AM and PM peak hours;
44. Stevens Creek Boulevard/Calvert Drive/I-280 Ramps (west) (City of Santa Clara)* – AM and PM peak hours; and
48. Lawrence Expressway/Homestead Road (Santa Clara County)* – PM peak hour.

See Impact TRN-2 and MM TRN-2.1, -2.2, -2.5, and -2.6 above. **(Significant and Unavoidable Impact with Mitigation Incorporated)**

Occupied/Re-Tenanted Mall Alternative

As summarized in Table 3.17-14, implementation of the occupied/re-tenanted mall alternative would result in a significant intersection level of service impacts under background with project conditions at the following five intersections:

12. De Anza Boulevard/McClellan Road (City of Cupertino) – PM peak hour;
32. Wolfe Road-Miller Avenue/Stevens Creek Boulevard (City of Cupertino)* – PM peak hour;
43. Stevens Creek Boulevard/Stern Avenue (City of Santa Clara) – PM peak hour;
44. Stevens Creek Boulevard/Calvert Drive/I-280 Ramps (west) (City of Santa Clara)* –PM peak hour;
48. Lawrence Expressway/Homestead Road (Santa Clara County)* – PM peak hour; and
53. Lawrence Expressway/Bollinger Road (Santa Clara County)* – PM peak hour.

While the implementation of the Occupied/Re-Tenanted Mall Alternative would result in significant intersection level of service impacts, a discussion of this alternative is provided in the EIR for informational purposes only. This alternative is a permitted land use, and can be implemented without further discretionary approvals from the City or environmental review under CEQA. No mitigation measures or additional conditions of approval can be required. **(Significant and Unavoidable Impact: Not a CEQA Impact)**

Table 3.17-14: Summary of Background with Project and Project Alternative Significant Intersection Levels of Service Impacts						
	Study Intersection – Jurisdiction	**Peak Hour**	**Proposed Project**	**General Plan Buildout with Maximum Residential Alternative**	**Retail and Residential Alternative**	**Occupied/Re-Tenanted Mall Alternative**
11.	De Anza Boulevard/Stevens Creek Boulevard – City of Cupertino	AM PM	- ■	- -	- -	- -
12.	De Anza Boulevard/McClellan Road/Pacifica Drive – City of Cupertino	AM PM	- ■	- ■	- -	- -
31.	Wolfe Road/Vallco Parkway – City of Cupertino	AM PM	- ■	- -	- -	- -
32.	Wolfe Road-Miller Avenue/Stevens Creek Boulevard* – City of Cupertino	AM PM	■ ■	■ ■	■ ■	- ■
42.	Stevens Creek Boulevard/Tantau Avenue – City of Cupertino	AM PM	■ -	- -	- -	- -
43.	Stevens Creek Boulevard/Stern Avenue – City of Santa Clara	AM PM	■ ■	■ ■	■ ■	- ■
44.	Stevens Creek Boulevard/Calvert Drive/I-280 Ramps (west)* – City of Santa Clara	AM PM	■ ■	■ ■	■ ■	- ■
45.	Stevens Creek Boulevard/Agilent Driveway – City of Santa Clara	AM PM	■ -	■ -	- -	- -
48.	Lawrence Expressway/Homestead Road* – Santa Clara County	AM PM	- ■	- ■	- ■	- ■
51.	Lawrence Expressway/Calvert Drive-I-280 Southbound Ramp* – City of San José	AM PM	■ -	- -	- -	- -
53.	Lawrence Expressway/Bollinger Road* – Santa Clara County	AM PM	■ ■	- ■	- -	- ■

Notes: Refer to Table 3.17-15 for the delays, LOS results, and changes in critical V/C ratio and delay. * denotes CMP intersection; LOS = level of service; AM = morning peak hour; PM = evening peak hour; - = no significant project (or project alternative) impact; ■ = significant project (or project alternative) impact. The impacts of the Occupied/Re-Tenanted Mall Alternative is described in this EIR for informational purposes only.

Table 3.17-15: Background and Background with Project and Project Alternatives Condition Intersection Levels of Service

	Study Intersection - Jurisdiction	LOS Threshold	Peak Hour	Background		Background with Project				Background with General Plan Buildout with Maximum Residential Alternative				Background with Retail and Residential Alternative				Background with Occupied/Re-Tenanted Mall Alternative			
				Delay	LOS	Delay	LOS	Change in Crit. V/C	Change in Crit. Delay	Delay	LOS	Change in Crit. V/C	Change in Crit. Delay	Delay	LOS	Change in Crit. V/C	Change in Crit. Delay	Delay	LOS	Change in Crit. V/C	Change in Crit. Delay
1.	Stevens Creek Boulevard/SR 85 Ramps (west)* – City of Cupertino	D	AM	22.0	C+	22	C+	0.005	-0.1	21.8	C+	0.009	-0.2	21.7	C+	0.012	-0.3	22.0	C+	0.001	0.0
			PM	32.1	C-	32.1	C-	0.005	-0.1	32.1	C-	0.007	-0.2	32.1	C-	0.008	-0.2	32.1	C-	0.008	-0.2
2.	Stevens Creek Boulevard/SR 85 Ramps (east)* – City of Cupertino	D	AM	47.7	D	48.9	D	0.017	6.5	50.6	D	0.026	9.9	52.0	D-	0.032	12.3	47.8	D	0.001	0.5
			PM	23.2	C	23.3	C	0.057	3.2	22.8	C+	0.039	2.0	22.6	C+	0.024	1.1	22.7	C+	0.012	0.5
3.	Stevens Creek Boulevard/Stelling Road* – City of Cupertino	E+	AM	38.6	D+	39.2	D	0.026	1.3	38.9	D+	0.030	1.1	38.8	D+	0.031	0.9	38.6	D+	0.004	0.2
			PM	48.5	D	51.1	D-	0.053	5.6	50.8	D	0.043	4.4	50.8	D	0.035	3.6	50.8	D	0.036	4.0
4.	Sunnyvale-Saratoga Road/Remington Drive* – City of Sunnyvale	E	AM	55.7	E+	56.2	E+	0.004	0.7	56.7	E+	0.007	1.3	57.0	E+	0.008	1.7	56.1	E+	0.001	0.2
			PM	47.4	D	48.5	D	0.015	2.0	48.6	D	0.016	2.0	48.7	D	0.018	2.2	50.4	D	0.031	4.9
5.	Sunnyvale-Saratoga Road/Fremont Avenue* – City of Sunnyvale	E	AM	53.2	D-	54	D-	0.007	1.3	54.0	D-	0.009	1.3	53.8	D-	0.008	1.0	53.5	D-	0.003	0.4
			PM	50.7	D	51.9	D-	0.014	2.0	51.7	D-	0.013	1.6	51.6	D-	0.012	1.4	52.5	D-	0.021	2.7
6.	Sunnyvale-Saratoga Road/Cheyenne Drive – City of Sunnyvale	E	AM	11.1	B+	11	B+	0.003	0.0	11.0	B+	0.005	0.0	11.1	B+	0.006	0.0	11.1	B+	0.001	0.0
			PM	9.4	A	9.4	A	0.008	0.0	9.4	A	0.008	0.0	9.4	A	0.010	0.0	9.4	A	0.014	0.1
7.	Sunnyvale-Saratoga Road/Alberta Avenue – City of Sunnyvale	E	AM	20	B-	19.9	B-	0.003	0.0	19.9	B-	0.005	0.0	20.0	B-	0.006	0.0	20.0	B-	0.001	0.0
			PM	23	C+	22.8	C+	0.008	0.0	22.8	C+	0.008	0.0	22.8	C+	0.010	0.0	22.8	C+	0.014	-0.1
8.	De Anza Boulevard/Homestead Road* – City of Cupertino	D	AM	44.6	D	47.6	D	0.023	5.5	47.2	D	0.018	3.9	46.3	D	0.010	1.8	45.1	D	0.003	0.7
			PM	48.3	D	51	D-	0.016	3.4	50.9	D	0.015	3.3	51.1	D-	0.016	3.4	52.0	D-	0.022	4.6
9.	De Anza Boulevard/I-280 Ramps (north)* – City of Cupertino	D	AM	19.3	B-	19.7	B-	0.008	0.7	19.9	B-	0.013	1.1	20.1	C+	0.017	1.5	19.3	B-	0.000	0.0
			PM	32.1	C-	35.5	D+	0.033	5.4	34.4	C-	0.024	3.6	33.6	C-	0.018	2.4	32.9	C-	0.013	1.5
10.	De Anza Boulevard/I-280 Ramps (south)* – City of Cupertino	D	AM	27.6	C	28.7	C	0.022	1.0	28.4	C	0.014	0.6	28.1	C	0.006	0.3	27.7	C	0.001	0.0
			PM	20.9	C+	21.5	C+	0.009	0.7	21.6	C+	0.012	1.0	21.7	C+	0.015	1.3	21.2	C+	0.006	0.5
11.	De Anza Boulevard/Stevens Creek Boulevard* – City of Cupertino	E+	AM	38.4	D+	42.6	D+	0.058	7.0	42.3	D	0.060	7.3	42.0	D	0.056	6.7	38.8	D+	0.007	0.8
			PM	46.2	D	**64.2**	**E**	**0.112**	**28.4**	58.2	E+	0.081	18.7	53.9	D-	0.057	11.6	54.4	D-	0.058	12.1
12.	De Anza Boulevard/McClellan Road/Pacifica Drive – City of Cupertino	D	AM	36.2	D+	36.6	D+	0.048	0.9	36.4	D+	0.027	0.4	36.3	D+	0.003	0.0	36.2	D+	0.002	0.0
			PM	**71.4**	**E**	**78.0**	**E-**	**0.036**	**9.6**	**74.9**	**E**	**0.021**	**5.3**	**72.4**	**E**	**0.008**	**1.9**	**73.1**	**E**	**0.013**	**3.1**
13.	De Anza Boulevard/Bollinger Road* – City of Cupertino	E+	AM	37.9	D+	43.7	D	0.051	7.9	40.4	D	0.028	3.7	37.9	D+	0.003	0.3	38.0	D+	0.002	0.3
			PM	24.6	C	24	C	0.016	-0.1	24.3	C	0.014	0.0	24.6	C	0.013	0.0	24.5	C	0.018	0.0
14.	De Anza Boulevard/SR 85 Ramps (north) * – City of Cupertino	D	AM	24.3	C	27	C	0.065	1.7	25.8	C	0.040	1.0	24.5	C	0.012	0.1	24.4	C	0.002	0.0
			PM	15.7	B	18.1	B-	0.062	3.2	17.4	B	0.041	2.1	16.9	B	0.023	1.6	16.7	B	0.026	1.4
15.	De Anza Boulevard/SR 85 Ramps (south) * – City of Cupertino	D	AM	12.6	B	13	B	0.024	0.4	13.0	B	0.020	0.4	13.0	B	0.012	0.4	12.6	B	0.002	0.0
			PM	15.3	B	16.4	B	0.066	1.5	15.9	B	0.039	0.9	15.5	B	0.015	0.3	15.5	B	0.021	0.2
16.	Saratoga-Sunnyvale Road/Prospect Road – City of Cupertino	D	AM	19.1	B-	19.2	B-	0.016	0.2	19.2	B-	0.009	0.1	19.1	B-	0.001	0.0	19.1	B-	0.001	0.0
			PM	27.7	C	27.5	C	0.014	-0.1	27.6	C	0.009	-0.1	27.7	C	0.005	0.0	27.6	C	0.011	0.0
17.	Stevens Creek Boulevard/Torre Avenue – City of Cupertino	D	AM	21.2	C+	22.4	C+	0.068	10.9	19.9	B-	0.039	-1.0	19.9	B-	0.044	-1.1	21	C+	0.005	-0.1
			PM	22.1	C+	21.2	C+	0.043	-0.3	21.3	C+	0.048	-0.3	21.4	C+	0.055	-0.3	21.4	C+	0.049	-0.3
18.	Homestead Road/Blaney Avenue – City of Cupertino	D	AM	23.8	C	23.9	C	0.017	0.1	23.9	C	0.013	0.1	23.9	C	0.008	0.2	23.9	C	0.003	0.0
			PM	25.5	C	26.2	C	0.011	0.4	26.1	C	0.012	0.5	26.1	C	0.014	0.6	26.5	C	0.017	0.7
19.	Stevens Creek Boulevard/Blaney Avenue – City of Cupertino	D	AM	34.3	C-	34.5	C-	0.047	1.6	34.3	C-	0.050	1.2	34.4	C-	0.048	0.6	34.3	C-	0.007	0.2
			PM	33.2	C-	34.1	C-	0.063	2.4	33.9	C-	0.062	2.0	34.0	C-	0.066	1.9	34.4	C-	0.069	2.7
20.	Stevens Creek Boulevard/Portal Avenue – City of Cupertino	D	AM	20.2	C+	18.4	B-	0.029	-0.8	18.5	B-	0.038	-1.0	18.9	B-	0.043	-1.2	19.9	B-	0.005	-0.2
			PM	12.4	B	11.5	B+	0.045	-0.2	11.7	B+	0.049	-0.2	11.9	B+	0.056	-0.2	11.9	B+	0.051	-0.2
21.	Stevens Creek Boulevard/Perimeter Road – City of Cupertino	D	AM	9.5	A	31.4	C	0.344	33.7	27.9	C	0.259	27	21.6	C+	0.146	15.5	11.3	B+	0.024	2.6
			PM	14.2	B	34.3	C-	0.233	18.7	29.3	C	0.149	12.2	25.3	C	0.083	6.5	27.2	C	0.111	9.1
22.	Wolfe Road/El Camino Real* – City of Sunnyvale	E	AM	51.7	D-	52.3	D-	0.030	2.4	52.1	D-	0.029	1.5	51.9	D-	0.026	0.5	51.7	D-	0.004	0.2
			PM	52.0	D-	53.5	D-	0.031	2.6	53.6	D-	0.035	2.8	53.8	D-	0.040	3.1	53.8	D-	0.040	3.4
23.	Wolfe Road/Fremont Avenue – City of Sunnyvale	D	AM	52.7	D-	53.1	D-	0.029	0.2	53.1	D-	0.026	0.5	53.0	D-	0.020	0.7	52.8	D-	0.006	0.2
			PM	52.0	D-	53.8	D-	0.028	1.9	53.8	D-	0.031	1.8	54.0	D-	0.037	1.8	54.5	D-	0.040	2.8

Table 3.17-15: Background and Background with Project and Project Alternatives Condition Intersection Levels of Service

Study Intersection - Jurisdiction	LOS Threshold	Peak Hour	Background		Background with Project				Background with General Plan Buildout with Maximum Residential Alternative				Background with Retail and Residential Alternative				Background with Occupied/Re-Tenanted Mall Alternative			
			Delay	LOS	Delay	LOS	Change in Crit. V/C	Change in Crit. Delay	Delay	LOS	Change in Crit. V/C	Change in Crit. Delay	Delay	LOS	Change in Crit. V/C	Change in Crit. Delay	Delay	LOS	Change in Crit. V/C	Change in Crit. Delay
24. Wolfe Road/Marion Way – City of Sunnyvale	D	AM	15.0	B	15.3	B	0.019	0.6	15	B	0.028	0.1	14.7	B	0.034	-0.3	15.0	B	0.004	0.0
		PM	18.2	B-	18.2	B-	0.047	-0.5	18.1	B-	0.042	-0.4	18.1	B-	0.040	-0.4	18.1	B-	0.048	-0.4
25. Wolfe Road/Inverness Way – City of Sunnyvale	D	AM	17.4	B	17.2	B	0.014	-0.2	17.1	B	0.026	-0.3	16.9	B	0.034	-0.4	17.3	B	0.004	0.0
		PM	22.2	C+	22.2	C+	0.033	0.3	22	C+	0.039	0.2	21.9	C+	0.047	0.1	22.0	C+	0.045	0.2
26. Wolfe Road/Homestead Road – City of Cupertino	D	AM	36.6	D+	37.8	D+	0.046	4.0	37.7	D+	0.044	2.9	37.5	D+	0.035	1.4	36.8	D+	0.004	0.0
		PM	48.1	D	49.8	D	0.043	0.5	49.7	D	0.045	0.3	49.7	D	0.049	0.3	50.0	D	0.053	0.9
27. Wolfe Road/Apple Park – City of Cupertino	D	AM	19.3	B-	18.7	B-	0.015	-0.1	18.8	B-	0.025	-0.2	19.0	B-	0.032	-0.2	19.2	B-	0.004	0.0
		PM	33.0	C-	33.1	C-	0.029	0.1	33	C-	0.036	0.1	32.9	C-	0.044	0.2	33.0	C-	0.044	0.2
28. Wolfe Road/Pruneridge Avenue – City of Cupertino	D	AM	28.1	C	27.8	C	0.009	-0.2	27.6	C	0.015	-0.4	27.5	C	0.019	-0.5	28.0	C	0.002	-0.1
		PM	20.2	C+	20.2	C+	0.031	0.8	20.4	C+	0.037	1.0	20.6	C+	0.046	1.3	20.5	C+	0.046	1.3
29. Wolfe Road/I-280 Ramps (north) * – City of Cupertino	D	AM	16.8	B	18.6	B-	0.013	0.3	17.9	B	0.027	0.8	17.6	B	0.035	1.1	16.9	B	0.004	0.1
		PM	19.0	B-	26.2	C	0.048	7.7	28.9	C	0.057	9.9	32.1	C-	0.078	15.3	30.9	C	0.072	13.6
30. Wolfe Road/I-280 Ramps (south) * – City of Cupertino	D	AM	19.0	B-	22.3	C+	0.052	6.1	25.5	C	0.083	11.9	29.4	C	0.105	17.2	19.3	B-	0.008	0.7
		PM	9.8	A	13.2	B	0.229	6.6	12.5	B	0.195	5.3	12.3	B	0.174	4.8	10.7	B+	0.123	2.1
31. Wolfe Road/Vallco Parkway – City of Cupertino	D	AM	24.6	C	31.5	C	0.248	9.5	32.1	C-	0.238	9.6	31.7	C	0.202	8.3	25.1	C	0.027	0.7
		PM	36.6	D+	**66.8**	**E**	**0.370**	**49.2**	54.2	D-	0.291	31.9	48.0	D	0.236	24.4	48.2	D	0.227	23.3
32. Wolfe Road-Miller Avenue/Stevens Creek Boulevard* – City of Cupertino	D	AM	50.5	D	**65.7**	**E**	**0.111**	**26.9**	**62.4**	**E**	**0.092**	**21.5**	**58.1**	**E+**	**0.063**	**13.8**	51.6	D-	0.010	1.9
		PM	52.3	D-	**71.0**	**E**	**0.121**	**36.1**	**64.1**	**E**	**0.083**	**23.0**	**59.6**	**E+**	**0.051**	**13.6**	**62.6**	**E**	**0.064**	**17.4**
33. Miller Avenue/Calle de Barcelona – City of Cupertino	D	AM	7.2	A	7.1	A	0.029	-0.1	7.2	A	0.017	0.0	7.2	A	0.003	0.0	7.2	A	0.004	0.0
		PM	2.9	A	2.8	A	0.035	0.0	2.8	A	0.023	0.0	2.8	A	0.014	0.0	2.8	A	0.032	0.0
34. Miller Avenue/Phil Lane – City of Cupertino	D	AM	5.2	A	5.4	A	0.033	0.3	5.3	A	0.020	0.2	5.2	A	0.004	0.0	5.2	A	0.004	0.0
		PM	4.0	A	4.1	A	0.032	0.1	4.1	A	0.021	0.0	4.1	A	0.013	0.0	4.1	A	0.029	0.1
35. Miller Avenue/Bollinger Road – City of San José	D	AM	38.5	D+	39.6	D	0.034	1.5	39.2	D	0.020	0.9	38.7	D+	0.005	0.3	38.7	D+	0.005	0.2
		PM	45.2	D	46.3	D	0.025	1.9	46	D	0.018	1.4	45.9	D	0.015	1.1	46.9	D	0.035	2.8
36. Miller Avenue/Rainbow Drive – City of San José	D	AM	26.5	C	27.9	C	0.016	2.6	27.3	C	0.011	1.6	26.7	C	0.003	0.4	26.8	C	0.004	0.6
		PM	21.9	C+	21.9	C+	0.026	0.2	21.8	C+	0.019	0.1	21.8	C+	0.016	0.1	21.7	C+	0.036	0.3
37. Stevens Creek Boulevard/ Finch Avenue – City of Cupertino	D	AM	28.7	C	28.2	C	0.019	-0.2	28.2	C	0.023	-0.3	28.4	C	0.024	-0.3	28.6	C	0.004	-0.1
		PM	22.5	C+	22.4	C+	0.079	0.5	22.3	C+	0.053	0.2	22.2	C+	0.033	0.1	22.2	C+	0.049	0.2
38. Tantau Avenue/Homestead Road – City of Cupertino	D	AM	40.1	D	40.8	D	0.011	0.0	40.6	D	0.007	0.0	40.3	D	0.003	0.0	40.2	D	0.001	0.0
		PM	52.2	D-	54.0	D-	0.022	3.7	53.9	D-	0.020	3.5	54.0	D-	0.020	3.6	54.2	D-	0.022	3.9
39. Tantau Avenue/Pruneridge Avenue – City of Cupertino	D	AM	22.8	C+	23.2	C	0.040	0.9	23	C+	0.008	5.7	22.6	C+	-0.001	5.6	22.8	C+	0.004	0.1
		PM	23.4	C	23.6	C	0.031	0.0	23.8	C	0.023	0.0	24.1	C	0.018	0.0	23.9	C	0.020	0.0
40. N Tantau Ave/Apple Parkway – City of Cupertino	D	AM	23.5	C	23.4	C	0.014	-0.1	23.4	C	0.021	-0.1	23.4	C	0.025	-0.1	23.5	C	0.003	0.0
		PM	27.2	C	28.7	C	0.053	4.5	28.1	C	0.039	3.0	27.8	C	0.029	2.2	28.0	C	0.035	2.7
41. Tantau Avenue/Vallco Parkway – City of Cupertino	D	AM	24.5	C	28.1	C	0.091	13.8	26.4	C	0.011	0.8	25.8	C	0.013	1.0	24.8	C	0.002	0.1
		PM	28.8	C	34.9	C-	0.167	8.6	33.7	C-	0.139	7.0	32.9	C-	0.123	6.0	34.3	C-	0.152	8.1
42. Stevens Creek Boulevard/Tantau Avenue – City of Cupertino	D	AM	48.6	D	**58.1**	**E+**	**0.108**	**25.4**	53.5	D-	0.065	13.7	49.4	D	0.016	3.0	49.1	D	0.008	1.5
		PM	45.9	D	49.6	D	0.116	6.1	48.1	D	0.081	3.8	47.2	D	0.053	2.4	48.5	D	0.083	4.4
43. Stevens Creek Boulevard/Stern Avenue – City of Santa Clara	D	AM	**92.3**	**F**	**135.5**	**F**	**0.067**	**59.9**	**117.6**	**F**	**0.041**	**36.5**	**98.2**	**F**	**0.011**	**10.0**	**95.2**	**F**	**0.005**	**4.2**
		PM	**81.9**	**F**	**130.5**	**F**	**0.075**	**73.2**	**113.5**	**F**	**0.051**	**49.2**	**100.6**	**F**	**0.032**	**30.9**	**108.9**	**F**	**0.045**	**43.5**
44. Stevens Creek Boulevard/Calvert Drive/I-280 Ramps (west)* – City of Santa Clara	E	AM	**121.6**	**F**	**167.0**	**F**	**0.060**	**60.5**	**148.3**	**F**	**0.037**	**36.7**	**128.1**	**F**	**0.010**	**10.0**	**124.6**	**F**	**0.004**	**4.2**
		PM	**82.6**	**F**	**118.8**	**F**	**0.122**	**46.5**	**105.8**	**F**	**0.076**	**27.7**	**96.4**	**F**	**0.039**	**13.5**	**102.6**	**F**	**0.061**	**21.7**
45. Stevens Creek Boulevard/Agilent Driveway – City of Santa Clara	D	AM	**92.6**	**F**	**125.3**	**F**	**0.050**	**40.3**	**112.0**	**F**	**0.030**	**24.6**	**97.3**	**F**	**0.008**	**6.7**	**95.0**	**F**	**0.004**	**3.0**
		PM	25.6	C	26.6	C	0.023	0.7	26.5	C	0.024	0.8	26.4	C	0.027	0.9	26.6	C	0.030	1.0
46. Stevens Creek Boulevard/Lawrence Expressway Ramps (west)* – Santa Clara County	E	AM	47.1	D	69.6	E	0.080	28.8	60.1	E	0.050	17.1	50.4	D	0.015	4.8	48.5	D	0.006	1.8
		PM	25.6	C	26.2	C	0.040	1.0	26.3	C	0.043	1.2	26.5	C	0.050	1.4	26.2	C	0.051	1.3

Table 3.17-15: Background and Background with Project and Project Alternatives Condition Intersection Levels of Service

Study Intersection - Jurisdiction		LOS Threshold	Peak Hour	Background		Background with Project				Background with General Plan Buildout with Maximum Residential Alternative				Background with Retail and Residential Alternative				Background with Occupied/Re-Tenanted Mall Alternative			
				Delay	LOS	Delay	LOS	Change in Crit. V/C	Change in Crit. Delay	Delay	LOS	Change in Crit. V/C	Change in Crit. Delay	Delay	LOS	Change in Crit. V/C	Change in Crit. Delay	Delay	LOS	Change in Crit. V/C	Change in Crit. Delay
47.	Lawrence Expressway/El Camino Real* – Santa Clara County	E	AM	38.7	D+	40.7	D	0.039	2.2	40.5	D	0.039	2.1	40.1	D	0.037	1.7	38.8	D+	0.003	0.1
			PM	33.3	C-	37.4	D+	0.049	5.7	37.2	D+	0.047	5.5	37.3	D+	0.048	5.7	35.9	D+	0.034	3.7
48.	Lawrence Expressway/Homestead Road* – Santa Clara County	E	AM	**89.3**	**F**	**91.8**	**F**	**0.008**	**2.9**	**91.9**	**F**	**0.011**	**3.6**	**91.7**	**F**	**0.011**	**3.8**	**89.8**	**F**	**0.002**	**0.5**
			PM	**83.6**	**F**	**88.5**	**F**	**0.025**	**8.2**	**87.6**	**F**	**0.023**	**7.0**	**87.2**	**F**	**0.022**	**6.4**	**87.1**	**F**	**0.022**	**5.1**
49.	Lawrence Expressway/Pruneridge Avenue* – Santa Clara County	E	AM	54.7	D-	54.8	D-	0.005	0.7	55.1	E+	0.009	1.1	55.4	E+	0.012	1.4	54.7	D-	0.001	0.1
			PM	56.5	E+	57.6	E+	0.204	8.0	57.7	E+	0.204	8.3	57.7	E+	0.204	8.7	57.6	E+	0.205	8.3
50.	Stevens Creek Boulevard/ Lawrence Expressway Ramps (east)* – Santa Clara County	E	AM	34.2	C-	35.8	D+	0.05	1.9	35.4	D+	0.036	1.6	34.9	C-	0.018	1.2	34.3	C-	0.004	0.2
			PM	28.9	C	29.5	C	0.02	0.4	29.3	C	0.015	0.3	29.3	C	0.012	0.2	29.3	C	0.016	0.3
51.	Lawrence Expressway/Calvert Drive-I-280 Southbound Ramp* – City of San José	D	AM	**76.3**	**E-**	**81.8**	**F**	**0.022**	**6.6**	79.4	E-	0.017	3.6	76.7	E-	0.011	0.3	76.7	E-	0.002	0.5
			PM	**79.7**	**E-**	**79.9**	**E-**	0.029	0.5	79.8	E-	0.019	0.2	79.7	E-	0.011	0.1	79.6	E-	0.013	0.1
52.	Lawrence Expressway/Mitty Way* – Santa Clara County	E	AM	39.6	D	44.2	D	0.016	5.9	42	D	0.009	3.1	39.7	D	0.001	0.2	39.9	D	0.001	0.3
			PM	18.4	B-	18.8	B-	0.018	0.5	18.6	B-	0.011	0.3	18.5	B-	0.005	0.1	18.7	B-	0.011	0.3
53.	Lawrence Expressway/Bollinger Road* – Santa Clara County	E	AM	**104.8**	**F**	**117.7**	**F**	**0.016**	**10.4**	**111.2**	**F**	**0.009**	**5.6**	**105.1**	**F**	**0.001**	**0.4**	**105.4**	**F**	**0.001**	**0.7**
			PM	**87.4**	**F**	**94.1**	**F**	**0.029**	**11.2**	**91.2**	**F**	**0.019**	**6.6**	**88.9**	**F**	**0.011**	**2.7**	**91.2**	**F**	**0.027**	**6.5**
54.	Lawrence Expressway/Doyle Road* – Santa Clara County	E	AM	41.0	D	41.8	D	0.011	1.6	41.3	D	0.006	0.4	41.1	D	0.002	-0.1	41.1	D	0.002	0.0
			PM	14.9	B	15.1	B	0.034	0.1	15.0	B	0.020	0.1	15.0	B	0.008	0.0	15.1	B	0.019	0.1
55.	Lawrence Expressway/Prospect Road* – Santa Clara County	E	AM	66.3	E	75.6	E-	0.190	17.8	70.8	E	0.177	10	66.6	E	0.002	-0.1	66.8	E	0.002	-0.1
			PM	49.6	D	51.2	D-	0.032	2.6	50.5	D	0.019	1.4	50.0	D	0.008	0.6	50.6	D	0.018	1.4
56.	Lawrence Expressway/Saratoga Avenue* – Santa Clara County	E	AM	67.9	E	45.4	D	0.046	3.0	44.3	D	0.025	1.3	43.6	D	0.001	0.0	43.6	D	0.003	0.1
			PM	57.2	E+	52.3	D-	0.288	12.2	54.4	D-	0.005	-0.1	53.6	D-	0.005	-0.1	52.3	D-	0.291	12.9
57.	Saratoga Avenue/Cox Avenue – City of Saratoga	D	AM	46.0	D	46.0	D	0.003	-4.2	46.2	D	-0.013	-5.1	46.0	D	0.001	0.1	46	D	0.001	0.0
			PM	39.3	D	40.9	D	0.032	3.4	40.1	D	0.017	1.6	39.5	D	0.003	0.3	39.7	D	0.007	0.7
58.	Saratoga Avenue/SR 85 Ramps (north) - Caltrans	C	AM	21.1	C+	21.9	C+	0.033	0.8	21.5	C+	0.017	0.4	21.1	C+	0.001	0.0	21.1	C+	0.001	0.0
			PM	27.4	C	27.7	C	0.025	0.5	27.5	C	0.013	0.2	27.4	C	0.002	0.0	27.4	C	0.005	0.1
59.	Saratoga Avenue/SR 85 Ramps (south) - Caltrans	C	AM	17.3	B	17.4	B	0.005	0.2	17.3	B	0.003	0.1	17.2	B	0.000	0.0	17.3	B	0.000	0.0
			PM	19.5	B-	19.8	B-	0.027	0.3	19.7	B-	0.013	0.1	19.5	B-	0.000	0.0	19.5	B-	0.000	0.0
60.	Stevens Creek Boulevard/Cabot Avenue – City of Santa Clara	D	AM	**58.4**	**E+**	42.2	D	0.150	6.1	41.8	D	0.144	5.4	**60.5**	**E**	**0.009**	**0.3**	**59.2**	**E+**	**0.001**	**0.0**
			PM	49.7	D	55.0	D-	0.022	7.5	53.3	D-	0.016	5.1	52.3	D-	0.012	3.6	53.6	D-	0.017	5.4
61.	Stevens Creek Boulevard/Cronin Drive-Albany Drive – City of Santa Clara	D	AM	28.1	C	28.4	C	0.008	0.1	28.4	C	0.009	0.2	28.3	C	0.009	0.2	28.2	C	0.001	0.0
			PM	23.6	C	24.0	C	0.022	0.6	23.8	C	0.017	0.4	23.8	C	0.014	0.3	23.9	C	0.019	0.5
62.	Stevens Creek Boulevard/Woodhams Road – City of Santa Clara	D	AM	18.7	B-	19.9	B-	0.012	1.0	19.4	B-	0.011	0.5	18.7	B-	0.008	-0.1	18.8	B-	0.002	0.0
			PM	21.6	C+	22.2	C+	0.020	0.9	22.2	C+	0.019	0.8	22.1	C+	0.019	0.7	22.2	C+	0.023	0.9
63.	Stevens Creek Boulevard/Kiely Boulevard* – City of San José	D	AM	40.9	D	41.1	D	0.010	0.2	41.0	D	0.008	0.2	41.0	D	0.006	0.3	40.9	D	0.001	0.0
			PM	36.5	D+	36.6	D+	0.008	0.0	36.6	D+	0.006	0.0	36.6	D+	0.006	0.1	36.6	D+	0.007	0.0
64.	Vallco Parkway/Perimeter Road – City of Cupertino	D	AM	10.3	B+	19.5	B-	0.294	14.0	20.9	C+	0.202	14.0	18.3	B-	0.105	8.1	11.8	B+	0.013	1.5
			PM	16.4	B	28.1	C	0.394	13.4	26.1	C	0.331	11.7	24.7	C	0.294	10.7	25.5	C	0.317	11.3
65.	Lawrence Expressway/Kifer Road Avenue* – Santa Clara County	E	AM	36.9	D+	37.2	D+	0.007	-0.2	37.2	D+	0.007	0.0	37.3	D+	0.005	0.2	37.0	D+	0.000	0.0
			PM	72.4	E	73.6	E	0.012	2.4	74.4	E	0.018	3.8	75.4	E-	0.024	5.5	73.3	E	0.010	1.7
66.	Lawrence Expressway/Reed Avenue-Monroe Street* – Santa Clara County	E	AM	67.3	E	68.3	E	0.004	1.6	69.5	E	0.008	3.2	70.4	E	0.011	4.5	67.4	E	0.001	0.2
			PM	71.0	E	73.3	E	0.014	4.3	73.8	E	0.015	5.1	74.5	E	0.016	6.1	72.8	E	0.007	3.2
67.	Lawrence Expressway/Cabrillo Avenue* – Santa Clara County	E	AM	35.1	D+	35.7	D+	0.022	1.0	35.8	D+	0.015	0.4	35.9	D+	0.007	-0.1	35.1	D+	0.001	0.0
			PM	31.7	C	32.3	C-	0.017	-0.2	32.6	C-	0.015	0.0	32.8	C-	0.012	-0.1	32.1	C-	0.009	-0.1

Notes: **Bold** font indicates unacceptable LOS operations. **Bold and highlighted** text indicates a significant project (or project alternative) impact. The impacts of the Occupied/Re-Tenanted Mall Alternative is described in this EIR for informational purposes only.

Background with Project and Project Alternative Freeway Analysis

Freeway volume forecasts for background conditions were developed using the joint VTA and City/County Association of Governments of San Mateo County travel demand model (VTA-C/CAG model) that is being used for the I-280/Wolfe Road Interchange Improvement Project.

VTA's base year model (year 2015) and Year 2040 model were used to develop freeway volume forecasts. Specifically, 60 percent of the traffic volume growth between the two model years was assumed to represent background conditions. The growth percentage was based on the number of Apple Park trips added to the freeway segments immediately north and south of the Wolfe interchange to the total growth on those segments.

The future operations of the freeway mainline segments were evaluated using V/C ratios, with V/Cs greater than 1.0 indicating vehicle demands exceeding capacity and LOS F operations. The results of the mixed-flow and HOV lane freeway segment analysis during the AM and PM peak hours under background with project (and project alternative) conditions are summarized in Table 3.17-17 and Table 3.17-18, respectively. Appendix H includes the detailed freeway segment LOS calculations tables for the project and project alternatives under background with project conditions.

Project (and project alternative) impacts were identified by comparing background (without project) conditions and background with project conditions. The results show that, for the proposed project and the project alternatives, several mixed-flow segments and HOV segments would be significantly impacted by the project and/or project alternatives under background plus project (and project alternative) conditions (see Table 3.17-16).

Project

As summarized in Table 3.17-16, implementation of the proposed project would result in a significant freeway level of service impacts under background with project conditions at 15 mixed flow lanes in the AM peak hour, 20 mixed flow lanes in the PM peak hour, four HOV lanes in the AM peak hour, and five HOV lanes in the PM peak hour.

Mitigation Measure:

MM TRN-2.9: Implement MM TRN-1.3. The VTP 2040 projects will enhance vehicular travel choices for the project (and project alternatives), and make more efficient use of the transportation roadway network, and the SR 85 Transit Guideway Study will help improve transit options in the SR 85 corridor. These freeway operations enhancements would not improve all impacted freeway segments to less than significant levels, however. The TDM Program proposed under the project (and General Plan Buildout with Maximum Residential Alternative and Retail and Residential Alternative) and mitigation measure MM TRN-2.1 would reduce project-generated vehicle trips, thereby reducing the project (and General Plan Buildout with Maximum Residential Alternative and Retail and Residential Alternative) impact on freeway segments, but it is not anticipated that the freeway impacts would be reduced to a less than significant level. For the above reasons, the project (and General Plan Buildout with Maximum Residential Alternative

and Retail and Residential Alternative) would remain significant and unavoidable with the implementation of MM TRN-2.1 and -2.9. **(Significant and Unavoidable Impact with Mitigation Incorporated)**

General Plan Buildout with Maximum Residential Alternative

As summarized in Table 3.17-16, the implementation of the General Plan Buildout with Maximum Residential Alternative would result in a significant freeway level of service impacts under background with project conditions at 10 mixed flow lanes in the AM peak hour, 17 mixed flow lanes in the PM peak hour, six HOV lanes in the AM peak hour, and five HOV lanes in the PM peak hour. The General Plan Buildout with Maximum Residential Alternative would have similar freeway impacts as the proposed project, although this alternative would impact fewer freeway segments than the proposed project.

See Impact TRN-2 and MM TRN-2.1 and -2.9 above. **(Significant and Unavoidable Impact with Mitigation Incorporated)**

Retail and Residential Alternative

As summarized in Table 3.17-16, the implementation of the Retail and Residential Alternative would result in a significant freeway level of service impacts under background with project conditions at five mixed flow lanes in the AM peak hour, 13 mixed flow lanes in the PM peak hour, four HOV lanes in the AM peak hour, and six HOV lanes in the PM peak hour. The Retail and Residential Alternative would have similar freeway impacts as the proposed project, although this alternative would impact fewer freeway segments than the proposed project.

See Impact TRN-2 and MM TRN-2.1 and -2.9 above. **(Significant and Unavoidable Impact with Mitigation Incorporated)**

Table 3.17-16: Summary of Significantly Impacted Freeway Segments under Background with Project and Project Alternative Conditions

	Peak Hour	Number of Significantly Impacted Segments	
		Mixed-Flow	HOV
Project	AM	15	4
	PM	20	5
General Plan Buildout with Maximum Residential Alternative	AM	10	6
	PM	17	5
Retail and Residential Alternative	AM	5	4
	PM	13	6
Occupied/Re-Tenanted Mall Alternative	AM	0	0
	PM	10	4

Note: The impacts of the Occupied/Re-Tenanted Mall Alternative is described in this EIR for informational purposes only.

Table 3.17-17: Background with Project and Project Alternatives Freeway Mixed-Flow Segment Levels of Service

Freeway Segment	Capacity	Peak Hour	Background	Background with Project			Background with General Plan Buildout with Maximum Residential Alternative			Background with Retail and Residential Alternative			Background with Occupied/Re-tenanted Mall Alternative		
			LOS	LOS	V/C	Project Trips	LOS	V/C	Project Trips	LOS	V/C	Project Trips	LOS	V/C	Project Trips
SR 85 – Northbound															
Union Avenue to South Bascom Avenue	4,600	AM	**F**	**F**	1.336	32	**F**	1.333	17	**F**	1.329	0	**F**	1.329	0
		PM	**F**	**F**	1.072	5	**F**	1.071	2	**F**	1.071	0	**F**	1.071	0
South Bascom Avenue to SR 17	4,600	AM	**F**	**F**	1.082	43	**F**	1.077	22	**F**	1.072	0	**F**	1.072	0
		PM	B	B	0.614	6	B	0.613	3	B	0.613	0	B	0.613	0
SR 17 to Winchester Boulevard	4,600	AM	**F**	**F**	**1.1**	**58**	**F**	1.094	30	**F**	1.088	0	**F**	1.088	0
		PM	C	C	0.778	12	C	0.776	5	C	0.775	0	C	0.775	0
Winchester Boulevard to Saratoga Avenue	4,600	AM	**F**	**F**	**1.184**	**76**	**F**	1.176	39	**F**	1.167	0	**F**	1.167	0
		PM	**F**	**F**	1.029	13	**F**	1.028	6	**F**	1.026	0	**F**	1.026	0
Saratoga Avenue to Saratoga-Sunnyvale Road	4,600	AM	**F**	**F**	**1.162**	**157**	**F**	**1.147**	**87**	**F**	1.13	11	**F**	1.128	3
		PM	E	E	0.971	42	E	0.97	39	E	0.97	36	E	0.968	28
Saratoga-Sunnyvale Road to Stevens Creek Boulevard	4,600	AM	**F**	**F**	1.039	0	**F**	1.039	0	**F**	1.039	0	**F**	1.039	0
		PM	D	D	0.882	0	D	0.882	0	D	0.882	0	D	0.882	0
Stevens Creek Boulevard to I-280	4,600	AM	**F**	**F**	1.092	24	**F**	1.095	36	**F**	1.096	44	**F**	1.087	2
		PM	D	D	0.899	85	D	0.893	59	D	0.888	36	D	0.884	17
I-280 to West Homestead Road	4,600	AM	**F**	**F**	1.053	18	**F**	1.055	27	**F**	1.057	33	**F**	1.05	2
		PM	E	E	0.927	64	E	0.922	44	E	0.918	27	E	0.915	13
West Homestead Road to West Fremont Avenue	4,600	AM	**F**	**F**	1.117	14	**F**	1.118	20	**F**	1.119	25	**F**	1.114	2
		PM	E	E	0.975	48	E	0.972	33	E	0.969	21	E	0.967	10
SR 85 – Southbound															
West Fremont Avenue to West Homestead Road	4,600	AM	**F**	**F**	**1.009**	**48**	**F**	**1.005**	**30**	**F**	**1.001**	**11**	E	0.999	2
		PM	**F**	**F**	1.052	18	**F**	1.053	23	**F**	1.054	28	**F**	1.05	10
West Homestead Road to I-280	4,600	AM	B	B	0.665	63	B	0.66	40	B	0.654	14	B	0.651	2
		PM	C	C	0.71	22	C	0.712	30	C	0.713	37	C	0.708	12
I-280 to Stevens Creek Boulevard	4,600	AM	D	D	0.898	85	D	0.892	54	D	0.884	19	D	0.88	2
		PM	**F**	**F**	1.502	31	**F**	1.505	41	**F**	**1.507**	**50**	**F**	1.499	16
Stevens Creek Boulevard to Saratoga-Sunnyvale Road	4,600	AM	C	C	0.732	0	C	0.732	0	C	0.732	0	C	0.732	0
		PM	**F**	**F**	1.116	0	**F**	1.116	0	**F**	1.116	0	**F**	1.116	0
Saratoga-Sunnyvale Road to Saratoga Avenue	4,600	AM	B	B	0.684	33	B	0.684	33	B	0.683	30	B	0.678	3
		PM	**F**	**F**	**1.119**	**151**	**F**	**1.105**	**85**	**F**	1.093	29	**F**	1.093	31
Saratoga Avenue to Winchester Boulevard	4,600	AM	C	C	0.771	13	C	0.769	7	C	0.768	0	C	0.768	0
		PM	**F**	**F**	**1.129**	**68**	**F**	1.121	32	**F**	1.114	0	**F**	1.114	0
Winchester Boulevard to SR 17	4,600	AM	B	B	0.668	12	B	0.667	6	B	0.666	0	B	0.666	0
		PM	**F**	**F**	**1.104**	**63**	**F**	1.097	29	**F**	1.091	0	**F**	1.091	0
SR 17 to South Bascom Avenue	4,600	AM	A	A	0.456	6	A	0.456	3	A	0.455	0	A	0.455	0
		PM	**F**	**F**	1.082	31	**F**	1.079	15	**F**	1.075	0	**F**	1.075	0
South Bascom Avenue to Union Avenue	4,600	AM	D	D	0.862	4	D	0.861	3	D	0.861	0	D	0.861	0
		PM	**F**	**F**	1.332	24	**F**	1.33	12	**F**	1.327	0	**F**	1.327	0
Interstate 280 – Eastbound															
Alpine Road to Page Mill Road	9,200	AM	D	D	0.883	80	D	0.88	52	D	0.877	20	D	0.875	5
		PM	C	C	0.753	31	C	0.754	38	C	0.755	48	C	0.751	17
Page Mill Road to La Barranca Road	9,200	AM	C	C	0.769	134	C	0.764	86	C	0.758	33	C	0.755	8
		PM	**F**	**F**	1.05	51	**F**	1.051	64	**F**	1.053	80	**F**	1.048	29
La Barranca Road to El Monte Road	9,200	AM	C	C	0.769	134	C	0.764	86	C	0.758	33	C	0.755	8
		PM	**F**	**F**	1.05	51	**F**	1.051	64	**F**	1.053	80	**F**	1.048	29

Table 3.17-17: Background with Project and Project Alternatives Freeway Mixed-Flow Segment Levels of Service

Freeway Segment	Capacity	Peak Hour	Background	Background with Project			Background with General Plan Buildout with Maximum Residential Alternative			Background with Retail and Residential Alternative			Background with Occupied/Re-tenanted Mall Alternative		
			LOS	LOS	V/C	Project Trips	LOS	V/C	Project Trips	LOS	V/C	Project Trips	LOS	V/C	Project Trips
El Monte Road to Magdalena Avenue	9,200	AM	B	B	0.694	206	B	0.686	132	B	0.677	50	B	0.673	12
		PM	**F**	**F**	1.057	78	**F**	**1.059**	**99**	**F**	**1.062**	**123**	**F**	1.053	44
Magdalena Avenue to Foothill Expressway	6,900	AM	C	C	0.738	235	C	0.726	150	C	0.712	56	C	0.706	14
		PM	E	E	0.945	91	E	0.949	115	E	0.953	143	E	0.94	51
Foothill Expressway to SR 85	6,900	AM	E	E	0.986	292	E	0.971	187	E	0.954	71	E	0.946	17
		PM	**F**	**F**	**1.206**	**113**	**F**	**1.211**	**143**	**F**	**1.216**	**178**	**F**	1.199	64
SR 85 to De Anza Boulevard	6,900	AM	D	D	0.879	365	D	0.86	233	D	0.839	89	D	0.829	22
		PM	**F**	**F**	**1.126**	**141**	**F**	**1.131**	**180**	**F**	**1.137**	**222**	**F**	**1.117**	**80**
De Anza Boulevard to Wolfe Road	6,900	AM	D	D	0.857	292	D	0.841	185	D	0.824	70	D	0.817	20
		PM	**F**	**F**	**1.086**	**115**	**F**	**1.09**	**144**	**F**	**1.095**	**176**	**F**	**1.079**	**69**
Wolfe Road to Lawrence Expressway	6,900	AM	D	D	0.817	91	D	0.821	116	D	0.823	127	D	0.807	18
		PM	**F**	**F**	**1.166**	**380**	**F**	**1.148**	**250**	**F**	**1.132**	**146**	**F**	**1.135**	**166**
Lawrence Expressway to Saratoga Avenue	6,900	AM	E	E	0.949	113	E	0.954	143	E	0.956	156	E	0.936	21
		PM	**F**	**F**	**1.146**	**469**	**F**	**1.123**	**309**	**F**	**1.104**	**179**	**F**	**1.108**	**204**
Saratoga Avenue to Winchester Boulevard	6,900	AM	E	E	0.98	102	E	0.984	128	E	0.986	141	E	0.968	20
		PM	**F**	**F**	**1.137**	**414**	**F**	**1.116**	**273**	**F**	**1.1**	**158**	**F**	**1.103**	**180**
Winchester Boulevard to I-880	6,900	AM	D	D	0.85	92	D	0.853	116	D	0.855	127	D	0.839	18
		PM	**F**	**F**	**1.155**	**377**	**F**	**1.136**	**249**	**F**	**1.121**	**143**	**F**	**1.124**	**164**
I-880 to Meridian Avenue	6,900	AM	D	D	0.836	47	D	0.837	60	D	0.838	66	D	0.83	10
		PM	**F**	**F**	**1.187**	**191**	**F**	**1.177**	**126**	**F**	**1.169**	**73**	**F**	**1.171**	**83**
Meridian Avenue to Bird Avenue	6,900	AM	**F**	**F**	1.164	41	**F**	1.166	51	**F**	1.167	56	**F**	1.16	8
		PM	**F**	**F**	**1.492**	**159**	**F**	**1.484**	**105**	**F**	1.478	61	**F**	**1.479**	**69**
Bird Avenue to SR 87	6,900	AM	D	D	0.865	37	D	0.866	46	D	0.867	50	D	0.861	7
		PM	**F**	**F**	**1.446**	**143**	**F**	**1.439**	**95**	**F**	1.433	55	**F**	1.434	62
Interstate 280 – Westbound															
SR 87 to Bird Avenue	9,200	AM	**F**	**F**	**1.07**	**136**	**F**	1.065	83	**F**	1.058	23	**F**	1.057	10
		PM	**F**	**F**	1.056	55	**F**	1.057	59	**F**	1.058	66	**F**	1.057	57
Bird Avenue to Meridian Avenue	9,200	AM	**F**	**F**	**1.133**	**151**	**F**	**1.126**	**92**	**F**	1.119	26	**F**	1.118	11
		PM	**F**	**F**	1.032	61	**F**	1.032	65	**F**	1.033	73	**F**	1.032	63
Meridian Avenue to I-880	6,900	AM	**F**	**F**	**1.242**	**180**	**F**	**1.232**	**109**	**F**	1.221	30	**F**	1.218	13
		PM	**F**	**F**	**1.027**	**71**	**F**	**1.028**	**77**	**F**	**1.029**	**85**	**F**	**1.027**	**74**
I-880 to Winchester Boulevard	6,900	AM	E	**F**	**1.019**	**342**	E	0.999	207	E	0.977	58	E	0.972	24
		PM	D	D	0.882	141	D	0.884	152	**D**	**0.886**	**169**	D	0.883	146
Winchester Boulevard to Saratoga Avenue	6,900	AM	**F**	**F**	**1.192**	**389**	**F**	**1.17**	**236**	**F**	1.145	65	**F**	1.139	27
		PM	**F**	**F**	**1.072**	**162**	**F**	**1.074**	**174**	**F**	**1.077**	**194**	**F**	**1.073**	**168**
Saratoga Avenue to Lawrence Expressway	6,900	AM	**F**	**F**	**1.154**	**422**	**F**	**1.13**	**256**	**F**	**1.103**	**71**	**F**	1.097	29
		PM	E	E	0.986	175	E	0.987	188	E	0.991	210	E	0.987	182
Lawrence Expressway to Wolfe Road	6,900	AM	**F**	**F**	**1.125**	**339**	**F**	**1.106**	**207**	**F**	1.084	58	**F**	1.079	25
		PM	E	E	0.942	143	E	0.943	153	E	0.946	170	E	0.942	149
Wolfe Road to De Anza Boulevard	6,900	AM	**F**	**F**	**1.049**	**84**	**F**	**1.054**	**123**	**F**	**1.059**	**153**	**F**	1.038	14
		PM	D	E	0.909	280	D	0.897	197	D	0.887	128	D	0.88	75
De Anza Boulevard to SR 85	6,900	AM	**F**	**F**	**1.071**	**107**	**F**	**1.079**	**158**	**F**	**1.084**	**195**	**F**	1.058	16
		PM	E	E	0.959	355	E	0.943	247	E	0.93	158	E	0.919	83
SR 85 to Foothill Expressway	6,900	AM	**F**	**F**	**1.181**	**87**	**F**	**1.187**	**128**	**F**	**1.191**	**158**	**F**	1.17	12
		PM	**F**	**F**	**1.121**	**295**	**F**	**1.108**	**205**	**F**	**1.098**	**131**	**F**	1.088	68

Table 3.17-17: Background with Project and Project Alternatives Freeway Mixed-Flow Segment Levels of Service

Freeway Segment	Capacity	Peak Hour	Background	Background with Project			Background with General Plan Buildout with Maximum Residential Alternative			Background with Retail and Residential Alternative			Background with Occupied/Re-tenanted Mall Alternative		
			LOS	LOS	V/C	Project Trips	LOS	V/C	Project Trips	LOS	V/C	Project Trips	LOS	V/C	Project Trips
Foothill Expressway to Magdalena Avenue	6,900	AM PM	D D	E D	0.903 0.88	69 239	E D	0.908 0.87	101 167	E D	0.911 0.861	125 107	D D	0.895 0.853	10 55
Magdalena Avenue to El Monte Road	9,200	AM PM	C B	D C	0.803 0.711	62 204	D C	0.806 0.704	92 142	D B	0.808 0.699	114 91	C B	0.797 0.694	9 47
El Monte Road to La Barranca Road	9,200	AM PM	C C	C C	0.788 0.758	50 163	C C	0.79 0.753	74 114	C C	0.792 0.748	91 73	C C	0.783 0.744	7 38
La Barranca Road to Page Mill Road	9,200	AM PM	C C	C C	0.788 0.758	50 163	C C	0.79 0.753	74 114	C C	0.792 0.748	91 73	C C	0.783 0.744	7 38
Page Mill Road to Alpine Road	9,200	AM PM	C D	C D	0.712 0.899	30 98	C D	0.714 0.895	44 68	C D	0.715 0.893	55 44	C D	0.71 0.891	4 23
Interstate 880 – Northbound															
I-280 to Stevens Creek Boulevard	6,900	AM PM	**F** B	**F** B	1.058 0.69	40 158	**F** B	1.059 0.682	51 104	**F** B	1.06 0.676	55 60	**F** B	1.053 0.677	7 69
Stevens Creek Boulevard to North Bascom Avenue	6,900	AM PM	**F** **F**	**F** **F**	1.052 **1.042**	36 **142**	**F** **F**	1.054 **1.036**	46 **94**	**F** **F**	1.054 1.03	50 54	**F** **F**	1.048 1.031	6 62
North Bascom Avenue to The Alameda	6,900	AM PM	**F** **F**	**F** **F**	1.018 **1.077**	27 **107**	**F** **F**	1.019 **1.071**	35 **71**	**F** **F**	1.02 1.067	38 41	**F** **F**	1.015 1.068	5 47
The Alameda to Coleman Avenue	6,900	AM PM	**F** **F**	**F** **F**	1.027 **1.09**	20 **80**	**F** **F**	1.028 1.086	26 53	**F** **F**	1.028 1.083	29 31	**F** **F**	1.024 1.084	4 35
Interstate 880 – Southbound															
Coleman Avenue to The Alameda	6,900	AM PM	E **F**	**F** **F**	**1.003** 1.026	**77** 31	E **F**	0.999 1.026	47 33	E **F**	0.994 1.027	13 38	E **F**	0.993 1.026	5 32
The Alameda to North Bascom Avenue	6,900	AM PM	D E	D E	0.887 0.999	102 41	D E	0.881 0.999	62 44	D E	0.874 1	17 50	D E	0.873 0.999	7 43
North Bascom Avenue to Stevens Creek Boulevard	6,900	AM PM	D E	D E	0.844 0.993	136 55	D E	0.836 0.994	82 59	D E	0.828 0.995	23 66	D E	0.826 0.993	9 57
Stevens Creek Boulevard to I-280	6,900	AM PM	B D	B D	0.69 0.819	151 61	B D	0.681 0.82	91 65	B D	0.672 0.821	25 73	B D	0.67 0.82	10 63
SR 17 – Northbound															
Saratoga Avenue to Lark Avenue	6,900	AM PM	B B	B B	0.657 0.643	23 9	B B	0.655 0.643	13 7	B B	0.654 0.643	2 5	B B	0.654 0.643	1 5
Lark Avenue to SR 85	6,900	AM PM	B C	B C	0.66 0.702	30 12	B C	0.658 0.702	17 9	B C	0.656 0.701	3 6	B C	0.655 0.701	1 6
SR 17 – Southbound															
SR 85 to Lark Avenue	4,400	AM PM	E **F**	E **F**	0.996 **1.34**	11 **49**	E **F**	0.995 1.335	8 25	E **F**	0.995 1.33	5 5	E **F**	0.994 1.33	1 6
Lark Avenue to Saratoga Avenue	4,400	AM PM	**F** **F**	**F** **F**	1.045 1.105	8 37	**F** **F**	1.045 1.101	6 19	**F** **F**	1.044 1.098	4 4	**F** **F**	1.044 1.098	1 5

Notes: **Bold** font indicates unacceptable operations based on VTA's LOS E Standard. **Bold and highlighted** text indicates a significant project or project alternative impact. The impacts of the Occupied/Re-Tenanted Mall Alternative is described in this EIR for informational purposes only.

Table 3.17-18: Background with Project and Project Alternatives Freeway HOV Segment Levels of Service

Freeway Segment	Capacity	Peak Hour	Background	Background with Project			Background with General Plan Buildout with Maximum Residential Alternative			Background with Retail and Residential Alternative			Background with Occupied/ Re-tenanted Mall Alternative		
			LOS	LOS	V/C	Project Trips	LOS	V/C	Project Trips	LOS	V/C	Project Trips	LOS	V/C	Project Trips
SR 85 – Northbound															
Union Avenue to South Bascom Avenue	1,650	AM	**F**	**F**	1.067	6	**F**	1.065	3	**F**	1.063	0	**F**	1.063	0
		PM	A	A	0.323	0	A	0.323	0	A	0.323	0	A	0.323	0
South Bascom Avenue to SR 17	1,650	AM	**F**	**F**	1.068	8	**F**	1.065	4	**F**	1.063	0	**F**	1.063	0
		PM	A	A	0.324	1	A	0.323	0	A	0.323	0	A	0.323	0
SR 17 to Winchester Boulevard	1,650	AM	**F**	**F**	1.069	10	**F**	1.066	5	**F**	1.063	0	**F**	1.063	0
		PM	A	A	0.324	2	A	0.324	1	A	0.323	0	A	0.323	0
Winchester Boulevard to Saratoga Avenue	1,650	AM	**F**	**F**	1.216	14	**F**	1.212	7	**F**	1.208	0	**F**	1.208	0
		PM	A	A	0.495	2	A	0.494	1	A	0.493	0	A	0.493	0
Saratoga Avenue to Saratoga-Sunnyvale Road	1,650	AM	**F**	**F**	**1.155**	**28**	**F**	1.147	15	**F**	1.139	2	**F**	1.139	1
		PM	A	A	0.497	7	A	0.496	6	A	0.496	6	A	0.496	5
Saratoga-Sunnyvale Road to Stevens Creek Boulevard	1,650	AM	**F**	**F**	1.018	0	**F**	1.018	0	**F**	1.018	0	**F**	1.018	0
		PM	A	A	0.519	0	A	0.519	0	A	0.519	0	A	0.519	0
Stevens Creek Boulevard to I-280	1,650	AM	C	C	0.739	4	C	0.741	6	C	0.742	8	C	0.737	0
		PM	A	A	0.368	9	A	0.367	6	A	0.365	4	A	0.364	2
I-280 to West Homestead Road	1,650	AM	C	C	0.793	3	C	0.794	5	C	0.795	6	C	0.791	0
		PM	A	A	0.438	7	A	0.437	5	A	0.436	3	A	0.435	1
West Homestead Road to West Fremont Avenue	1,650	AM	C	C	0.792	2	C	0.793	4	C	0.793	4	C	0.791	0
		PM	A	A	0.437	5	A	0.436	4	A	0.435	2	A	0.435	1
SR 85 – Southbound															
West Fremont Avenue to West Homestead Road	1,650	AM	C	C	0.771	8	C	0.769	5	C	0.767	2	C	0.766	0
		PM	E	E	0.992	2	E	0.992	3	E	0.993	4	E	0.991	1
West Homestead Road to I-280	1,650	AM	C	C	0.773	11	C	0.77	7	C	0.768	3	C	0.766	0
		PM	E	E	0.993	4	E	0.993	5	E	0.994	6	E	0.992	2
I-280 to Stevens Creek Boulevard	1,650	AM	B	B	0.616	13	B	0.613	8	B	0.61	3	B	0.608	0
		PM	**F**	**F**	1.278	4	**F**	1.278	5	**F**	1.279	7	**F**	1.276	2
Stevens Creek Boulevard to Saratoga-Sunnyvale Road	1,650	AM	C	C	0.752	0	C	0.752	0	C	0.752	0	C	0.752	0
		PM	**F**	**F**	1.227	0	**F**	1.227	0	**F**	1.227	0	**F**	1.227	0
Saratoga-Sunnyvale Road to Saratoga Avenue	1,650	AM	D	D	0.82	6	D	0.82	6	D	0.819	5	D	0.816	0
		PM	E	**F**	**1.003**	**26**	E	0.996	15	E	0.99	5	E	0.99	5
Saratoga Avenue to Winchester Boulevard	1,650	AM	D	D	0.819	2	D	0.818	1	D	0.818	0	D	0.818	0
		PM	D	D	0.838	11	D	0.835	5	D	0.832	0	D	0.832	0
Winchester Boulevard to SR 17	1,650	AM	A	A	0.573	2	A	0.572	1	A	0.572	0	A	0.572	0
		PM	A	A	0.503	8	A	0.501	4	A	0.498	0	A	0.498	0
SR 17 to South Bascom Avenue	1,650	AM	A	A	0.572	1	A	0.572	1	A	0.572	0	A	0.572	0
		PM	**F**	**F**	1.228	5	**F**	1.227	2	**F**	1.225	0	**F**	1.225	0
South Bascom Avenue to Union Avenue	1,650	AM	A	A	0.572	1	A	0.572	0	A	0.572	0	A	0.572	0
		PM	**F**	**F**	1.227	3	**F**	1.226	1	**F**	1.225	0	**F**	1.225	0
Interstate 280 – Eastbound															
Magdalena Avenue to Foothill Expressway	1,650	AM	A	A	0.491	23	A	0.486	15	A	0.481	6	A	0.478	1
		PM	A	A	0.336	7	A	0.337	9	A	0.338	11	A	0.334	4
Foothill Expressway to SR 85	1,650	AM	A	A	0.598	30	A	0.592	19	A	0.584	7	A	0.581	2
		PM	A	A	0.455	9	A	0.456	12	A	0.458	14	A	0.452	5
SR 85 to De Anza Boulevard	1,650	AM	A	A	0.372	38	A	0.363	24	A	0.354	9	A	0.35	2
		PM	**F**	**F**	1.073	11	**F**	1.075	14	**F**	**1.077**	**18**	**F**	1.07	6

Table 3.17-18: Background with Project and Project Alternatives Freeway HOV Segment Levels of Service														
Freeway Segment	**Capacity**	**Peak Hour**	**Background**	**Background with Project**			**Background with General Plan Buildout with Maximum Residential Alternative**			**Background with Retail and Residential Alternative**			**Background with Occupied/ Re-tenanted Mall Alternative**		
			LOS	**LOS**	**V/C**	**Project Trips**	**LOS**	**V/C**	**Project Trips**	**LOS**	**V/C**	**Project Trips**	**LOS**	**V/C**	**Project Trips**
De Anza Boulevard to Wolfe Road	1,650	AM PM	A **F**	A **F**	0.397 1.076	51 14	A **F**	0.386 **1.079**	33 **18**	A **F**	0.373 **1.081**	12 **22**	A **F**	0.368 1.073	3 8
Wolfe Road to Lawrence Expressway	1,650	AM PM	A E	A **F**	0.352 **1.019**	16 **40**	A **F**	0.355 **1.011**	20 **27**	A **F**	0.356 **1.004**	22 **15**	A **F**	0.344 **1.005**	3 **18**
Lawrence Expressway to Saratoga Avenue	1,650	AM PM	A **F**	A **F**	0.383 **1.04**	20 **53**	A **F**	0.386 **1.029**	25 **35**	A **F**	0.388 **1.02**	28 **20**	A **F**	0.373 **1.022**	4 **23**
Saratoga Avenue to Winchester Boulevard	1,650	AM PM	A **F**	A **F**	0.455 **1.265**	18 **56**	A **F**	0.458 **1.254**	23 **37**	A **F**	0.459 **1.244**	25 **21**	A **F**	0.445 **1.246**	3 **24**
Winchester Boulevard to I-880	1,650	AM PM	A **F**	A **F**	0.399 **1.168**	16 **46**	A **F**	0.402 **1.158**	20 **30**	A **F**	0.403 **1.151**	22 **18**	A **F**	0.392 **1.152**	3 **20**
I-880 to Meridian Avenue	1,650	AM PM	B D	B D	0.661 0.845	7 21	B D	0.661 0.841	8 14	B D	0.662 0.838	9 8	B D	0.657 0.838	1 9
Interstate 280 – Westbound															
Meridian Avenue to I-880	1,650	AM PM	E D	E D	1 0.835	21 10	E D	0.995 0.835	13 10	E D	0.99 0.836	4 12	E D	0.988 0.835	1 10
I-880 to Winchester Boulevard	1,650	AM PM	**F** B	**F** B	**1.068** 0.688	**60** 21	**F** B	**1.054** 0.688	**37** 22	**F** B	1.038 0.69	10 25	**F** B	1.034 0.688	4 22
Winchester Boulevard to Saratoga Avenue	1,650	AM PM	E B	E B	0.945 0.652	58 18	E B	0.932 0.652	35 19	E B	0.916 0.653	10 21	E B	0.913 0.652	4 19
Saratoga Avenue to Lawrence Expressway	1,650	AM PM	**F** B	**F** C	**1.278** 0.707	**75** 25	**F** C	**1.259** 0.707	**45** 26	**F** C	1.239 0.709	12 29	**F** C	1.235 0.707	5 26
Lawrence Expressway to Wolfe Road	1,650	AM PM	**F** B	**F** B	**1.234** 0.687	**60** 19	**F** B	**1.219** 0.687	**36** 20	**F** B	1.204 0.689	10 23	**F** B	1.2 0.687	4 20
Wolfe Road to De Anza Boulevard	1,650	AM PM	**F** B	**F** B	1.146 0.692	15 42	**F** B	**1.15** 0.684	**22** 29	**F** B	**1.153** 0.678	**27** 19	**F** B	1.139 0.673	3 11
De Anza Boulevard to SR 85	1,650	AM PM	**F** B	**F** B	1.072 0.653	15 44	**F** B	**1.076** 0.644	**22** 30	**F** B	**1.08** 0.638	**28** 19	**F** B	1.064 0.632	2 10
SR 85 to Foothill Expressway	1,650	AM PM	**F** B	**F** B	1.133 0.679	11 24	**F** B	1.136 0.675	16 17	**F** B	**1.139** 0.671	**20** 11	**F** B	1.128 0.668	2 6
Foothill Expressway to Magdalena Avenue	1,650	AM PM	E A	E A	0.998 0.564	9 16	**F** A	**1.001** 0.561	**14** 11	**F** A	**1.002** 0.558	**17** 7	E A	0.993 0.556	1 4

Notes: **Bold** font indicates unacceptable operations based on VTA's LOS E Standard. **Bold and highlighted** text indicates a significant project or project alternative impact. The impacts of the Occupied/Re-Tenanted Mall Alternative is described in this EIR for informational purposes only.

Occupied/Re-Tenanted Mall Alternative

As summarized in Table 3.17-16, implementation of the Occupied/Re-Tenanted Mall Alternative would result in significant freeway level of service impacts under background with project conditions at 10 mixed flow lanes in the PM peak hour and four HOV lanes in the PM peak hour. The Occupied/Re-Tenanted Mall Alternative would result in similar impacts to freeway segments as the proposed project, although it would impact fewer freeway segments than the proposed project.

A discussion of this alternative is provided in the EIR for informational purposes only. This alternative is a permitted land use, and can be implemented without further discretionary approvals from the City or environmental review under CEQA. No mitigation measures or additional conditions of approval can be required. **(Significant and Unavoidable Impact: Not a CEQA Impact)**

Impact TRN-3:	**Project and project alternative construction-related traffic would not conflict with an applicable plan, ordinance, or policy establishing measures of effectiveness for the performance of the circulation system. (Less than Significant Impact)**

Project

The City's Municipal Code (Section 11.32.010) defines the following roadway segments within the project vicinity as truck routes:

- De Anza Boulevard within City limits
- Homestead Road between SR 85 and Lawrence Expressway
- Stevens Creek Boulevard from SR 85 to east City limits
- Tantau Avenue between Stevens Creek Boulevard and Homestead Road
- Wolfe Road between Stevens Creek Boulevard and Homestead Road

Thus, all major access routes to the project site are designated as truck routes. Construction of the Specific Plan under the proposed project, General Plan Buildout with Maximum Residential Alternative, or Retail and Residential Alternative would generate a substantial amount of construction traffic, but most of it would occur during off-peak hours. The Occupied/Re-Tenanted Mall Alternative would generate construction-related traffic for exterior and interior building modifications but not to the same extent as the proposed project, which includes demolition of existing improvements and construction of new buildings on-site.

As shown in Table 3.17-15, most of the study intersections near the project site operate at LOS D or better under background (no project) conditions. Nevertheless, truck access to the site would be restricted during peak commute times (7:00 AM to 9:00 AM and 4:00 PM to 7:00 PM) to minimize potential impacts to the surrounding roadway network operations by standard permit conditions. Truck traffic is required to conform to the City of Cupertino's Municipal Code requirements.

Standard Permit Condition: Construction truck access to the site shall be prohibited during peak commute times (7:00 AM to 9:00 AM and 4:00 PM to 7:00 PM) and conform the City's Municipal Code requirements.

Construction of the proposed project (and the General Plan Buildout with Maximum Residential Alternative and Retail and Residential Alternative), with the implementation of the above standard permit condition, would not result in significant construction-related traffic impacts. **(Less than Significant Impact)**

General Plan Buildout with Maximum Residential Alternative

The General Plan Buildout with Maximum Residential Alternative would result in similar construction-related traffic impacts as described above for the proposed project and would be required to implement the above identified standard permit conditions. Refer to Impact TRN-3. **(Less than Significant Impact)**

Retail and Residential Alternative

The Retail and Residential Alternative would result in similar construction-related traffic impacts as described above for the proposed project and would be required to implement the above identified standard permit conditions. Refer to Impact TRN-3. **(Less than Significant Impact)**

Occupied/Re-Tenanted Mall Alternative

As discussed above, the Occupied/Re-Tenanted Mall Alternative would generate construction-related traffic for exterior and interior building modifications but not to the same extent as the proposed project. Construction truck traffic associated with the Occupied/Re-Tenanted Mall Alternative is required to conform to the City of Cupertino's Municipal Code requirements.

A discussion of this alternative is provided in the EIR for informational purposes only. This alternative is a permitted land use, and can be implemented without further discretionary approvals from the City or environmental review under CEQA. No mitigation measures or additional conditions of approval can be required. **(Less than Significant Impact: Not a CEQA Impact)**

Impact TRN-4: The project (and project alternatives) would not result in a change in air traffic patterns that results in substantial safety risks. (No Impact)

Project and All Project Alternatives

As discussed in Section 3.9 Hazards and Hazardous Materials, the project site is not located within an airport land use plan, within two miles of a public airport or public use airport, or within the vicinity of a private airstrip. For this reason, the project and project alternatives would not result in a change in air traffic patterns that would result in substantial safety risks. **(No Impact)**

Impact TRN-5:	**The project (and project alternatives) would not substantially increase hazards due to a design features (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment); and would not result in inadequate emergency access. (Less than Significant Impact)**

The project or project alternative design would not include sharp curves or dangerous intersections that could result in safety hazards; nor would the project or project alternatives propose incompatible uses, such as farm equipment. The project and project alternatives include land uses consistent with the land uses allowed on-site by the General Plan and consistent with the surrounding mix of land uses.

Project

To ensure design of future development does not result in safety hazards and provides adequate emergency access, future development associated with the proposed project shall implement the below standard permit condition.

Standard Permit Condition: Future development under the proposed project (and General Plan Buildout with Maximum Residential Alternative and Retail and Residential Alternative) shall be subject to City development review to ensure that minimum design standards are met, including adequate sight distance and configurations (including adequate width and turn radii for continuous unimpeded circulation through the site for passenger vehicles, emergency vehicles, and large trucks). The final design of roadways, driveways, and access points shall be approved by the City.

The project (and General Plan Buildout with Maximum Residential Alternative and Retail and Residential Alternative), with implementation of the above standard permit condition, would not result in significant design hazards, incompatible land uses, or inadequate emergency access. **(Less than Significant Impact)**

General Plan Buildout with Maximum Residential Alternative

Future development under the General Plan Buildout with Maximum Residential Alternative would be subject to the same standard permit condition as the proposed project to ensure that design of future development does not result in safety hazards and provides adequate emergency access. Future development under the General Plan Buildout with Maximum Residential Alternative, with implementation of the above standard permit condition, would not result in design hazards or inadequate emergency access. **(Less than Significant Impact)**

Retail and Residential Alternative

Future development under the Retail and Residential Alternative would be subject to the same standard permit condition as the proposed project to ensure that design of future development does not result in safety hazards and provides adequate emergency access. Future development under the Retail and Residential Alternative, with implementation of the above standard permit condition, would not result in design hazards or inadequate emergency access. **(Less than Significant Impact)**

Occupied/Re-Tenanted Mall Alternative

The Occupied/Re-Tenanted Mall Alternative would not involve construction of new buildings and, therefore, would not result in new design hazards or affect existing emergency access. **(No Impact: Not a CEQA Impact)**

Impact TRN-6:	**The project (and project alternatives) would not conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities or otherwise decrease the performance of safety of such facilities. (Less than Significant Impact)**

Transit Vehicle Delay

The VTA Guidelines state that the transit vehicle delay analysis includes the following components:

- A qualitative assessment of additional transit vehicle delay caused by any roadway or intersection geometry changes proposed by the project, taking into account unique considerations of transit vehicles compared to autos (e.g., pulling into and out of stops and longer gaps needed for left turns). These qualitative considerations may also inform the assessment of transit vehicle delay caused by auto congestion;
- A quantitative estimate of additional seconds of transit vehicle delay that will result from automobile congestion caused by the project and any changes to signal operations proposed by the project. This analysis may utilize information produced by the intersection LOS analysis or other sources, if available.

There is not a well-established methodology for quantitatively evaluating transit network performance due to roadway congestion. For the purposes of this EIR, transit network performance was analyzed during the AM and PM peak hours based on the average transit vehicle delay associated with congestion at signalized intersections for specified routes with and without the project.

The following routes, all within one mile of the project site with full day service with a frequency of 30 minutes or less, were analyzed:

- Route 23 – Stevens Creek Boulevard: Stelling Road to Kiely Boulevard
- Route 53 – Homestead Road: Sunnyvale-Saratoga Road-De Anza Boulevard (Next Network)
- Route 56 – Wolfe Road-Miller Avenue: El Camino Real to Rainbow Drive (Next Network)
- Express 101 – Stevens Creek Boulevard: 280 ramps to Wolfe Road-Miller Avenue; Wolfe Road-Miller Avenue: Stevens Creek Boulevard to 280 ramps
- Express 182 – Stevens Creek Boulevard: 280 ramps to Wolfe Road-Miller Avenue; Wolfe Road-Miller Avenue: Stevens Creek Boulevard to 280 ramps
- Rapid 323/523 – Stevens Creek Boulevard: Stelling Road to Kiely Boulevard

Project

- Existing with Project Conditions – The additional delay to transit service in the area due to implementation of the project and project alternatives under existing conditions is summarized in Table 3.17-19. All of the alternatives would cause some transit delay. The longest delay would occur on Route 23 (PM eastbound), Express 101 (AM northbound and PM southbound), and Rapid 323 (AM westbound and PM eastbound). The main component of transit delay would come from congestion on Stevens Creek Boulevard and Wolfe Road-Miller Avenue. The proposed project would cause more delay than the project alternatives, and would add more than one minute of delay time for a 3.9-mile corridor of Route 23 (PM eastbound on Stevens Creek Boulevard), 1.6-mile corridor of Express 101 (PM southbound on Stevens Creek Boulevard and Wolfe Road), and 3.6-mile corridor of Rapid 323 (PM eastbound on Stevens Creek Boulevard).

- Background with Project Conditions – The additional delay to transit service in the area due to implementation of the project and project alternatives under background conditions is summarized in Table 3.17-19. The added traffic on Stevens Creek Boulevard, Homestead Road, and Wolfe Road-Miller Avenue causes increases in delay for Route 23, Route 53, Express 101 and Rapid 523 under the project and project alternatives. The proposed project would cause more delay than the project alternatives, and would add more than one-minute of delay for a 3.9-mile corridor of Route 23 (AM westbound and PM eastbound on Stevens Creek Boulevard), 2.9-mile corridor of Route 53 (AM westbound and PM eastbound), 1.6-mile corridor of Express 101 (AM north bound and PM southbound), and 3.6-mile corridor of Rapid 523 (AM westbound and PM eastbound).

- Cumulative with Project Conditions – The additional delay to transit service in the area due to implementation of the project and project alternatives under cumulative conditions is summarized in Table 3.17-19. Traffic added by the project causes increases in delay for Route 23, Route 53, Route 56, Express 101 and Rapid 523 under the project and project alternatives on the Stevens Creek Boulevard, Homestead Road, and Wolfe Road-Miller Avenue corridors. The proposed project would cause the largest delay increases compared to the project alternatives and would add more than one-minute delay for a 3.9-mile corridor of Route 23 (AM westbound and PM eastbound on Stevens Creek Boulevard), 2.9-mile corridor of Route 53 (AM westbound and PM both directions on Homestead Road, Wolfe Road and Steven Creek Boulevard), 3.6-mile corridor of Route 56 (PM northbound on Wolfe Road), 1.6-mile corridor of Express 101 (AM northbound and PM southbound on Stevens Creek Boulevard and Wolfe Road), and 3.6-mile corridor of Rapid 523 (AM westbound and PM eastbound on Stevens Creek Boulevard).

The City of Cupertino and VTA do not have adopted standards related to transit corridor performance associated with congestion resulting from new development projects. Per the VTA TIA Guidelines, if increased transit vehicle delay is found, the lead agency (City of Cupertino) should work with VTA to identify feasible transit priority measures near the affected facility and include contributions to any applicable projects that improve transit speed and reliability in the TIA.

Condition of Approval: Consistent with VTA Guidelines, the project proponent shall coordinate with the City and VTA to identify feasible transit priority measures near the affected facility and include contributions to any applicable projects that improve transit speed and reliability.

The proposed project, with the implementation of the above condition of approval, would not result in significant transit vehicle delay. **(Less than Significant Impact)**

General Plan Buildout with Maximum Residential Alternative

As shown in Table 3.17-19, implementation of the General Plan Buildout with Maximum Residential Alternative would result in some transit delay, but not as great as the proposed project. The City of Cupertino and VTA do not have adopted standards related to transit corridor performance associated with congestion resulting from new development projects. The General Plan Buildout with Maximum Residential Alternative shall be subject to the same condition of approval identified above for the proposed project. **(Less than Significant Impact)**

Retail and Residential Alternative

As shown in Table 3.17-19, implementation of the Retail and Residential Alternative would result in some transit delay, but not as great as the proposed project. The City of Cupertino and VTA do not have adopted standards related to transit corridor performance associated with congestion resulting from new development projects. The Retail and Residential Alternative shall be subject to the same condition of approval identified above for the proposed project. **(Less than Significant Impact)**

Occupied/Re-Tenanted Mall Alternative

As shown in Table 3.17-19, implementation of the Occupied/Re-Tenanted Mall Alternative would result in some transit delay, but not as great as the proposed project.

A discussion of this alternative is provided in the EIR for informational purposes only. This alternative is a permitted land use, and can be implemented without further discretionary approvals from the City or environmental review under CEQA. No mitigation measures or additional conditions of approval can be required. **(Less than Significant Impact: Not a CEQA Impact)**

Table 3.17-19: Existing, Background, and Cumulative with Project and Project Alternative Added Transit Delay											
VTA Transit Route		**Study Corridor Length** (miles)	**Peak Hour**	**Project**		**General Plan Buildout with Maximum Residential Alternative**		**Retail and Residential Alternative**		**Occupied/Re-Tenanted Mall Alternative**	
				(seconds)							
				NB/EB	**SB/WB**	**NB/EB**	**SB/WB**	**NB/EB**	**SB/WB**	**NB/EB**	**SB/WB**
Existing with Project and Project Alternative Added Transit Delay											
Route 23	De Anza College to Alum Rock Transit Center	3.9	AM	NC	76	NC	44	NC	15	NC	8
			PM	96	13	63	11	36	10	56	13
Route 53	West Valley College to Sunnyvale Transit Center	0.02	AM	NC	NC	NC	NC	NC	NC	NC	NC
			PM	NC	NC	NC	NC	NC	NC	NC	NC
Express 101	Lockheed Martin Transit Center to Winchester LRT Station	1.6	AM	55	NS	33	NS	17	NS	9	NS
			PM	NS	104	NS	66	NS	38	NS	55
Express 182	Camden & Highway 85 to Palo Alto	1.5	AM	NS	12	NS	13	NS	9	NS	NC
			PM	20	NS	15	NS	12	NS	9	NS
Rapid 323/523	Palo Alto to IBM/Bailey Ave	3.6	AM	NC	77	NC	45	7	15	NC	8
			PM	99	15	65	12	37	10	57	13
Background with Project and Project Alternative Added Transit Delay											
Route 23	De Anza College to Alum Rock Transit Center	3.9	AM	NC	222	NC	147	NC	61	NC	20
			PM	226	35	161	31	105	28	140	31
Route 53	West Valley College to Sunnyvale Transit Center	2.9	AM	43	68	46	59	12	35	NC	6
			PM	64	57	52	42	48	33	62	33
Route 56	Lockheed Martin Transit Center to Winchester LRT Station	3.6	AM	26	NC	28	NC	23	NC	NC	NC
			PM	48	28	28	23	16	25	16	32
Express 101	Camden & Highway 85 to Palo Alto	1.6	AM	219	NS	160	NS	61	NS	17	NS
			PM	NS	223	NS	147	NS	84	NS	124
Express 182	Palo Alto to IBM/Bailey Ave	1.5	AM	NS	16	NS	17	NS	14	NS	NC
			PM	52	NS	37	NS	28	NS	26	NS
Rapid 323/523	Downtown San Jose to De Anza College	3.6	AM	NC	223	NC	150	9	65	NC	20
			PM	237	39	169	34	110	29	145	36
Cumulative with Project and Project Alternative Added Transit Delay											

Table 3.17-19: Existing, Background, and Cumulative with Project and Project Alternative Added Transit Delay

VTA Transit Route		Study Corridor Length (miles)	Peak Hour	Project		General Plan Buildout with Maximum Residential Alternative		Retail and Residential Alternative		Occupied/Re-Tenanted Mall Alternative	
				(seconds)							
				NB/EB	SB/WB	NB/EB	SB/WB	NB/EB	SB/WB	NB/EB	SB/WB
Route 23	De Anza College to Alum Rock Transit Center	3.9	AM	NC	281	10	208	10	79	NC	23
			PM	263	58	193	49	130	42	170	46
Route 53	West Valley College to Sunnyvale Transit Center	2.9	AM	56	89	63	65	20	28	NC	8
			PM	90	69	61	52	48	42	70	46
Route 56	Lockheed Martin Transit Center to Winchester LRT Station	3.6	AM	42	8	38	NC	22	NC	6	NC
			PM	71	54	45	40	31	38	37	52
Express 101	Camden & Highway 85 to Palo Alto	1.6	AM	241	NS	166	NS	51	NS	19	NS
			PM	NS	243	NS	155	NS	88	NS	135
Express 182	Palo Alto to IBM/Bailey Ave	1.5	AM	NS	19	NS	18	NS	15	NS	NC
			PM	51	NS	34	NS	24	NS	24	NS
Rapid 323/523	Downtown San Jose to De Anza College	3.6	AM	8	282	17	212	18	83	NC	25
			PM	278	58	202	49	134	41	174	48

Notes: NS = service only provided in the peak direction of travel. NC = The project was considered to have no change if the increase in travel time was less than five seconds or the travel time improved slightly (due to changes in signal timing, critical movement changes, etc.). The impacts of the Occupied/Re-Tenanted Mall Alternative is described in this EIR for informational purposes only.

Transit Capacity Analysis

Project and All Project Alternatives

Transit capacity is often measured in terms of the average peak load factor, a ratio of the average peak number of passengers on-aboard during the peak period to supply of seats (capacity). The transit capacity analysis evaluates whether the net new AM and PM peak hour trips added by the project (and project alternatives) would exceed the available capacity on the public transit routes that serve the project site. The analysis uses VTA's guidelines for capacity and peak load, by service type, detailed in the Peak Vehicle Load Factors established in the Title VI: System-Wide Service Standards & Policies (OPS PL-0059, dated November 8, 2014).

VTA regularly monitors the performance of its fixed bus and light rails as required by FTA Title VI. The peak load factor is a ratio between the standard passenger load and the seated capacity of a route, per vehicle, during the peak period. If the passenger standard is greater than the seated capacity, some passengers are assumed to be standing in the vehicle rather than seated. If a route exceeds any of its load factor standards due to the addition of project-related transit passengers, a significant impact would occur. The Peak Vehicle Load Factor standards and seat capacity (passengers per vehicle) for VTA bus service types are as follows:

Local and Core Bus Routes

- Seated Capacity: 37 passengers per vehicle
- Passengers (seated plus standees): 44.4 passengers
- Load Factor Standard: 1.2

Express and Limited Stop Routes

- Seated Capacity: 39 passengers per vehicle
- Passengers (seated plus standees): 44.4 passengers
- Load Factor Standard: 1.0

Transit capacity is evaluated for the PM peak hour trips for the project and project alternatives since PM peak hour trip generation is higher than in AM peak hour. The PM peak hour public transit trips were estimated based on MXD+ transit trip mode share and assigned to the bus routes serving the project area. The transit trips for the project and project alternatives were added to each route's exiting peak hour load to produce the peak load with project and project alternative. The peak load factor was compared to the peak vehicle load factor standards provided by VTA. The results are shown in Table 3.17-20. All bus routes meet the peak load factor standard established by VTA. Thus, the project and project alternatives would have less than significant impacts on the transit vehicle capacity of the routes that serve the project area. **(Less than Significant Impact)**

The Occupied/Re-Tenanted Mall Alternative is provided in the EIR for informational purposes only. This alternative is a permitted land use, and can be implemented without further discretionary approvals from the City or environmental review under CEQA. **(Less than Significant Impact: Not a CEQA Impact)**

Bicycle Facilities Impacts

Project and All Project Alternatives

A significant impact to bicycle facilities occurs when the project and project alternatives would create a hazardous condition that currently does not exist for bicyclists, or conflict with planned facilities or local agency policies regarding bicycle facilities.

The proposed project (and General Plan Buildout with Maximum Residential Alternative and Retail and Residential Alternative) would provide bicycle enhancements around and in the immediate vicinity of the project site to improve bicycle access, consistent with the City's Bicycle Transportation Plan. These would include buffered bike lanes on Wolfe Road along the project frontage and on-site bicycle facilities such as short-term bicycle parking (refer to Section 2.4.4). Therefore, the project and project alternatives would not create a hazardous condition for bicyclists that does not currently exist, nor would they conflict with existing or planned bicycle facilities. It is assumed the Occupied/Re-Tenanted Mall Alternative would not result in changes to existing bicycle facilities. Thus, the impact of the project and project alternatives on bicycle facilities is less than significant. **(Less than Significant Impact)**

The Occupied/Re-Tenanted Mall Alternative is provided in the EIR for informational purposes only. This alternative is a permitted land use, and can be implemented without further discretionary approvals from the City or environmental review under CEQA. **(Less than Significant Impact: Not a CEQA Impact)**

Table 3.17-20: PM Peak Hour Transit Capacity Analysis														
Route	Existing Peak Load Factor	Peak Load Factor Standard	Proposed Project			General Plan Buildout Maximum Residential Alternative			Retail and Residential Alternative			Occupied/Re-Tenanted Mall Alternative		
			Project Boardings per Vehicle	Peak Load Factor with Project	Meets Standard?	Project Boardings per Vehicle	Peak Load Factor with Project	Meets Standard?	Project Boardings per Vehicle	Peak Load Factor with Project	Meets Standard?	Project Boardings per Vehicle	Peak Load Factor with Project	Meets Standard?
23	0.51	1.20	7	0.69	Yes	9	0.74	Yes	6	0.68	Yes	1	0.53	Yes
53	0.61	1.20	4	0.73	Yes	6	0.77	Yes	4	0.72	Yes	1	0.63	Yes
Express 101	0.43	1.00	9	0.66	Yes	12	0.73	Yes	8	0.65	Yes	1	0.46	Yes
Express 182	0.64	1.00	7	0.81	Yes	9	0.86	Yes	6	0.80	Yes	1	0.66	Yes
Rapid 323/523	0.35	1.00	18	0.80	Yes	23	0.94	Yes	17	0.78	Yes	2	0.41	Yes

Pedestrian Facilities Impacts

Project and All Project Alternatives

A significant impact to pedestrian facilities occurs when the project (or project alternatives) would create a hazardous condition that currently does not exist for pedestrians, or conflict with planned facilities or local agency policies regarding pedestrian facilities.

The proposed project (and General Plan Buildout with Maximum Residential Alternative and Retail and Residential Alternative) would provide pedestrian enhancements within and in the immediate vicinity of the project site to improve pedestrian access. It is assumed the Occupied/Re-Tenanted Mall Alternative would not change existing pedestrian facilities. Consolidating driveways and intersections would enhance pedestrian access as it would limit the number of locations with pedestrian/vehicle conflicts. Any new driveways or intersections would be designed to safely accommodate pedestrians to ensure that no hazards are created. Therefore, the proposed project would not create a hazardous condition that does not currently exist, nor does it conflict with existing or planned pedestrian facilities. Thus, the impact of the Project on pedestrian facilities is less than significant. **(Less than Significant Impact)**

The Occupied/Re-Tenanted Mall Alternative is provided in the EIR for informational purposes only. This alternative is a permitted land use, and can be implemented without further discretionary approvals from the City or environmental review under CEQA. **(Less than Significant Impact: Not a CEQA Impact)**

Impact TRN-7:	**The project (and General Plan Buildout with Maximum Residential Alternative and Retail and Residential Alternative) would result in a cumulatively considerable contribution to a significant cumulative transportation impact. (Significant and Unavoidable Cumulative Impact with Mitigation Incorporated)**

This section presents the results of the level of service calculations under cumulative without and with project (or project alternative) conditions. Cumulative conditions are defined as existing volumes plus traffic generated by approved, but not yet constructed and/or occupied developments in the area, and traffic generated by pending projects. The list of approved and pending projects can be found in Appendix H. Cumulative with project (or project alternatives) conditions are defined as cumulative conditions plus traffic generated by the buildout of the project (or project alternatives) and transportation network infrastructure proposed by the project (or project alternatives).

Transportation Network

Background condition intersection geometries were modified to include improvements related to the proposed I-280/Wolfe Road Interchange Improvements Project. VTA, in partnership with the City of Cupertino and Caltrans, is currently undertaking the I-280/Wolfe Road Interchange Improvements Project, which would modify the interchange to provide three lanes in each direction between southbound and northbound on-ramps. Currently, it is anticipated that construction of the I-

280/Wolfe Road Interchange Project will start in the year 2022 and be completed by the year 2024. Specific improvements include:

29. Wolfe Road / I-280 Ramps (north): modify the northbound and southbound approaches to include two designated right turn lanes to I-280 North and three through lanes.
30. Wolfe Road / I-280 Ramps (south): modify the northbound and southbound approaches to include two designated right-turn lanes to I-280 south and three through lanes, and modify the eastbound approach to include two designated left-turn lanes, one shared right-turn/through lane and two designated right-turn lanes.

Traffic Volumes

Traffic volumes for cumulative conditions were estimated by adding vehicle trips from pending development projects in the study area to traffic projections for background conditions. Projects in the cities of Sunnyvale, Santa Clara, Saratoga, and San José were also included. Appendix H contains a list of approved and pending projects from each City and their trip generation estimates. In addition to those projects listed in the Impact TRN-2 discussion, the developments identified in Table 2.6-1 were included.

For cumulative volume forecasts, the City of Sunnyvale typically multiplies existing volumes by a growth factor when analyzing intersections in its jurisdiction. To be consistent with the City of Sunnyvale's LOS analysis standards, a 1.5 percent growth rate was applied to the study intersections within Sunnyvale. Using year 2018 as the base year for existing conditions, a 10-year growth factor (to year 2028) was applied to all movements at the eight study intersections in Sunnyvale.

Transportation Network Companies (TNCs) such as Uber and Lyft have changed travel behavior since their introduction in 2009. Based on studies by UC Berkeley, UC Davis, and others, TNCs are more prominent in urban areas. Many people use them instead of driving themselves so they are primarily a substitute for auto trips. In some cases, they replace bus and light rail trips but are a complement to commuter rail. Because Cupertino is in a suburban area and has little transit use, the effect of TNCs is more moderate. The cumulative traffic volume forecasts are conservatively high and therefore account for TNC vehicles.

Cumulative with project conditions are defined as cumulative conditions plus traffic generated by buildout of the project (or project alternatives). Impacts to the roadway system are identified by comparing the level of service results under cumulative with project conditions to those under cumulative conditions (without the project).

Cumulative and Cumulative with Project and Project Alternative Intersection Levels of Service

The results of the intersection level of service analysis under cumulative and cumulative with project and project alternatives is summarized in Table 3.17-22. The results for cumulative (no project) conditions are included for comparison purposes in Table 3.17-22, along with the projected increases in critical delay and critical V/C ratios with implementation of the project and project alternatives. Critical delay represents the delay associated with the critical movements of the intersection, or the movements that require more "green time" and have the greatest effect on overall intersection operations. Project and project alternative impacts are identified by comparing cumulative and

cumulative with project (or project alternative) conditions. Significant impacts are identified based on the impact criteria discussed in Section 3.17.2.1, which includes changes in the LOS from an acceptable to an unacceptable level or changes in critical delay and critical V/C ratio for intersection operating unacceptably.

Based on applicable municipal and CMP significance criteria, 16 intersections would be significantly impact by the project and/or project alternatives under cumulative with project conditions. These significant cumulative project and project alternative impacts are summarized in Table 3.17-21.

Project

As summarized in Table 3.17-21, implementation of the proposed project would result in significant intersection level of service impacts under cumulative with project conditions at the following 17 intersections:

2. Stevens Creek Boulevard/SR 85 Northbound Ramps (east) (City of Cupertino)* – AM peak hour;
8. De Anza Boulevard/Homestead Road (City of Cupertino) * – PM peak hour;
11. De Anza Boulevard/Stevens Creek Boulevard (City of Cupertino) – PM peak hour;
12. De Anza Boulevard/McClellan Road/Pacifica Drive (City of Cupertino) – PM peak hour;
23. Wolfe Road/Fremont Avenue (City of Sunnyvale) – PM peak hour;
26. Wolfe Road/Homestead Road (City of Cupertino) – PM peak hour;
31. Wolfe Road/Vallco Parkway (City of Cupertino) – PM peak hour;
32. Wolfe Road-Miller Avenue/Stevens Creek Boulevard (City of Cupertino)* – AM and PM peak hours;
42. Stevens Creek Boulevard/Tantau Avenue (City of Cupertino) – AM peak hour;
43. Stevens Creek Boulevard/Stern Avenue (City of Santa Clara) – AM and PM peak hours;
44. Stevens Creek Boulevard/Calvert Drive/I-280 Ramps (west) (City of Santa Clara)* – AM and PM peak hours
45. Stevens Creek Boulevard/Agilent Driveway (City of Santa Clara) – AM peak hour;
48. Lawrence Expressway/Homestead Road (Santa Clara County)* – PM peak hour;
51. Lawrence Expressway/Calvert Drive-I-280 Southbound Ramp (City of San José)* – AM peak hour;
53. Lawrence Expressway/Bollinger Road (Santa Clara County)* – AM and PM peak hour;
55. Lawrence Expressway/Prospect Road (Santa Clara County)* – AM peak hour;
60. Stevens Creek Boulevard/Cabot Avenue (City of Santa Clara) – PM peak hour; and
66. Lawrence Expressway/Reed Avenue-Monroe Street (Santa Clara County) – PM peak hour.

Mitigation Measures:

MM TRN-7.1: Implement MM TRN-1.1. The TDM program is expected to reduce the severity of intersection and freeway impacts, although not necessarily to a less than significant level. **(Significant and Unavoidable Impact with Mitigation Incorporated)**

MM TRN-7.2: Intersection 2, Stevens Creek Boulevard/SR 85 northbound ramps: The City's TIF Program identifies the addition of an exclusive northbound left-turn lane from the SR 85 off-ramp onto westbound Stevens Creek Boulevard. This improvement would mitigate the project's (and General Plan Buildout with Maximum Residential Alternative and Retail and Residential Alternative) to a less than significant level (refer to Appendix H for detailed LOS calculations). Future development under the proposed project (or General Plan Buildout with Maximum Residential Alternative or Retail and Residential Alternative) shall pay transportation mitigation fees as calculated pursuant to the TIF program to mitigate this impact. However, because the TIF improvements are not fully funding and the timing of implementation is not known at this time, the impact to Intersection 2 is considered significant and unavoidable. **(Significant and Unavoidable Cumulative Impact with Mitigation Incorporated)**

MM TRN-7.3: Intersection 8, De Anza Boulevard/Homestead Road: The City's TIF Program identifies the widening of De Anza Boulevard to four through lanes between the I-280 interchange and Homestead Road. This improvement would mitigate the project's (and General Plan Buildout with Maximum Residential Alternative and Retail and Residential Alternative) to a less than significant level (refer to Appendix H for detailed LOS calculations). Future development under the proposed project (or General Plan Buildout with Maximum Residential Alternative or Retail and Residential Alternative) shall pay transportation mitigation fees as calculated pursuant to the TIF program to mitigate this impact. However, because the TIF improvements are not fully funding and the timing of implementation is not known at this time, the impact to Intersection 8 is considered significant and unavoidable. **(Significant and Unavoidable Cumulative Impact with Mitigation Incorporated)**

Intersection 11, De Anza Boulevard/Stevens Creek Boulevard: As discussed under Impact TRN-2, in order to mitigate the impact identified at Intersection 11, De Anza Boulevard/Stevens Creek Boulevard, the eastbound and westbound approaches on Stevens Creek Boulevard would need to be widened to provide for three through lanes (for a total of two left-turn lanes, three through lanes, a right-turn lane, and a bike lane). However, there are right-of-way constraints that limit the feasibility of the mitigation measure. Further, this mitigation measure would increase the pedestrian crossing distance on an already very wide intersection and would likely have secondary effects on pedestrian travel at the De Anza Boulevard/Stevens Creek Boulevard intersection. Thus according to General Plan Policy M-3.4, which strives to preserve and enhance citywide pedestrian and bicycle connectivity by limiting street widening purely for automobiles to improve traffic flow, the this improvement is not feasible, and the impact is considered significant and unavoidable. **(Significant and Unavoidable Cumulative Impact)**

MM TRN-7.4: Intersection 12, De Anza Boulevard/McClellan Road: Implement MM TRN-1.2. Implementation of MM TRN-1.2 would improve intersection operations to better than cumulative (without) project or project alternative conditions. However, because the TIF improvements are not fully funded and the timing of implementation is not known at this time, the impact is considered significant and unavoidable. **(Significant and Unavoidable Impact with Mitigation Incorporated)**

MM TRN-7.5: Intersection 23, Wolfe Road/Fremont Avenue: Provide a dedicated southbound right-turn lane from Wolfe Road onto westbound Fremont Avenue. This would improve operations to LOS D and reduce the project impact to a less than significant level under the proposed project and General Plan Buildout with Maximum Residential Alternative. The intersection would continue to operate at unacceptable LOS E under the Retail and Residential Alternative, but the delay would be reduced to a level lower than cumulative conditions. Thus, the impact would be mitigated to a less than significant level.

The City of Sunnyvale recently approved improvements to the "Triangle" area of Wolfe Road/El Camino Real, Wolfe Road/Fremont Avenue, and El Camino Real/Fremont Avenue. The "Triangle" improvements include the provision of a southbound right-turn lane from Wolfe Road to Fremont Avenue. Thus, future development under the project (or General Plan Buildout with Maximum Residential Alternative or Retail and Residential Alternative) would be required to contribute their fair-share to the "Triangle" improvement project. However, the impact would remain significant and unavoidable because the intersection is within the responsibility and jurisdiction of another agency and the City cannot guarantee the improvement would be constructed concurrent with the proposed project. **(Significant and Unavoidable Cumulative Impact with Mitigation Incorporated)**

Mitigation measures that would change the roadway geometry or signal operations have potential secondary effects on pedestrian and bicycle travel. Pursuant to the VTA TIA Guidelines, since mitigation measure MM TRN-7.5 would change the roadway geometry or signal operations have potential secondary effects on pedestrian and bicycle travel. The pedestrian QOS score is 3.8, both without and with mitigation measure MM TRN-7.5. Mitigation measure MM TRN-7.5 would increase the distance for pedestrians crossing Wolfe Road, resulting in a QOS of 4 at the Wolfe Road approach, and an overall QOS 3.8 for the intersection. Thus, mitigation measure MM TRN-7.5 would not change the pedestrian QOS score, which would remain at 4, the lowest QOS score. The bicycle QOS score is 4, both without and with mitigation measure MM TRN-7.5. Adding a southbound right-turn lane would not increase the level of comfort for cyclists on Wolfe Road since there is no bike lane striping on the southbound approach. Mitigation measure MM TRN-7.5 would not change the bicycle QOS score.

MM TRN-7.6: Intersection 26, Wolfe Road/Homestead Road: Provide a dedicated southbound right-turn lane from Wolfe Road onto westbound Homestead Road. To minimize secondary impacts to pedestrian travel, the right-turn lanes would need to be signal controlled, right-turns on red would be prohibited, and pedestrians should have a leading pedestrian phase (i.e., a pedestrian walk indication is provided several seconds before the right-turning vehicle traffic). This mitigation measures would improve intersection operations but not to a less than significant level.

The City's TIF Program includes the provision of the dedicated southbound right-turn lane. Future development under the proposed project (or General Plan Buildout with Maximum Residential Alternative or Retail and Residential Alternative) shall pay transportation mitigation fees as calculated pursuant to the TIF program to mitigate this impact. However, because the TIF improvements are not fully funding and the timing of implementation is not known at this time, the impact to Intersection 26 is considered significant and unavoidable. **(Significant and Unavoidable Cumulative Impact with Mitigation Incorporated)**

Mitigation measures that would change the roadway geometry or signal operations have potential secondary effects on pedestrian and bicycle travel. Pursuant to the VTA TIA Guidelines, since mitigation measure MM-7.6 would change the roadway geometry or signal operations a pedestrian and bicycle QOS analysis was completed. The pedestrian QOS score is 4, both without and with mitigation measure MM-7.6. As discussed in Section 3.17.2.1, a score of 4 denotes a facility that is uncomfortable for most pedestrians due to high travel speeds and wide crossings at intersections. The mitigation measure would increase the distance for pedestrians crossing Wolfe Road; however the proposed mitigation measure would not change the pedestrian QOS score, which would remain at 4, the lowest QOS score. The bicycle QOS score is 3.3, both without and with mitigation measure MM-7.6. The provision of dedicated southbound right-turn lane would separate the through bicycles from right-turn vehicles which are currently sharing the lane, therefore improving the bicycle QOS at southbound approach from 4 to 3. Mitigation measure MM-7.6 would improve the bicycle QOS score.

A second northbound right-turn lane onto eastbound Homestead Road is also needed to improve intersection operations. The provision of the second northbound right-turn lane is not included in the TIF Program, however. There are right-of-way constraints that render the northbound right-turn lane infeasible. Additionally, the provisions a second northbound right-turn lane is in direct conflict with Cupertino's General Plan Policy M-3.4, that seeks to limit street widening purely for improving traffic flow.

MM TRN-7.7: Intersection 31, Wolfe Road/Vallco Parkway: Implement MM TRN-2.3. Implementation of this measure would mitigate the project's cumulative impact to a less than significant level (refer to Appendix H for detailed LOS calculations). **(Less than Significant Cumulative Impact with Mitigation Incorporated)**

Intersection 32, Wolfe Road-Miller Avenue/Stevens Creek Boulevard: As discussed under Impact TRN-2, to mitigate the impact at Intersection 32, Wolfe Road-Miller Avenue/Stevens Creek Boulevard, a second southbound left-turn lane on Wolfe Road and a third through lane on both the eastbound and westbound approaches on Stevens Creek Boulevard are required. There are right-of-way constraints that limit the feasibility of these mitigation measures and the impact is considered significant and unavoidable. **(Significant and Unavoidable Cumulative Impact)**

MM TRN-7.8: Intersection 42, Stevens Creek Boulevard/Tantau Avenue: Implement MM TRN-2.4. However, because the TIF improvements are not fully funding and the timing of implementation is not known at this time, the impact is considered significant and unavoidable. **(Significant and Unavoidable Cumulative Impact with Mitigation Incorporated)**

MM TRN-7.9: Intersections 43-45: Implement MM TRN-2.5. As discussed under Impact TRN-2, implementation of this measure would reduce the project's impact but not to a less than significant level. **(Significant and Unavoidable Cumulative Impact with Mitigation Incorporated)**

MM TRN-7.10: Intersection 48, Lawrence Expressway/Homestead Road: Implement MM TRN-2.6. As discussed under MM TRN-2.6, the project (and General Plan Buildout with Maximum Residential Alternative and Retail and Residential Alternative) shall pay a fair-share contribution to the long-term improvement identified in the Santa Clara County's Expressway Plan 2040 Study for this intersection. The impact would remain significant and unavoidable, however, because the intersection is within the responsibility and jurisdiction of another agency and the City cannot guarantee the improvement would be constructed concurrent with the proposed project. **(Significant and Unavoidable Cumulative Impact with Mitigation Incorporated)**

MM TRN-7.11: Intersection 51, Lawrence Expressway/Calvert Drive-I-280 Southbound Ramp: Implement MM TRN-2.7. The impact is significant and unavoidable because the feasibility of the improvement is yet to be determined, the impact would remain significant and unavoidable, and because the intersection is within the responsibility and jurisdiction of another agency and the City cannot guarantee the improvement would be constructed concurrent with the proposed project. **(Significant and Unavoidable Cumulative Impact with Mitigation Incorporated)**

MM TRN-7.12: Intersection 53, Lawrence Expressway/Bollinger Road: Implement MM TRN-2.8. Implementation of this measure would improve intersection operations to an acceptable LOS E or better. The impact would remain significant and unavoidable, however, because the intersection is within the responsibility and jurisdiction of another agency and the City cannot guarantee the improvement would be constructed concurrent with the proposed project. **(Significant and Unavoidable Cumulative Impact with Mitigation Incorporated)**

MM TRN-7.13: Intersection 60, Stevens Creek Boulevard/Cabot Avenue: Contribute a fair-share to a traffic signal timing study and implementation of the revised timings on Stevens Creek Boulevard at Cabot Avenue. The project (and General Plan with Maximum Residential Alternative and Retail and Residential Alternative) impacts would likely improve with modifications to the signal timings as traffic volumes change. The impact would be significant and unavoidable, however, because the effectiveness of the improvement would be determined through the signal timing study and because the intersection is within the responsibility and jurisdiction of another agency and the City cannot guarantee the implementation of the signal timing study. **(Significant and Unavoidable Cumulative Impact with Mitigation Incorporated)**

In order to mitigate the impact Intersection 60, Stevens Creek Boulevard/Cabot Avenue, three through lanes and a dedicated right-turn in both the eastbound and westbound directions on Stevens Creek Boulevard are required. While intersection delay would improve under the project and project alternatives, the intersection would operate unacceptably at LOS E with delays greater than under cumulative conditions. There are right-of-way constraints that make this improvement infeasible, however.

Intersection 66, Lawrence Expressway/Reed Avenue-Monroe Street: In order to mitigate the impact identified at Intersection 66, Lawrence Expressway/Reed Avenue-Monroe Street, fifth southbound through lanes on Lawrence Expressway would be required. However, there is no right-of-way to provide an additional southbound through lane. The conversion of the existing southbound HOV would also mitigate the LOS impact; however, this would result in discontinuous HOV lanes on Lawrence Expressway. The County of Santa Clara has identified the grade separation of Lawrence Expressway/Reed Avenue-Monroe Street intersection as a Tier 2 project; however, Tier 2 projects have not identified funding and are not likely to be implemented in the near-term. Thus, there are no feasible mitigation measures and the impact at the Lawrence Expressway/Reed Avenue-Monroe Street intersection is considered significant and unavoidable. **(Significant and Unavoidable Cumulative Impact)**

<u>General Plan Buildout with Maximum Residential Alternative</u>

As summarized in Table 3.17-21, implementation of the General Plan Buildout with Maximum Residential Alternative would result in a significant intersection level of service impacts under cumulative with General Plan Buildout with Maximum Residential Alternative conditions at the following 14 intersections:

2. Stevens Creek Boulevard/SR 85 Northbound Ramps (east) (City of Cupertino)* – AM peak hour;
8. De Anza Boulevard/Homestead Road (City of Cupertino) * – PM peak hour;
11. De Anza Boulevard/Stevens Creek Boulevard (City of Cupertino) – PM peak hour;
12. De Anza Boulevard/McClellan Road/Pacifica Drive (City of Cupertino) – PM peak hour;
23. Wolfe Road/Fremont Avenue (City of Sunnyvale) – PM peak hour;
26. Wolfe Road/Homestead Road (City of Cupertino) – PM peak hour;
31. Wolfe Road/Vallco Parkway (City of Cupertino) – PM peak hour

32. Wolfe Road-Miller Avenue/Stevens Creek Boulevard (City of Cupertino)* – AM and PM peak hours;
43. Stevens Creek Boulevard/Stern Avenue (City of Santa Clara) – AM and PM peak hours;
44. Stevens Creek Boulevard/Calvert Drive/I-280 Ramps (west) (City of Santa Clara)* – AM and PM peak hours
45. Stevens Creek Boulevard/Agilent Driveway (City of Santa Clara) – AM peak hour;
48. Lawrence Expressway/Homestead Road (Santa Clara County)* – AM and PM peak hours;
53. Lawrence Expressway/Bollinger Road (Santa Clara County)* – AM and PM peak hours;
60. Stevens Creek Boulevard/Cabot Avenue (City of Santa Clara) – PM peak hour; and
66. Lawrence Expressway/Reed Avenue-Monroe Street (Santa Clara County) – PM peak hour.

See Impact TRN-7 and MM TRN-7.1 through -7.7, -7.9, -7.10, -7.12, and -7.13. **(Significant and Unavoidable Cumulative Impact with Mitigation Incorporated)**

Retail and Residential Alternative

As summarized in Table 3.17-21, implementation of the Retail and Residential Alternative would result in significant intersection level of service impacts under cumulative with Retail and Residential Alternative conditions at the following nine intersections:

2. Stevens Creek Boulevard/SR 85 Northbound Ramps (east) (City of Cupertino)* – AM peak hour;
8. De Anza Boulevard/Homestead Road (City of Cupertino) * – PM peak hour;
11. De Anza Boulevard/Stevens Creek Boulevard (City of Cupertino) – PM peak hour;
23. Wolfe Road/Fremont Avenue (City of Sunnyvale) – PM peak hour;
26. Wolfe Road/Homestead Road (City of Cupertino) – PM peak hour;
32. Wolfe Road-Miller Avenue/Stevens Creek Boulevard (City of Cupertino)* – AM and PM peak hours;
38. Tantau Avenue/Homestead Road (City of Cupertino) – PM peak hour;
43. Stevens Creek Boulevard/Stern Avenue (City of Santa Clara) – AM and PM peak hours;
44. Stevens Creek Boulevard/Calvert Drive/I-280 Ramps (west) (City of Santa Clara)* – AM and PM peak hours;
48. Lawrence Expressway/Homestead Road (Santa Clara County)* – AM and PM peak hours;
60. Stevens Creek Boulevard/Cabot Avenue (City of Santa Clara) – PM peak hour; and
66. Lawrence Expressway/Reed Avenue-Monroe Street (Santa Clara County) – PM peak hour.

See Impact TRN-7 and MM TRN-7.1 through -7.3, -7.5, -7.6, -7.9, -7.10, and -7.13.

Mitigation Measure:

MM TRN-7.14: Intersection 38, Tantau Avenue/Homestead Road: Restripe the southbound approach to provide a separate left-turn lane and shared through/right-turn lane (including removal of on-street parking). This improvement is included in the City's TIF Program and would improve intersection operations to an acceptable LOS D. Future development under the Retail and Residential Alternative shall pay transportation mitigation fees as calculated pursuant to the TIF program to mitigate this impact. However, because the TIF improvements are not fully

funded and the timing of implementation is not known at this time, the impact is considered significant and unavoidable. **(Significant and Unavoidable Cumulative Impact with Mitigation Incorporated)**

Occupied/Re-Tenanted Mall Alternative

As summarized in Table 3.17-21, implementation of the Occupied/Re-Tenanted Mall Alternative would result in significant intersection level of service impacts under cumulative with Occupied/Re-Tenanted Mall Alternative conditions at the following 11 intersections:

7. De Anza Boulevard/Homestead Road (City of Cupertino) * – PM peak hour;
11. De Anza Boulevard/Stevens Creek Boulevard (City of Cupertino) – PM peak hour;
23. Wolfe Road/Fremont Avenue (City of Sunnyvale) – PM peak hour;
26. Wolfe Road/Homestead Road (City of Cupertino) – PM peak hour;
32. Wolfe Road-Miller Avenue/Stevens Creek Boulevard (City of Cupertino)* – PM peak hour;
38. Homestead Road/Tantau Avenue (City of Cupertino) – PM peak hour;
43. Stevens Creek Boulevard/Stern Avenue (City of Santa Clara) – PM peak hour;
44. Stevens Creek Boulevard/Calvert Drive/I-280 Ramps (west) (City of Santa Clara)* – PM peak hour;
48. Lawrence Expressway/Homestead Road (Santa Clara County)* – PM peak hour;
53. Lawrence Expressway/Bollinger Road (Santa Clara County)* – PM peak hour; and
60. Stevens Creek Boulevard/Cabot Avenue (City of Santa Clara) – PM peak hour.

A discussion of this alternative is provided in the EIR for informational purposes only. While implementation of the Occupied/Re-Tenanted Mall Alternative would result in significant intersection level of service impacts, it is a permitted land use, and can be implemented without further discretionary approvals from the City or environmental review under CEQA. No mitigation measures or additional conditions of approval can be required. **(Significant and Unavoidable Cumulative Impact: Not a CEQA Impact)**

Table 3.17-21: Summary of Cumulative with Project and Project Alternative Significant Intersection Levels of Service Impacts

	Study Intersection – Jurisdiction	Peak Hour	Proposed Project	General Plan Buildout with Maximum Residential Alternative	Retail and Residential Alternative	Occupied/Re-Tenanted Mall Alternative
2.	Stevens Creek Boulevard/SR 85 Ramps (east)* – City of Cupertino	AM PM	■ -	■ -	■ -	- -
8.	De Anza Boulevard/Homestead Road* – City of Cupertino	AM PM	- ■	- ■	- ■	- ■
11.	De Anza Boulevard/Stevens Creek Boulevard – City of Cupertino	AM PM	- ■	- ■	- ■	- ■

Table 3.17-21: Summary of Cumulative with Project and Project Alternative Significant Intersection Levels of Service Impacts						
	Study Intersection – Jurisdiction	**Peak Hour**	**Proposed Project**	**General Plan Buildout with Maximum Residential Alternative**	**Retail and Residential Alternative**	**Occupied/Re-Tenanted Mall Alternative**
12.	De Anza Boulevard/McClellan Road/Pacifica Drive – City of Cupertino	AM PM	- ■	- ■	- -	- -
23.	Wolfe Road/Fremont Avenue – City of Sunnyvale	AM PM	- ■	- ■	- ■	- ■
26.	Wolfe Road/Homestead Road – City of Cupertino	AM PM	- ■	- ■	- ■	- ■
31.	Wolfe Road/Vallco Parkway – City of Cupertino	AM PM	- ■	- ■	- -	- -
32.	Wolfe Road-Miller Avenue/Stevens Creek Boulevard* – City of Cupertino	AM PM	■ ■	■ ■	■ ■	- ■
38.	Tantau Avenue/Homestead Road – City of Cupertino	AM PM	- -	- -	- ■	- ■
42.	Stevens Creek Boulevard/Tantau Avenue – City of Cupertino	AM PM	■ -	- -	- -	- -
43.	Stevens Creek Boulevard/Stern Avenue – City of Santa Clara	AM PM	■ ■	■ ■	■ ■	- ■
44.	Stevens Creek Boulevard/Calvert Drive/I-280 Ramps (west)* – City of Santa Clara	AM PM	■ ■	■ ■	■ ■	- ■
45.	Stevens Creek Boulevard/Agilent Driveway – City of Santa Clara	AM PM	■ -	■ -	- -	- -
48.	Lawrence Expressway/Homestead Road* – Santa Clara County	AM PM	- ■	■ ■	■ ■	- ■
51.	Lawrence Expressway/Calvert Drive-I-280 Southbound Ramp* – City of San José	AM PM	■ -	- -	- -	- -
53.	Lawrence Expressway/Bollinger Road* – Santa Clara County	AM PM	■ ■	- ■	- -	- ■
60.	Stevens Creek Boulevard/Cabot Avenue – City of Santa Clara	AM PM	- ■	- ■	- ■	- ■
66.	Lawrence Expressway/Reed Avenue-Monroe Street	AM PM	- ■	- ■	- ■	- -

Notes: Refer to Table 3.17-22 for the delays, LOS results, and changes in critical V/C ratio and delay. * denotes CMP intersection; LOS = level of service; AM = morning peak hour; PM = evening peak hour; - = no significant project (or project alternative) impact; ■ = significant project (or project alternative) impact

Table 3.17-22: Cumulative and Cumulative with Project and Project Alternatives Condition Intersection Levels of Service

Study Intersection – Jurisdiction	LOS Threshold	Peak Hour	Cumulative		Cumulative with Project				Cumulative with General Plan Buildout with Maximum Residential Alternative				Cumulative with Retail and Residential Alternative				Cumulative with Occupied/Re-Tenanted Mall Alternative			
			Delay	LOS	Delay	LOS	Change in Crit. V/C	Change in Crit. Delay	Delay	LOS	Change in Crit. V/C	Change in Crit. Delay	Delay	LOS	Change in Crit. V/C	Change in Crit. Delay	Delay	LOS	Change in Crit. V/C	Change in Crit. Delay
1. Stevens Creek Boulevard/SR 85 Ramps (west)* – City of Cupertino	D	AM	22.1	C+	22.2	C+	0.005	-0.1	22.0	C+	0.010	-0.2	21.9	C+	0.012	-0.3	22.1	C+	0.001	0.0
		PM	33.3	C-	33.3	C-	0.005	-0.1	33.3	C-	0.007	-0.1	33.3	C-	0.008	-0.2	33.3	C-	0.008	-0.2
2. Stevens Creek Boulevard/SR 85 Ramps (east)* – City of Cupertino	D	AM	54.6	D-	**55.8**	**E+**	**0.017**	**6.9**	**57.6**	**E+**	**0.025**	**10.5**	**59.2**	**E+**	**0.032**	**13.3**	54.6	D-	0.001	0.3
		PM	24.5	C	24.5	C	0.057	9.0	25.8	C	0.039	5.7	24.9	C	0.024	3.2	24.5	C	0.011	1.4
3. Stevens Creek Boulevard/Stelling Road* – City of Cupertino	E+	AM	41.3	D	42.4	D	0.013	0.9	42.5	D	0.022	1.5	42.6	D	0.028	1.9	41.4	D	0.002	0.1
		PM	53.7	D-	59.3	E+	0.053	10.4	58.8	E+	0.043	8.2	58.8	E+	0.035	6.7	58.3	E+	0.035	7.1
4. Sunnyvale-Saratoga Road/Remington Drive* – City of Sunnyvale	E	AM	**85.8**	**F**	**86.7**	**F**	**0.004**	**1.4**	**87.7**	**F**	**0.007**	**2.6**	**88.3**	**F**	**0.008**	**3.4**	**86.3**	**F**	**0.001**	**0.5**
		PM	71.4	E	74.6	E	0.014	5.4	74.9	E	0.015	5.7	75.4	E-	0.017	6.3	78.9	E-	0.031	12.1
5. Sunnyvale-Saratoga Road/Fremont Avenue* – City of Sunnyvale	E	AM	**80.1**	**F**	**81.9**	**F**	**0.007**	**3.1**	**82.0**	**F**	**0.008**	**3.2**	**81.8**	**F**	**0.007**	**2.8**	**80.6**	**F**	**0.002**	**0.8**
		PM	73.8	E	77.2	E-	0.014	5.5	76.8	E-	0.013	4.7	76.7	E-	0.012	4.5	78.8	E-	0.021	7.9
6. Sunnyvale-Saratoga Road/Cheyenne Drive – City of Sunnyvale	E	AM	13.3	B	13.3	B	0.003	0.1	13.3	B	0.005	0.1	13.4	B	0.006	0.1	13.3	B	0.001	0.0
		PM	10.6	B+	10.6	B+	0.008	0.1	10.6	B+	0.008	0.1	10.6	B+	0.010	0.1	10.6	B+	0.014	0.1
7. Sunnyvale-Saratoga Road/Alberta Avenue – City of Sunnyvale	E	AM	23.2	C	23.2	C	0.003	0.1	23.2	C	0.005	0.2	23.3	C	0.006	0.2	23.2	C	0.001	0.0
		PM	26.3	C	26.3	C	0.008	0.2	26.3	C	0.008	0.2	26.3	C	0.010	0.2	26.4	C	0.014	0.3
8. De Anza Boulevard/Homestead Road* – City of Cupertino	D	AM	48.3	D	52.3	D-	0.023	7.1	51.7	D-	0.018	5.3	50.6	D	0.010	2.6	49.0	D	0.004	1.1
		PM	52.0	D-	**55.4**	**E+**	**0.016**	**4.4**	**55.3**	**E+**	**0.016**	**4.2**	**55.4**	**E+**	**0.016**	**4.4**	**56.5**	**E+**	**0.022**	**5.7**
9. De Anza Boulevard/I-280 Ramps (north)* – City of Cupertino	D	AM	20.9	C+	21.3	C+	0.008	0.8	21.5	C+	0.013	1.3	21.7	C+	0.017	1.8	20.9	C+	0.000	0.0
		PM	33.8	C-	38.4	D+	0.033	7.1	36.9	D+	0.025	4.9	35.8	D+	0.018	3.3	35.0	C-	0.013	2.1
10. De Anza Boulevard/I-280 Ramps (south)* – City of Cupertino	D	AM	27.7	C	28.8	C	0.022	1.1	28.5	C	0.014	0.7	28.2	C	0.006	0.3	27.7	C	0.001	0.1
		PM	21.9	C+	22.6	C+	0.009	1.0	22.7	C+	0.012	1.4	22.8	C+	0.015	1.9	22.2	C+	0.006	0.7
11. De Anza Boulevard/Stevens Creek Boulevard* – City of Cupertino	E+	AM	42.1	D	47.2	D	0.049	7.4	46.8	D	0.047	7.0	46.3	D	0.041	5.7	42.6	D	0.005	0.7
		PM	53.4	D-	**77.3**	**E-**	**0.111**	**38.7**	**69.8**	**E**	**0.081**	**26.5**	**64.4**	**E**	**0.057**	**17.4**	**64.9**	**E**	**0.058**	**17.9**
12. De Anza Boulevard/McClellan Road/Pacifica Drive – City of Cupertino	D	AM	36.3	D+	36.9	D+	0.048	1.1	36.6	D+	0.027	0.5	36.4	D+	0.003	0.0	36.3	D+	0.002	0.0
		PM	**73.0**	**E**	**80.0**	**F**	**0.036**	**10.2**	**76.7**	**E-**	**0.021**	**5.7**	**74.1**	**E**	**0.008**	**2.1**	**74.9**	**E**	**0.013**	**3.3**
13. De Anza Boulevard/Bollinger Road* – City of Cupertino	E+	AM	39.2	D	46.1	D	0.05	9.3	42.4	D	0.028	4.6	39.3	D	0.003	0.4	39.4	D	0.002	0.2
		PM	24.4	C	23.8	C	0.017	0.0	24.1	C	0.014	0.0	24.4	C	0.013	0.0	24.3	C	0.017	0.0
14. De Anza Boulevard/SR 85 Ramps (north) * – City of Cupertino	D	AM	24.4	C	27.2	C	0.065	1.8	25.9	C	0.040	1.0	24.6	C	0.012	0.1	24.5	C	0.003	0.0
		PM	16.0	B	19.0	B-	0.062	4.0	18.0	B	0.041	2.6	17.4	B	0.024	1.8	17.2	B	0.027	1.6
15. De Anza Boulevard/SR 85 Ramps (south) * – City of Cupertino	D	AM	12.6	B	12.9	B	0.024	0.4	13	B	0.020	0.5	12.9	B	0.012	0.4	12.6	B	0.002	0.0
		PM	15.2	B	16.4	B	0.066	1.5	15.9	B	0.039	0.9	15.4	B	0.015	0.3	15.4	B	0.021	0.2
16. Saratoga-Sunnyvale Road/Prospect Road – City of Cupertino	D	AM	19.1	B-	19.2	B-	0.016	0.2	19.1	B-	0.009	0.1	19.1	B-	0.001	0.0	19.1	B-	0.001	0.0
		PM	27.6	C	27.3	C	0.014	0.0	27.4	C	0.009	0.0	27.5	C	0.005	0.0	27.4	C	0.011	0.0
17. Stevens Creek Boulevard/Torre Avenue – City of Cupertino	D	AM	19.8	B-	20.6	C+	0.029	1.3	20.4	C+	0.039	1.1	20.4	C+	0.044	1.1	19.6	B-	0.004	-0.1
		PM	21.6	C+	21.1	C+	0.043	0.0	21.1	C+	0.048	0	21.2	C+	0.055	0.0	21.2	C+	0.049	0.0
18. Homestead Road/Blaney Avenue – City of Cupertino	D	AM	23.8	C	23.9	C	0.017	0.1	23.9	C	0.013	0.1	23.9	C	0.008	0.2	23.8	C	0.003	0.1
		PM	25.8	C	26.6	C	0.011	0.5	26.5	C	0.012	0.6	26.6	C	0.014	0.7	26.9	C	0.017	0.8
19. Stevens Creek Boulevard/Blaney Avenue – City of Cupertino	D	AM	34.2	C-	34.9	C-	0.047	2.3	34.8	C-	0.050	2.0	34.8	C-	0.047	1.3	34.3	C-	0.007	0.2
		PM	33.3	C-	34.9	C-	0.063	3.2	34.6	C-	0.062	2.7	34.8	C-	0.067	2.7	35.1	D+	0.069	3.5
20. Stevens Creek Boulevard/Portal Avenue – City of Cupertino	D	AM	18.8	B-	17.4	B	0.028	-0.6	17.5	B	0.038	-0.7	17.9	B	0.043	-0.8	18.6	B-	0.005	-0.1
		PM	12.1	B	11.2	B+	0.045	0.1	11.4	B+	0.049	0.1	11.6	B+	0.056	0.1	11.5	B+	0.051	0.1
21. Stevens Creek Boulevard/Perimeter Road – City of Cupertino	D	AM	9.0	A	31.4	C	0.344	34.3	27.2	C	0.259	26.6	20.5	C+	0.146	14.7	10.8	B+	0.024	2.4
		PM	13.7	B	34.6	C-	0.233	19.7	29	C	0.149	12.5	24.9	C	0.083	6.6	26.8	C	0.111	9.3
22. Wolfe Road/El Camino Real* – City of Sunnyvale	E	AM	57.3	E+	58.9	E+	0.030	4.5	58.8	E+	0.029	3.7	58.4	E+	0.025	2.4	57.5	E+	0.004	0.4
		PM	66.9	E	71.5	E	0.031	9.0	72	E	0.034	9.9	72.8	E	0.040	11.5	72.8	E	0.040	11.9

Table 3.17-22: Cumulative and Cumulative with Project and Project Alternatives Condition Intersection Levels of Service

Study Intersection – Jurisdiction	LOS Threshold	Peak Hour	Cumulative		Cumulative with Project				Cumulative with General Plan Buildout with Maximum Residential Alternative				Cumulative with Retail and Residential Alternative				Cumulative with Occupied/Re-Tenanted Mall Alternative			
			Delay	LOS	Delay	LOS	Change in Crit. V/C	Change in Crit. Delay	Delay	LOS	Change in Crit. V/C	Change in Crit. Delay	Delay	LOS	Change in Crit. V/C	Change in Crit. Delay	Delay	LOS	Change in Crit. V/C	Change in Crit. Delay
23. Wolfe Road/Fremont Avenue – City of Sunnyvale	D	AM	**58.4**	**E+**	**59.9**	**E+**	**0.029**	**1.4**	**60.0**	**E**	**0.027**	**1.7**	**59.8**	**E+**	**0.020**	**1.6**	**58.7**	**E+**	**0.006**	**0.3**
		PM	**64.9**	**E**	**70.6**	**E**	**0.028**	**5.4**	**71.2**	**E**	**0.031**	**6.0**	**72.2**	**E**	**0.037**	**6.9**	**72.8**	**E**	**0.040**	**8.3**
24. Wolfe Road/Marion Way – City of Sunnyvale	D	AM	16.4	B	16.9	B	0.019	0.8	16.7	B	0.028	0.6	16.5	B	0.034	0.2	16.4	B	0.004	0.1
		PM	20.2	C+	20.8	C+	0.047	0.6	20.8	C+	0.042	0.5	20.8	C+	0.040	0.5	20.9	C+	0.048	0.7
25. Wolfe Road/Inverness Way – City of Sunnyvale	D	AM	17.8	B	17.9	B	0.014	0.0	17.7	B	0.026	0.0	17.6	B	0.034	0.0	17.8	B	0.004	0.0
		PM	24.7	C	25.3	C	0.033	1.0	25.3	C	0.039	1.2	25.4	C	0.047	1.5	25.4	C	0.045	1.4
26. Wolfe Road/Homestead Road – City of Cupertino	D	AM	39.4	D	42.6	D	0.057	7.0	42.2	D	0.055	5.8	41.4	D	0.046	3.6	39.8	D	0.009	0.8
		PM	54.2	D-	**58.8**	**E+**	**0.041**	**2.4**	**58.6**	**E+**	**0.042**	**2.4**	**58.9**	**E+**	**0.047**	**2.9**	**59.6**	**E+**	**0.051**	**4.0**
27. Wolfe Road/Apple Park – City of Cupertino	D	AM	18.9	B-	18.5	B-	0.015	0.0	18.6	B-	0.025	0.0	18.7	B-	0.032	0.0	18.8	B-	0.004	0.0
		PM	33.8	C-	34.2	C-	0.029	0.4	34.1	C-	0.036	0.4	34.0	C-	0.044	0.6	34.1	C-	0.044	0.6
28. Wolfe Road/Pruneridge Avenue – City of Cupertino	D	AM	28.8	C	28.7	C	0.009	-0.2	28.5	C	0.015	-0.3	28.3	C	0.019	-0.4	28.8	C	0.002	-0.1
		PM	21.6	C+	22.2	C+	0.031	1.6	22.5	C+	0.037	2.1	22.9	C+	0.046	2.7	22.8	C+	0.046	2.7
29. Wolfe Road/I-280 Ramps (north) * – City of Cupertino	D	AM	19.0	B-	21.9	C+	0.020	1.6	20.9	C+	0.027	2.0	20.9	C+	0.034	2.7	19.2	B-	0.004	0.3
		PM	13.8	B	15.0	B	0.032	0.8	15.2	B	0.039	1.0	15.6	B	0.052	1.5	15.4	B	0.048	1.2
30. Wolfe Road/I-280 Ramps (south) * – City of Cupertino	D	AM	14.1	B	15.5	B	0.064	1.1	15.1	B	0.068	1.2	14.7	B	0.073	1.3	14.2	B	0.006	0.1
		PM	10.1	B+	10.5	B+	0.069	0.5	10.7	B+	0.088	0.7	10.9	B+	0.110	1.1	10.2	B+	0.084	0.4
31. Wolfe Road/Vallco Parkway – City of Cupertino	D	AM	24.2	C	34.7	C-	0.248	15.0	33.6	C-	0.238	12.8	32.3	C-	0.202	10.2	24.9	C	0.027	0.9
		PM	36.1	D+	**74.7**	**E**	**0.337**	**53.9**	**56.9**	**E+**	**0.258**	**34.4**	49.2	D	0.203	25.6	49.6	D	0.194	24.4
32. Wolfe Road-Miller Avenue/Stevens Creek Boulevard* – City of Cupertino	D	AM	**71.1**	**E**	**97.1**	**F**	**0.112**	**42.9**	**91.2**	**F**	**0.092**	**34.8**	**84.0**	**F**	**0.063**	**23.4**	**73.2**	**E**	**0.011**	**3.7**
		PM	**64.1**	**E**	**90.9**	**F**	**0.121**	**46.0**	**81.5**	**F**	**0.083**	**30.6**	**75.1**	**E-**	**0.051**	**18.5**	**79.6**	**E-**	**0.064**	**23.5**
33. Miller Avenue/Calle de Barcelona – City of Cupertino	D	AM	7.1	A	7.1	A	0.030	0.0	7.0	A	0.017	0.0	7.1	A	0.003	0.0	7.1	A	0.004	0.0
		PM	2.9	A	2.8	A	0.035	0.0	2.8	A	0.023	0.0	2.8	A	0.014	0.0	2.8	A	0.032	0.0
34. Miller Avenue/Phil Lane – City of Cupertino	D	AM	5.2	A	5.4	A	0.033	0.3	5.3	A	0.020	0.2	5.3	A	0.004	0.0	5.3	A	0.004	0.0
		PM	4.0	A	4.1	A	0.032	0.1	4.1	A	0.021	0.1	4.1	A	0.013	0.0	4.1	A	0.029	0.1
35. Miller Avenue/Bollinger Road – City of San José	D	AM	39.5	D	40.8	D	0.034	1.8	40.3	D	0.020	1.0	39.7	D	0.005	0.3	39.7	D	0.005	0.2
		PM	47.4	D	48.9	D	0.025	2.7	48.5	D	0.018	1.9	48.3	D	0.015	1.6	49.7	D	0.035	3.9
36. Miller Avenue/Rainbow Drive – City of San José	D	AM	38.6	D+	41.6	D	0.016	5.7	40.4	D	0.011	3.6	39.0	D	0.003	0.9	39.3	D	0.004	1.4
		PM	23.5	C	23.7	C	0.026	0.6	23.6	C	0.019	0.4	23.5	C	0.016	0.3	23.7	C	0.037	0.9
37. Stevens Creek Boulevard/ Finch Avenue – City of Cupertino	D	AM	28.3	C	27.8	C	0.019	-0.2	27.9	C	0.023	-0.2	28.0	C	0.024	-0.2	28.2	C	0.004	0.0
		PM	22.3	C+	22.5	C+	0.079	1.1	22.2	C+	0.053	0.6	22.0	C+	0.033	0.3	22.1	C+	0.049	0.5
38. Tantau Avenue/Homestead Road – City of Cupertino	D	AM	40.6	D	41.3	D	0.011	0.0	41.0	D	0.007	0.0	40.8	D	0.003	0.0	40.7	D	0.001	0.0
		PM	53.0	D-	55	D-	0.022	4.0	54.9	D-	0.020	3.8	**55.0**	**E+**	**0.020**	**3.9**	**55.2**	**E+**	**0.022**	**4.3**
39. Tantau Avenue/Pruneridge Avenue – City of Cupertino	D	AM	23.0	C	23.5	C	0.040	0.9	23.2	C	0.008	5.5	22.9	C+	-0.001	5.4	23.1	C	0.004	0.1
		PM	23.4	C	23.6	C	0.031	0.0	23.8	C	0.023	0.0	24.1	C	0.018	0.0	23.9	C	0.020	0.0
40. N Tantau Ave/Apple Parkway – City of Cupertino	D	AM	23.5	C	23.4	C	0.014	-0.1	23.4	C	0.021	-0.1	23.4	C	0.025	-0.1	23.5	C	0.003	0.0
		PM	27.2	C	28.7	C	0.053	4.5	28.1	C	0.039	3.0	27.8	C	0.029	2.2	28.0	C	0.035	2.7
41. Tantau Avenue/Vallco Parkway – City of Cupertino	D	AM	24.5	C	28.1	C	0.091	13.8	26.5	C	0.011	0.8	25.8	C	0.013	1.0	24.8	C	0.002	0.1
		PM	28.8	C	34.9	C-	0.167	8.6	33.7	C-	0.139	7.0	32.9	C-	0.123	6.0	34.3	C-	0.152	8.1
42. Stevens Creek Boulevard/Tantau Avenue – City of Cupertino	D	AM	48.8	D	**57.7**	**E+**	**0.108**	**24.8**	53.3	D-	0.065	13.3	49.6	D	0.016	3.0	49.3	D	0.008	1.5
		PM	45.7	D	50.7	D	0.116	7.9	48.7	D	0.081	4.9	47.5	D	0.053	3.1	49.1	D	0.083	5.5
43. Stevens Creek Boulevard/Stern Avenue – City of Santa Clara	D	AM	**108.7**	**F**	**152.5**	**F**	**0.067**	**61.1**	**134.2**	**F**	**0.041**	**37.2**	**114.4**	**F**	**0.011**	**10.2**	**111.8**	**F**	**0.005**	**4.5**
		PM	**100.5**	**F**	**150.1**	**F**	**0.074**	**75.0**	**132.9**	**F**	**0.051**	**50.7**	**119.6**	**F**	**0.032**	**32.0**	**128.1**	**F**	**0.045**	**44.9**
44. Stevens Creek Boulevard/Calvert Drive/I-280 Ramps (west)* – City of Santa Clara	E	AM	**138.3**	**F**	**184.9**	**F**	**0.060**	**62.4**	**165.9**	**F**	**0.037**	**37.8**	**145.4**	**F**	**0.010**	**10.3**	**141.6**	**F**	**0.005**	**4.6**
		PM	**95.1**	**F**	**133.3**	**F**	**0.122**	**48.2**	**120**	**F**	**0.076**	**28.9**	**110.2**	**F**	**0.039**	**14.2**	**116.7**	**F**	**0.061**	**22.7**

Table 3.17-22: Cumulative and Cumulative with Project and Project Alternatives Condition Intersection Levels of Service

Study Intersection – Jurisdiction	LOS Threshold	Peak Hour	Cumulative		Cumulative with Project				Cumulative with General Plan Buildout with Maximum Residential Alternative				Cumulative with Retail and Residential Alternative				Cumulative with Occupied/Re-Tenanted Mall Alternative			
			Delay	LOS	Delay	LOS	Change in Crit. V/C	Change in Crit. Delay	Delay	LOS	Change in Crit. V/C	Change in Crit. Delay	Delay	LOS	Change in Crit. V/C	Change in Crit. Delay	Delay	LOS	Change in Crit. V/C	Change in Crit. Delay
45. Stevens Creek Boulevard/Agilent Driveway – City of Santa Clara	D	AM	**106.2**	**F**	**139.0**	**F**	**0.049**	**40.6**	**125.7**	**F**	**0.030**	**24.9**	**110.9**	**F**	**0.008**	**6.9**	**108.6**	**F**	**0.004**	**3.0**
		PM	26.4	C	27.5	C	0.023	0.9	27.4	C	0.024	0.9	27.3	C	0.027	1.0	27.5	C	0.030	1.2
46. Stevens Creek Boulevard/Lawrence Expressway Ramps (west)* – Santa Clara County	E	AM	52.9	D-	77.2	E-	0.080	31.4	67.3	E	0.050	19.1	56.8	E+	0.016	5.8	54.6	D-	0.006	2.3
		PM	25.3	C	26	C	0.040	1.2	26.2	C	0.043	1.4	26.3	C	0.049	1.6	26.1	C	0.051	1.5
47. Lawrence Expressway/El Camino Real* – Santa Clara County	E	AM	40.1	D	42.0	D	0.036	2.1	41.9	D	0.040	2.1	41.5	D	0.037	1.7	40.2	D	0.003	0.1
		PM	37.9	D+	44.3	D	0.049	9.2	44.1	D	0.047	8.9	44.2	D	0.048	9.2	41.6	D	0.034	5.4
48. Lawrence Expressway/Homestead Road* – Santa Clara County	E	AM	**98.9**	**F**	**101.6**	**F**	**0.008**	**3.2**	**101.9**	**F**	**0.010**	**4.1**	**101.8**	**F**	**0.011**	**4.6**	**99.3**	**F**	**0.002**	**0.4**
		PM	**94.7**	**F**	**100.3**	**F**	**0.025**	**9.7**	**99.5**	**F**	**0.023**	**8.5**	**99.1**	**F**	**0.022**	**7.9**	**98.9**	**F**	**0.022**	**6.3**
49. Lawrence Expressway/Pruneridge Avenue* – Santa Clara County	E	AM	60.0	E	60.2	E	0.005	0.9	60.7	E	0.009	1.4	61.0	E	0.012	1.8	60.1	E	0.001	0.2
		PM	60.6	E	62.3	E	0.010	1.8	62.2	E	0.009	2.2	62.3	E	0.010	2.6	62	E	0.010	2.1
50. Stevens Creek Boulevard/ Lawrence Expressway Ramps (east)* – Santa Clara County	E	AM	35	C-	36.9	D+	0.051	2.3	36.4	D+	0.036	1.9	35.8	D+	0.018	1.3	35.1	D+	0.004	0.2
		PM	29.3	C	29.9	C	0.020	0.4	29.8	C	0.015	0.3	29.7	C	0.012	0.2	29.8	C	0.016	0.3
51. Lawrence Expressway/Calvert Drive-I-280 Southbound Ramp* – City of San José	D	AM	**83.3**	**F**	**88.8**	**F**	**0.022**	**6.7**	**86.4**	**F**	**0.017**	**3.6**	**83.6**	**F**	**0.011**	**0.2**	**83.7**	**F**	**0.002**	**0.5**
		PM	**86.0**	**F**	**86.3**	**F**	**0.029**	**0.7**	**86.1**	**F**	**0.019**	**0.3**	**85.9**	**F**	**0.011**	**0.1**	**85.8**	**F**	**0.012**	**0.1**
52. Lawrence Expressway/Mitty Way* – Santa Clara County	E	AM	46.0	D	51.5	D-	0.016	7.2	48.9	D	0.009	3.9	46.2	D	0.001	0.4	46.3	D	0.001	0.5
		PM	19.3	B-	19.7	B-	0.018	0.6	19.6	B-	0.011	0.3	19.5	B-	0.005	0.1	19.7	B-	0.010	0.3
53. Lawrence Expressway/Bollinger Road* – Santa Clara County	E	AM	**113.7**	**F**	**126.6**	**F**	**0.016**	**10.8**	**120.2**	**F**	**0.009**	**5.9**	**114.0**	**F**	**0.001**	**0.4**	**114.4**	**F**	**0.001**	**0.7**
		PM	**94.5**	**F**	**101.4**	**F**	**0.029**	**11.4**	**98.4**	**F**	**0.019**	**6.6**	**96.1**	**F**	**0.012**	**2.7**	**98.4**	**F**	**0.027**	**6.6**
54. Lawrence Expressway/Doyle Road* – Santa Clara County	E	AM	41.6	D	42.5	D	0.011	1.6	42.0	D	0.006	0.4	41.7	D	0.002	-0.1	41.7	D	0.002	0.0
		PM	15.7	B	15.9	B	0.034	0.2	15.9	B	0.020	0.1	15.9	B	0.008	0.0	16.0	B	0.020	0.1
55. Lawrence Expressway/Prospect Road* – Santa Clara County	E	AM	71.2	E	61.3	E	0.029	12.7	77.2	E-	0.016	9.8	71.6	E	0.001	0.6	71.9	E	0.002	1.2
		PM	50.7	D	50.2	D	0.032	3.8	51.8	D-	0.019	1.9	51.2	D-	0.008	0.7	51.9	D-	0.018	1.9
56. Lawrence Expressway/Saratoga Avenue* – Santa Clara County	E	AM	44.2	D	46.4	D	0.046	3.6	45.1	D	0.025	1.5	44.3	D	0.001	0.1	44.3	D	0.003	0.1
		PM	56.0	E+	59.2	E+	0.018	5.7	58.0	E+	0.012	3.6	57.3	E+	0.008	2.4	59.6	E+	0.021	7.0
57. Saratoga Avenue/Cox Avenue – City of Saratoga	D	AM	46.2	D	46.0	D	0.010	-3.8	46.8	D	0.004	0.2	46.2	D	0.001	0.1	46.2	D	0.001	0.0
		PM	39.7	D	41.3	D	0.032	3.6	40.4	D	0.017	1.7	39.8	D	0.003	0.3	40.0	D	0.007	0.7
58. Saratoga Avenue/SR 85 Ramps (north) – Caltrans	C	AM	21.1	C+	22.0	C+	0.033	0.8	21.6	C+	0.018	0.4	21.1	C+	0.001	0.0	21.1	C+	0.001	0.0
		PM	27.5	C	27.8	C	0.025	0.5	27.6	C	0.013	0.3	27.5	C	0.002	0.0	27.5	C	0.005	0.1
59. Saratoga Avenue/SR 85 Ramps (south) – Caltrans	C	AM	17.4	B	17.6	B	0.005	0.2	17.5	B	0.003	0.1	17.4	B	0.000	0.0	17.4	B	0.000	0.0
		PM	19.9	B-	20.2	C+	0.027	0.3	20.1	C+	0.013	0.1	19.9	B-	0.000	0.0	20.1	C+	-0.015	-0.1
60. Stevens Creek Boulevard/Cabot Avenue – City of Santa Clara	D	AM	42.6	D	44.4	D	0.018	2.7	43.7	D	0.013	1.7	43.0	D	0.006	0.6	42.7	D	0.002	0.2
		PM	**58.4**	**E+**	**68.3**	**E**	**0.022**	**14.6**	**65.5**	**E**	**0.016**	**10.5**	**63.6**	**E**	**0.012**	**7.6**	**66.0**	**E**	**0.017**	**11.1**
61. Stevens Creek Boulevard/Cronin Drive-Albany Drive – City of Santa Clara	D	AM	28.4	C	28.5	C	0.008	0.0	28.3	C	0.009	-0.1	28.1	C	0.009	-0.3	28.4	C	0.001	0.0
		PM	24.1	C	24.6	C	0.022	0.7	24.5	C	0.018	0.5	24.4	C	0.014	0.4	24.5	C	0.019	0.5
62. Stevens Creek Boulevard/Woodhams Road – City of Santa Clara	D	AM	18.6	B-	19.4	B-	0.012	0.6	18.9	B-	0.011	0.2	18.8	B-	0.008	0.0	18.7	B-	0.002	0.0
		PM	21.7	C+	22.6	C+	0.020	1.4	22.4	C+	0.019	1.1	22.3	C+	0.019	0.8	22.5	C+	0.023	1.1
63. Stevens Creek Boulevard/Kiely Boulevard* – City of San José	D	AM	40.1	D	40.3	D	0.010	0.3	40.2	D	0.008	0.3	40.2	D	0.006	0.3	40.1	D	0.001	0.0
		PM	36.0	D+	36.1	D+	0.008	0.0	36.1	D+	0.006	0.0	36.1	D+	0.005	0.1	36.1	D+	0.007	0.1
64. Vallco Parkway/Perimeter Road – City of Cupertino	D	AM	10.3	B+	19.5	B-	0.294	14.0	20.9	C+	0.202	14.0	18.3	B-	0.105	8.1	11.8	B+	0.013	1.5
		PM	16.4	B	28.1	C	0.394	13.4	26.1	C	0.331	11.7	24.7	C	0.294	10.7	25.5	C	0.317	11.3
65. Lawrence Expressway/Kifer Road Avenue* – Santa Clara County	E	AM	66.2	E	69.4	E	0.013	9.3	68.7	E	0.011	7.3	67.6	E	0.008	4.2	66.4	E	0.001	0.5
		PM	74.6	E	76.0	E-	0.012	2.7	76.8	E-	0.018	4.2	77.8	E-	0.024	5.9	75.8	E-	0.010	2.2

Table 3.17-22: Cumulative and Cumulative with Project and Project Alternatives Condition Intersection Levels of Service

Study Intersection – Jurisdiction	LOS Threshold	Peak Hour	Cumulative		Cumulative with Project				Cumulative with General Plan Buildout with Maximum Residential Alternative				Cumulative with Retail and Residential Alternative				Cumulative with Occupied/Re-Tenanted Mall Alternative			
			Delay	LOS	Delay	LOS	Change in Crit. V/C	Change in Crit. Delay	Delay	LOS	Change in Crit. V/C	Change in Crit. Delay	Delay	LOS	Change in Crit. V/C	Change in Crit. Delay	Delay	LOS	Change in Crit. V/C	Change in Crit. Delay
66. Lawrence Expressway/Reed Avenue-Monroe Street* – Santa Clara County	E	AM	73.5	E	74.8	E	0.004	2.0	76.1	E-	0.008	3.9	77.2	E-	0.011	5.6	73.7	E	0.001	0.3
		PM	**84.9**	**F**	**87.1**	**F**	**0.014**	**4.4**	**87.8**	**F**	**0.015**	**5.4**	**88.5**	**F**	**0.017**	**6.5**	**86.8**	**F**	**0.007**	**3.5**
67. Lawrence Expressway/Cabrillo Avenue* – Santa Clara County	E	AM	35.9	D+	36.5	D+	0.022	1.1	36.8	D+	0.015	0.5	37	D+	0.007	0.0	35.9	D+	0.001	0.0
		PM	35.0	D+	36.2	D+	0.017	0.0	36.7	D+	0.015	0.1	37.3	D+	0.012	0.1	35.9	D+	0.008	0.0

Notes: **Bold** font indicates unacceptable LOS operations. **Bold and highlighted** text indicates a significant project or project alternative impact. The impacts of the Occupied/Re-Tenanted Mall Alternative is described in this EIR for informational purposes only.

Cumulative and Cumulative with Project and Project Alternative Freeway Analysis

Freeway volume forecasts for cumulative conditions were developed using the VTA-C/CAG model, which is the same model used to develop freeway forecasts for background conditions. The forecasts from the year 2040 model were used to represent cumulative conditions.

The results of the mixed-flow and HOV lane freeway segment analysis during the AM and PM peak hours under cumulative and cumulative with project (or project alternative) conditions are summarized in Table 3.17-24 and Table 3.17-25, respectively. Appendix H includes the detailed freeway segment LOS calculations tables for the project and project alternatives under cumulative with project conditions.

Project and project alternative impacts are identified by comparing cumulative (without project) conditions and cumulative with project (or project alternative) conditions. The results show that, for the proposed project and the project alternatives, several mixed-flow segments and HOV segments would be significantly impacted by the project and/or project alternatives under cumulative plus project (or project alternative) conditions (see Table 3.17-23).

Project

As summarized in Table 3.17-23, implementation of the proposed project would result in a significant freeway level of service impacts under cumulative with project conditions at 15 mixed flow lanes in the AM peak hour, 22 mixed flow lanes in the PM peak hour, 12 HOV lanes in the AM peak hour, and eight HOV lanes in the PM peak hour.

Mitigation Measure:

MM TRN-7.15: Implement MM TRN-1.3. The VTP 2040 projects will enhance vehicular travel choices for the project (and project alternatives), and make more efficient use of the transportation roadway network, and the SR 85 Transit Guideway Study will help improve transit options in the SR 85 corridor. These freeway operations enhancements would not improve all impacted freeway segments to less than significant levels, however. The TDM Program proposed under the project (and General Plan Buildout with Maximum Residential Alternative and Retail and Residential Alternative) and mitigation measure MM TRN-7.1 would reduce project-generated vehicle trips, thereby reducing the project (and General Plan Buildout with Maximum Residential Alternative and Retail and Residential Alternative) impact on freeway segments, but it is not anticipated that the freeway impacts would be reduced to a less than significant level. For the above reasons, the project (and General Plan Buildout with Maximum Residential Alternative and Retail and Residential Alternative) would remain significant and unavoidable with the implementation of MM TRN-7.1 and -7.15. **(Significant and Unavoidable Impact with Mitigation Incorporated)**

General Plan Buildout with Maximum Residential Alternative

As summarized in Table 3.17-23, implementation of the General Plan Buildout with Maximum Residential Alternative would result in significant freeway level of service impacts under cumulative with project conditions at eight mixed flow lanes in the AM peak hour, 20 mixed flow lanes in the PM peak hour, nine HOV lanes in the AM peak hour, and seven HOV lanes in the PM peak hour. The General Plan Buildout with Maximum Residential Alternative would have similar freeway impacts as the proposed project, although this alternative would impact seven fewer mixed-flow lanes in the AM peak hour, two fewer mixed-flow lanes in the PM peak hour, three fewer HOV lane in the AM peak hour, and one less HOV lane in the PM peak hour than the proposed project. See Impact TRN-7 and MM TRN-7.1 and -7.15 above. **(Significant and Unavoidable Cumulative Impact with Mitigation Incorporated)**

Retail and Residential Alternative

As summarized in Table 3.17-23, implementation of the Retail and Residential Alternative would result in significant freeway level of service impacts under cumulative with project conditions at four mixed flow lanes in the AM peak hour, 15 mixed flow lanes in the PM peak hour, four HOV lanes in the AM peak hour, and six HOV lanes in the PM peak hour. The Retail and Residential Alternative would have similar freeway impacts as the proposed project, although this alternative would impact 11 fewer mixed-flow lanes in the AM peak hour, seven fewer mixed-flow lanes in the PM peak hour, eight fewer HOV lanes in the AM peak hour, and two fewer HOV lane in the PM peak hour than the proposed project. See Impact TRN-7 and MM TRN-7.1 and -7.15 above. **(Significant and Unavoidable Cumulative Impact with Mitigation Incorporated)**

Table 3.17-23: Summary of Significantly Impacted Freeway Segments under Cumulative with Project and Project Alternative Conditions

	Peak Hour	**Number of Significantly Impacted Segments**	
		Mixed-Flow	**HOV**
Project	AM	15	12
	PM	22	8
General Plan Buildout with Maximum Residential Alternative	AM	8	9
	PM	20	7
Retail and Residential Alternative	AM	4	4
	PM	16	6
Occupied/Re-Tenanted Mall Alternative	AM	0	0
	PM	11	4
Note: The impacts of the Occupied/Re-Tenanted Mall Alternative is described in this EIR for informational purposes only.			

Table 3.17-24: Cumulative and Cumulative with Project and Project Alternatives Freeway Mixed-Flow Segment Levels of Service

Freeway Segment	Capacity	Peak Hour	Cumulative	Cumulative with Project			Cumulative with General Plan Buildout with Maximum Residential Alternative			Cumulative with Retail and Residential Alternative			Cumulative with Occupied/Re-tenanted Mall Alternative		
			LOS	LOS	V/C	Project Trips	LOS	V/C	Project Trips	LOS	V/C	Project Trips	LOS	V/C	Project Trips
SR 85 – Northbound															
Union Avenue to South Bascom Avenue	4,600	AM	**F**	**F**	1.122	32	**F**	1.399	17	**F**	1.395	0	**F**	1.395	0
		PM	**F**	**F**	0.718	4	**F**	1.082	2	**F**	1.082	0	**F**	1.082	0
South Bascom Avenue to SR 17	4,600	AM	**F**	**F**	**1.246**	**51**	**F**	1.105	22	**F**	1.1	0	**F**	1.1	0
		PM	B	B	1.075	7	B	0.628	3	B	0.628	0	B	0.628	0
SR 17 to Winchester Boulevard	4,600	AM	**F**	**F**	**1.285**	**49**	**F**	1.128	30	**F**	1.121	0	**F**	1.121	0
		PM	C	D	1.036	12	D	0.8	5	C	0.799	0	C	0.799	0
Winchester Boulevard to Saratoga Avenue	4,600	AM	**F**	**F**	**1.185**	**64**	**F**	1.205	39	**F**	1.197	0	**F**	1.197	0
		PM	**F**	**F**	0.782	13	**F**	1.044	6	**F**	1.043	0	**F**	1.043	0
Saratoga Avenue to Saratoga-Sunnyvale Road	4,600	AM	**F**	**F**	**1.046**	**185**	**F**	**1.161**	**87**	**F**	1.144	11	**F**	1.142	3
		PM	E	E	0.758	49	E	0.988	38	E	0.987	36	E	0.986	28
Saratoga-Sunnyvale Road to Stevens Creek Boulevard	4,600	AM	**F**	**F**	1.31	0	**F**	1.068	0	**F**	1.068	0	**F**	1.068	0
		PM	D	D	0.752	0	D	0.887	0	D	0.887	0	D	0.887	0
Stevens Creek Boulevard to I-280	4,600	AM	**F**	**F**	1.278	22	**F**	1.137	36	**F**	1.138	44	**F**	1.129	2
		PM	D	E	0.733	80	E	0.904	55	D	0.899	34	D	0.895	16
I-280 to West Homestead Road	4,600	AM	**F**	**F**	1.195	21	**F**	1.076	27	**F**	1.078	33	**F**	1.071	2
		PM	E	E	0.711	71	E	0.936	42	E	0.932	25	E	0.929	12
West Homestead Road to West Fremont Avenue	4,600	AM	**F**	**F**	1.11	16	**F**	1.141	20	**F**	1.142	25	**F**	1.137	2
		PM	E	E	0.667	53	E	0.989	31	E	0.987	20	E	0.984	9
SR 85 – Southbound															
West Fremont Avenue to West Homestead Road	4,600	AM	**F**	**F**	1.032	43	**F**	1.029	30	**F**	1.025	11	**F**	1.023	2
		PM	**F**	**F**	1.09	15	**F**	1.091	22	**F**	1.092	27	**F**	1.088	9
West Homestead Road to I-280	4,600	AM	B	B	0.659	74	B	0.651	40	B	0.646	14	B	0.643	2
		PM	C	C	0.729	26	C	0.73	30	C	0.731	37	C	0.726	12
I-280 to Stevens Creek Boulevard	4,600	AM	E	E	0.95	98	E	0.94	53	E	0.932	19	E	0.929	2
		PM	**F**	**F**	1.561	35	**F**	1.562	39	**F**	**1.564**	**48**	**F**	1.557	15
Stevens Creek Boulevard to Saratoga-Sunnyvale Road	4,600	AM	C	C	0.744	0	C	0.744	0	C	0.744	0	C	0.744	0
		PM	**F**	**F**	1.147	0	**F**	1.147	0	**F**	1.147	0	**F**	1.147	0
Saratoga-Sunnyvale Road to Saratoga Avenue	4,600	AM	B	B	0.691	39	B	0.69	33	B	0.689	30	B	0.683	3
		PM	**F**	**F**	**1.139**	**177**	**F**	**1.119**	**85**	**F**	1.107	29	**F**	1.107	31
Saratoga Avenue to Winchester Boulevard	4,600	AM	C	C	0.777	15	C	0.775	7	C	0.773	0	C	0.773	0
		PM	**F**	**F**	**1.159**	**79**	**F**	1.148	31	**F**	1.142	0	**F**	1.142	0
Winchester Boulevard to SR 17	4,600	AM	B	B	0.659	14	B	0.657	6	B	0.656	0	B	0.656	0
		PM	**F**	**F**	**1.15**	**71**	**F**	1.141	28	**F**	1.135	0	**F**	1.135	0
SR 17 to South Bascom Avenue	4,600	AM	A	A	0.47	7	A	0.469	3	A	0.468	0	A	0.468	0
		PM	**F**	**F**	1.113	36	**F**	1.108	14	**F**	1.105	0	**F**	1.105	0
South Bascom Avenue to Union Avenue	4,600	AM	D	D	0.883	5	D	0.882	3	D	0.882	0	D	0.882	0
		PM	**F**	**F**	1.392	27	**F**	1.388	11	**F**	1.386	0	**F**	1.386	0
Interstate 280 – Eastbound															
Alpine Road to Page Mill Road	9,200	AM	E	E	0.912	80	E	0.908	52	E	0.905	20	E	0.903	5
		PM	C	C	0.79	31	C	0.791	38	C	0.792	48	C	0.788	17
Page Mill Road to La Barranca Road	9,200	AM	C	C	0.777	134	C	0.772	86	C	0.766	33	C	0.763	8
		PM	**F**	**F**	1.074	51	**F**	1.075	64	**F**	1.077	80	**F**	1.072	29

Table 3.17-24: Cumulative and Cumulative with Project and Project Alternatives Freeway Mixed-Flow Segment Levels of Service

Freeway Segment	Capacity	Peak Hour	Cumulative	Cumulative with Project			Cumulative with General Plan Buildout with Maximum Residential Alternative			Cumulative with Retail and Residential Alternative			Cumulative with Occupied/Re-tenanted Mall Alternative		
			LOS	LOS	V/C	Project Trips	LOS	V/C	Project Trips	LOS	V/C	Project Trips	LOS	V/C	Project Trips
La Barranca Road to El Monte Road	9,200	AM	C	C	0.777	134	C	0.772	86	C	0.766	33	C	0.763	8
		PM	**F**	**F**	1.074	51	**F**	1.075	64	**F**	1.077	80	**F**	1.072	29
El Monte Road to Magdalena Avenue	9,200	AM	B	B	0.698	206	B	0.69	132	B	0.681	50	B	0.677	12
		PM	**F**	**F**	1.09	78	**F**	**1.092**	**99**	**F**	**1.095**	**123**	**F**	1.086	44
Magdalena Avenue to Foothill Expressway	6,900	AM	B	C	0.716	216	C	0.704	140	B	0.692	53	B	0.686	13
		PM	E	E	0.987	90	E	0.99	114	E	0.994	141	E	0.981	50
Foothill Expressway to SR 85	6,900	AM	E	E	0.989	275	E	0.974	176	E	0.959	67	E	0.951	16
		PM	**F**	**F**	**1.252**	**111**	**F**	**1.256**	**141**	**F**	**1.261**	**175**	**F**	1.245	63
SR 85 to De Anza Boulevard	6,900	AM	D	D	0.861	367	D	0.842	234	D	0.821	89	D	0.811	22
		PM	**F**	**F**	**1.162**	**123**	**F**	**1.168**	**165**	**F**	**1.174**	**204**	**F**	**1.155**	**73**
De Anza Boulevard to Wolfe Road	6,900	AM	C	D	0.842	312	D	0.826	198	D	0.808	75	D	0.8	21
		PM	**F**	**F**	**1.107**	**104**	**F**	**1.112**	**138**	**F**	**1.116**	**168**	**F**	**1.101**	**65**
Wolfe Road to Lawrence Expressway	6,900	AM	D	D	0.845	97	D	0.849	124	D	0.851	136	D	0.834	19
		PM	**F**	**F**	**1.175**	**340**	**F**	**1.16**	**235**	**F**	**1.145**	**137**	**F**	**1.148**	**156**
Lawrence Expressway to Saratoga Avenue	6,900	AM	E	E	0.959	121	E	0.964	153	E	0.966	167	E	0.945	23
		PM	**F**	**F**	**1.115**	**423**	**F**	**1.096**	**292**	**F**	**1.078**	**169**	**F**	**1.082**	**192**
Saratoga Avenue to Winchester Boulevard	6,900	AM	E	E	0.971	109	E	0.976	137	E	0.978	151	E	0.959	21
		PM	**F**	**F**	**1.113**	**381**	**F**	**1.096**	**263**	**F**	**1.08**	**152**	**F**	**1.083**	**173**
Winchester Boulevard to I-880	6,900	AM	D	D	0.836	98	D	0.84	124	D	0.841	136	D	0.824	19
		PM	**F**	**F**	**1.161**	**343**	**F**	**1.146**	**237**	**F**	**1.131**	**137**	**F**	**1.134**	**156**
I-880 to Meridian Avenue	6,900	AM	D	D	0.874	44	D	0.876	58	D	0.877	64	D	0.869	9
		PM	**F**	**F**	**1.224**	**175**	**F**	**1.216**	**119**	**F**	**1.208**	**69**	**F**	**1.21**	**78**
Meridian Avenue to Bird Avenue	6,900	AM	**F**	**F**	1.142	35	**F**	1.143	43	**F**	1.144	48	**F**	1.138	7
		PM	**F**	**F**	**1.502**	**134**	**F**	**1.495**	**89**	**F**	1.49	52	**F**	1.491	59
Bird Avenue to SR 87	6,900	AM	D	D	0.869	31	D	0.87	39	D	0.871	42	D	0.866	6
		PM	**F**	**F**	**1.487**	**126**	**F**	**1.48**	**83**	**F**	1.475	48	**F**	1.476	54
Interstate 280 – Westbound															
SR 87 to Bird Avenue	9,200	AM	**F**	**F**	**1.09**	**115**	**F**	1.085	71	**F**	1.08	20	**F**	1.078	8
		PM	**F**	**F**	1.07	49	**F**	1.07	53	**F**	1.071	59	**F**	1.07	51
Bird Avenue to Meridian Avenue	9,200	AM	**F**	**F**	**1.172**	**127**	**F**	1.167	78	**F**	1.16	22	**F**	1.159	9
		PM	**F**	**F**	1.053	52	**F**	1.054	55	**F**	1.054	62	**F**	1.053	54
Meridian Avenue to I-880	6,900	AM	**F**	**F**	**1.301**	**162**	**F**	**1.292**	**104**	**F**	1.281	29	**F**	1.279	12
		PM	**F**	**F**	1.079	66	**F**	**1.08**	**74**	**F**	**1.081**	**82**	**F**	**1.079**	**71**
I-880 to Winchester Boulevard	6,900	AM	E	**F**	**1.015**	**312**	E	1	207	E	0.978	58	E	0.973	24
		PM	D	D	0.879	134	D	0.881	148	D	0.883	165	D	0.88	143
Winchester Boulevard to Saratoga Avenue	6,900	AM	**F**	**F**	**1.189**	**367**	**F**	**1.169**	**230**	**F**	1.145	64	**F**	1.139	26
		PM	**F**	**F**	**1.068**	**154**	**F**	**1.07**	**165**	**F**	**1.073**	**184**	**F**	**1.069**	**160**
Saratoga Avenue to Lawrence Expressway	6,900	AM	**F**	**F**	**1.157**	**403**	**F**	**1.136**	**256**	**F**	**1.109**	**71**	**F**	1.103	29
		PM	E	**F**	**1.003**	**169**	**F**	**1.005**	**182**	**F**	**1.008**	**203**	**F**	**1.005**	**177**
Lawrence Expressway to Wolfe Road	6,900	AM	**F**	**F**	**1.124**	**323**	**F**	**1.107**	**207**	**F**	1.086	58	F	1.081	25
		PM	E	E	0.955	137	E	0.957	147	E	0.959	164	E	0.956	144
Wolfe Road to De Anza Boulevard	6,900	AM	**F**	**F**	**1.061**	**80**	**F**	**1.067**	**123**	**F**	**1.072**	**153**	**F**	1.051	14
		PM	D	D	0.882	272	D	0.87	192	D	0.861	125	D	0.853	73
De Anza Boulevard to SR 85	6,900	AM	**F**	**F**	**1.091**	**99**	**F**	**1.099**	**153**	**F**	**1.104**	**190**	**F**	1.079	15
		PM	D	E	0.941	337	E	0.927	235	E	0.914	150	E	0.904	79

Table 3.17-24: Cumulative and Cumulative with Project and Project Alternatives Freeway Mixed-Flow Segment Levels of Service

Freeway Segment	Capacity	Peak Hour	Cumulative	Cumulative with Project			Cumulative with General Plan Buildout with Maximum Residential Alternative			Cumulative with Retail and Residential Alternative			Cumulative with Occupied/Re-tenanted Mall Alternative		
			LOS	LOS	V/C	Project Trips	LOS	V/C	Project Trips	LOS	V/C	Project Trips	LOS	V/C	Project Trips
SR 85 to Foothill Expressway	6,900	AM	**F**	**F**	**1.244**	**79**	**F**	**1.25**	**122**	**F**	**1.254**	**151**	**F**	1.234	12
		PM	**F**	**F**	**1.122**	**270**	**F**	**1.11**	**189**	**F**	**1.101**	**121**	**F**	1.092	63
Foothill Expressway to Magdalena Avenue	6,900	AM	E	E	0.929	63	E	0.934	98	E	0.937	121	E	0.921	9
		PM	D	D	0.872	215	D	0.862	151	D	0.855	97	D	0.848	50
Magdalena Avenue to El Monte Road	9,200	AM	D	D	0.846	62	D	0.849	92	D	0.851	114	D	0.84	9
		PM	B	C	0.713	204	C	0.706	142	C	0.7	91	B	0.696	47
El Monte Road to La Barranca Road	9,200	AM	D	D	0.811	50	D	0.814	74	D	0.816	91	D	0.806	7
		PM	C	C	0.753	163	C	0.748	114	C	0.744	73	C	0.74	38
La Barranca Road to Page Mill Road	9,200	AM	D	D	0.811	50	D	0.814	74	D	0.816	91	D	0.806	7
		PM	C	C	0.753	163	C	0.748	114	C	0.744	73	C	0.74	38
Page Mill Road to Alpine Road	9,200	AM	C	C	0.758	30	C	0.759	44	C	0.76	55	C	0.755	4
		PM	E	E	0.926	98	E	0.922	68	E	0.92	44	E	0.917	23
Interstate 880 – Northbound															
I-280 to Stevens Creek Boulevard	6,900	AM	**F**	**F**	1.082	40	**F**	1.083	51	**F**	1.084	55	**F**	1.077	7
		PM	B	B	0.686	158	B	0.678	104	B	0.672	60	B	0.673	69
Stevens Creek Boulevard to North Bascom Avenue	6,900	AM	**F**	**F**	1.077	36	**F**	1.079	46	**F**	1.079	50	**F**	1.073	6
		PM	**F**	**F**	**1.036**	**142**	**F**	**1.029**	**94**	**F**	1.023	54	**F**	1.024	62
North Bascom Avenue to The Alameda	6,900	AM	**F**	**F**	1.022	27	**F**	1.023	35	**F**	1.024	38	**F**	1.019	5
		PM	**F**	**F**	**1.098**	**107**	**F**	**1.092**	**71**	**F**	1.088	41	**F**	1.089	47
The Alameda to Coleman Avenue	6,900	AM	**F**	**F**	1.035	20	**F**	1.036	26	**F**	1.036	29	**F**	1.033	4
		PM	**F**	**F**	**1.127**	**80**	**F**	1.123	53	**F**	1.12	31	**F**	1.12	35
Interstate 880 – Southbound															
Coleman Avenue to The Alameda	6,900	AM	**F**	**F**	**1.058**	**77**	**F**	1.053	47	**F**	1.048	13	**F**	1.047	5
		PM	**F**	**F**	1.035	31	**F**	1.035	33	**F**	1.036	38	**F**	1.035	32
The Alameda to North Bascom Avenue	6,900	AM	D	E	0.913	102	E	0.908	62	E	0.901	17	D	0.9	7
		PM	E	**F**	**1.004**	**41**	**F**	**1.005**	**44**	**F**	**1.006**	**50**	**F**	**1.004**	**43**
North Bascom Avenue to Stevens Creek Boulevard	6,900	AM	D	D	0.861	136	D	0.853	82	D	0.845	23	D	0.843	9
		PM	E	**F**	**1.007**	**55**	**F**	**1.007**	**59**	**F**	**1.008**	**66**	**F**	**1.007**	**57**
Stevens Creek Boulevard to I-280	6,900	AM	B	B	0.671	151	B	0.663	91	B	0.653	25	B	0.651	10
		PM	D	D	0.817	61	D	0.818	65	D	0.819	73	D	0.818	63
SR 17 – Northbound															
Saratoga Avenue to Lark Avenue	6,900	AM	B	B	0.679	23	B	0.677	13	B	0.676	2	B	0.675	1
		PM	B	B	0.697	9	B	0.697	7	B	0.697	5	B	0.697	5
Lark Avenue to SR 85	6,900	AM	B	B	0.667	30	B	0.665	17	B	0.663	3	B	0.663	1
		PM	C	C	0.761	12	C	0.76	9	C	0.76	6	C	0.76	6
SR 17 – Southbound															
SR 85 to Lark Avenue	4,400	AM	**F**	**F**	1.083	11	**F**	1.082	8	**F**	1.081	5	**F**	1.08	1
		PM	**F**	**F**	**1.361**	**49**	**F**	1.355	25	**F**	1.351	5	**F**	1.351	6
Lark Avenue to Saratoga Avenue	4,400	AM	**F**	**F**	1.128	8	**F**	1.128	6	**F**	1.128	4	**F**	1.127	1
		PM	**F**	**F**	1.141	37	**F**	1.137	19	**F**	1.133	4	**F**	1.133	5

Notes: **Bold** font indicates unacceptable operations based on VTA's LOS E Standard. **Bold and highlighted** text indicates a significant project or project alternative impact. The impacts of the Occupied/Re-Tenanted Mall Alternative is described in this EIR for informational purposes only.

Table 3.17-25: Cumulative and Cumulative with Project and Project Alternatives Freeway HOV Segment Levels of Service

Freeway Segment	Capacity	Peak Hour	Cumulative	Cumulative with Project			Cumulative with General Plan Buildout with Maximum Residential			Cumulative with Retail and Residential Alternative			Cumulative with Occupied/Re-tenanted Mall Alternative		
			LOS	LOS	V/C	Project Trips	LOS	V/C	Project Trips	LOS	V/C	Project Trips	LOS	V/C	Project Trips
SR 85 – Northbound															
Union Avenue to South Bascom Avenue	1,650	AM	**F**	**F**	1.196	6	**F**	1.195	3	**F**	1.193	0	**F**	1.193	0
		PM	A	A	0.345	1	A	0.344	0	A	0.344	0	A	0.344	0
South Bascom Avenue to SR 17	1,650	AM	**F**	**F**	1.192	0	**F**	1.194	4	**F**	1.192	0	**F**	1.192	0
		PM	A	A	0.344	0	A	0.344	0	A	0.344	0	A	0.344	0
SR 17 to Winchester Boulevard	1,650	AM	**F**	**F**	1.201	19	**F**	1.193	5	**F**	1.19	0	**F**	1.19	0
		PM	A	A	0.345	2	A	0.344	1	A	0.344	0	A	0.344	0
Winchester Boulevard to Saratoga Avenue	1,650	AM	**F**	**F**	1.366	26	**F**	1.355	7	**F**	1.35	0	**F**	1.35	0
		PM	A	A	0.572	2	A	0.571	1	A	0.57	0	A	0.57	0
Saratoga Avenue to Saratoga-Sunnyvale Road	1,650	AM	**F**	**F**	1.239	0	**F**	1.248	15	**F**	1.24	2	**F**	1.239	1
		PM	A	A	0.547	0	A	0.551	7	A	0.55	6	A	0.55	5
Saratoga-Sunnyvale Road to Stevens Creek Boulevard	1,650	AM	**F**	**F**	1.136	0	**F**	1.136	0	**F**	1.136	0	**F**	1.136	0
		PM	B	B	0.602	0	B	0.602	0	B	0.602	0	B	0.602	0
Stevens Creek Boulevard to I-280	1,650	AM	D	D	0.836	6	D	0.836	6	D	0.838	8	D	0.833	0
		PM	A	A	0.435	14	A	0.433	10	A	0.43	6	A	0.428	3
I-280 to West Homestead Road	1,650	AM	D	D	0.881	0	D	0.884	5	D	0.884	6	D	0.881	0
		PM	A	A	0.519	0	A	0.523	7	A	0.522	5	A	0.52	2
West Homestead Road to West Fremont Avenue	1,650	AM	D	D	0.881	0	D	0.884	4	D	0.884	4	D	0.881	0
		PM	A	A	0.518	0	A	0.522	6	A	0.52	3	A	0.519	2
SR 85 – Southbound															
West Fremont Avenue to West Homestead Road	1,650	AM	D	D	0.898	13	D	0.893	5	D	0.892	2	D	0.89	0
		PM	**F**	**F**	1.138	5	**F**	1.138	4	**F**	1.138	5	**F**	1.136	2
West Homestead Road to I-280	1,650	AM	D	D	0.889	0	D	0.893	7	D	0.891	3	D	0.889	0
		PM	**F**	**F**	1.135	0	**F**	1.138	5	**F**	1.138	6	**F**	1.136	2
I-280 to Stevens Creek Boulevard	1,650	AM	B	B	0.658	0	B	0.663	9	B	0.659	3	B	0.658	0
		PM	**F**	**F**	1.454	0	**F**	1.458	7	**F**	1.459	9	**F**	1.456	3
Stevens Creek Boulevard to Saratoga-Sunnyvale Road	1,650	AM	D	D	0.853	0	D	0.853	0	D	0.853	0	D	0.853	0
		PM	**F**	**F**	1.367	0	**F**	1.367	0	**F**	1.367	0	**F**	1.367	0
Saratoga-Sunnyvale Road to Saratoga Avenue	1,650	AM	E	D	0.898	0	E	0.902	6	E	0.901	5	D	0.898	0
		PM	F	**F**	1.108	0	**F**	1.117	15	**F**	1.111	5	**F**	1.111	5
Saratoga Avenue to Winchester Boulevard	1,650	AM	D	D	0.897	0	D	0.898	1	D	0.897	0	D	0.897	0
		PM	E	E	0.976	0	E	0.979	6	E	0.976	0	E	0.976	0
Winchester Boulevard to SR 17	1,650	AM	B	B	0.601	0	B	0.602	1	B	0.601	0	B	0.601	0
		PM	A	A	0.589	0	A	0.592	5	A	0.589	0	A	0.589	0
SR 17 to South Bascom Avenue	1,650	AM	B	B	0.602	0	B	0.602	1	B	0.602	0	B	0.602	0
		PM	**F**	**F**	1.319	0	**F**	1.321	3	**F**	1.319	0	**F**	1.319	0
South Bascom Avenue to Union Avenue	1,650	AM	B	B	0.602	0	B	0.602	0	B	0.602	0	B	0.602	0
		PM	**F**	**F**	1.32	0	**F**	1.321	2	**F**	1.32	0	**F**	1.32	0
Interstate 280 – Eastbound															
Magdalena Avenue to Foothill Expressway	1,650	AM	A	A	0.597	42	A	0.587	25	A	0.577	9	A	0.573	2
		PM	A	A	0.375	8	A	0.376	10	A	0.378	13	A	0.373	5
Foothill Expressway to SR 85	1,650	AM	B	C	0.702	47	B	0.692	30	B	0.68	11	B	0.675	3
		PM	A	A	0.499	11	A	0.501	14	A	0.502	17	A	0.496	6
SR 85 to De Anza Boulevard	1,650	AM	A	A	0.375	36	A	0.367	23	A	0.358	9	A	0.354	2
		PM	**F**	**F**	**1.099**	**29**	**F**	**1.099**	**29**	**F**	**1.103**	**36**	**F**	1.089	13

Table 3.17-25: Cumulative and Cumulative with Project and Project Alternatives Freeway HOV Segment Levels of Service

Freeway Segment	Capacity	Peak Hour	Cumulative	Cumulative with Project			Cumulative with General Plan Buildout with Maximum Residential			Cumulative with Retail and Residential Alternative			Cumulative with Occupied/Re-tenanted Mall Alternative		
			LOS	LOS	V/C	Project Trips	LOS	V/C	Project Trips	LOS	V/C	Project Trips	LOS	V/C	Project Trips
De Anza Boulevard to Wolfe Road	1,650	AM	A	A	0.396	31	A	0.39	20	A	0.382	7	A	0.379	2
		PM	**F**	**F**	**1.106**	**25**	**F**	**1.105**	**24**	**F**	**1.109**	**30**	**F**	1.098	12
Wolfe Road to Lawrence Expressway	1,650	AM	A	A	0.367	10	A	0.368	12	A	0.369	13	A	0.362	2
		PM	**F**	**F**	**1.133**	**80**	**F**	**1.11**	**42**	**F**	**1.099**	**24**	**F**	**1.102**	**28**
Lawrence Expressway to Saratoga Avenue	1,650	AM	A	A	0.399	12	A	0.401	15	A	0.402	17	A	0.393	2
		PM	**F**	**F**	**1.156**	**99**	**F**	**1.127**	**52**	**F**	**1.114**	**30**	**F**	**1.116**	**34**
Saratoga Avenue to Winchester Boulevard	1,650	AM	A	A	0.481	11	A	0.482	14	A	0.483	15	A	0.475	2
		PM	**F**	**F**	**1.395**	**89**	**F**	**1.369**	**47**	**F**	**1.357**	**27**	**F**	**1.359**	**31**
Winchester Boulevard to I-880	1,650	AM	A	A	0.419	10	A	0.42	12	A	0.421	13	A	0.414	2
		PM	**F**	**F**	**1.245**	**80**	**F**	**1.222**	**42**	**F**	1.211	24	**F**	**1.213**	**28**
I-880 to Meridian Avenue	1,650	AM	C	C	0.796	10	C	0.796	10	C	0.796	11	C	0.791	2
		PM	**F**	**F**	**1.074**	**37**	**F**	**1.064**	**21**	**F**	1.059	12	**F**	1.06	14
Meridian Avenue to Bird Avenue	1,650	AM	D	D	0.843	6	D	0.844	8	D	0.844	8	D	0.84	1
		PM	**F**	**F**	**1.196**	**25**	**F**	1.19	16	**F**	1.186	9	**F**	1.187	10
Bird Avenue to SR87	1,650	AM	B	B	0.673	6	B	0.674	7	B	0.675	8	B	0.67	1
		PM	D	D	0.878	17	D	0.875	12	D	0.872	7	D	0.873	8
Interstate 280 – Westbound															
SR87 to Bird Avenue	1,650	AM	**F**	**F**	**1.134**	**21**	**F**	1.128	12	**F**	1.123	3	**F**	1.122	2
		PM	C	C	0.718	6	C	0.718	6	C	0.719	7	C	0.718	6
Bird Avenue to Meridian Avenue	1,650	AM	**F**	**F**	**1.259**	**24**	**F**	1.253	14	**F**	1.247	4	**F**	1.246	2
		PM	**F**	**F**	1.075	9	**F**	1.076	10	**F**	1.076	11	**F**	1.075	9
Meridian Avenue to I-880	1,650	AM	**F**	**F**	**1.307**	**39**	**F**	**1.295**	**18**	**F**	1.287	5	**F**	1.285	2
		PM	**F**	**F**	1.038	15	**F**	1.036	13	**F**	1.038	15	**F**	1.036	13
I-880 to Winchester Boulevard	1,650	AM	**F**	**F**	**1.237**	**90**	**F**	**1.205**	**37**	**F**	1.188	10	**F**	1.185	4
		PM	C	C	0.784	28	C	0.783	26	C	0.785	29	C	0.782	25
Winchester Boulevard to Saratoga Avenue	1,650	AM	**F**	**F**	**1.092**	**80**	**F**	**1.068**	**41**	**F**	1.05	11	**F**	1.046	5
		PM	C	C	0.758	26	C	0.759	28	C	0.761	31	C	0.758	27
Saratoga Avenue to Lawrence Expressway	1,650	AM	**F**	**F**	**1.364**	**94**	**F**	**1.334**	**45**	**F**	1.314	12	**F**	1.31	5
		PM	C	C	0.752	31	C	0.752	32	C	0.755	36	C	0.752	31
Lawrence Expressway to Wolfe Road	1,650	AM	**F**	**F**	**1.321**	**76**	**F**	**1.297**	**36**	**F**	1.281	10	**F**	1.278	4
		PM	C	C	0.733	25	C	0.734	26	C	0.736	29	C	0.733	25
Wolfe Road to De Anza Boulevard	1,650	AM	**F**	**F**	**1.204**	**19**	**F**	**1.206**	**22**	**F**	**1.209**	**27**	**F**	1.195	3
		PM	C	C	0.733	50	C	0.724	34	C	0.716	22	C	0.711	13
De Anza Boulevard to SR 85	1,650	AM	**F**	**F**	**1.122**	**23**	**F**	**1.124**	**27**	**F**	**1.128**	**33**	**F**	1.11	3
		PM	B	B	0.696	62	B	0.684	42	B	0.675	27	B	0.667	14
SR 85 to Foothill Expressway	1,650	AM	**F**	**F**	**1.193**	**19**	**F**	**1.195**	**22**	**F**	**1.198**	**27**	**F**	1.182	2
		PM	C	C	0.728	49	C	0.719	33	C	0.712	21	C	0.705	11
Foothill Expressway to Magdalena Avenue	1,650	AM	**F**	**F**	1.027	15	**F**	**1.028**	**17**	**F**	**1.031**	**21**	**F**	1.019	2
		PM	A	A	0.593	40	A	0.585	27	A	0.579	17	A	0.574	9

Notes: **Bold** font indicates unacceptable operations based on VTA's LOS E Standard. **Bold and highlighted** text indicates a significant project or project alternative impact. The impacts of the Occupied/Re-Tenanted Mall Alternative is described in this EIR for informational purposes only.

Occupied/Re-Tenanted Mall Alternative

As summarized in Table 3.17-23, the implementation of the Occupied/Re-Tenanted Mall Alternative would result in significant freeway level of service impacts under cumulative with project conditions at 11 mixed flow lanes in the PM peak hour and four HOV lanes in the PM peak hour. The Occupied/Re-Tenanted Mall Alternative would have fewer freeway impacts under cumulative with project conditions than the proposed project.

A discussion of this alternative is provided in the EIR for informational purposes only. While the implementation of the Occupied/Re-Tenanted Mall Alternative would result in significant freeway level of service impacts, this alternative is a permitted land use, and can be implemented without further discretionary approvals from the City or environmental review under CEQA. No mitigation measures or additional conditions of approval can be required. **(Significant and Unavoidable Cumulative Impact: Not a CEQA Impact)**

3.18 UTILITIES AND SERVICE SYSTEMS

This section is based in part on a sewer analysis prepared by the Cupertino Sanitary District (CuSD) in April 2018, and a Water Supply Assessment (WSA) prepared by Yarne & Associates, Inc. in May 2018, and a recycled water study by Schaaf & Wheeler in May 2018. Copies of these utility studies are included in Appendix I.

3.18.1 Environmental Setting

3.18.1.1 *Regulatory Framework*

State

Water Supply

Urban Water Management Plan

Pursuant to State Water Code requirements, water suppliers providing water for municipal purposes to more than 3,000 customers or supplying more than 3,000 acre-feet (approximately 980 million gallons) of water annually must prepare and adopt an urban water management plan (UWMP) and update it every five years. The State Water Code requires water agencies to evaluate and describe their water resource supplies and projected needs over a 20-year planning horizon, and to address a number of related subjects including water conservation, water service reliability, water recycling, opportunities for water transfers, and contingency plans for drought events. The City of Cupertino adopted its most recent UWMP prepared by SCVWD in 2015.

Senate Bill 610

SB 610, codified at Water Code Section 10910 et seq., requires that certain water supply and demand information be prepared for "projects" which are the subject of an EIR. Water Codes Section 10912 defines a "project" as: a proposed residential development of more than 500 dwelling units, a shopping center or business establishment employing more than 1,000 persons or having more than 500,000 square feet of floor space, a commercial office building employing more than 1,000 persons or having more than 250,000 square feet of floor space, a proposed hotel or motel, or both, having more than 500 rooms, 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.

Additional water regulations are described in the WSA in Appendix I.

Wastewater

RWQCB includes regulatory requirements that each wastewater collection system agency shall, at a minimum, develop goals for the Sewer System Management Plan (SSMP) to provide adequate capacity to convey peak flows. Other RWQCB regulatory requirements include the General Waste Discharge Requirements (GWDR), which regulates the discharge from wastewater treatment plants.

Solid Waste

Assembly Bill 341

AB 341 sets forth the requirements of the statewide mandatory commercial recycling program in the Public Resources Code. All businesses that generate four or more cubic yards of garbage per week and multi-family dwellings with five or more units in California are required to recycle. The purpose of the law is to reduce garbage sent to landfills and reduce greenhouse gas emissions. AB 341 sets a statewide goal for 75 percent disposal reduction by the year 2020.

California Green Building Standards Code

CALGreen Section 4.408, Construction Waste Reduction Disposal and Recycling, mandates that, in the absence of a more stringent local ordinance, a minimum of 50 percent of non-hazardous construction and demolition debris must be recycled or salvaged. CALGreen requires that all applicants have a waste management plan for on-site sorting of construction debris. The waste management plan shall do the following:

- Identify the materials to be diverted from disposal by recycling, reused on the project, or salvaged for future use or sale;
- Specify if materials will be sorted on-site or mixed for transportation to a diversion facility;
- Identify the diversion facility where the material collected will be taken;
- Identify construction methods employed to reduce the amount of waste generated; and
- Specify that the amount of materials diverted shall be calculated by weight or volume, but not by both.

Local

Cupertino General Plan: Community Vision 2015-2040

The proposed project (and project alternatives) are subject to General Plan policies including, but not limited to, the policies and strategies listed below pertaining to utilities and service systems.

Policy/ Strategy	Description
Policy INF-1.2	Ensure that existing facilities are maintained to meet the community's needs.
Strategy INF-1.4.1	Require developers to expand or upgrade existing infrastructure to increase capacity, or pay their fair share, as appropriate.
Strategy INF-1.4.2	For new infrastructure, require new development to pay its fair share of, or to extend or construct, improvements to accommodate growth without impacting service levels.
Strategy INF-2.4.2	Require undergrounding of all utility lines in new developments and highly encourage undergrounding in remodels or redevelopment of major projects.
Policy INF-3.1	Coordinate with water providers and agencies in their planning and infrastructure process to ensure that the City continues to have adequate supply for current needs and future growth.
Strategy RPC-3.1.1	Maximize the use of native plants and drought-tolerant planting.

Policy/ Strategy	Description
Policy INF-4.1	Create plans and operational policies to develop and maintain an effective and efficient stormwater system.
Strategy INF-4.1.1	Reduce the demand on storm drain capacity through implementation of programs that meet and even exceed on-site drainage requirements.
Policy INF-5.1	Ensure that the infrastructure plans for Cupertino's waste water system providers continue to meet the City's current and future needs.
Strategy INF-5.1.2	Require developers to pay their fair share of costs for, or in some cases construct, infrastructure upgrades to ensure that service levels are met.
Policy INF-7.2	Ensure that public and private developments build new and on-site facilities and/or retrofit existing on-site facilities to meet the City's waste diversion requirements.
Strategy ES-7.11.4	Encourage and promote the use of recycled water in public and private buildings, open space and streetscape planting.
Strategy ES-7.11.5	Encourage on-site water recycling including rainwater harvesting and gray water use.
Strategy INF-2.5.2	Encourage private and public projects to incorporate the use of recycled water for landscaping and other uses.
Strategy INF-7.3.2	Encourage recycling and reuse of building materials during demolition and construction of City, agency and private projects.

Cupertino Zero Waste Policy

In December 2017, the City adopted its Zero Waste Policy. The purpose of this policy is to:

- Protect the environment and conserve natural resources;
- Prevent pollutants from entering the air, land, and water;
- Follow the principle of highest and best use so that reducing and reusing waste materials occurs first, followed by recycling and composting, so that eventually no material goes to landfill or high-temperature destruction;
- Create a more sustainable, efficient economy; and
- Preserve the environment for future generations.

The policy outlines various measures to implement to reduce the amount of solid waste being generated and disposed of in the City.

Cupertino Municipal Code

The Municipal Code includes the following provisions regarding utilities and service systems:

- *Chapter 9.12, Hazardous Material Storage,* establishes regulations to prevent and control unauthorized discharges of hazardous materials.

- *Chapter 9.16, Recycling Areas,* requires recycling areas to be located at a convenient location for persons depositing, collecting, loading the recyclable materials, and be adjacent to the

solid waste collection area, if feasible. The chapter also requires the recycling areas to comply with the site and design guidelines, and be maintained by the property owners to avoid waste accumulation that creates a visual, public health, or safety nuisance.

- *Chapter 14.15, Landscaping Ordinance,* establishes water-efficient landscaping standards to conserve water use on irrigation. The provisions of this chapter apply to landscaping projects that include irrigated landscape areas, exceeding 2,500 square feet when these projects are associated with new water service, subdivision improvements, grading and drainage improvements, a new construction subject to a building permit, or building additions or modifications subject to grading and drainage plan approval.

- *Chapter 15.20, Sewage Disposal Systems,* establishes standards for the approval, installation, and operation of individual on-site sewage disposal systems consistent with the RWQCB standards. The chapter sets regulation for connecting to public sanitary sewer system.

- *Chapter 16.58, Green Building Ordinance,* includes the CALGreen requirements with local amendments for projects in the City. The City's Green Building Ordinance codifies green building techniques, including measures affecting water use efficiency and water conservation. Section 16.58.220 includes Table 101.10 that identifies the green building requirements by type of building. Section 16.58.230 permits applicants to apply an alternate green building standard for a project in lieu of the minimum standards outlined in Section 16.58.220 that meet the same intent of conserving resources and reducing solid waste.

- *Chapter 16.72, Recycling and Diversion of Construction and Demolition Waste,* requires all projects within the City that involve construction, demolition, or renovation of 3,000 square feet or more to comply with the provisions of the chapter, and the compliance with the chapter will be attached as conditions of approval of any building or demolition permit issued. An applicant for a covered project is required to recycle or divert at least 60 percent of all generated construction and demolition (C&D) waste by salvage or by transfer to an approved facility. Prior to the permit issuance, the applicant is required to submit a properly completed Waste Management Plan, which includes the estimated maximum amount of C&D waste that can feasibly be diverted, which facility will handle the waste, and the total amount of C&D waste that will be landfilled.

3.18.1.2 *Existing Conditions*

Wastewater Treatment/Sanitary Sewer System

Wastewater from the City of Cupertino is treated at the San José-Santa Clara Regional Wastewater Facility (RWF). The RWF is jointly owned by the cities of San José and Santa Clara. RWF is one of the largest advanced wastewater treatment facilities in the state and serves over 1.4 million people in Cupertino, Santa Clara, San José, Milpitas, Campbell, Los Gatos, Saratoga, and Monte Sereno. RWF provides primary, secondary, and tertiary treatment of wastewater and has the capacity to treat 167 mgd of wastewater.

RWF is currently operating under a 120 mgd dry weather effluent flow constraint. This requirement is based on SWRCB and RWQCB concerns over the effects of additional freshwater discharges from RWF on the saltwater marsh habitat and pollutant loading to the Bay. Approximately 10 percent of the RWF's effluent is recycled for non-potable uses and the remainder flows into San Francisco Bay. The NPDES permit for RWF includes wastewater discharge requirements.

The Cupertino Sanitary District (CuSD) provides sewage collection, treatment, and disposal services to the City. The collected wastewater is conveyed to the RWF through mains and interceptor lines shared with both the cities of San José and Santa Clara. CuSD has a contracted treatment capacity of 7.85 mgd at the RWF. Currently, the City is generating a peak dry weather flow of 4.25 mgd of sewage that is treated at the RWF.

Existing 12-, 15-, and 27-inch sewer mains in Wolfe Road collect sewage generated from the project site. These sewer mains run north on Wolfe Road to Homestead Road and then to CuSD's Flume station where CuSD's flow enters the City of Santa Clara system to the RWF for treatment. The City of Santa Clara interceptor line has a peak design flow, permitted by agreement between CuSD and the City of Santa Clara, of 13.8 mgd and the peak 1-hour flow rate is currently 9.4 mgd. The 12- and 15-inch sewer mains in Wolfe Road and downstream connections from the project site are near capacity under existing conditions. The 27-inch sewer main in Wolfe Road is operating at capacity. The project site has an existing estimated average daily sewage generation rate of approximately 0.28 mgd.[127]

Storm Drain System

The site is developed with buildings, paved driveways and parking lots, as well as landscaping and utilities. As discussed in Section 3.10, 4.7 acres of the 58-acre development area is pervious and the remaining 53.3 acres is impervious. Therefore, over 90 percent of the project site is currently impervious. Stormwater runoff discharges into storm drain inlets that convey runoff via the City stormwater drainage system into Calabazas Creek and the Junipero Serra Channel (which flows to Calabazas Creek), and ultimately into San Francisco Bay. Currently, the project site is served by storm drain lines in Stevens Creek Boulevard, Wolfe Road, Vallco Parkway, and Perimeter Road.

Water Supply

Water service is provided to the project site by Los Altos Suburban (LAS) District of Cal Water. The LAS District serves portions of the most of the incorporated city of Los Altos, portions of the cities of Cupertino, Los Altos Hills, Mountain View, Sunnyvale, and adjacent unincorporated areas of Santa Clara County.

Water supply for the LAS District is from Cal Water groundwater wells and purchased treated water from SCVWD. Cal Water has a contract with SCVWD to purchase treated surface water until the year 2035. The amount of groundwater production and water purchased from SCVWD varies year by year depending on the supply available from SCVWD. SCVWD imports water to the region through the South Bay Aqueduct of the State Water Project (SWP), San Felipe Division of the Federal Central Valley Project (CVP), and San Francisco Public Utilities Commission's Regional

[127] When determining existing, local sewer line flows and capacity, the CuSD includes estimated flows from existing developments. The CuSD, therefore, assumes the existing sewage flow from the mall at full occupancy.

Water System. Cal Water only receives water from the SWP and CVP, however. Refer to Appendix I for additional details about Cal Water's water supply.

During the last five years, approximately 35 percent of total supply to the LAS District was from Cal Water wells and the remaining 65 percent was purchased water from SCVWD. The project site is served by existing water lines in Perimeter Road, Wolfe Road, and Stevens Creek Boulevard. The existing site in 2015 (the year in which water use in the UWMP is based upon), used approximately 216,089 gallons per day (gpd) or 242 acre-feet per year (AFY).

Recycled Water Supply

Recycled water in the project vicinity is supplied by the City of Sunnyvale's Water Pollution Control Plant (WPCP). Currently, the WPCP treats wastewater to recycled water standards in batches, rather than continuously, due to existing plant configuration limitations. As a result, potable water has historically been blended with recycled water to meet peak demands in the recycled water system. The City of Sunnyvale is in the process of improving the WPCP to provide recycled water continuously. The improvements would increase the production of at least 1,680 AFY of recycled water. The increased capacity would meet the 1,120 AFY of existing demand within Sunnyvale and 560 AFY of demand along the Wolfe Road Pipeline in Sunnyvale and Cupertino. The improvements to the WPCP are expected to be completed in summer of 2019.

The 560 AFY of demand for the Wolfe Road Pipeline includes demands for the Apple Park office campus, 11 sites along the pipeline, and eight sites extending from the pipeline. The demand for these projects and sites is estimated at 495 AFY. The Wolfe Road Pipeline currently terminates at the Apple Park office campus site just north of the intersection of Homestead Road and Wolfe Road.

Solid Waste

The Santa Clara County's Integrated Waste Management Plan (IWMP) was approved by the California Integrated Waste Management Board (CIWMB) in 1996 and has since been reviewed in 2004, 2007, and 2011. According to the IWMP, the County has adequate disposal capacity beyond 2026. Solid waste generated within the County is landfilled at Guadalupe Mines, Kirby Canyon, Newby Island, Zanker Road Materials Processing Facility, and Zanker Road landfills.

Solid waste, recycling, and composting collection services in the City are provided by Recology. Recology hauls the collected solid waste to Newby Island Sanitary Landfill (NISL) located at 1601 Dixon Landing Road, San José. The City of Cupertino has a contract with NISL to dispose of solid waste through 2023. NISL's total capacity is 57.5 million cubic yards. Currently, the landfill has a remaining capacity of approximately 17 million cubic yards and an estimated closure date of 2039.[128] The existing uses on-site generate approximately 1,248 cubic yards of solid waste per year.[129]

[128] Kelapanda, Achaya. Personal communications with Newby Island Sanitary Landfill Environmental Manager. May 17, 2018.
[129] Illingworth & Rodkin, Inc. *Vallco Special Area Specific Plan Air Quality and Greenhouse Gas Emissions Assessment.* May 2018. Attachment 2.

3.18.2 Utilities and Service Systems Impacts

3.18.2.1 *Thresholds of Significance*

For the purposes of this EIR, a utilities and service systems impact is considered significant if the project would:

- Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board;
- Require or result in the construction of new waste or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects;
- Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects;
- Have insufficient water supplies available to serve the project from existing entitlements and resources, or if new or expanded entitlements are needed;
- Result in a determination by the wastewater treatment provider which serves or may serve the project that it has inadequate capacity to serve the project's projected demand in addition to the provider's existing commitments;
- Be served by a landfill with insufficient permitted capacity to accommodate the project's solid waste disposal needs; or
- Not comply with federal, state, and local statutes and regulations related to solid waste.

Impact UTL-1:	**The project (and project alternatives) would not exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board. (Less than Significant Impact)**

Project and All Project Alternatives

Sewage generated by the project and project alternatives would be treated at RWF in accordance with RWF's existing NPDES permit. It is not anticipated that the sewage generated by the project or project alternatives would exceed the wastewater treatment requirements of the RWQCB. **(Less than Significant Impact)**

The Occupied/Re-Tenanted Mall Alternative is provided in the EIR for informational purposes only. This alternative is a permitted land use, and can be implemented without further discretionary approvals from the City or environmental review under CEQA. **(Less than Significant Impact: Not a CEQA Impact)**

Impact UTL-2: The project (and General Plan Buildout with Maximum Residential Alternative and Retail and Residential Alternative) would require improvements to the existing sewer system, however, the construction of the improvements would not cause significant environmental effects. (Less than Significant Impact with Mitigation Incorporated)

Project

The existing sewer system has capacity allocated to accommodate flows from the existing mall at full occupancy. The net increase in sewage generated from the project and project alternatives compared to the sewage generation of the fully occupied mall is shown in Table 3.18-1. The project and project alternatives are estimated to generate a net increase of 0.72 to 1.04 mgd of sewage.[130] The General Plan Buildout with Maximum Residential Alternative and Retail and Residential Alternative are estimated to generate more sewage than the proposed project. The Occupied/Re-Tenanted Mall Alternative would not result in an increase in sewage generation since it is the fully occupancy of the mall.

Table 3.18-1: Estimated Net Sewage Generation

	Estimated Net Average Sewage Generation (mgd)
Project	0.72
General Plan Buildout with Maximum Residential Alternative	0.94
Retail and Residential Alternative	1.04
Occupied/Re-Tenanted Alternative	0

Note: The sewage generation identified is the net increase in sewage generation anticipated under the proposed project and project alternatives compared to existing conditions.

Based on the modeling and analysis by the CuSD, development of the project (or General Plan Buildout with Maximum Residential Alternative or Retail and Residential Alternative) would exceed the current capacity of the 12-, 15-, and 27-inch sewer mains serving the site. In addition, modeling results show that CuSD existing flows with flows from the project (or General Plan Buildout with Maximum Residential Alternative or Retail and Residential Alternative), would exceed the peak flow of 13.8 mgd of the City of Santa Clara interceptor located downstream of the project site.

[130] This estimated amount does not include flows from future underground parking garages. Drainage for underground parking garages are required to connect to the sanitary sewer system. Because underground parking areas are not typically exposed to a significant amount of rain, this flow would be relatively minor and would be confirmed at the final design stage. During the design phase of the project, the City would work to limit the amount of exposed areas that would drain towards the underground parking areas.

Mitigation Measures:

MM UTIL-2.1: Future development under the proposed project (or General Plan Buildout with Maximum Residential Alternative or Retail and Residential Alternative) shall replace the existing sewer mains in Wolfe Road with new mains of an adequate size as determined by CuSD, and shall install an 18- to 21-inch parallel pipe to the existing mains to accommodate existing and project flows.

MM UTIL-2.2: Future development under the proposed project (or General Plan Buildout with Maximum Residential Alternative or Retail and Residential Alternative) shall replace the existing 27-inch sewer main in Wolfe Road and Homestead Road with new mains of an adequate size as determined by CuSD.

MM UTIL-2.3: Developer shall complete improvements as designated in the City of Santa Clara's Sanitary Sewer Management Plan to allow for adequate downstream sewer capacity through the City of Santa Clara sewer system. No occupancies can occur on the project site that would exceed the current contractual permitted sewer flows through the City of Santa Clara until the contractual agreement between CuSD and the City of Santa Clara is amended to recognize and authorize this increased flow.

Implementation of mitigation measures MM UTIL-2.1 through -2.3 would mitigate the project (or General Plan Buildout with Maximum Residential Alternative or Retail and Residential Alternative) impact to the sewer system by making improvements to the sewer system in order to adequately convey flows from future development. The above sewer improvements would occur within the existing right-of-way and the construction impacts related to installing new sewer lines are discussed in the EIR sections dealing with construction impacts including Sections 3.3 Air Quality, 3.4 Biological Resources, 3.5 Cultural Resources, 3.13 Noise and Vibration, and 3.17 Transportation/Traffic. **(Less than Significant Impact with Mitigation Incorporated)**

General Plan Buildout with Maximum Residential Alternative

Implementation of the General Plan Buildout with Maximum Residential Alternative would result in similar significant wastewater impacts related to system capacity as described above for the proposed project. The General Plan Buildout with Maximum Residential Alternative would have greater impacts to the sewer system than the proposed project as it would generate a greater amount of sewage than the proposed project (see Table 3.18-1). Refer to Impact UTIL-2 and mitigation measures MM UTIL-2.1 through -2.3. **(Less than Significant Impact with Mitigation Incorporated)**

Retail and Residential Alternative

Implementation of the Retail and Residential Alternative would result in similar significant wastewater impacts related to system capacity as described above for the proposed project. The Retail and Residential Alternative would have greater impacts to the sewer system than the proposed project as it would generate a greater amount of sewage than the proposed project (see Table 3.18-1). Refer to Impact UTIL-2 and mitigation measures MM UTIL-2.1 through -2.3. **(Less than Significant Impact with Mitigation Incorporated)**

Occupied/Re-Tenanted Mall Alternative

Modeling and analysis by the CuSD of the Occupied/Re-Tenanted Mall Alternative found that there would be sufficient capacity in the existing sanitary sewer system to accommodate flows from this alternative and no improvements are required.

A discussion of this alternative is provided in the EIR for informational purposes only. This alternative is a permitted land use, and can be implemented without further discretionary approvals from the City or environmental review under CEQA. **(Less than Significant Impact: Not a CEQA Impact)**

Impact UTL-3:	**The wastewater treatment provider (RWF) would have adequate capacity to serve the project (and project alternatives) demand in addition to the provider's existing commitments. (Less than Significant Impact)**

Project and All Project Alternatives

Given the CuSD's treatment allocation of 7.85 mgd of sewage at the RWF, CuSD's current generation rate of 4.25 mgd of sewage, the remaining available treatment allocation of 3.5 mgd, and the net increase sewage from the project, General Plan Buildout with Maximum Residential Alternative, and Retail and Residential Alternative (0.72-1.04 mgd), it is anticipated there is sufficient treatment capacity at the RWF to serve the project or project alternatives. **(Less than Significant Impact)**

The Occupied/Re-Tenanted Mall Alternative is provided in the EIR for informational purposes only. This alternative is a permitted land use, and can be implemented without further discretionary approvals from the City or environmental review under CEQA. **(Less than Significant Impact: Not a CEQA Impact)**

Impact UTL-4: The project (and project alternatives) would not require the construction of new storm water drainage facilities or expansion of existing facilities. (Less than Significant Impact)

Project

As discussed in Section 3.10, redevelopment of the site under the project (or General Plan Buildout with Maximum Residential Alternative), which includes a 30-acre green roof, would result in a decrease in impervious surfaces on-site. The decrease in impervious surfaces on-site would result in a corresponding decrease in surface runoff from the site. It is concluded, therefore, that the existing storm drain system would continue to have capacity to serve the runoff from the site under the proposed project (and General Plan Buildout with Maximum Residential Alternative). **(Less than Significant Impact)**

General Plan Buildout with Maximum Residential Alternative

The General Plan Buildout with Maximum Residential Alternative would result in the same drainage and surface runoff as described above for the proposed project. **(Less than Significant Impact)**

Retail and Residential Alternative

Unlike the proposed project and the General Plan Buildout with Maximum Residential Alternative, the Retail and Residential Alternative would not include a 30-acre green roof. As discussed in Section 3.10, the Retail and Residential Alternative would increase impervious surfaces on-site compared to existing conditions. Implementation of the Retail and Residential Alternative could result in a three percent (or 1.9-acre) increase in impervious surfaces on-site. This increase in impervious surfaces would result in a corresponding increase in surface runoff from the site.

Standard Permit Condition: As a standard permit condition, future development under the Retail and Residential Alternative shall complete additional analysis to determine if the existing storm drain system has sufficient capacity to accommodate project runoff flows. Future development shall be responsible for completing improvements (if needed) to the storm drain system to ensure there is sufficient storm drain system capacity to serve the proposed development and not result in off-site flooding, or the development shall provide adequate facilities on-site to offset peak flows from the development, thereby removing any capacity issues. It is anticipated that improvements to the storm drain system (if needed) would occur within the existing right-of-way and would not result in significant impacts, and any facilities to offset peak flows would occur on-site and would not result in significant impacts.

Future development under the Retail and Residential Alternative, with the implementation of the above standard permit condition, would not result in significant storm drain system impacts. **(Less than Significant Impact)**

Occupied/Re-Tenanted Mall Alternative

The Occupied/Re-Tenanted Mall Alternative would not substantially alter the existing drainage or surface runoff amounts from the project site compared to existing conditions. It is assumed that the existing storm drain system would continue having capacity to accommodate flows from the project site.

A discussion of this alternative is provided in the EIR for informational purposes only. This alternative is a permitted land use, and can be implemented without further discretionary approvals from the City or environmental review under CEQA. **(Less than Significant Impact: Not a CEQA Impact)**

Impact UTL-5: The project (and project alternatives) would have sufficient water supply available to serve the project from existing entitlements and resources. (Less than Significant Impact)

Potable Water Supply

Project

A WSA was completed by Cal Water for the project, in accordance with SB 610 (refer to Appendix I). The WSA was prepared to determine if there would be sufficient water supply to serve the proposed project (and project alternatives). While the project proposes to extend the existing recycled water infrastructure to the site and use recycled water for landscape irrigation, the WSA and following discussion conservatively assume all water demand by the project would be met with potable water.

It has been the practice of Cal Water to rely on the water purchased from SCVWD during normal hydrologic conditions to meet the LAS District demand. Since the SCVWD water comes from treated surface water located in reservoirs, local groundwater sources in the LAS District are allowed to recharge and store water for future use during a prolonged drought.

The estimated net water demand for the project (and project alternatives) is shown in Table 3.18-2. The proposed project would result in a net increase in water demand of 249 AFY compared to existing 2015 water demand on-site.

Based on projected supply, LAS District is anticipated to meet projected demand (including the project or project alternatives) during normal, single dry, and multiple dry year conditions (refer to Appendix I). As discussed in detail in Appendix I, in the event of a drought, Cal Water would increase groundwater pumping during dry years and implement conservation programs as part of its Water Conservation Master Plan (WCMP) for the LAS District. Programs in the WCMP include, but are not limited to, rebate/vouchers for bathroom fixtures, vouchers or direct install of high-efficiency irrigation systems, and financial incentives for retrofitting industrial water processes. These water demand reduction measures and programs have been effective in the past to meet water demands during multiple drought years and are anticipated to being effective for future multiple dry year conditions. For these reasons, the WSA concluded the LAS District would have sufficient water

supplies to meet the project's demand and all existing and future projected customers for normal, single dry year, and multiple dry year conditions (refer to Appendix I for more detail). New or expanded water entitlements are not require to serve the proposed project. **(Less than Significant Impact)**

Table 3.18-2: Project and Project Alternative Net Water Demand Compared to Existing Conditions	
	Net Water Demand (AFY)
Proposed Project	249
General Plan Build-out with Maximum Residential Alternative	297
Retail and Residential Alternative	266
Occupied/Re-Tenanted Mall Alternative	167

General Plan Buildout with Maximum Residential Alternative

Implementation of the General Plan Buildout with Maximum Residential Alternative would result in similar water supply impacts as described above for the proposed project. See Impact UTL-5. The General Plan Buildout with Maximum Residential Alternative would have a greater impact on water supply than the proposed project because it would have a greater water demand than the proposed project. However, the WSA has determined that adequate water supply is available for the General Plan Buildout with Maximum Residential Alternative. **(Less than Significant Impact)**

Retail and Residential Alternative

Implementation of the Retail and Residential Alternative would result in similar water supply impacts as described above for the proposed project. See Impact UTL-5. The Retail and Residential Alternative would have a greater impact on water supply than the proposed project because it would have a greater water demand than the proposed project. However, the WSA has determined that adequate water supply is available for the Retail and Residential Alternative. **(Less than Significant Impact)**

Occupied/Re-Tenanted Mall Alternative

Implementation of the Occupied/Re-Tenanted Mall Alternative would result in similar water supply impacts as described for the proposed project. See Impact UTL-5. The Occupied/Re-Tenanted Alternative would have a lesser impact on water supply than the proposed project because it would have a lower water demand than the proposed project.

A discussion of this alternative is provided in the EIR for informational purposes only. This alternative is a permitted land use, and can be implemented without further discretionary approvals from the City or environmental review under CEQA. **(Less than Significant Impact: Not a CEQA Impact)**

Recycled Water Infrastructure and Supply

Project

Infrastructure

The proposed project (and General Plan Buildout with Maximum Residential Alternative and Retail and Residential Alternative) includes the extension of recycled water infrastructure to the project site. Recycled water would be used on-site for landscape irrigation.

The existing Wolfe Road recycled water pipeline serving the Apple Park office campus would be extended approximately one mile south, under I-280, to the project site. It is estimated that a pipe of approximately two to four inches in diameter would be needed to serve the proposed project (or General Plan Buildout with Maximum Residential Alternative or Retail and Residential Alternative). Construction of the pipeline extension would occur within the existing right-of-way.

An additional pump may need to be added to the existing booster pump station for the Wolfe Road recycled water pipeline in order to serve the project (or General Plan Buildout with Maximum Residential Alternative or Retail and Residential Alternative). The Wolfe Road booster pump station is located in an urban area near the intersection of Wolfe Road and Kifer Road in the City of Sunnyvale. No sensitive receptors are located adjacent to the booster pump station. In addition, the pumps are located inside an enclosure. For these reasons, the addition of a pump (if required) is not anticipated to result in a substantial increase in ambient noise compared to existing conditions. The addition of a pump to the existing pump station would be required to meet the City of Sunnyvale noise standards.

The construction impacts related to recycled water extension are discussed in the EIR sections dealing with construction impacts including Sections 3.3 Air Quality, 3.4 Biological Resources, 3.5 Cultural Resources, 3.13 Noise and Vibration, and 3.17 Transportation/Traffic. **(Less than Significant Impact)**

Supply

The project proposes 2.8 to 5.6 acres of irrigated landscaping and a 30-acre green roof (see Section 2.4.4). Assuming an irrigation demand of two AFY per acre, the recycled water demand for the project would be six to 11 AFY. The proposed 30-acre green roof would have a demand of 90 AFY. The total recycled water demand for the project would be 96 to 101 AFY.

As discussed previously, the Wolfe Road pipeline is planned to provide 560 AFY of demand. The existing demand for the Wolfe Road Pipeline is estimated at 495 AFY. There is a remaining supply of 65 AFY. With the current WPCP capacity and pipeline demand, it is anticipated there would be adequate recycled water supply for the 2.8 to 5.6 acres of irrigated landscape (six to 11 AFY).

When the improvements are completed in summer of 2019, the WPCP will have capacity to produce 1,680 AFY of recycled water and an existing demand of 1,355 AFY (without the project). There would be a remaining supply of 325 AFY of recycled water, which would be sufficient to meet the project's total recycled water demand of 96 to 101 AFY (2.8 to 5.6 acres of irrigated landscaped areas and the 30-acre green roof).

The feasibility study for the WPCP expansion identifies approximately 20 sites as potential recycled water customers from the Wolfe Road pipeline. If these projects connect to the recycled water system along with the proposed project, there may not be sufficient supply from the WPCP to serve all of the projects' recycled water demands. Any potential service constraints would be discussed with the City of Sunnyvale as the recycled water supplier, and SCVWD as the wholesaler. Insufficient recycled water supply would not result in a significant water supply impact, however, because the WSA for the project conservatively assumed that all of the project or project alternative water needs would be met with potable water. **(Less than Significant Impact)**

General Plan Buildout with Maximum Residential Alternative

The General Plan Buildout with Maximum Residential Alternative would result in the same recycled water impact as described above for the proposed project. Extension of the recycled water infrastructure would require independent environmental review when the design of the extension is finalized. **(Less than Significant Impact)**

Retail and Residential Alternative

The Retail and Residential Alternative would result in a similar recycled water impact as described above for the proposed project. The Retail and Residential Alternative would have a lesser impact on recycled water supply than the proposed project as it does not include a 30-acre green roof that would be irrigated with recycled water. Extension of the recycled water infrastructure would require independent environmental review when the design of the extension is finalized. **(Less than Significant Impact)**

Occupied/Re-Tenanted Mall Alternative

The Occupied/Re-Tenanted Mall Alternative does not include the extension of recycled water infrastructure to the site and it does not proposing using recycled water on-site. **(No Impact)**

Impact UTL-6:	**The project (and project alternatives) would be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal and would comply with applicable statutes and regulations related to solid waste. (Less than Significant Impact)**

Project

The estimated solid waste generation for the project and project alternatives is shown in Table 3.18-3. The project and project alternatives are estimated to generate a net increase of 4,150 to 11,908 cubic yards of solid waste per year compared to existing conditions. The General Plan Buildout with Maximum Residential Alternative is estimated to generate more solid waste than the proposed project. The Occupied/Re-Tenanted Mall Alternative would generate the least amount of solid waste compared to the project and other project alternatives.

Table 3.18-3: Project and Project Alternative Estimated Net Solid Waste Generation	
	Estimated Net Solid Waste Generation (cubic yards per year)
Proposed Project	9,443
General Plan Build-out with Maximum Residential Alternative	11,908
Retail and Residential Alternative	9,374
Occupied/Re-Tenanted Mall Alternative	4,150
Source: Illingworth & Rodkin, Inc. *Vallco Special Area Specific Plan Air Quality and Greenhouse Gas Emissions Assessment.* May 2018. Attachment 2.	

The City has a contract with NISL to provide disposal capacity through 2023. The City has not secured solid waste disposal capacity at a landfill beyond 2023. General Plan EIR mitigation measure UTIL-8 states that the City shall continue its current recycling ordinances and zero-waste policies in an effort to further increase its diversion rate and lower its per capita disposal rate. In addition, the City shall monitor solid waste generation volumes in relation to capacities at receiving landfill sites to ensure that sufficient capacity exists to accommodate future growth.[131]

According to the IWMP, the landfills in the County (including NISL where the City's collected solid waste is currently being landfilled) have adequate disposal capacity beyond 2026. The City, therefore, has options for landfill service once the City's existing contract with NISL ends in 2023. For this reason, the project (and project alternatives) would be served by a landfill with sufficient permitted capacity.

The construction and operation of the project (and project alternatives) would comply with applicable federal, state, and local regulations and policies related to diversion of materials from disposal and appropriate disposal of solid waste. **(Less than Significant Impact)**

General Plan Buildout with Maximum Residential Alternative

Implementation of the General Plan Buildout with Maximum Residential Alternative would result in similar significant solid waste impacts as described above for the proposed project. The General Plan Buildout with Maximum Residential Alternative would have greater solid waste impacts than the proposed project as it would generate a greater amount of solid waste than the proposed project (see Table 3.18-3). Refer to Impact UTIL-6. **(Less than Significant Impact)**

Retail and Residential Alternative

Implementation of the Retail and Residential Alternative would result in similar significant wastewater impacts related to system capacity as described above for the proposed project. The Retail and Residential Alternative would have lesser solid waste than the project as it would generate

[131] City of Cupertino. *General Plan Amendment, Housing Element Update, and Associated Rezoning EIR Volume 1*. June 18, 2014. Page 4.14-52.

a less solid waste than the proposed project (see Table 3.18-3). Refer to Impact UTIL-6. **(Less than Significant Impact)**

Occupied/Re-Tenanted Mall Alternative

Implementation of the Occupied/Re-Tenanted Mall Alternative would result in similar solid waste impacts as described above for the proposed project. The Occupied/Re-Tenanted Mall Alternative would have lesser solid waste impacts than the proposed project as it would generate a less solid waste than the proposed project (see Table 3.18-3). Refer to Impact UTIL-6.

A discussion of this alternative is provided in the EIR for informational purposes only. This alternative is a permitted land use, and can be implemented without further discretionary approvals from the City or environmental review under CEQA. **(Less than Significant Impact: Not a CEQA Impact)**

Impact UTL-7:	**The project (and project alternatives) would not result in significant cumulative impacts to utilities and service systems. (Less than Significant Cumulative Impact)**

Wastewater Treatment/Sanitary Sewer System

Project and All Project Alternatives

The geographic area for cumulative wastewater treatment is the service area of CuSD. The CuSD has contracted treatment capacity at the RWF for 7.85 mgd. As discussed in the General Plan EIR, the buildout of the General Plan would exceed CuSD's existing treatment allocation at the RWF.[132] The following mitigation measures were identified in the General Plan EIR:

- Mitigation Measure UTIL-6a: The City shall work with the Cupertino Sanitary District to increase the available citywide treatment and transmission capacity to 8.65 million gallons per day, or to a lesser threshold if studies justifying reduced wastewater generation rates are approved by CSD as described in Mitigation Measure UTIL-6c.

- Mitigation Measure UTIL-6b: The City shall work to establish a system in which a development monitoring and tracking system to tabulate cumulative increases in projected wastewater generation from approved projects for comparison to the Cupertino Sanitary District's treatment capacity threshold with San Jose/Santa Clara Water Pollution Control Plant is prepared and implemented. If it is anticipated that with approval of a development project the actual system discharge would exceed the contractual treatment threshold, no building permits for such project shall be issued prior to increasing the available citywide contractual treatment and transmission capacity as described in Mitigation Measure UTIL-6a.

- Mitigation Measure UTIL-6c: The City shall work with the Cupertino Sanitary District to prepare a study to determine a more current estimate of the wastewater generation rates that

[132] Ibid. Page 4.14-38.

reflect the actual development to be constructed as part of Project implementation. The study could include determining how the green/LEED certified buildings in the City reduce wastewater demands.[133]

The City has initiated discussions with CuSD on the above listed items, and discussions are currently ongoing.

The cumulative projects, including the buildout of the General Plan and proposed project (and project alternatives, and the implementation of the above mitigation measures by the City identified in the General Plan EIR, would not result in significant cumulative wastewater treatment impacts. **(Less than Significant Cumulative Impact)**

The Occupied/Re-Tenanted Mall Alternative is provided in the EIR for informational purposes only. This alternative is a permitted land use, and can be implemented without further discretionary approvals from the City or environmental review under CEQA. **(Less than Significant Cumulative Impact: Not a CEQA Impact)**

Storm Drain System

Project and All Project Alternatives

The geographic area for cumulative storm drain impacts includes the project site and its surrounding area, specifically areas upstream and downstream of the project site. Buildout of the cumulative projects would involve redevelopment of existing developed sites that contain substantial impervious surfaces, and these projects would be required to conform to applicable General Plan goals, policies, and strategies regarding stormwater runoff, infrastructure, and flooding. It is possible the implementation of the cumulative projects would result in a net increase in pervious surfaces. In cases such as the Retail and Residential Alternative that could result in a net increase in impervious surfaces, the City would require improvements to the storm drain system to ensure the system operates adequately (see standard permit condition in Section 3.10). For these reasons, the cumulative projects would not result in significant impacts to the storm drain system. (**Less than Significant Cumulative Impact)**

The Occupied/Re-Tenanted Mall Alternative is provided in the EIR for informational purposes only. This alternative is a permitted land use, and can be implemented without further discretionary approvals from the City or environmental review under CEQA. **(Less than Significant Cumulative Impact: Not a CEQA Impact)**

Water/Recycled Water Supply

Project and All Project Alternatives

The geographic area for cumulative water supply impacts is the service area of the LAS District. The WSA completed for the project evaluated the water supply and demand of existing and future growth within the LAS District (including the buildout of the General Plan, cumulative projects, and proposed project and project alternatives). As discussed above, the WSA concluded that the LAS

[133] Ibid. Page 4.14-40.

District would have sufficient water supplies to meet the project's demand and all existing and future projected customers for normal, single dry year, and multiple dry year conditions; and that new or expanded water entitlements are not require. **(Less than Significant Cumulative Impact)**

The Occupied/Re-Tenanted Mall Alternative is provided in the EIR for informational purposes only. This alternative is a permitted land use, and can be implemented without further discretionary approvals from the City or environmental review under CEQA. **(Less than Significant Cumulative Impact: Not a CEQA Impact)**

Landfill Capacity

Project and All Project Alternatives

The geographic area for cumulative landfill impacts is the County because the IWMP evaluates countywide landfill capacity. Currently, the City has a contract with NISL to dispose of solid waste through 2023. NISL has a remaining capacity of approximately 17 million cubic yards. The General Plan EIR identified the following mitigation measure to ensure sufficient landfill capacity for the buildout of the General Plan:

- Mitigation Measure UTIL-8: The City shall continue its current recycling ordinances and zerowaste policies in an effort to further increase its diversion rate and lower its per capita disposal rate. In addition, the City shall monitor solid waste generation volumes in relation to capacities at receiving landfill sites to ensure that sufficient capacity exists to accommodate future growth. The City shall seek new landfill sites to replace the Newby Island landfill, at such time that this landfill is closed.[134]

The City continues to monitor its waste disposal quantities and implement programs to reduce landfill volumes. The City is also continuing to work with its waste hauler and NISL on landfill permitting and capacity beyond 2023.

In addition, the IWMP concludes that the County has adequate disposal capacity beyond 2026; therefore, the City would be able to purchase landfill capacity at other county landfills. For these reasons, the cumulative projects (including the buildout of the General Plan and proposed project and project alternatives) with the implementation of the above mitigation measures by the City identified in the General Plan EIR, would not result in significant cumulative landfill impacts. **(Less than Significant Cumulative Impact)**

The Occupied/Re-Tenanted Mall Alternative is provided in the EIR for informational purposes only. This alternative is a permitted land use, and can be implemented without further discretionary approvals from the City or environmental review under CEQA. **(Less than Significant Cumulative Impact: Not a CEQA Impact)**

[134] Ibid. Page 4.14-52.

SECTION 4.0 GROWTH-INDUCING IMPACTS

Impact GRO-1:	**The project (and project alternatives) would not foster or stimulate significant economic or population growth in the surrounding environment. (Less than Significant Impact)**

Project and All Project Alternatives

The CEQA Guidelines require that an EIR identify the likelihood that a proposed project could "foster economic or population growth, or the construction of additional housing, either directly or indirectly, in the surrounding environment" (Section 15126.2[d]). This section of the EIR is intended to evaluate the impacts of such growth in the surrounding environment. Examples of projects likely to have significant growth-inducing impacts include removing obstacle to population growth, for example by extending or expanding infrastructure beyond what is needed to serve the project. Other examples of growth inducement include increases in population that may tax existing community service facilities, requiring construction of new facilities that could cause significant environmental effects.

The project (and project alternatives) would result in direct economic growth because the proposed uses include new employment, and other land uses that generate tax revenues for public services. The project would also result in direct population growth. Population and employment estimates for the project and project alternatives are summarized in Table 4.0-1.

As discussed in Section 3.14, the residential population growth from the project (and project alternatives) would not constitute substantial population growth in the area because it would occur on an infill site, is consistent with General Plan goals for focused and sustainable growth, and supports the intensification of development in an urbanized area currently served by existing roads, transit, utilities, and public services. The number of proposed residential units in the project are included in the buildout of the City's General Plan. The General Plan Buildout with Maximum Residential Alternative and Retail and Residential Alternative would allow for 758 and 2,118 more residential units, respectively, than anticipated with buildout of the City's General Plan (see discussion in Section 3.14). These additional units, however, are within the *Plan Bay Area* projections for the City and/or County.

The projected number of employees from the project and all project alternatives are anticipated in the citywide buildout of the General Plan. The number of employees anticipated from buildout of the City's General Plan is slightly greater than what is assumed for the City in *Plan Bay Area*.

Table 4.0-1: Estimated Project and Project Alternative, Citywide, and Countywide Residential Population and Employee Projections			
	Estimated Dwelling Units	**Estimated Residential Population**	**Estimated Jobs/Employees**
Plan Bay Area Projections Year 2040			
Santa Clara County	818,400	2,423,500	1,229,520
Cupertino	24,040	71,200	33,110
General Plan 2040 Buildout			
Cupertino General Plan Buildout 2040	23,294	69,183	48,509
Project and Project Alternatives Buildout			
Project	800	1,600	9,594
General Plan Buildout with Maximum Residential Alternative	2,640	5,280	5,594
Retail and Residential Alternative	4,000	8,000	1,400
Occupied/Re-Tenanted Mall Alternative	0	0	2,550
Note: The estimated residential population and jobs/employees for buildout of the General Plan are based on the following general, programmatic rates: 2.94 residents per unit, 1 employee/450 square feet of commercial uses, 1 employee/300 square feet of office uses, and 0.3 employees/hotel room (City of Cupertino. *Cupertino General Plan Community Vision 2015-2040*. October 15, 2015. Page 3-12.). The estimated population and jobs/employees for the project and project alternatives are based on a project-specific study of the specific uses proposed by the project completed by Economic & Planning Systems, Inc. The estimated residential and jobs/employees for the project and project alternatives are based on the following project-specific rates: 2.0 residents per unit, 1 employee/250 square feet of office, 1 employee/400 square feet of retail/restaurant, 1 employee/1,000 square of entertainment retail, and 1 employee/2 hotel rooms (Source: Economic & Planning Systems, Inc. "Population and Employment Projections." April 26, 2018.).			

The project site is located in an urbanized, infill site that is served by existing infrastructure, including roadways and utilities. The growth that could result from development consistent with the specific plan could tax existing community service facilities (refer to Sections 3.15 and 3.16). The project, General Plan Buildout with Maximum Residential Alternative, and Retail and Residential Alternative include infrastructure improvements (i.e., roadway mitigation, recycled water extension, and/or sewer system upgrades) to mitigate the impacts of the proposed development.[135] Those infrastructure improvements would mitigate the proposed development's impacts on community service facilities to a less than significant level. Utility improvements would be sized to serve the proposed development and would not have excess capacity. For that reason, the utility improvements would not remove obstacles to population growth. In addition, the project (and project alternatives) would pay all applicable impact fees and taxes, which would offset impacts to

[135] The Occupied/Re-Tenanted Mall Alternative does not propose infrastructure improvements and is not required to implement infrastructure improvements because the Occupied/Re-Tenanted Mall Alternative is an entitled land use.

public facilities and services, including police and fire, schools, and parks. As a result, growth associated with the implementation of the project (and project alternatives) would not have a significant impact on community service facilities, nor would it make a cumulatively considerable contribution to such impacts, requiring construction of new facilities that could cause significant environmental effects.

For the reasons stated above, the project (and project alternatives) would not result in significant indirect growth-including impacts. **(Less than Significant Impact)**

The Occupied/Re-Tenanted Mall Alternative is provided in the EIR for informational purposes only. This alternative is a permitted land use, and can be implemented without further discretionary approvals from the City or environmental review under CEQA. **(Less than Significant Impact: Not a CEQA Impact)**

SECTION 5.0 SIGNIFICANT AND IRREVERSIBLE ENVIRONMENTAL CHANGES

5.1 PROJECT AND ALL PROJECT ALTERNATIVES

This section was prepared pursuant to CEQA Guidelines Section 15126.2(c), which requires a discussion of the significant irreversible changes that would result from the implementation of a proposed project. Significant irreversible changes include the use of nonrenewable resources, the commitment of future generations to similar use, irreversible damage resulting from environmental accidents associated with the project, and irretrievable commitments of resources.

5.1.1 Use of Nonrenewable Resources

During construction and operation, the proposed project (and project alternatives), would require the use and consumption of nonrenewable resources. Unlike renewable resources, nonrenewable resources cannot be regenerated over time. Nonrenewable resources include fossil fuels and metals. Renewable resources, such as lumber and other wood byproducts, could also be used.

Energy, as discussed in more detail in Section 3.6, would be consumed during both the construction and operational phases of the project (and project alternatives). The construction phase would require the use of nonrenewable construction material, such as concrete, metals, and plastics, and glass. Nonrenewable resources and energy would also be consumed during the manufacturing and transportation of building materials, site preparation, and construction of the buildings. The operational phase would consume energy for multiple purposes including building heating and cooling, lighting, appliances, and electronics. Energy, in the form of fossil fuels, will be used to fuel vehicles traveling to and from the project site.

The project (and project alternatives) would result in a substantial increase in demand for nonrenewable resources. However, the project (and General Plan Buildout with Maximum Residential Alternative and Retail and Residential Alternative) is subject to the standard California Code of Regulations Title 24 Part 6 and CALGreen energy efficiency requirements. The project (and General Plan Buildout with Maximum Residential Alternative and Retail and Residential Alternative) would minimize potable water consumption by extending existing recycled water infrastructure to the site and using recycled water for landscape irrigation (see Section 2.4.4.4). In addition, as identified in Section 2.4.4.6, the electricity for the project (and project alternatives) would be provided by electricity sources that are 100 percent carbon free. For these reasons, the project (and project alternatives) would minimize the use of nonrenewable energy resources.

5.1.2 Commitment of Future Generations to Similar Use

The project (and project alternatives) would be developed on a site that is already fully developed for urban uses (i.e., a shopping mall and hotel). Development of the proposed project (and project alternatives) would commit a substantial amount of resources to prepare the site, construct the buildings, and operate them, but it would not result in development of a previously undeveloped area.

5.1.3 Irreversible Damage Resulting from Environmental Accidents Associated with the Project

The project (or project alternatives) does not propose any new or uniquely hazardous uses, and its operation would not be expected to cause environmental accidents that would impact other areas. As discussed in Section 3.9 Hazards and Hazardous Materials, there are no significant unmitigatable hazards and hazardous materials conditions on-site or off-site that would substantially affect the public and surrounding environment. There are no significant unmitigatable geology and soils impacts from implementation of the project (or project alternatives) (refer to Section 3.7). For these reasons, the project (and project alternatives) would not result in irreversible damage that may result from environmental accidents.

SECTION 6.0 SIGNIFICANT AND UNAVOIDABLE IMPACTS

As discussed in detail in Section 3.0, the project, General Plan Buildout with Maximum Residential Alternative, and Retail and Residential Alternative would result in the following significant and unavoidable impacts:

- **Impact AQ-2:** The construction of the project (and General Plan Buildout with Maximum Residential Alternative and Retail and Residential Alternative) would violate air quality standard or contribute substantially to an existing or projected air quality violation. **(Significant and Unavoidable Impact with Mitigation Incorporated)**

- **Impact AQ-3:** The operation of the project (and General Plan Buildout with Maximum Residential Alternative and Retail and Residential Alternative) would violate air quality standard or contribute substantially to an existing or projected air quality violation. **(Significant and Unavoidable Impact with Mitigation Incorporated)**

- **Impact AQ-4:** The proposed project (and General Plan Buildout with Maximum Residential Alternative and Retail and Residential Alternative) would result in a cumulatively considerable net increase of criteria pollutants (ROG, NOx, PM10, and/or PM2.5) for which the project region is non-attainment under an applicable federal or state ambient air quality standard. **(Significant and Unavoidable Impact with Mitigation Incorporated)**

- **Impact AQ-6:** The proposed project (and General Plan Buildout with Maximum Residential Alternative and Retail and Residential Alternative) would expose sensitive receptors to substantial construction dust and diesel exhaust emissions concentrations. **(Significant and Unavoidable Impact with Mitigation Incorporated)**

- **Impact AQ-9:** Implementation of the proposed project (and General Plan Buildout with Maximum Residential Alternative and Retail and Residential Alternative) would cumulatively contribute to air quality impacts in the San Francisco Bay Area Air Basin. **(Significant and Unavoidable Impact with Mitigation Incorporated)**

- **Impact NOI-1:** The project (and General Plan Buildout with Maximum Residential Alternative and Retail and Residential Alternative) would not expose persons to or generation of noise levels in excess of standards established in the General Plan Municipal Code, or applicable standard of other agencies. **(Significant and Unavoidable Impact with Mitigation Incorporated)**

- **Impact NOI-3:** The project (and General Plan Buildout with Maximum Residential Alternative and Retail and Residential Alternative) would result in a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project. **(Significant and Unavoidable Impact with Mitigation Incorporated)**

- **Impact NOI-4:** The project (and General Plan Buildout with Maximum Residential Alternative and Retail and Residential Alternative) would result in a substantial temporary or

periodic increase in ambient noise levels in the project vicinity above levels existing without the project. **(Significant and Unavoidable Impact with Mitigation Incorporated)**

- **Impact NOI-6:** The project (and General Plan Buildout with Maximum Residential Alternative and Retail and Residential Alternative) would result in a cumulatively considerable permanent noise level increase at existing residential land uses. **(Significant and Unavoidable Impact with Mitigation Incorporated)**

- **Impact TRN-1:** Under existing with project conditions, the project (and General Plan Buildout with Maximum Residential Alternative and Retail and Residential Alternative) would conflict with an applicable plan, ordinance, or policy establishing measures of effectiveness for the performance of the circulation system; and conflict with an applicable congestion management program, including standards established for designated roads or highways. **(Significant and Unavoidable Impact with Mitigation Incorporated)**

- **Impact TRN-2:** Under background with project conditions, the project (and General Plan Buildout with Maximum Residential Alternative and Retail and Residential Alternative) would conflict with an applicable plan, ordinance, or policy establishing measures of effectiveness for the performance of the circulation system; and conflict with an applicable congestion management program, including standards established for designated roads or highways. **(Significant and Unavoidable Impact with Mitigation Incorporated)**

- **Impact TRN-7:** The project (and General Plan Buildout with Maximum Residential Alternative and Retail and Residential Alternative) would result in a considerable contribution to a significant cumulative transportation impact. **(Significant and Unavoidable Impact with Mitigation Incorporated)**

SECTION 7.0 ALTERNATIVES

As a result of the planning process and scoping for environmental review, the City identified three alternatives to the proposed project for review in the EIR: the General Plan Buildout with Maximum Residential, Retail and Residential, and Occupied/Re-Tenanted Mall alternatives. The rationale for selecting these alternatives is discussed in Section 2.4.2. In addition, the required No Project alternative is analyzed. The impacts of the project, the three project alternatives, and the No Project alternative are evaluated in this EIR.

CEQA requires that an EIR identify alternatives to a project as it is proposed. The CEQA Guidelines specify that the EIR should identify alternatives 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." The purpose of the alternatives discussion is to determine whether there are alternatives of design, scope, or location which would substantially lessen the significant impacts, even if those alternatives "impede to some degree the attainment of the project objectives" or are more expensive (CEQA Guidelines Section 15126.6).

In order to comply with the purposes of CEQA, it is important to identify alternatives that reduce the significant impacts anticipated to occur if the project is implemented and try to meet as many of the project's objectives as possible. The Guidelines emphasize a common sense approach – the alternatives should be reasonable, "foster informed decision making and public participation," and focus on alternatives that avoid or substantially lessen the significant impacts. The range of alternatives selected for analysis is governed by the "rule of reason" which requires the EIR to discuss only those alternatives necessary to permit a reasoned choice. An EIR is not required to consider alternatives which are infeasible.

The three critical factors to consider in selecting and evaluating alternatives are, therefore: 1) the significant impacts from the proposed project which could be reduced or avoided by an alternative, 2) the project objectives, and 3) the feasibility of the alternatives available. These factors are discussed below.

7.1 FACTORS IN SELECTING AND EVALUATING ALTERNATIVES

7.1.1 Significant Impacts of the Project

As explained above, the CEQA Guidelines state that the alternatives analysis in an EIR should be limited to alternatives that would avoid or substantially lessen any of the significant effects of the project and achieve most of the basic project objectives. Alternatives also may be considered that further reduce impacts that can be mitigated to a less than significant level. This section does not discuss project impacts that are less than significant.

An alternative site may be considered when impacts of the project might be avoided or substantially lessened. Only alternative locations that would avoid or substantially lessen any of the impacts of the project and meet most of the basic project objectives need to be considered for inclusion in the EIR (CEQA Guidelines Sections 15126.6[f] and [f][2][A]). Factors that may be taken into account when addressing the feasibility of alternatives are site suitability, economic viability, availability of infrastructure, general plan consistency, other plans or regulatory limitations, jurisdictional

boundaries, and whether the proponent can reasonably acquire, control, or otherwise have access to the alternative site (CEQA Guidelines Section 15126.6[f][1]).

Table 7.2-1 summarizes the project and project alternatives impacts, including significant and unavoidable impacts and less than significant impacts with mitigation incorporated.

7.1.2 Project Objectives

While CEQA does not require that alternatives must be capable of meeting all of the project objectives, their ability to meet most of the basic objectives is considered relevant to their consideration. As identified in Section 2.5, the City's objectives for the project are as follows:

1. Create a distinct and memorable mixed use Town Center that is a regional destination and is a focal point for the community involving substantial redevelopment of the Vallco Special Area;
2. Provide adequate development capacity on the project site to help achieve the City's Regional Housing Needs Allocation consistent with the Housing Element;
3. Provide adequate development capacity for a mix of uses that will allow for the development of an economically feasible project;
4. Provide the City with an avenue for generating additional sales tax revenue;
5. Create a pedestrian, bike and transit-friendly environment that enhances mobility and connectivity; and
6. Create a high-quality sustainable development with respect to energy, resources and ecosystems that meets the City's environmental goals and the City's Climate Action Plan.

7.1.3 Feasibility of Alternatives

CEQA, the CEQA Guidelines, and case law interpreting CEQA and the CEQA Guidelines have found that feasibility can be based on a wide range of factors and influences. The Guidelines state that such factors can include (but are not necessarily limited to) the suitability of an alternate site, economic viability, availability of infrastructure, consistency with a general plan or with other plans or regulatory limitations, jurisdictional boundaries, and whether the project proponent can "reasonably acquire, control or otherwise have access to the alternative site (Section 15126.6[f][1])."

7.2 SELECTION OF ALTERNATIVES

7.2.1 Alternatives Considered but Rejected for Further Analysis

7.2.1.1 *SB 35 Project*

On March 27, 2018, Sand Hill Property Company filed an application with the City to develop the project site pursuant to the streamlining provisions of Government Code Section 65913.4 (SB 35). The proposed SB 35 project includes 2,402 residential units, of which 1,201 units (50 percent) would be affordable to households making below 80 percent of the area median income, and requests a density bonus and incentives. The SB 35 project also includes 400,000 square feet of commercial uses and 1,810,000 square feet of office uses. The buildings are proposed to be up to 22 floors (approximately 240 feet in height). The proposal includes an approximately 30 acre green roof with

public access. In addition, the SB 35 project proposes two, at-grade town squares and one children's play area, for a total of approximately four acres. The project proposes to retain many of the 895 existing trees on the site. While under SB 35 the project is not required to provide any parking spaces since the site is located within one-half mile of public transit, the applicant is proposing to provide 10,500 spaces. The project does not propose to extend the recycled water line to the site, but it does propose to plumb the project to be ready to accept and use recycled water in the event it is made available.

Pursuant to Government Code Section 65913.4, if the project complies with all of the criteria in SB 35 including consistency with all objective planning standards, it will qualify for streamlined ministerial approval and will be exempt from any environmental review under CEQA. The City has 180 days from the date of submittal to complete its review of the project.

Because the project will be exempt from any environmental review under CEQA if it is found to be compliant with the criteria in SB 35, the proposed SB 35 project is rejected for further analysis in this EIR. It is anticipated, however, that the SB 35 project would likely have greater significant environmental effects than the proposed project due to the greater number of residences proposed in the following areas:

- Population and Housing,
- Parks,
- Schools, and
- Libraries.

Since the SB 35 project does not include the extension of recycled water infrastructure to the site as the project does, the SB 35 project could result in a greater potable water demand than the proposed project. The SB 35 project would likely have similar impacts to:

- Air quality,
- Biological resources,
- Cultural resources,
- Energy,
- Geology and soils,
- GHG,
- Hazards and hazardous materials,
- Hydrology and water quality,
- Land use and planning,
- Noise and vibration,
- Police and fire protection,
- Transportation, and
- Utilities and service systems.

7.2.1.2 *Substantially Reduced Development Alternative*

The project would result in significant and unavoidable level of service impacts at several intersections and freeway segments. Fehr & Peers, the City's transportation consultant, determine what amount of development could occur on the site without resulting in a significant and unavoidable level of service impact. All land uses were reduced proportionately until significant impacts were avoided. The results found that nine percent of the proposed project (54,000 square feet of commercial uses, 180,000 square feet of office uses, 30 hotel rooms, and 72 residential units) could be developed on-site without resulting in significant and unavoidable level of service

impacts.[136] The implementation of this substantially reduced development alternative was considered but rejected for further analysis because it did not meet the project's basic objectives of creating a regional mixed-use Town Center, providing adequate housing capacity, and creating a sustainable development given the lack of development density. In addition, this reduced development alternative is likely economically infeasible given the land cost basis of the project site and the need to generate sufficient project value to justify demolition and redevelopment of the site.[137]

7.2.1.3 *Alternative Location*

There are no feasible alternative locations for the proposed project, which consists of a specific plan for the Vallco Fashion Mall site as provided for in General Plan Goal LU-19, Policy LU-19.1, strategies LU-19.1.1 through -19.1.14, and Figure LU-1. Therefore, no alternative location was considered because it would not achieve the basic project objectives.

7.2.2 Alternative Discussed for Informational Purposes

7.2.2.1 *Occupied/Re-Tenanted Mall Alternative*

The Occupied/Re-Tenanted Mall Alternative is discussed in this EIR in response to the desire by some members of the community to see the existing mall remain and be successfully occupied/re-tenanted. This alternative is discussed throughout the EIR for informational purposes. As discussed in Section 2.4.2, this alternative is a permitted land use and does not need any discretionary approvals from the City.

While the Occupied/Re-Tenanted Mall Alternative is discussed in this EIR for informational purposes, the City considers this alternative economically infeasible based on a Real Estate Market Assessment completed for the site in March 2018 by Economic & Planning Systems, Inc. The Real Estate Market Assessment concludes that retail reuse of the existing mall would be highly unlikely given its location between well-established regional malls and lifestyle centers (e.g., Westfield Valley Fair, Santana Row, Stanford Shopping Center, and Great Mall).[138]

7.2.3 Alternatives Selected

7.2.3.1 *Alternatives Analyzed Throughout the EIR*

In addition to the No Project alternative, discussed below, the following project alternatives are analyzed in this EIR:

- General Plan Buildout with Maximum Residential Alternative
- Retail and Residential Alternative
- Occupied/Re-Tenanted Mall Alternative

[136] Church, Franziska. Associate, Fehr & Peers. Personal communications. May 3, 2018.
[137] Sigman, Ben. Principal, Economic & Planning Systems, Inc. Personal communications. May 15, 2018.
[138] Economic & Planning Systems, Inc. *Vallco Special Area Real Estate Market Assessment.* March 6, 2018. Pages 2-3.

These alternatives are feasible from a physical land use and infrastructure perspective. This EIR does not evaluate the financial or economic feasibility of the alternatives, although it is discussed above in Section 6.2.1.1 that a real estate market assessment found the Occupied/Re-Tenanted Mall Alternative to be economically infeasible. The discussion of the Occupied/Re-Tenanted Mall Alternative, therefore, is provided for informational purposes only.

7.2.3.2 *No Project Alternative*

The CEQA Guidelines require consideration of a "No Project" Alternative. The purpose of including a No Project Alternative is to allow decision makers to compare the impacts of approving the project with the impacts of not approving the project. The Guidelines state that the No Project Alternative is "what would be reasonably expected to occur in the foreseeable future if the project were not approved, based on current plans and consistent with available infrastructure and community services." The Guidelines emphasize that an EIR should take a practical approach, and not "…create and analyze a set of artificial assumptions that would be required to preserve the existing physical environment (Section 15126.6[e][3][B])."

Under the No Project Alternative, the project site could remain as it currently exists (i.e., an existing shopping mall that is approximately 15 percent occupied) with little or no change. Re-occupancy/re-tenanting of the existing mall is evaluated under the Occupied/Re-Tenanted Mall Alternative, which is described above in Section 5.2.2.

7.2.3.3 *Comparison of Environmental Impacts*

A summary of the environmental impacts of the proposed project and the project alternatives is provided in Table 7.2-1.

7.2.3.4 *Relationship to Project Objectives*

The discussion below focuses on whether the alternatives meet the six project objectives listed in Sections 2.5 and 6.1.2.

General Plan Buildout with Maximum Residential Alternative

The General Plan Buildout with Maximum Residential Alternative could meet all six of the project objectives because the alternative includes a mix of uses (including housing) and sales tax revenue generating commercial uses, and could create a multi-modal, sustainable development.

Retail and Residential Alternative

The Retail and Residential Alternative could meet all six of the project objectives because the alternative includes a mix of uses (including housing) and sales tax revenue generating commercial uses, and could create a multi-modal, sustainable development.

Occupied/Re-Tenanted Mall (No Project) Alternative

The Occupied/Re-Tenanted Mall (No Project) Alternative would meet objective 4 of providing the City with sales tax revenue; however, as discussed previously, this alternative is considered

economically infeasible. The Occupied/Re-Tenanted Mall (No Project) Alternative, therefore, does not meet objective 3.

The Occupied/Re-Tenanted Mall (No Project) Alternative would not meet objective 1 or 2 of creating a mixed-use Town Center and provide housing. Since this alternative would not result in the redevelopment of the project site, it would not meet objective 5 and 6 of creating a multi-modal, sustainable development.

No Project Alternative

The No Project Alternative would not meet any of the project objectives because it does not facilitate the redevelopment of the site into a regional, mixed-use housing, multi-modal, sustainable development.

7.2.3.5 *Environmentally Superior Alternative*

The CEQA Guidelines state that an EIR shall identify an environmentally superior alternative. Based on the above discussion and the environmentally superior alternative to the project is the No Project Alternative, because it would avoid all of the project's significant environmental impacts. CEQA Guidelines Section 15126.6(e)(2), however, states that "if the environmentally superior alternative is the No Project Alternative, the EIR shall also identify an environmentally superior alternative among the other alternatives." Therefore, the Retail and Residential Alternative is the environmentally superior alternative, because it would avoid or result in lesser impacts than the proposed project.

Table 7.2-1: Summary of Project and Project Alternative Impacts					
Impacts	**Project**	**General Plan Buildout with Maximum Residential Alternative**	**Retail and Residential Alternative**	**Occupied/ Re-Tenanted Mall Alternative**	**No Project Alternative**
Aesthetics					
Impact AES-1: The project (and project alternatives) would not result in significant aesthetic impacts.	LTS	LTS	LTS	LTS	**NI**
Impact AES-2: The project (and project alternatives) would not have a cumulatively considerable contribution to a significant cumulative aesthetic impacts.	LTS	LTS	LTS	LTS	**NI**
Agricultural Resources					
Impact AG-1: The project (and project alternatives) would not convert farmland, conflict with zoning for agricultural use, or conflict with a Williamson Act contract.	NI	NI	NI	NI	NI
Impact AG-2: The project (and project alternatives) would not conflict with existing zoning of forest land or timberland, or result in the loss or conversion of forest land.	NI	NI	NI	NI	NI
Air Quality					
Impact AQ-1: The project (and project alternatives) would not conflict with or obstruct implementation of the applicable air quality plan.	LTS	LTS	LTS	LTS	**NI**
Impact AQ-2: The construction of the project (and General Plan Buildout with Maximum Residential Alternative and Retail and Residential Alternative) would violate air quality standard or contribute substantially to an existing or projected air quality violation.	SU/M	SU/M	**SU/M**	**LTS**	**NI**

Table 7.2-1: Summary of Project and Project Alternative Impacts					
Impacts	**Project**	**General Plan Buildout with Maximum Residential Alternative**	**Retail and Residential Alternative**	**Occupied/ Re-Tenanted Mall Alternative**	**No Project Alternative**
Impact AQ-3: The operation of the project (and General Plan Buildout with Maximum Residential Alternative and Retail and Residential Alternative) would violate air quality standard or contribute substantially to an existing or projected air quality violation.	SU/M	SU/M	SU/M	**LTS**	**NI**
Impact AQ-4: The proposed project (and General Plan Buildout with Maximum Residential Alternative and Retail and Residential Alternative) would result in a cumulatively considerable net increase of criteria pollutants (ROG, NOx, PM_{10}, and/or $PM_{2.5}$) for which the project region is non-attainment under an applicable federal or state ambient air quality standard.	SU/M	SU/M	SU/M	**LTS**	**NI**
Impact AQ-5: The proposed project (and project alternatives) would not result in a cumulatively considerable net increase of criteria pollutants (CO) for which the project region is non-attainment under an applicable federal or state ambient air quality standard.	LTS	LTS	LTS	LTS	**NI**
Impact AQ-6: The proposed project (and General Plan Buildout with Maximum Residential Alternative and Retail and Residential Alternative) would expose sensitive receptors to substantial construction dust and diesel exhaust emissions concentrations.	SU/M	SU/M	**SU/M**	**LTS**	**NI**

Table 7.2-1: Summary of Project and Project Alternative Impacts					
Impacts	**Project**	**General Plan Buildout with Maximum Residential Alternative**	**Retail and Residential Alternative**	**Occupied/ Re-Tenanted Mall Alternative**	**No Project Alternative**
Impact AQ-7: The proposed project (and General Plan Buildout with Maximum Residential and Retail and Residential Alternative) would expose sensitive receptors to substantial TAC pollutant concentrations.	LTS/M	LTS/M	LTS/M	**LTS**	**NI**
Impact AQ-8: The proposed project (and project alternatives) would not create objectionable odors affecting a substantial number of people.	LTS	LTS	LTS	LTS	**NI**
Impact AQ-9: Implementation of the proposed project (and General Plan Buildout with Maximum Residential Alternative and Retail and Residential Alternative) would cumulatively contribute to significant air quality impacts in the San Francisco Bay Area Air Basin.	SU/M	**SU/M**	**SU/M**	**LTS**	**NI**
Biological Resources					
Impact BIO-1: The project (and project alternatives) would not have a substantial adverse effect on species identified as a candidate, sensitive, or special status species.	LTS	LTS	LTS	LTS	**NI**
Impact BIO-2: The project (and project alternatives) would not have a substantial adverse effect on riparian habitat, wetland, or other sensitive natural community.	NI	NI	NI	NI	NI
Impact BIO-3: The project (and project alternatives) would not interfere substantially with the movement of fish or wildlife species or with established wildlife corridors, or impede the use of native wildlife nursery sites.	LTS	LTS	LTS	LTS	**NI**

Table 7.2-1: Summary of Project and Project Alternative Impacts					
Impacts	**Project**	**General Plan Buildout with Maximum Residential Alternative**	**Retail and Residential Alternative**	**Occupied/ Re-Tenanted Mall Alternative**	**No Project Alternative**
Impact BIO-4: The project (and project alternatives) would not conflict with local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance.	LTS	LTS	LTS	LTS	**NI**
Impact BIO-5: The project (and project alternatives) would not conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved habitat conservation plan.	NI	NI	NI	NI	NI
Impact BIO-6: The project (and project alternatives) would not have a cumulatively considerable contribution to a significant cumulative biological resources impact.	LTS	LTS	LTS	LTS	**NI**
Cultural Resources					
Impact CR-1: The project (and project alternatives) would not cause a substantial change in the significance of a historic resource.	LTS	LTS	LTS	LTS	**NI**
Impact CR-2: The project (and General Plan Buildout with Maximum Residential and Retail and Residential Alternative) would not significantly impact archaeological resources, human remains, or tribal cultural resources.	LTS/M	LTS/M	LTS/M	**LTS**	**NI**

Table 7.2-1: Summary of Project and Project Alternative Impacts					
Impacts	**Project**	**General Plan Buildout with Maximum Residential Alternative**	**Retail and Residential Alternative**	**Occupied/ Re-Tenanted Mall Alternative**	**No Project Alternative**
Impact CR-3: The project (and project alternatives) would not destroy a unique paleontological resource or site or unique geological feature.	NI	NI	NI	NI	NI
Impact CR-4: The project (and project alternatives) would not result in a cumulatively considerable contribution to a significant cumulative cultural resources impact.	LTS/M	LTS/M	LTS/M	**LTS**	**NI**
Energy					
Impact EN-1: The project (and project alternatives) would not result in a significant environmental impact due to the wasteful, inefficient or unnecessary consumption of energy during construction or operation.	LTS	**LTS**	**LTS**	**LTS**	**NI**
Impact EN-2: The project (and project alternatives) would not conflict with or obstruct a state or local plans for renewable energy or energy efficiency.	LTS	LTS	LTS	LTS	**NI**
Impact EN-3: The project (and project alternatives) would not have a considerable contribution to a significant cumulative energy impact.	LTS	**LTS**	**LTS**	**LTS**	**NI**
Geology and Soils					
Impact GEO-1: The project (and project alternatives) would not expose people or structures to substantial adverse effects from rupture of a known fault, strong seismic ground shaking, seismic-related ground failure (including liquefaction), and/or landslides.	LTS	LTS	LTS	LTS	**NI**

Table 7.2-1: Summary of Project and Project Alternative Impacts					
Impacts	**Project**	**General Plan Buildout with Maximum Residential Alternative**	**Retail and Residential Alternative**	**Occupied/ Re-Tenanted Mall Alternative**	**No Project Alternative**
Impact GEO-2: The project (and project alternatives) would not result in substantial soil erosion or loss of topsoil or create substantial risks to life or property due to expansive soil.	LTS	LTS	LTS	LTS	**NI**
Impact GEO-3: The project (and project alternatives) 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 or subsidence.	LTS	LTS	LTS	LTS	**NI**
Impact GEO-4: The project (and project alternatives) would not be located on soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water.	NI	NI	NI	NI	NI
Impact GEO-5: The project (and project alternatives) would not have a cumulatively considerable contribution to a significant cumulative geology and soil impact.	LTS	LTS	LTS	LTS	**NI**
Greenhouse Gas					
Impact GHG-1: The project (and General Plan Buildout with Maximum Residential Alternative) would not generate cumulatively considerable GHG emissions that would result in a significant cumulative impact to the environment.	LTS/M	**LTS/M**	**LTS**	SU	**NI**

Table 7.2-1: Summary of Project and Project Alternative Impacts					
Impacts	**Project**	**General Plan Buildout with Maximum Residential Alternative**	**Retail and Residential Alternative**	**Occupied/ Re-Tenanted Mall Alternative**	**No Project Alternative**
Impact GHG-2: The project (and General Plan Buildout with Maximum Residential Alternative and Retail and Residential Alternative) would not conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing GHG emissions.	LTS	LTS	LTS	**NI**	**NI**
Hazards and Hazardous Materials					
Impact HAZ-1: The project (and General Plan Buildout with Maximum Residential and Retail and Residential Alternative) would not create a significant hazard to the public or the environment through routine transport, use, disposal, or foreseeable upset of hazardous materials; or emit hazardous emissions or hazardous materials within one-quarter mile of an existing or proposed school.	LTS/M	LTS/M	LTS/M	**LTS**	**NI**
Impact HAZ-2: The project (and project alternatives) is located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5; however, the project (and project alternatives) would not create a significant hazard to the public or the environment as a result.	LTS	LTS	LTS	LTS	**NI**

Table 7.2-1: Summary of Project and Project Alternative Impacts					
Impacts	**Project**	**General Plan Buildout with Maximum Residential Alternative**	**Retail and Residential Alternative**	**Occupied/ Re-Tenanted Mall Alternative**	**No Project Alternative**
Impact HAZ-3: The project (and project alternatives) is not located within an airport land use plan or within two miles of a public airport or public use airport.	NI	NI	NI	NI	NI
Impact HAZ-4: The project (and project alternatives) would not impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan.	LTS	LTS	LTS	LTS	**NI**
Impact HAZ-5: The project (and project alternatives) would not expose people or structures to a significant risk of loss, injury, or death involving wildland fires.	NI	NI	NI	NI	NI
Impact HAZ-6: The project (and General Plan Buildout with Maximum Residential Alternative) would not have a cumulatively considerable contribution to a significant cumulative hazardous materials impact.	LTS	LTS	LTS	LTS	NI
Hydrology and Water Quality					
Impact HYD-1: The project (and project alternatives) would not violate water quality standards or waste discharge requirements, or otherwise substantially degrade water quality.	LTS	LTS	LTS	LTS	**NI**
Impact HYD-2: The project (and project alternatives) would not substantially deplete groundwater supplies or interfere substantially with groundwater recharge.	LTS	LTS	LTS	LTS	**NI**

Table 7.2-1: Summary of Project and Project Alternative Impacts					
Impacts	**Project**	**General Plan Buildout with Maximum Residential Alternative**	**Retail and Residential Alternative**	**Occupied/ Re-Tenanted Mall Alternative**	**No Project Alternative**
Impact HYD-3: The project (and project alternatives) would not substantially alter the existing drainage pattern of the site or area which would result in substantial erosion, siltation, or flooding; violate water quality standards or waste discharge requirements; or degrade water quality.	LTS	LTS	LTS	LTS	**NI**
Impact HYD-4: The project (and project alternatives) would not place housing within a 100-year flood hazard area; impede or redirect flood flows; expose people or structures to significant risk involving flooding; or be inundated by seiche, tsunami, or mudflow.	LTS	LTS	LTS	LTS	**NI**
Impact HYD-5: The project (and project alternatives) would not have a cumulatively considerable contribution to a significant cumulative hydrology and water quality impact.	LTS	LTS	LTS	LTS	**NI**
Land Use					
Impact LU-1: The project (and project alternatives) would not physically divide an established community.	LTS	LTS	LTS	LTS	**NI**
Impact LU-2: The project (and General Plan Buildout with Maximum Residential Alternative and Retail and Residential Alternative) would not conflict with applicable land use plan, policy, or regulation of an agency with jurisdiction over the project adopted for the purpose of avoiding or mitigating an environmental effect.	LTS	LTS	LTS	LTS	**NI**

Table 7.2-1: Summary of Project and Project Alternative Impacts					
Impacts	**Project**	**General Plan Buildout with Maximum Residential Alternative**	**Retail and Residential Alternative**	**Occupied/ Re-Tenanted Mall Alternative**	**No Project Alternative**
Impact LU-3: The project (and project alternatives) would not conflict with applicable habitat conservation plan or natural community conservation plan.	NI	NI	NI	NI	NI
Impact LU-4: The project (and project alternatives) would not have a cumulatively considerable contribution to a significant cumulative land use impact.	LTS	LTS	LTS	LTS	**NI**
Mineral Resources					
Impact MIN-1: The project (and project alternatives) would not result in the loss of availability of a known mineral resource or locally-important mineral resource recovery site.	NI	NI	NI	NI	NI
Impact MIN-2: The project (and project alternatives) would not contribute to a significant cumulative mineral resources impact.	NI	NI	NI	NI	NI
Noise and Vibration					
Impact NOI-1: The project (and General Plan Buildout with Maximum Residential and Retail and Residential Alternative) would not expose persons to or generation of noise levels in excess of standards established in the General Plan Municipal Code, or applicable standard of other agencies.	SU/M	SU/M	SU/M	**LTS**	**NI**

Table 7.2-1: Summary of Project and Project Alternative Impacts					
Impacts	**Project**	**General Plan Buildout with Maximum Residential Alternative**	**Retail and Residential Alternative**	**Occupied/ Re-Tenanted Mall Alternative**	**No Project Alternative**
Impact NOI-2: The project (and General Plan Buildout with Maximum Residential and Retail and Residential Alternative) would not expose persons to or generation of excessive groundborne vibration.	LTS/M	LTS/M	LTS/M	**LTS**	**NI**
Impact NOI-3: The project (and General Plan Buildout with Maximum Residential and Retail and Residential Alternative) would result in a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project.	SU/M	SU/M	SU/M	SU	**NI**
Impact NOI-4: The project (and General Plan Buildout with Maximum Residential and Retail and Residential Alternative) would result in a substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project.	SU/M	SU/M	SU/M	**LTS**	**NI**
Impact NOI-5: The project site is not located within an airport land use plan, within two miles of a public airport or public use airport, or in the vicinity of a private airstrip.	NI	NI	NI	NI	NI
Impact NOI-6: The project (and General Plan Buildout with Maximum Residential Alternative and Retail and Residential Alternative) would result in a cumulatively considerable permanent noise level increase at existing residential land uses.	SU/M	SU/M	SU/M	SU	**NI**
Population and Housing					

Table 7.2-1: Summary of Project and Project Alternative Impacts					
Impacts	**Project**	**General Plan Buildout with Maximum Residential Alternative**	**Retail and Residential Alternative**	**Occupied/ Re-Tenanted Mall Alternative**	**No Project Alternative**
Impact POP-1: The project (and project alternatives) would not induce substantial population growth in the area.	LTS	LTS	LTS	**LTS**	**NI**
Impact POP-2: The project (and project alternatives) would not displace substantial numbers of existing housing or residents, necessitating the construction of replacement housing elsewhere.	NI	NI	NI	NI	NI
Impact POP-3: The project (and project alternatives) would not have a cumulatively considerable contribution to a significant cumulative population and housing impact.	LTS	LTS	LTS	**LTS**	**NI**
Public Services					
Impact PS-1: The project (and project alternatives) would not require new or physically altered fire protection facilities (the construction of which could cause significant environmental impacts) in order to maintain acceptable service ratios, response times, or other performance objectives.	LTS	LTS	LTS	**LTS**	**NI**
Impact PS-2: The project (and project alternatives) would not require new or physically altered police protection facilities (the construction of which could cause significant environmental impacts) in order to maintain acceptable service ratios, response times, or other performance objectives.	LTS	LTS	LTS	**LTS**	**NI**

Table 7.2-1: Summary of Project and Project Alternative Impacts					
Impacts	**Project**	**General Plan Buildout with Maximum Residential Alternative**	**Retail and Residential Alternative**	**Occupied/ Re-Tenanted Mall Alternative**	**No Project Alternative**
Impact PS-3: The project (and General Plan Buildout with Maximum Residential and Retail and Residential Alternative) would not require new or physically altered school facilities (the construction of which could cause significant environmental impacts) in order to maintain acceptable service ratios, response times, or other performance objectives.	LTS	LTS	LTS	**NI**	**NI**
Impact PS-4: The project (and project alternatives) would not require new or physically altered library facilities (the construction of which could cause significant environmental impacts) in order to maintain acceptable service ratios, response times, or other performance objectives.	LTS	LTS	LTS	**LTS**	**NI**
Impact PS-5: The project (and General Plan Buildout with Maximum Residential and Retail and Residential Alternative) would not require new or physically altered park facilities (the construction of which could cause significant environmental impacts) in order to maintain acceptable service ratios, response times, or other performance objectives.	LTS	LTS	LTS	**NI**	**NI**
Impact PS-6: The project (and project alternatives) would not result in significant cumulative impacts to public services.	LTS	LTS	LTS	**LTS**	**NI**

Table 7.2-1: Summary of Project and Project Alternative Impacts					
Impacts	**Project**	**General Plan Buildout with Maximum Residential Alternative**	**Retail and Residential Alternative**	**Occupied/ Re-Tenanted Mall Alternative**	**No Project Alternative**
Recreation					
Impact REC-1: The project (and project alternatives) would not result in substantial physical deterioration of recreational facilities.	LTS	LTS	LTS	**LTS**	**NI**
Impact REC-2: The proposed open space under the project (and General Plan Buildout with Maximum Residential Alternative and Retail and Residential Alternative) would not result in an adverse physical effect on the environment.	LTS	LTS	LTS	**NI**	**NI**
Impact REC-3: The project and project alternatives would not result in significant cumulative recreation impacts.	LTS	LTS	LTS	**NI**	**NI**
Transportation					

Table 7.2-1: Summary of Project and Project Alternative Impacts					
Impacts	**Project**	**General Plan Buildout with Maximum Residential Alternative**	**Retail and Residential Alternative**	**Occupied/ Re-Tenanted Mall Alternative**	**No Project Alternative**
Impact TRN-1: Under existing with project conditions, the project (and General Plan Buildout with Maximum Residential and Retail and Residential Alternative) would conflict with an applicable plan, ordinance, or policy establishing measures of effectiveness for the performance of the circulation system; and conflict with an applicable congestion management program, including standards established for designated roads or highways.	SU/M	**SU/M**	**SU/M**	SU	**NI**
Impact TRN-2: Under background with project conditions, the project (and project alternatives) would conflict with an applicable plan, ordinance, or policy establishing measures of effectiveness for the performance of the circulation system; and conflict with an applicable congestion management program, including standards established for designated roads or highways.	SU/M	**SU/M**	**SU/M**	SU	**NI**
Impact TRN-3: Project and project alternative construction-related traffic would not conflict with an applicable plan, ordinance, or policy establishing measures of effectiveness for the performance of the circulation system.	LTS	LTS	LTS	**LTS**	**NI**
Impact TRN-4: The project (and project alternatives) would not result in a change in air traffic patterns that results in substantial safety risks.	NI	NI	NI	NI	NI

Table 7.2-1: Summary of Project and Project Alternative Impacts					
Impacts	**Project**	**General Plan Buildout with Maximum Residential Alternative**	**Retail and Residential Alternative**	**Occupied/ Re-Tenanted Mall Alternative**	**No Project Alternative**
Impact TRN-5: The project (and project alternatives) would not substantially increase hazards due to a design features (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment); and would not result in inadequate emergency access.	LTS	LTS	LTS	**NI**	**NI**
Impact TRN-6: The project (and project alternatives) would not conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities or otherwise decrease the performance of safety of such facilities.	LTS	**LTS**	**LTS**	**LTS**	**NI**
Impact TRN-7: The project (and General Plan Buildout with Maximum Residential Alternative and Retail and Residential Alternative) would result in a cumulatively considerable contribution to a significant cumulative transportation impact.	SU/M	**SU/M**	**SU/M**	SU	**NI**
Utilities and Service System					
Impact UTL-1: The project (and project alternatives) would not exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board.	LTS	LTS	LTS	LTS	**NI**

Table 7.2-1: Summary of Project and Project Alternative Impacts					
Impacts	**Project**	**General Plan Buildout with Maximum Residential Alternative**	**Retail and Residential Alternative**	**Occupied/ Re-Tenanted Mall Alternative**	**No Project Alternative**
Impact UTL-2: The project (and General Plan Buildout with Maximum Residential and Retail and Residential Alternative) would require improvements to the existing sewer system, however, the construction of the improvements would not cause significant environmental effects.	LTS/M	LTS/M	LTS/M	**LTS**	**NI**
Impact UTL-3: The wastewater treatment provider (RWF) would have adequate capacity to serve the project (and project alternatives) demand in addition to the provider's existing commitments.	LTS	LTS	LTS	LTS	**NI**
Impact UTL-4: The project (and project alternatives) would not require the construction of new storm water drainage facilities or expansion of existing facilities.	LTS	LTS	LTS	LTS	**NI**
Impact UTL-5: The project (and project alternatives) would have sufficient water supply available to serve the project from existing entitlements and resources.	LTS	LTS	LTS	**LTS**	**NI**
Impact UTL-6: The project (and project alternatives) would be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal and would comply with applicable statutes and regulations related to solid waste.	LTS	LTS	**LTS**	**LTS**	**NI**

Table 7.2-1: Summary of Project and Project Alternative Impacts					
Impacts	**Project**	**General Plan Buildout with Maximum Residential Alternative**	**Retail and Residential Alternative**	**Occupied/ Re-Tenanted Mall Alternative**	**No Project Alternative**
Impact UTL-7: The project (and project alternatives) would not result in significant cumulative impacts to utilities and service systems.	LTS	LTS	LTS	**LTS**	**NI**
Growth Inducing Impacts					
Impact GRO-1: The project (and project alternatives) would not foster or stimulate significant economic or population growth in the surrounding environment.	LTS	LTS	LTS	**LTS**	**NI**
Meets Project Objectives?	Yes	Yes	Yes	Partially	No
Notes: SU= significant and unavoidable impact; SU/M = significant and unavoidable impact with mitigation incorporated; LTS/M = less than significant impact with mitigation incorporated; LTS = less than significant impact; NI = no impact **Bold** text indicate being environmentally superior to the proposed project.					

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Persons Contacted:

Clare Varesio, Community Librarian, Cupertino Library
Rich, Urena, West Valley Patrol Division Commander, Santa Clara County Sheriff's Office.
Franziska Church, Fehr & Peers.
Mitali Ganguly, Associate, Opticos Design.
Ben Sigman, Principal, Economic & Planning Systems, Inc.
John Justice, Deputy Chief, Santa Clara County Fire Department.
Achaya Kelapanda, Newby Island Sanitary Landfill Environmental Manager.
Chris Jew, Chief Business Officer, Cupertino Union School District.
Jason Crutchfield, Director of Business Services, Fremont Union High School District

SECTION 9.0 LEAD AGENCY AND CONSULTANTS

9.1 LEAD AGENCY

City of Cupertino
Community Development Department
Aarti Shrivastava, Assistant City Manager
Piu Ghosh, Principal Planner
Catarina Kidd, Senior Planner

Public Works Department
Timm Borden, Director
Chad Mosley, City Engineer
David Stillman, Transportation Manager

9.2 CONSULTANTS

David J. Powers & Associates, Inc.
Environmental Consultants and Planners
Judy Shanley, Principal
Kristy Weis, Senior Project Manager

Amie Ashton, Project Manager
Mike Campbell, Project Manager
Zach Dill, Graphic Artist
Tyler Rogers, Assistant Project Manager
Amy Wang, Assistant Project Manager
Caroline Weston, Assistant Project Manager

Cornerstone Earth Group
Hazardous Materials Consultants
Stason Foster, Senior Project Engineer
Ron Helm, Senior Principal Geologist

Cotton, Shires and Associates, Inc.
Geotechnical Consultants
John Wallace, Principal Engineering Geologist
Patrick O. Shires, Senior Principal Geotechnical Engineer

David L. Babby
Consulting Arborist

Fehr & Peers
Transportation Consultants
Franziska Church, Associate

Holman & Associates
Archaeological Consultants
Sunshine Psota, Senior Associate

Illingworth & Rodkin, Inc.
Acoustical and Air Quality Consultants
Joshua Carmen, Senior Consultant
James Reyff, Principal
Bill Popenuck, Consultant
Michael Thill, Principal
Torrey Dion, Staff Consultant
Carrie Janello, Senior Consultant

Michael L. Bench
Consulting Arborist

Schaaf & Wheeler
Consulting Civil Engineers
Leif Coponen, Principal Engineer
Melissa Reardon, Assistant Engineer

Schoolhouse Services
Economists and Planners
Richard Recht

Walter Levison
Consulting Arborist