

Environmental Impact Report Amendment

Vallco Special Area Specific Plan

SCH# 2018022021

Prepared by



CUPERTINO

In Consultation with



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July 2018

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ACRONYMS AND ABBREVIATIONS

<u>Acronym/Abbreviation</u>	<u>Definition</u>
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

<u>Acronym/Abbreviation</u>	<u>Definition</u>
CO ₂ e	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
EV	Electric vehicle
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

<u>Acronym/Abbreviation</u>	<u>Definition</u>
IWMP	Integrated Waste Management Plan
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 ₂ O	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

<u>Acronym/Abbreviation</u>	<u>Definition</u>
PDA	Priority Development Area
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

<u>Acronym/Abbreviation</u>	<u>Definition</u>
US	United States
USACE	United States Army Corps of Engineers
USFWS	United States Fish and Wildlife Service
Vallco Special Area	Vallco Shopping District Special Area
VMT	Vehicle miles travelled
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

SECTION 1.0 INTRODUCTION

1.1 BACKGROUND

The City of Cupertino, as the Lead Agency, has prepared a 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. The 45-day public comment period for the Draft EIR is May 24, 2018 through July 9, 2018.

The Draft EIR evaluates the proposed Vallco Special Area Specific Plan and four alternatives to the project: 1) General Plan Buildout with Maximum Residential Alternative, 2) Retail and Residential Alternative, 3) Occupied/Re-Tenanted Alternative, and 4) No Project Alternative.

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.

1.2 HOUSING RICH ALTERNATIVE

This Recirculated Amendment to the EIR (“EIR Amendment”) evaluates and discloses the environmental impacts of a fifth alternative to the project, the Housing Rich Alternative. The 45-day public comment period for this EIR Amendment is July 6, 2018 through August 20, 2018.

Since the beginning of the public comment period for the Draft EIR described above in Section 1.1, a fifth, “Housing Rich,” alternative was identified in response to community and City interest in having a greater number of housing units with a greater than 15 percent below-market-rate housing component and the inclusion of substantial community amenities such as a performing arts center, civic space, educational space, etc., and enough office development on the site to support the additional community amenities. Compared to the proposed project, the Housing Rich Alternative would result in a better citywide jobs/housing balance.

Buildout of the City’s General Plan would result in approximately 48,509 jobs and 23,294 residential units, which results in a jobs to housing units ratio of approximately 1 to 0.480 (jobs/housing ratio). The effect of the project and project alternatives on the City’s projected jobs/housing ratio is summarized in Table 1.0-1. The amounts of commercial, office, and hotel development proposed under the project and all of the project alternatives are within the General Plan buildout assumptions for the project site and as analyzed in the 2014 *Cupertino General Plan Community Vision 2015-2040 Final EIR* (SCH#2014032007) (General Plan EIR).

The available citywide residential allocation is currently 1,113 units. The project site is allocated 389 of the 1,113 residential units. There are sufficient residential allocations available citywide for the proposed 800 residential units. For the project alternatives, the City would retain 347 citywide residential allocations for Housing Element sites and residential areas (including the Oaks, Monta Vista Village, and Other areas) and allow the transfer of 377 citywide residential allocations (in

addition to the 389 residential units allocated to the project site) to the project site for a total of 766 residential units.

Assuming the General Plan Buildout with Maximum Residential Alternative meets the state Density Bonus Law criteria and is granted a 35 percent density bonus above the base residential yield of 1,956 units to achieve the proposed 2,640 residential units and 377 citywide residential units (in addition to the 389 residential units already allocated to the project site) are allocated to the project site, this alternative would result in 1,190 residential units above what is available citywide.

Assuming the Retail and Residential Alternative meets the state Density Bonus Law criteria and is granted a 35 percent density bonus above the base residential yield of 2,963 units to achieve the proposed 4,000 residential units and 377 citywide residential units (in addition to the 389 residential units already allocated to the project site) are allocated to the project site, this alternative would result in 2,197 residential units above what is available citywide.

Assuming the Housing Rich Alternative meets the state Density Bonus Law criteria and is granted a 35 percent density bonus above the base residential yield of 2,407 units to achieve the proposed 3,250 residential units and 377 citywide residential units (in addition to the 389 residential units already allocated to the project site) are allocated to the project site, this alternative would result in 1,641 residential units above what is available citywide.

Based on the above discussion, the citywide total residential units with development of the General Plan Buildout with Maximum Residential Alternative, Retail and Residential Alternative, and Housing Rich Alternative, shown in Table 1.0-1, would be more than what is currently projected for buildout of the City's General Plan. As also shown in Table 1.0-1, the General Plan Buildout with Maximum Residential Alternative, Retail and Residential Alternative, and Housing Rich Alternative, with the greater number of residential units, would slightly improve the City's jobs/housing balance.

Table 1.0-1: Summary of General Plan Buildout Jobs and Housing with Project and Project Alternatives			
	Jobs at Buildout	Residential Dwelling Units at Buildout	Jobs/Housing Ratio
General Plan Buildout	48,509	23,294	1 to 0.480
Proposed Project	48,509	23,294	1 to 0.480
Alternatives			
General Plan Buildout with Maximum Residential	48,509	24,484	1 to 0.505
Retail and Residential	48,509	25,491	1 to 0.525
Occupied/Re-Tenanted Mall	48,509	23,294	1 to 0.480
Housing Rich	48,509	24,935	1 to 0.514
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. <i>Cupertino General Plan Community Vision 2015-2040</i> . October 15, 2015. Page 3-12.).			

1.3 PURPOSE OF THE RECIRCULATED EIR AMENDMENT

The purpose of this EIR Amendment is to evaluate and disclose the environmental impacts of the fifth alternative, the Housing Rich Alternative. The EIR Amendment also includes:

- Clarification regarding necessary General Plan amendments;
- Refinements to the proposed Transportation Demand Management (TDM) Program;
- Addition of a Specific Plan assumption;
- Refinements to the discussion of select mitigation measures and a condition of approval; and
- Updated numbers for existing General Plan land use allocations available citywide.

These refinements do not substantially change the analysis in the Draft EIR.

The information contained in this EIR Amendment is intended to be used by the City of Cupertino and other regulatory and permitting agencies, as they consider whether to approve various discretionary approvals and entitlements needed under state and local law to implement the Vallco Special Area Specific Plan. The EIR Amendment focuses on the environmental impacts of the Housing Rich Alternative and provides a comparison of impacts of this alternative and the proposed project. In accordance with the CEQA Guidelines, if the revision is limited to a few chapters or portions of the EIR, the lead agency need only recirculate the chapters or portions that have been modified (CEQA Guidelines Section 15088.5[c]). The EIR Amendment is to be used with the previously circulated Draft EIR, which provides a detailed discussion of the environmental setting (including applicable City General Plan policies and strategies), thresholds of significance, and impacts and mitigation measures for the other project alternatives (i.e., the General Plan Buildout with Maximum Residential Alternative, Retail and Residential Alternative, Occupied/Re-Tenanted Mall Alternative, and No Project Alternative).

A lead agency is required to recirculate an EIR when significant new information is added to the EIR after public notice is given of the availability of the draft EIR for public review but before certification. The term “information” can include changes in the project or environmental setting, as well as additional data or other information. In this case, the new Housing Rich Alternative is an additional project alternative now being considered and, therefore, information about the alternative and its impacts are evaluated and disclosed in this EIR Amendment.

1.3.1 Public Review and Comment Period

This EIR Amendment will circulate for public review and comment for 45 days from July 6, 2018 through August 20, 2018. During this period, the EIR Amendment will be available to the public and local, state, and federal agencies for review and comment. Notice of the availability and completion of this EIR Amendment will be sent directly to every agency, person, and organization that commented on the Notice of Preparation (NOP) for the Draft EIR, as well as to the Office of Planning and Research. Written comments concerning the environmental review contained in this EIR Amendment 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

Comments during the 45-day comment period of July 6, 2018 through August 20, 2018 for the EIR Amendment should pertain to the analysis of the Housing Rich Alternative in this EIR Amendment and the Draft EIR text refinements. The EIR Amendment does not substantially change the analysis in the Draft EIR, and there have been no substantial changes to the Vallco Special Area environmental conditions since circulation of the Draft EIR.

1.4 FINAL EIR/RESPONSES TO COMMENTS

Following the conclusion of the EIR Amendment's 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 and EIR Amendment text, as necessary;
- List of individuals and agencies commenting on the Draft EIR and EIR Amendment;
- Responses to comments received on the Draft EIR and EIR Amendment, in accordance with CEQA Guidelines (Section 15088);
- Copies of written comments received on the Draft EIR and EIR Amendment.

1.5 VALLCO TOWN CENTER SENATE BILL 35 APPLICATION

Sand Hill Property Company (Sand Hill) submitted an application to the City on March 27, 2018 titled "Vallco Town Center Project Pursuant to Senate Bill 35 (SB 35)." That application is separate from the Vallco Special Area Specific Plan, which is analyzed in this EIR. SB 35 applications are exempt from review under the California Environmental Quality Act. On June 22, 2018, the City sent a letter informing Sand Hill that the application met the qualifying requirements under SB 35 and requested additional information to assist the City in its continued review of the application. For more information, see the project page on the City's website at www.cupertino.org/vallcosb35.

SECTION 2.0 DRAFT EIR TEXT REVISIONS

This section contains revisions to the text of the Vallco Special Area Specific Plan Draft EIR dated May 2018. Revised or new language is underlined. All deletions are shown with a ~~line through the text~~.

Page 16 Section 2.4.3 General Plan and Zoning Amendments; **ADD** the following text to the last bullet point:

- 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 program and standards in the Specific Plan such as allowed land uses (e.g. civic uses), density, and building height.

Page 30 Section 2.4.4.3 Transit Center and Transportation Demand Management Program: **ADD** the following text:

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, designated 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~~ which includes a trip cap that is based on the goal of achieving a district wide mode split target of not more than 45 percent of employees driving alone. The TDM program could include on-site transportation coordinator, ride-share marketing and promotion, maximum parking requirements, 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~~ Transportation Planner prior to approval of a development permit. Future development would submit an annual monitoring report to the ~~Project~~ Transportation 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.

Section 2.4.4.6 Specific Plan Assumptions; **ADD** the following bullet after the first bullet point on the page:

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.
- Future development would meet the state Density Bonus Law criteria to be granted a residential density bonus of 35 percent.

MM CR-2.4: **REVISE** the text of mitigation measure MM CR-2.4 as follows:

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, Retail and Residential Alternative, or Housing Rich Alternative)~~to ensure appropriate~~ C~~c~~ultural sensitivity training ~~shall be~~is provided to all contractors prior to the start of ground-disturbing activities.

MM HAZ-1.1: **REVISE** the text of mitigation measure MM HAZ-1.1 as follows:

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, Retail and Residential Alternative, and Housing Rich 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~~ SCCDEH for approval and the approved SMP shall be submitted to the City Building Division prior to commencement of construction (including demolition) activities.

MM HAZ-1.2: **REVISE** the text of the last dash on the page as follows:

- JC Penney: The project proponent shall obtain a permit from SCCDEH to properly remove and dispose of the 750 gallon oil-water separator shall be properly removed and appropriately disposed during redevelopment activities. Collection and analysis of confirmation soil samples shall be completed under oversight of SCCDEH.

Section 3.14.1.2 Existing Conditions: **REVISE** the sentence at the end of the first paragraph as follows:

Currently, development allocations ~~are available for 798,917~~819,327 square feet of commercial uses, approximately 2.5 million square feet of office uses, ~~313~~191 hotel rooms, and ~~1,882~~1,113 residential units are available citywide.

Table 3.14-1 General Plan Development Allocated to the Project Site and Available Citywide: **REVISE** the table as follows:

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 <u>819,327</u>	553,826	122 <u>0</u>	1,493 <u>724</u>
Source: City of Cupertino. <i>Cupertino General Plan Community Vision 2015-2040</i> . Table LU-1: Citywide Development Allocation Between 2014-2040. October 15, 2015. Page LU-13.				

General Plan Buildout with Maximum Residential Alternative: **REVISE** the text of the first and second paragraph under this heading as follows:

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.

Citywide residential allocations would be retained for Housing Element sites and residential areas. Residential allocations would be retained to allow development at the Oaks, Monta Vista Village, and Other areas. This would allow for a transfer of up to 377 units of the available 724 citywide residential unit allocations to the project site. Assuming the General Plan Buildout with Maximum Residential Alternative meets the state Density Bonus Law criteria and is granted a 35 percent density bonus above the base residential yield of 1,956 units to achieve the proposed 2,640 residential units and an additional 377 citywide residential units (in addition to the 389 residential units already allocated to the project site) are allocated to the project site, this alternative would result in 1,190~~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 (not including the 35 percent density bonus) would represent a ~~3.25.1~~ 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 (not including the 35 percent density bonus) would result in ~~an approximately three~~ 5.1 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.

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Retail and Residential: **REVISE** the text of the first and second paragraph under this heading as follows:

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.

Citywide residential allocations would be retained for Housing Element sites and residential areas. Residential allocations would be retained to allow development at the Oaks, Monta Vista Village, and Other areas. This would allow for a transfer of up to 377 units of the available 724 citywide residential unit allocations to the project site. Assuming the Retail and Residential Alternative meets the state Density Bonus Law criteria and is granted a 35 percent density bonus above the base residential yield of 2,963 units to achieve the proposed 4,000 residential units and an additional 377 citywide residential units (in addition to the 389 residential units already allocated to the project site) are allocated to the project site, this alternative would result in 2,197~~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 (not including the 35 percent density bonus) would represent a ~~nine~~ 9.4 percent increase in the total number of residential units planned for in the City's General Plan.

While the Retail and Residential Alternative (not including the 35 percent density bonus) would result in a ~~nine~~9.4 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.

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Section 4.0 Growth-Inducing Impacts; Project and All Project Alternatives: **REVISE** the text of the third paragraph under this heading as follows:

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 (not including the 35 percent density bonus) would result in allow for 7581,190 and 2,1182,197 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.

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Traffic and Parking Intrusion; Project; Condition of Approval: **REVISE** the fee amount as follows:

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~~500,000 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.

Table 28: Potential TDM Measures

TDM Measure		Target User/ Possible Trip Reduction %			
		Resident	Comm. Patron	Com. Emp.	Office Emp.
<i>TDM Measures All Land Uses</i>					
Transportation Coordinator	<p>Each building manager and/or major tenant will designate a Transportation Coordinator, an individual who is responsible for TDM program implementation, marketing, and updating <u>and coordination with the Cupertino Transportation Management Association</u>. Creating a culture of alternative mode use will enhance the effectiveness of the TDM Plan.</p> <p>The TDM Coordinator would provide information on transit services in lobbies and other common areas as well as at move-in, and real-time transit information via services like TransitScreen. Studies have shown that providing real-time transit information encourages new transit users to try transit and existing transit users to ride transit more frequently. <i>Reduction based on combination of all marketing and promotional strategies. Reduction applies to commute trips only.</i></p>	0.5 to 1.0%	-	0.25 to 0.75%	1.0 to 1.5%
Ride-Share Marketing and Promotion	<p>Each TDM Coordinator will provide information and promotional materials to residents and office employees for carpool services such as Scoop and Waze. Information will be provided at move-in and in building lobbies or other common areas. For the office buildings, preferential parking for carpools and vanpools will be provided. <i>Reduction applies to commute trips only.</i></p>	0.5 to 1.0%	n/a	0.25 to 0.50%	1.5 to 2.5%
<u>Maximum Parking Requirements</u>	<p><u>Include maximum parking requirements for all developments to allow for the emergence of a market parking where spaces are bought, sold, rented, and leased.</u></p>	<p><u>Maximum parking requirements will help ensure the success of the parking policies included in the remainder of this table. The resulting trip reductions are already accounted for in reductions for those parking policies.</u></p>			

Table 28: Potential TDM Measures

TDM Measure		Target User/ Possible Trip Reduction %			
		Resident	Comm. Patron	Com. Emp.	Office Emp.
TDM Measures for Residential Units					
Unbundled Parking	Parking will be unbundled for residential units such that residents are required to pay for a parking space separately from their monthly rent or purchase price. Some residents may choose to limit or reduce their vehicle ownership if parking is an additional cost and not included as part of the rent or purchase price. Assumes \$125 monthly parking cost for residents.	3.0 to 3.5%	n/a	n/a	n/a
Transit Incentive for Residents	All adult residents will be provided with a VTA SmartPass at move-in. Providing transit incentives and information to residents at move-in can introduce them to transit which they may then adopt as their primary commuting mode. Assumes equivalent to \$3 subsidy per day. Reduction applies to commute trips only.	0.5 to 1.0%	n/a	n/a	n/a
Safe Routes to School Support Programs	Residential building management will work with residents to facilitate formation of "walking school buses" and/or "bicycle trains" where parents escort groups of students as they walk or bicycle to school. Information on routes, meeting points, and points of contact will be posted in building lobbies and/or common areas. This measure reduces the number of vehicle trips generated by the residential units and by local schools.	-	n/a	n/a	n/a
TDM Measures for Office and Retail Employees Only					
Transit Subsidy for Employees	Office and commercial tenants will be required (via leasing requirements) to provide VTA SmartPasses to their employees.	n/a	n/a	-	already included in trip generation estimates
Vanpool Subsidy for Employees	Similar to the transit subsidy, office tenants (via leasing requirements) will be required to subsidize employee vanpools. To qualify for the subsidy, employees should document that they are using a vanpool as their primary mode of transportation for the majority of their travel to and from work.	n/a	n/a	0.25 to 0.5%	0.5 to 1.0%

Table 28: Potential TDM Measures

TDM Measure		Target User/ Possible Trip Reduction %			
		Resident	Comm. Patron	Com. Emp.	Office Emp.
Workplace Parking Pricing	Parking spaces will be excluded from office space leases and all tenants/employees will be required to pay for parking on an individual basis. Office tenants will not be allowed to subsidize parking for their employees. Implementing workplace parking pricing and explicitly charging employees for their parking can dis-incentivize driving. (Parking management will be required to ensure office employees do not park in commercial or residential spaces.)	n/a	n/a	n/a	1.0 to 1.5%
Employee Parking Cash-out (Alternative to Workplace Parking Pricing)	Office tenants (via leasing requirements) will be required to give employees a choice of free parking or a cash payment, if employees commit to using a non-drive alone mode of transportation to travel to and from work.	n/a	n/a	n/a	0.75 to 1.25%
Alternative Work Schedules and Telecommute Programs (Office Employees)	Office tenants (via leasing requirements) will be encouraged to allow employees to telecommute and arrange alternative work schedules by allowing staggered starting times, flexible schedules, or compressed work weeks to reduce the amount of traffic generated during the AM and PM peak hours. Assumes 25% of employees participate in 9/80 schedule.	n/a	n/a	n/a	1.0%
Guaranteed Ride Home Program	Office tenants will develop a Guaranteed Ride Home (GRH) program to provide a free ride home from work in the event of an emergency for their employees who rideshare, use transit, or bike. This program enables employees to take full advantage of available employer-based TDM measures. Reduction covered under Transportation Coordinator.	n/a	n/a	-	0.25%
Minimum reduction		4.5%	-	0.75%	6.0%
Maximum reduction		6.5%	-	1.75%	9.0%

Notes:

"-" no available evidence to quantify reduction.

"n/a" = not applicable

The percent reductions presented in this table represent reasonable ranges that could potentially be achieved and are presented for informational purposes only. Actual reductions achieved depend on the final land use mix and TDM Program requirements.

Source: Fehr & Peers, May 2018.

SECTION 3.0 HOUSING RICH PROJECT ALTERNATIVE

3.1 HOUSING RICH ALTERNATIVE DEVELOPMENT ASSUMPTIONS

The Housing Rich Alternative consists of 3,250 residential units, 1.5 million square feet of office uses, 600,000 square feet of commercial uses, 65,000 square feet of civic uses (consisting of a 50,000 square foot City Hall and 15,000 square feet of adult education space), and a 30-acre green roof. It is estimated that the Housing Rich Alternative would require approximately 13,880 parking spaces, most of which would be located below ground. Excavation depths of approximately 20 to 50 feet would be required for below ground parking, which would result in approximately 2.1 million cubic yards of soil being hauled off-site. Conceptual plans for the Housing Rich Alternative are shown in Figure 3.1-1 through Figure 3.1-3.

A summary of the development assumed in the Housing Rich Alternative, compared to the proposed project and other project alternatives identified in the Draft EIR, is provided in Table 3.1-1. The No Project Alternative, which assumes the project site remains and operates as it does currently, is also analyzed in the Draft EIR.

Table 3.1-1: 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
Housing Rich Alternative	600,000	1,500,000	339	3,250	65,000	30

3.1.1 General Plan and Zoning Amendments

The Housing Rich Alternative would require the same General Plan amendments identified in the Draft EIR for the proposed project 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.¹
- 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 program and standards in the Specific Plan such as allowed land uses (e.g. civic uses), density, and building height.

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

The Housing Rich Alternative includes the same programming elements described below as the proposed project.

3.1.2.1 *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.² 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, General Plan Buildout with Maximum Residential Alternative, and Housing Rich Alternative only) and between 2.8 and 5.6 acres of the open space and landscaped areas would be irrigated.

3.1.2.2 *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 Wolfe Road would allow access into the site, and to allow pick up, drop off, and/or

¹ 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.

² Ganguly, Mitali. Associate, Opticos Design. Personal communications. March 11, 2018.

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. If any reductions in parking are allowed by state law, however, they would be applicable to the proposed Specific Plan and alternatives.

3.1.2.3 *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, designated 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 of the Draft EIR. The TDM program for future development would be completed to the satisfaction of the City of Cupertino Transportation Planner prior to approval of a development permit. Future development would submit an annual monitoring report to the Transportation 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.

3.1.2.4 *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.

3.1.2.5 *Construction*

It is anticipated that the Specific Plan could be constructed over a period of 10 years.³ 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.

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.

3.1.2.6 *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 plants 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, Retail and Residential Alternative, and Housing Rich Alternative) that includes sensitive receptors (such as residences or daycare centers) located within the setback distances identified in Section 4.3 of this EIR Amendment and shown in Figure

³ The estimated timeframe for buildout was based on projects of similar scale in the region.

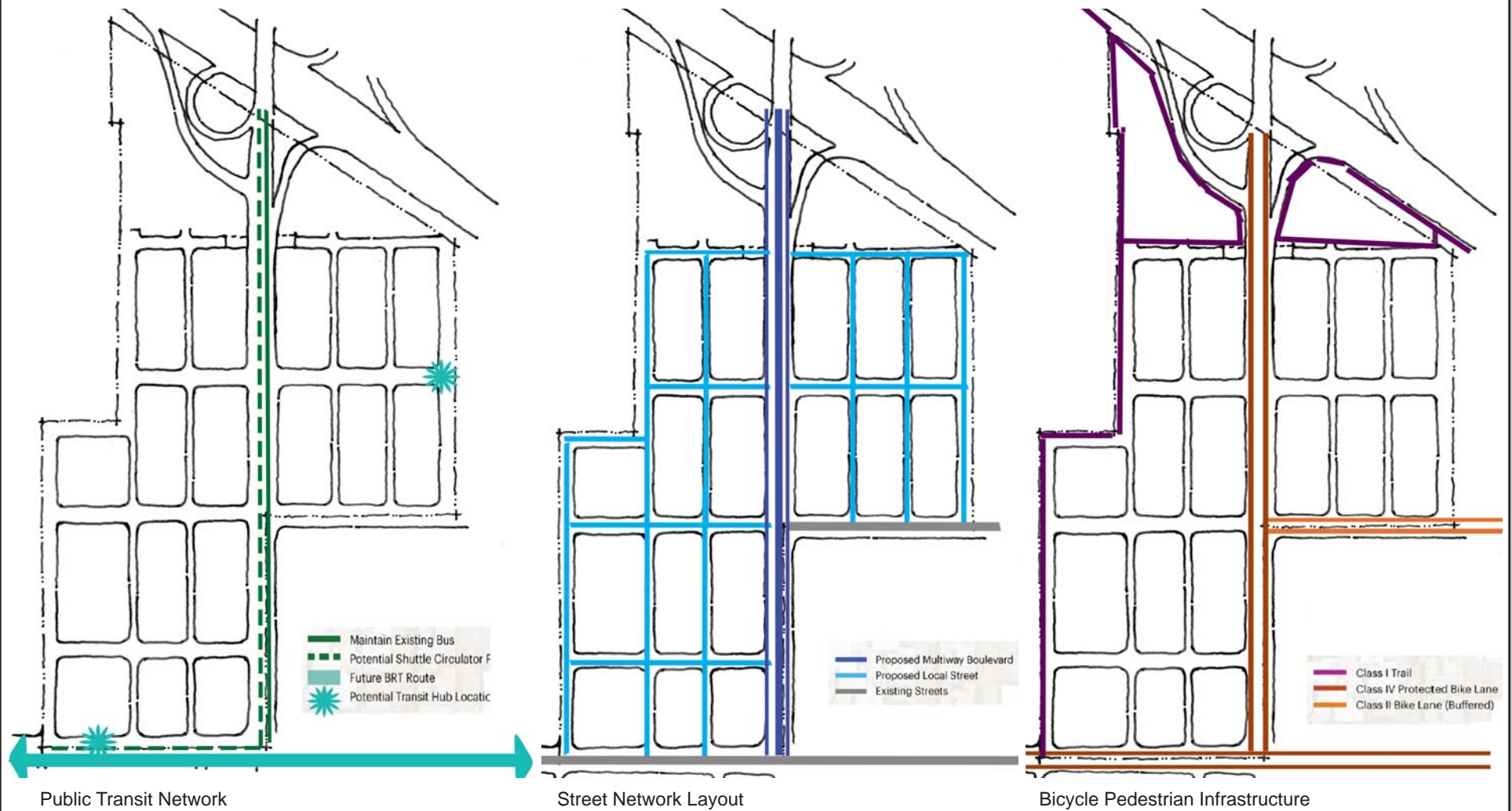
4.3-1, Figure 4.3-2, and Figure 4.3-3 of this EIR Amendment from I-280 and local roadways shall require site-specific analysis to quantify the level of TAC and PM_{2.5} exposure. This analysis shall be conducted following procedures outlined by BAAQMD. If the site-specific analysis reveals significant 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/m³, 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/m³, 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 µg/m³, 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/m³.
- 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.

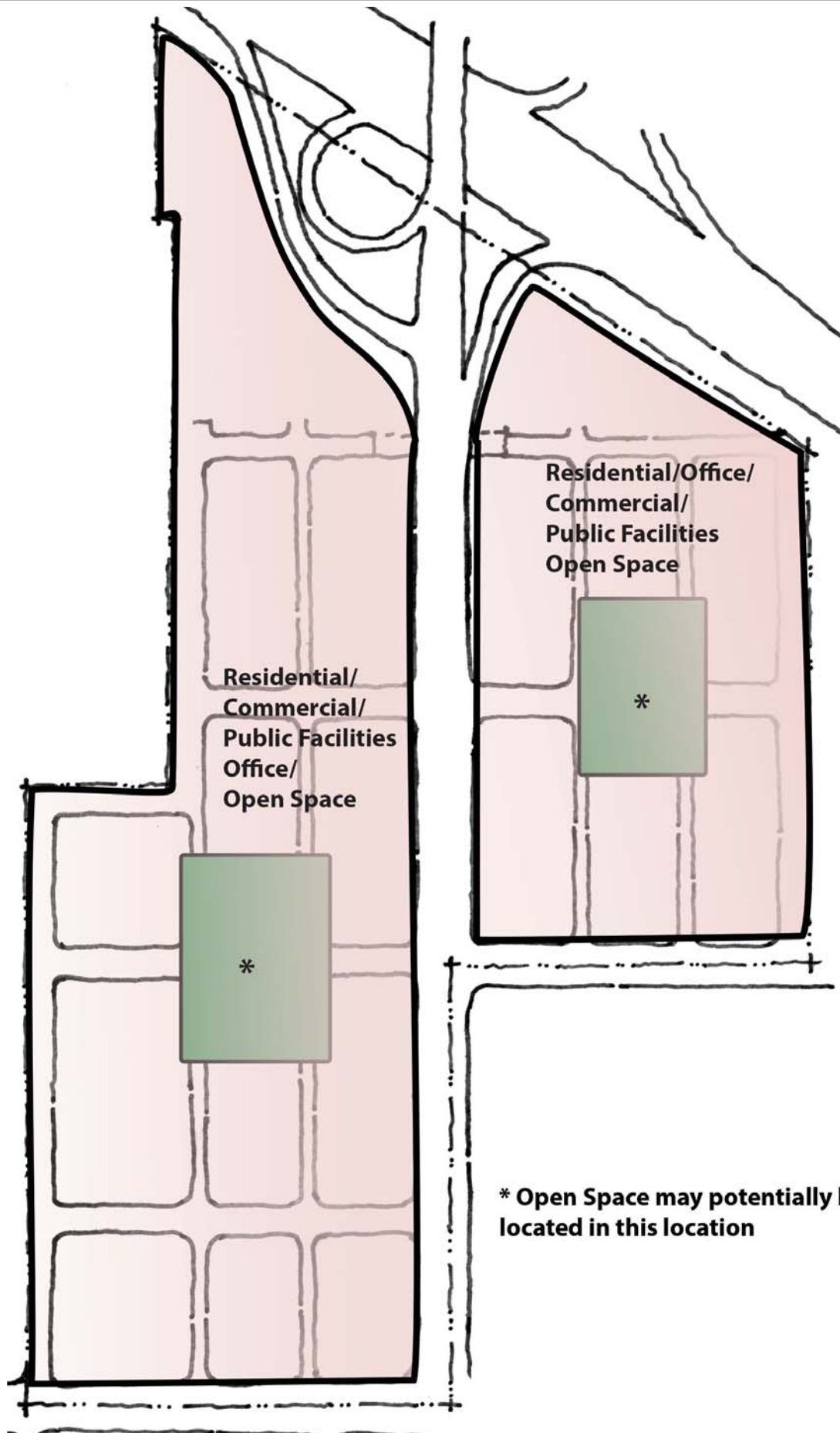
In addition, the EIR analysis includes the following Specific Plan elements:

- 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.
- Future development would meet the state Density Bonus Law criteria to be granted a residential density bonus of 35 percent.



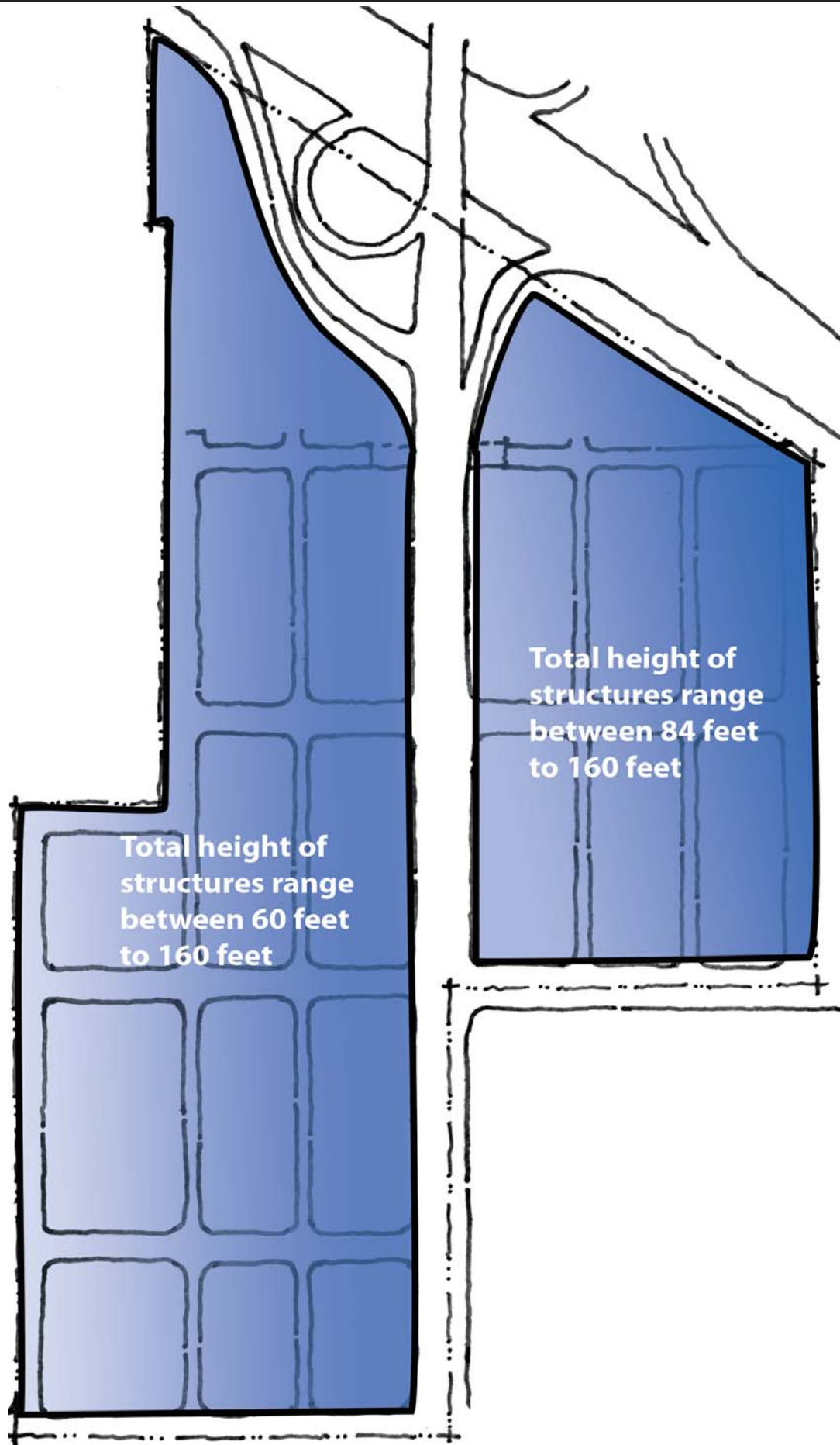
HOUSING RICH ALTERNATIVE: CONCEPTUAL STREET LAYOUT

FIGURE 3.1-1



HOUSING RICH ALTERNATIVE: CONCEPTUAL LAND USE DIAGRAM

FIGURE 3.1-2



HOUSING RICH ALTERNATIVE: CONCEPTUAL BUILDING HEIGHTS

FIGURE 3.1-3

SECTION 4.0 ENVIRONMENTAL SETTING, IMPACTS, AND MITIGATION

This section presents the discussion of impacts of the proposed project (generally verbatim from the Draft EIR) and impacts from the Housing Rich Alternative 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

Refer to the Draft EIR for a description of the environmental setting (including regulatory framework), thresholds of significance, and impacts and mitigation for the General Plan Buildout with Maximum Residential Alternative, Retail and Residential Alternative, and Occupied/Re-Tenanted Mall Alternative.

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.

4.1

AESTHETICS IMPACTS

Impact AES-1: The project or Housing Rich Alternative would not result in significant aesthetic impacts. (Less than Significant Impact)

Project

The project is a mixed-use residential and employment center project. 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)**

Housing Rich Alternative

Like the proposed project, the Housing Rich Alternative is a mixed-use residential and employment center development proposed on an infill site located within a transit priority area. Pursuant to SB 743, the aesthetics impacts of the Housing Rich Alternative are not considered significant. **(Less than Significant Impact)**

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

Project

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

Housing Rich Alternative

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

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

Project

The project site and surrounding properties are not used, zoned, or designated for agricultural purposes. For these reasons, implementation of the proposed project (and 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)**

Housing Rich Alternative

Implementation of the Housing Rich Alternative would not convert farmland to non-agricultural uses, conflict with existing zoning for agricultural use, or conflict with a Williamson Act contract for the same reasons discussed above for the proposed project. **(No Impact)**

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

Project

The project site and surrounding properties are not used or zoned for forestry or timberland purposes. For these reasons, implementation of the proposed project (and 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)**

Housing Rich Alternative

Implementation of the Housing Rich Alternative would not conflict with zoning of forest land or timberland or result in the loss or conversion of forest land to non-forest uses for the same reasons discussed above for the proposed project. **(No Impact)**

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

Project

As discussed above, the implementation of the proposed project (and 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)**

Housing Rich Alternative

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

4.3 AIR QUALITY

This section is based on the analysis in the Draft EIR and a supplemental air quality and greenhouse gas (GHG) emissions assessment prepared by Illingworth & Rodkin, Inc. in June 2018. A copy of the supplemental assessment is included in Appendix A of this EIR Amendment.

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

Project

The Bay Area Air Quality Management District's 2017 Climate Action Plan (2017 BAAQMD 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 BAAQMD 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 would generally be consistent with 2017 CAP control measures intended to reduce automobile and energy use, as discussed below in Table 4.3-1.

Table 4.3-1: 2017 BAAQMD CAP Control Measure Consistency	
Control Measures	Consistency
Transportation	
TR1: Clean Air Teleworking Initiative	<i>Consistent:</i> The proposed project (and General Plan Buildout with Maximum Residential Alternative, Retail and Residential Alternative, and Housing Rich Alternative) includes a TDM program (refer to Section 3.1.2.3 of this EIR Amendment), which would include measures such as increased support for telecommuting.
TR2: Trip Reduction Programs	<i>Consistent:</i> The proposed project (and General Plan Buildout with Maximum Residential Alternative, Retail and Residential Alternative, and Housing Rich Alternative) includes a TDM program (refer to Section 3.1.2.3 of this EIR Amendment), which would include measures such as transit subsidies, carpool incentives, bicycling incentives, carshare memberships, and/or vanpools.
TR 5: Transit Efficiency and Use	<i>Consistent:</i> While this is mostly a regionally implemented measure, the proposed project (and General Plan Buildout with Maximum Residential Alternative, Retail and Residential Alternative, and Housing Rich Alternative) would include a transit hub to support and encourage transit use (refer to Section 3.1.2.3 of this EIR Amendment).

Table 4.3-1: 2017 BAAQMD CAP Control Measure Consistency

Control Measures	Consistency
TR7: Safe Routes to Schools and Safe Routes to Transit	<i>Consistent:</i> Future development under the proposed project (and General Plan Buildout with Maximum Residential Alternative, Retail and Residential Alternative, and Housing Rich 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	<i>Consistent:</i> The proposed project (and General Plan Buildout with Maximum Residential Alternative, Retail and Residential Alternative, and Housing Rich Alternative) includes a TDM program (refer to Section 3.1.2.3 of this EIR Amendment), which would include measures such as carpool incentives, carshare memberships, additional last-mile services, and/or vanpools.
TR9: Bicycle and Pedestrian Access and Facilities	<i>Consistent:</i> Future development under the proposed project (and General Plan Buildout with Maximum Residential Alternative, Retail and Residential Alternative, and Housing Rich 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	<i>Consistent:</i> Future development under the proposed project (and General Plan Buildout with Maximum Residential Alternative, Retail and Residential Alternative, and Housing Rich 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	<i>Consistent:</i> Future development under the proposed project (and General Plan Buildout with Maximum Residential Alternative, Retail and Residential Alternative, and Housing Rich 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	<i>Consistent:</i> 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 4.3-1: 2017 BAAQMD CAP Control Measure Consistency	
Control Measures	Consistency
BL2: Decarbonize Buildings	<i>Consistent:</i> 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	<i>Consistent:</i> Future development under the proposed project (and General Plan Buildout with Maximum Residential Alternative, Retail and Residential Alternative, and Housing Rich 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 3.1.2.6 of this EIR Amendment).
Natural and Working Lands Control Measures	
NW2: Urban Tree Planting	<i>Consistent:</i> Future development under the proposed project (and General Plan Buildout with Maximum Residential Alternative, Retail and Residential Alternative, and Housing Rich Alternative) would provide a comfortable, well-shaded environment (refer to Section 3.1.2.6 of this EIR Amendment).
Waste Management Control Measures	
WA4: Recycling and Waste Reduction	<i>Consistent:</i> Future development under the proposed project (and General Plan Buildout with Maximum Residential Alternative, Retail and Residential Alternative, and Housing Rich 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	<i>Consistent:</i> Future development under the proposed project (and General Plan Buildout with Maximum Residential Alternative, Retail and Residential Alternative, and Housing Rich 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 3.1.2.4 of this EIR Amendment).

As indicated in Table 4.3-1, the proposed project (and General Plan Buildout with Maximum Residential Alternative, Retail and Residential Alternative, and Housing Rich Alternative) would include implementation of policies and measures that are consistent with the applicable 2017 BAAQMD 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, Retail and Residential Alternative, and Housing Rich Alternative) would not conflict or obstruct the implementation of the 2017 BAAQMD CAP.

Housing Rich Alternative

As indicated in Table 4.3-1, like the proposed project, the Housing Rich Alternative would include implementation of policies and measures that are consistent with the applicable 2017 BAAQMD CAP control measures. With implementation of these policies and measures as part of new development, the Housing Rich Alternative would not conflict or obstruct the implementation of the 2017 BAAQMD CAP. The Housing Rich Alternative would result in the same consistency with the 2017 BAAQMD CAP as described above for the proposed project. **(Less than Significant Impact)**

Impact AQ-2: The construction of the project or Housing Rich Alternative would violate an air quality standard or contribute substantially to an existing or projected air quality violation. (Significant and Unavoidable Impact with Mitigation Incorporated)

Project

Implementation of the proposed project (and General Plan Buildout with Maximum Residential Alternative, Retail and Residential Alternative, and Housing Rich 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 respirable particulate matter (PM₁₀) and fine particulate matter (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 PM₁₀ and PM_{2.5} emissions. Off-road construction equipment is often diesel-powered and can be a substantial source of nitrogen oxide (NO_x) emissions, in addition to PM₁₀ 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.

Table 4.3-2 summarizes the average daily construction emissions (both with and without MM AQ-2.1) of reactive organic gases (ROG), NO_x, PM₁₀ exhaust, and PM_{2.5} exhaust during construction of the project (and General Plan Buildout with Maximum Residential Alternative, Retail and Residential Alternative, and Housing Rich Alternative) as compared to BAAQMD thresholds. As shown in Table 4.3-2, estimated construction emissions for the project (and General Plan Buildout with Maximum Residential Alternative, Retail and Residential Alternative, and Housing Rich Alternative) would exceed the BAAQMD significance threshold for NO_x emissions during construction. Emissions of ROG, PM₁₀ exhaust, and PM_{2.5} exhaust during construction would be below BAAQMD significance thresholds.

As shown in Table 4.3-2, implementation of the proposed project (and General Plan Buildout with Maximum Residential Alternative, Retail and Residential Alternative, and Housing Rich Alternative) would result in significant air quality impacts related to construction period dust and exhaust emissions.

Table 4.3-2: Project and Project Alternative Construction Period Emissions				
	ROG	NO_x	PM₁₀ 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	-	-
Housing Rich Alternative				
Average daily emissions	46.9	167.5	1.4	1.3
Mitigated average daily emissions	-	127.3	-	-
Note: Bold and highlighted emissions indicate emissions exceeding the threshold of significance.				

Mitigation Measure:

MM AQ-2.1: Future development under the proposed project (and General Plan Buildout with Maximum Residential Alternative, Retail and Residential Alternative, or Housing Rich 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. 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 NO_x emissions for the project (and project alternatives) is shown in Table 4.3-2. As shown in Table 4.3-2, the construction-related emissions from the project (and General Plan Buildout with Maximum Residential Alternative, Retail and Residential Alternative, and Housing Rich 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)**

Housing Rich Alternative

As shown in Table 4.3-2, like the proposed project, the Housing Rich Alternative would result in significant construction-related NO_x emissions. The Housing Rich Alternative would result in a greater impact than the proposed project because it would result in greater NO_x emissions. The Housing Rich Alternative would implement mitigation measure MM AQ-2.1 identified above for the proposed project, but like the proposed project, the impact would remain significant and unavoidable. **(Significant and Unavoidable Impact with Mitigation Incorporated)**

Impact AQ-3: **The operation of the project or Housing Rich Alternative would violate an 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 4.3-3 and Table 4.3-4.

As shown in Table 4.3-3 and Table 4.3-4, 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 3.1.2.3) would further reduce air pollutant emissions, but not to a less than significant level.

Table 4.3-3: Annual Project and Project Alternative Operational Air Pollutant Emissions				
	ROG	NO_x	PM₁₀	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
Net Housing Rich Alternative Emissions*	35.50	40.13	45.75	12.75
Note: * Minus Existing Operations; Bolded and highlighted emissions indicate emissions above the threshold of significance.				

Table 4.3-4: Average Project and Project Alternative Daily Operational Air Pollutant Emissions				
	ROG	NO_x	PM₁₀	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
Net Housing Rich Alternative Emissions*	194.5	219.9	250.8	69.86
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 (or General Plan Buildout with Maximum Residential Alternative, Retail and Residential Alternative, or Housing Rich 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 2.1.2.3) 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)**

Housing Rich Alternative

As shown in Table 4.3-3 and Table 4.3-4, the Housing Rich Alternative would exceed significance thresholds for all criterial air pollutants (ROG, NO_x, PM₁₀, and PM_{2.5}). As discussed above, the proposed project would result in significant operational emissions of the same criteria air pollutants as the Housing Rich Alternative, with the exception of PM_{2.5}. The Housing Rich Alternative would result in significant emissions of PM_{2.5}, while the proposed project would not, primarily due to the substantial number of daily vehicle miles traveled (VMT) (refer to Table 4.17-7). The Housing Rich Alternative, therefore, would result in a greater operational criteria air pollutant impact than the proposed project. The Housing Rich Alternative would implement mitigation measure MM AQ-3.1, but like the proposed project the impact would remain significant and unavoidable. **(Significant and Unavoidable Impact with Mitigation Incorporated)**

Impact AQ-4:	The project or Housing Rich Alternative would result in a cumulatively considerable net increase of criteria pollutants (ROG, NO_x, PM₁₀, 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)
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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, Retail and Residential Alternative, and Housing Rich Alternative) would have a cumulatively considerable net increase in criteria air pollutants 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)

Housing Rich Alternative

As discussed under Impact AQ-3, the Housing Rich Alternative would result in the same cumulatively considerable net increase of criteria air pollutants as the proposed project, with the exception of PM_{2.5}. The Housing Rich Alternative would result in cumulatively considerable contributions of PM_{2.5}, while the proposed project would not, primarily due to its substantial daily VMT. The Housing Rich Alternative, therefore, would result in a greater cumulatively considerable net increase of criteria air pollutants than the proposed project. The Housing Rich Alternative would implement mitigation measure MM AQ-4.1, but like the proposed project the impact would remain significant and unavoidable. **(Significant and Unavoidable Impact with Mitigation Incorporated)**

Impact AQ-5: The project or Housing Rich Alternative would not expose sensitive receptors to substantial CO concentrations. (Less than Significant Impact)

Project

The Bay Area has been designated as an attainment area for carbon monoxide (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 of the Draft EIR), the impact of the proposed project (and project alternatives) related to localized CO concentrations would be less than significant. **(Less than Significant Impact)**

Housing Rich Alternative

The intersections affected by the Housing Rich Alternative are the same as the proposed project. As discussed above, the intersections affected by the project and project alternatives (including the Housing Rich Alternative) would have volumes below the threshold of 44,000 vehicles per hour. For this reason, like the proposed project, the impact of the Housing Rich Alternative related to localized CO concentrations would be less than significant impact. **(Less than Significant Impact)**

Impact AQ-6: The project or Housing Rich 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 measure MM AQ-2.1.

Mitigation Measure:

MM AQ-6.1: Implement MM AQ-2.1.

(Significant and Unavoidable Impact with Mitigation Incorporated)

Housing Rich 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 measure MM AQ-2.1 identified above. Both the Housing Rich Alternative and proposed project would result in significant construction-related NO_x emissions (see Table 4.3-2). The Housing Rich Alternative would result in a greater impact than the proposed project because it would result in greater NO_x emissions. **(Significant and Unavoidable Impact with Mitigation Incorporated)**

Impact AQ-7: The project or Housing Rich Alternative would expose sensitive receptors to substantial TAC pollutant concentrations. (Less than Significant Impact with Mitigation Incorporated)

Exposure of Sensitive Receptors from Project Construction Activity

Project

Construction equipment and associated heavy-duty truck traffic generates diesel exhaust, which is a known Toxic Air Contaminant (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 Diesel Particulate Matter (DPM) and PM_{2.5}.⁴ Refer to Appendix B of the Draft EIR for details about community health risk modeling, data inputs, and assumptions.

⁴ DPM is identified by the State of California as a TAC due to the potential to cause cancer.

Table 4.3-5 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.

Table 4.3-5: Project Construction Community Risk at the Maximally Exposed Individual			
Source	Cancer Risk (per million)	Annual PM_{2.5} Concentration (µg/m³)	Hazard Index
Project*	26.7	0.25	0.01
Housing Rich Alternative	27.0	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 4.3-5, 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 micrograms per cubic meter (µg/m³) and does not exceed the BAAQMD threshold of significance of 0.3 µg/m³. 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.

Mitigation Measure:

MM AQ-7.1: Future development under the proposed project (and General Plan Buildout with Maximum Residential Alternative, Retail and Residential Alternative, or Housing Rich 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, Retail and Residential Alternative, or Housing Rich 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, Retail and Residential Alternative, or Housing Rich Alternative) would be 3.1 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)**

Housing Rich Alternative

As shown in Table 4.3-5, the construction of the Housing Rich Alternative would result in similar significant health risk exposure to sensitive receptors as the proposed project and would implement mitigation measure MM AQ-7.1 identified above. **(Less than Significant Impact with Mitigation Incorporated)**

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

Project

The proposed project (and General Plan Buildout with Maximum Residential Alternative, Retail and Residential Alternative, and Housing Rich 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 of the Draft EIR 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 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 µg/m³. Figure 4.3-1 shows contour lines on the site where PM_{2.5} concentrations would occur at or above the BAAQMD threshold of significance of 0.3 µg/m³. 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 4.3-2 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 µg/m³. 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 4.3-3 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 µg/m³. 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 significant. The HI is estimated to be 0.0006, which is below the BAAQMD threshold of significance of 1.0.

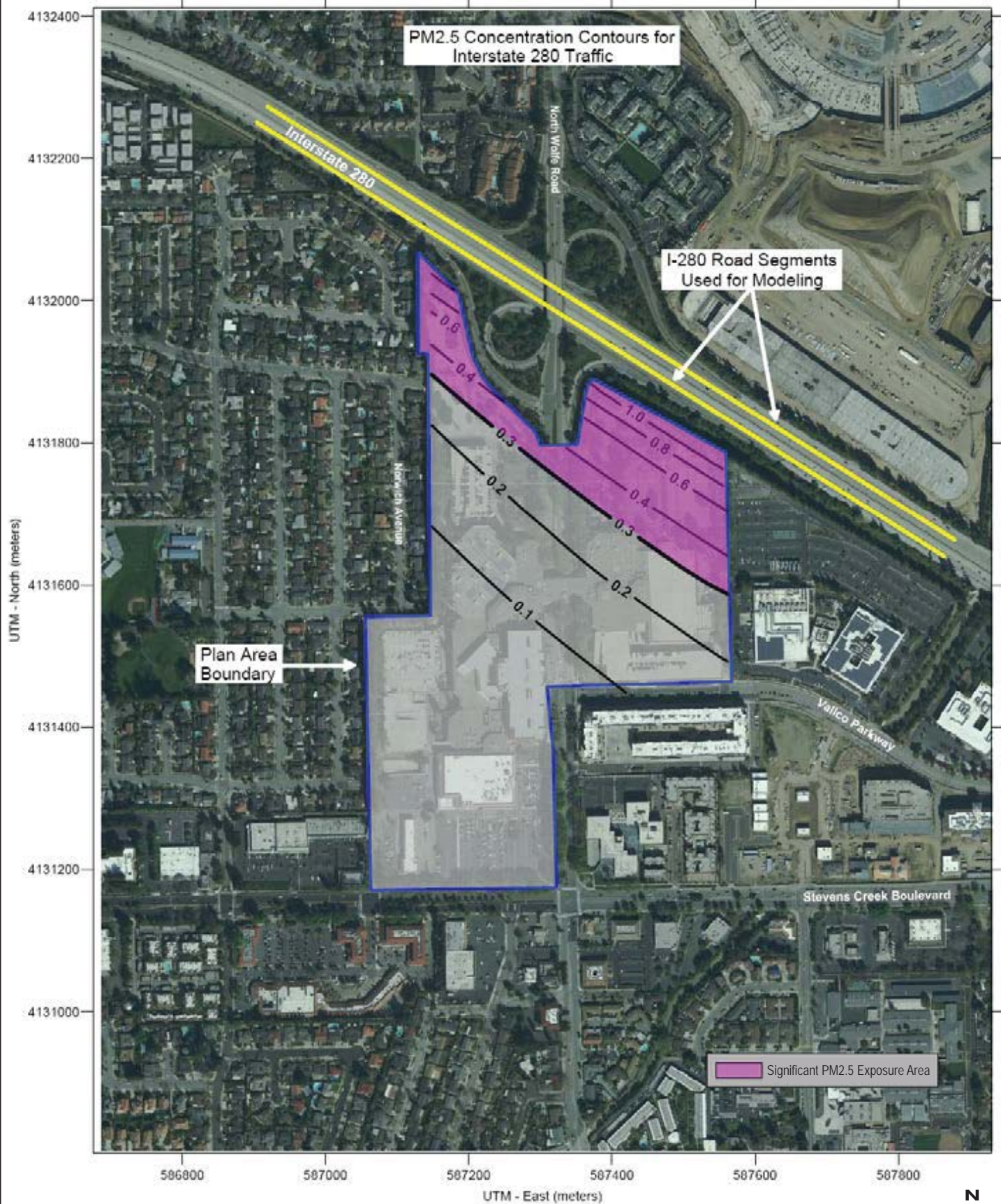
- Vallco Parkway – The predicted maximum increased cancer risk at the project site from traffic on North Wolfe Road was calculated to be 8.6 in one million, which is below the BAAQMD threshold of significance of 10 in one million. The PM_{2.5} concentrations and HI on-site from traffic on Vallco Parkway are estimated to be 0.25 µg/m³ and 0.03, which are below their respective BAAQMD thresholds of significance of 0.3 µg/m³ and 1.0.

Figure 4.3-4 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 of the Draft EIR for modeling details, data inputs, and assumptions.

The proposed project (and General Plan Buildout with Maximum Residential Alternative, Retail and Residential Alternative, and Housing Rich Alternative) would 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, Retail and Residential Alternative, and Housing Rich 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, Retail and Residential Alternative, and Housing Rich 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.



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

PROJECT SITE PM2.5 CONCENTRATIONS ($\mu\text{g}/\text{m}^3$) FROM I-280

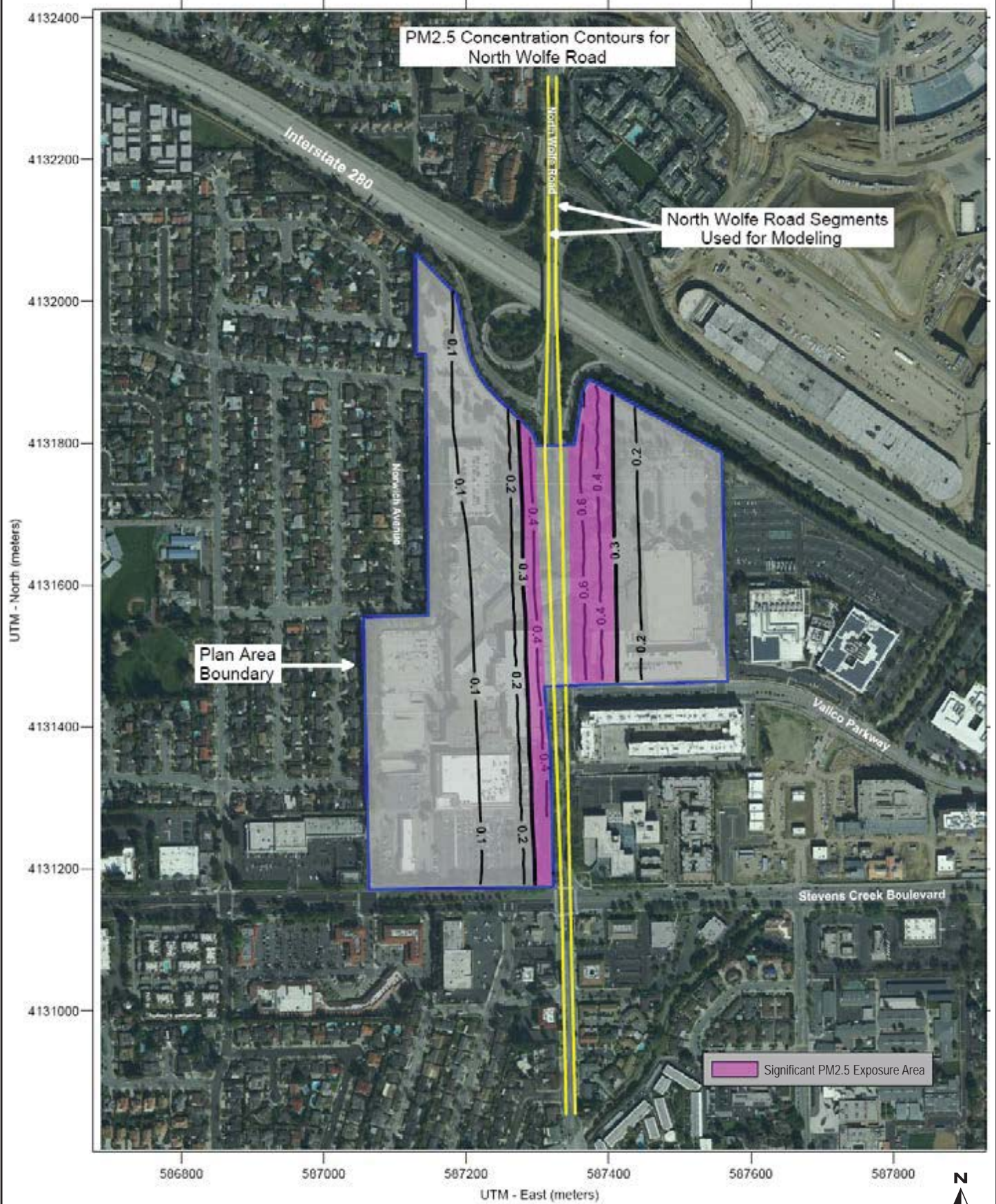
FIGURE 4.3-1



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

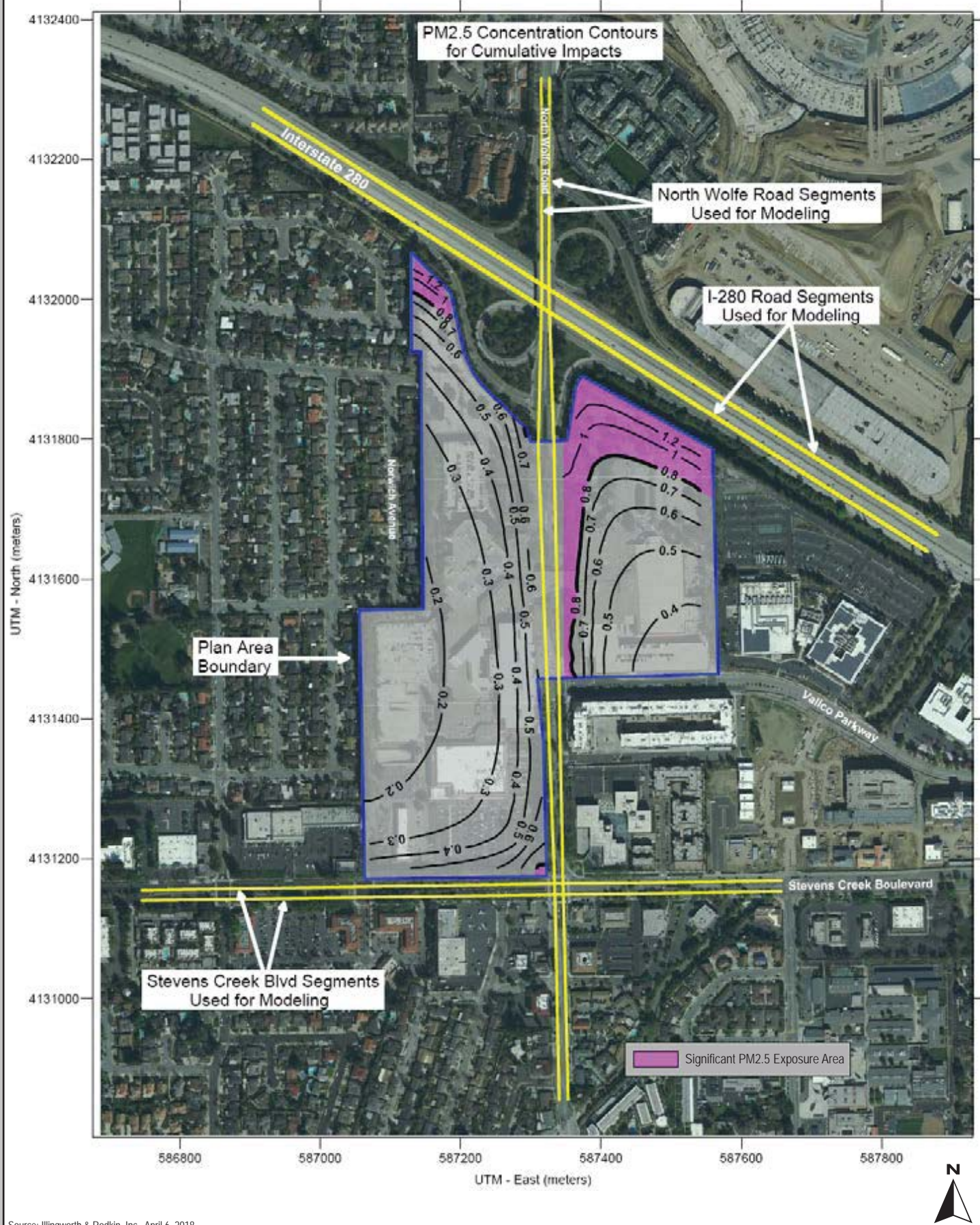
PROJECT SITE PM2.5 CONCENTRATIONS ($\mu\text{g}/\text{m}^3$) FROM STEVENS CREEK BOULEVARD

FIGURE 4.3-2



PROJECT SITE PM2.5 CONCENTRATIONS ($\mu\text{g}/\text{m}^3$) FROM NORTH WOLFE ROAD

FIGURE 4.3-3



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

COMBINED ANNUAL PM2.5 CONCENTRATIONS ($\mu\text{g}/\text{m}^3$) FROM NEARBY ROADWAYS FIGURE 4.3-4

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 4.3-1, Figure 4.3-2, and Figure 4.3-3:

- Future development under the proposed project (and General Plan Buildout with Maximum Residential Alternative, Retail and Residential Alternative, and Housing Rich 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/m³, 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/m³, 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, Retail and Residential Alternative, and Housing Rich 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/m³, 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/m³.

Housing Rich Alternative

The Housing Rich Alternative would result in the same exposure to future on-site sensitive receptors to TACs as described for the proposed project above because on-site receptors would be exposed to the same existing sources of TACs. As discussed in Section 3.1.2.6, the Housing Rich Alternative includes the same Specific Plan assumptions as the proposed project, which includes the above measures to reduce health risks to below BAAQMD thresholds of significance.

Impact AQ-8: The project or Housing Rich Alternative would not create objectionable odors affecting a substantial number of people. (Less than Significant Impact)

Project

Subsequent land use activities associated with implementation of the proposed project (and all project alternatives) could result 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)**

Housing Rich Alternative

The Housing Rich Alternative would result in a less than significant odor impact for the same reasons as described above for the proposed project. **(Less than Significant Impact)**

Impact AQ-9: Implementation of the project or Housing Rich 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)

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, Retail and Residential Alternative, and Housing Rich 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, Retail and Residential Alternative, and Housing Rich 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)**

Housing Rich Alternative

The Housing Rich Alternative would result in a greater cumulative criteria air pollutant emissions impact than the proposed project because this alternative would result in significant emissions of PM_{2.5} (which the project would not) (refer to Table 4.3-3 and Table 4.3-4). The Housing Rich Alternative would implement mitigation measure MM AQ-9.1 identified above for the proposed project, but like the proposed project, the impact would remain significant and unavoidable. **(Significant and Unavoidable Cumulative Impact with Mitigation Incorporated)**

Cumulative Exposure of Sensitive Receptors from Project Construction Activity

Project

The project site would be affected by multiple sources of TACs. Table 4.3-6 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, Retail and Residential Alternative, and Housing Rich 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 4.3-6, 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)**

Housing Rich Alternative

The Housing Rich Alternative would result in a similar less than significant cumulative exposure of sensitive receptors from project construction as described above for the proposed project. As shown in Table 4.3-6, the sum of impacts from combined sources (i.e., TAC sources within 1,000 feet of the project site) for the Housing Rich Alternative would not exceed the BAAQMD cumulative community risk thresholds. As shown in Table 4.3-6, the Housing Rich Alternative would result in a slightly greater cancer risk than the proposed project. **(Less than Significant Cumulative Impact)**

Table 4.3-6: Combined Construction Community Risk at MEI			
Source	Cancer Risk (per million)	Annual PM_{2.5} Concentration (µg/m³)	Hazard Index
Proposed Project*	26.7	0.25	0.01
Housing Rich Alternative	27.0	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 with Proposed Project*	36.1	0.80	<0.07
Combined Total with Housing Rich Alternative	36.4	0.80	<0.07
BAAQMD Threshold – Combined Sources	>100	>0.8	>10.0
Significant?	No	No	No
Note: * 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

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, Retail and Residential Alternative, and Housing Rich Alternative) are discussed under Impact AQ-8 in this EIR Amendment and the Draft EIR. **(Less than Significant Cumulative Impact)**

Housing Rich Alternative

The Housing Rich Alternative would result in a less than significant cumulative odor impact for the same reasons described above for the proposed project. The odor impacts from the Housing Rich Alternative are discussed under Impact AQ-8. **(Less than Significant Cumulative Impact)**

Impact BIO-1: The project or Housing Rich Alternative 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 Migratory Bird Treaty Act (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 California Department of Fish and Wildlife (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, Retail and Residential Alternative, and Housing Rich 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, Retail and Residential Alternative, and Housing Rich 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)**

Housing Rich Alternative

The Housing Rich Alternative would implement the same standard permit conditions identified above for the proposed project and result in the same less than significant impact to nesting birds as described above for the proposed project. **(Less than Significant Impact)**

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

Project

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)**

Housing Rich Alternative

The Housing Rich Alternative would not impact riparian habitat, wetland, or other sensitive natural communities for the same reasons described above for the project. **(No Impact)**

Impact BIO-3: The project or Housing Rich Alternative 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.⁵

As identified in Section 3.1.2.6, the Specific Plan under the project (and General Plan Buildout with Maximum Residential Alternative, Retail and Residential Alternative, and Housing Rich 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 (and General Plan Buildout with Maximum Residential Alternative, Retail and Residential Alternative, and Housing Rich Alternative). **(Less than Significant Impact)**

Housing Rich Alternative

Future development under the Housing Rich Alternative would include the same bird safe design measures identified above for the proposed project and would result in the same less than significant impact as described above for the proposed project. **(Less than Significant Impact)**

⁵ San Francisco Planning Department. *Standards for Bird-Safe Buildings*. July 2011.

Impact BIO-4: The project or Housing Rich Alternative 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 Housing Rich Alternative with the City's Tree Protection Ordinance is described below. Refer to Section 4.11 of this EIR Amendment for a discussion of consistency of the Housing Rich Alternative 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, Retail and Residential Alternative, and Housing Rich 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, Retail and Residential Alternative, and Housing Rich 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, Retail and Residential Alternative, and Housing Rich 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, Retail and Residential Alternative, and Housing Rich 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)**

Housing Rich Alternative

Future development under the Housing Rich Alternative would implement the same standard permit conditions as identified above for the proposed project and result in the same less than significant impact as described above for the proposed project. **(Less than Significant Impact)**

Impact BIO-5: The project or Housing Rich Alternative 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

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)**

Housing Rich Alternative

The Housing Rich Alternative would not conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan for the same reason described above for the proposed project. **(No Impact)**

Impact BIO-6: The project or Housing Rich Alternative would not have a cumulatively considerable contribution to a significant cumulative biological resources impact. (Less than Significant Cumulative Impact)

Project

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.

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)**

Housing Rich Alternative

Implementation of the Housing Rich Alternative would result in the same less than significant contribution to a significant cumulative biological resources impact for the same reasons described above for the proposed project. **(Less than Significant Cumulative Impact)**

4.5 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.

Impact CR-1: The project or Housing Rich Alternative 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 National Register of Historic Places (NRHP) or California Register of Historical Resources (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, Retail and Residential Alternative, and Housing Rich 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 3.1.2.6, the Specific Plan under the project (and General Plan Buildout with Maximum Residential Alternative, Retail and Residential Alternative, and Housing Rich 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, Retail and Residential Alternative, and Housing Rich Alternative), therefore, would not result in significant impacts to historic resources. **(Less than Significant Impact)**

Housing Rich Alternative

The Housing Rich Alternative would result in a less than significant impact for the same reasons discussed above for the proposed project. **(Less than Significant Impact)**

Impact CR-2: The project or Housing Rich Alternative would not significantly impact archaeological resources, human remains, or tribal cultural resources. (Less than Significant Impact with Mitigation Incorporated)

Project

As discussed in the Draft EIR, 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, Retail and Residential Alternative, and Housing Rich Alternative) would require multiple levels of below grade parking across most of the site (51 acres). The below ground parking over 51 acres would require a maximum excavation depth of 20 to 50 feet for the project and project alternatives. 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, Retail and Residential Alternative, or Housing Rich 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, Retail and Residential Alternative, or Housing Rich 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, Retail and Residential Alternative, or Housing Rich 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, Retail and Residential Alternative, or Housing Rich Alternative) to ensure appropriate cultural sensitivity training is provided to all contractors prior to the start of ground-disturbing activities.

The proposed project (or General Plan Buildout with Maximum Residential Alternative, Retail and Residential Alternative, or Housing Rich 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)**

Housing Rich Alternative

The Housing Rich Alternative would implement the same mitigation measures MM CR-2.1 through -2.4 identified above for the proposed project and would result in the same less than significant impact with mitigation incorporated as described above for the proposed project. **(Less than Significant Impact with Mitigation Incorporated)**

Impact CR-3: The project or Housing Rich Alternative would not destroy a unique paleontological resource or site or unique geological feature. (No Impact)

Project

The 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 in the Draft EIR, there are no unique geologic features on-site. **(No Impact)**

Housing Rich Alternative

The implementation of the Housing Rich Alternative would not impact paleontological resources or unique geological features for the same reasons described above for the proposed project. **(No Impact)**

Impact CR-4: The project or Housing Rich Alternative 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

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)**

Housing Rich Alternative

As discussed above, the Housing Rich Alternative would not impact historic or paleontological resources. For these reasons, the Housing Rich Alternative 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, Retail and Residential Alternative, and Housing Rich 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, Retail and Residential Alternative, or Housing Rich 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-4.1: Implement mitigation measures MM CR-2.1 through -2.4.

The proposed project (and General Plan Buildout with Maximum Residential Alternative, Retail and Residential Alternative, and Housing Rich Alternative) would comply with applicable regulations and redevelopment of the site under the proposed project (and General Plan Buildout with Maximum Residential Alternative, Retail and Residential Alternative, and Housing Rich Alternative) would implement mitigation measure MM CR-4.1 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, Retail and Residential Alternative, and Housing Rich Alternative) would not have a cumulatively considerable contribution to a significant cumulative cultural resources impact. **(Less than Significant Cumulative Impact with Mitigation Incorporated)**

Housing Rich Alternative

The Housing Rich Alternative would implement the same mitigation measure MM CR-4.1 identified above for the proposed project and result in the same less than significant cumulative impact with mitigation incorporated as described above for the proposed project. **(Less than Significant Cumulative Impact with Mitigation Incorporated)**

Impact EN-1: **The project or Housing Rich Alternative 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 4.6-1.

Table 4.6-1: 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
Housing Rich Alternative	71	76 billion	14
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. Sources: 1. Illingworth & Rodkin, Inc. <i>Vallco Special Area Specific Plan Air Quality and Greenhouse Gas Emissions Assessment</i> . May 2018. Attachment 2. And 2. Illingworth & Rodkin, Inc. <i>Housing Rich Alternative Air Quality Modeling</i> . June 2018. Attachment 1.			

Construction

Construction of the project (and the General Plan Buildout with Maximum Residential Alternative, Retail and Residential Alternative, and Housing Rich 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 4.3 Air Quality of this EIR Amendment, future development under the proposed project (or the General Plan Buildout with Maximum Residential Alternative, Retail and Residential Alternative, or Housing Rich 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, Retail and Residential Alternative, and Housing Rich 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, Retail and Residential Alternative, and Housing Rich 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, Retail and Residential Alternative, and Housing Rich 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 4.6-1, operation of the project is estimated to result in an annual net energy demand of approximately 70 gigawatt-hours (GWh) of electricity, 64 billion British thermal units (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)

Housing Rich Alternative

Construction

The Housing Rich Alternative would result in similar energy use and efficiency (i.e., implementation of construction best management practices) during construction as discussed above for the proposed project and would result in the same less than significant impact as described above for the proposed project. **(Less than Significant Impact)**

Operation

As shown in Table 4.6-1, operation of the Housing Rich Alternative is estimated to result in an annual net energy demand of approximately 71 GWh of electricity, 76 billion Btu of natural gas, and

14 million gallons of gasoline compared to existing conditions. Compared to the proposed project, the Housing Rich Alternative would have greater electricity, natural gas, and gasoline demand.

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

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

Project

Electricity on-site is provided by Silicon Valley Clean Energy (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)**

Housing Rich Alternative

As described above for the proposed project, electricity would continue to be provided by SVCE under the Housing Rich Alternative. In addition, future development under the Housing Rich Alternative would be completed in compliance with the same energy efficiency standards described above for the proposed project. For these reasons, like the proposed project, the Housing Rich Alternative would not conflict with or obstruct state or local plans for renewable energy or energy efficiency. **(Less than Significant Impact)**

Impact EN-3: The project or Housing Rich Alternative would not have a cumulatively considerable contribution to a significant cumulative energy impact. (Less than Significant Cumulative Impact)

Project

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)**

Housing Rich Alternative

As discussed above, the Housing Rich Alternative would not result in a significant energy impact. Therefore, the Housing Rich Alternative would not have a cumulatively considerable contribution to a significant cumulative energy impact. **(Less than Significant Cumulative Impact)**

4.7 GEOLOGY AND SOILS

The following discussion is 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 the Draft EIR.

Impact GEO-1: The project or Housing Rich Alternative 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

Fault Rupture

As discussed in the Draft EIR, 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 landslides is low.

As required by the California Building Code (CBC) Section 1803, the proposed project (and General Plan Buildout with Maximum Residential Alternative, Retail and Residential Alternative, and Housing Rich 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.

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)**

Housing Rich Alternative

The Housing Rich Alternative would result in the same less than significant seismic and seismic-related impacts as described above for the proposed project. As required by CBC Section 1803, the Housing Rich 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. The existing seismic and seismic hazards on-site, which are discussed above, would not be exacerbated by the Housing Rich Alternative such that it would impact (or worsen) on- or off-site conditions. **(Less than Significant Impact)**

Impact GEO-2: The project or Housing Rich Alternative 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

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, Retail and Residential Alternative, and Housing Rich 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 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)**

Housing Rich Alternative

Soil Erosion and Loss of Topsoil

As described for the proposed project above, the Housing Rich Alternative would also be 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. The Housing Rich Alternative, therefore, would not lead to substantial soil erosion or loss of topsoil. **(Less than Significant Impact)**

Expansive Soils

As described above for the proposed project and required by the CBC Section 1803, the Housing Rich 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. The existing expansive soils condition on-site would not be exacerbated by the Housing Rich Alternative such that it would impact (or worsen) on- or off-site conditions. **(Less than Significant Impact)**

Impact GEO-3: The project or Housing Rich Alternative 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

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.⁶ There are no groundwater extraction wells on-site; therefore, the risk of site subsidence is low.

⁶ 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)**

Housing Rich Alternative

As described above for the proposed project and required by the CBC Section 1803, the Housing Rich 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. **(Less than Significant Impact)**

Impact GEO-4: The project or Housing Rich Alternative 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

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)**

Housing Rich Alternative

Like the proposed project, the Housing Rich Alternative would connect to the existing sewer sanitary system. No septic tanks or alternative waste water disposal systems are required for the Housing Rich Alternative. **(No Impact)**

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

Project

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)**

Housing Rich Alternative

The cumulative geology and soil impacts of the Housing Rich Alternative are the same as described above for the proposed project. As discussed in Impacts GEO-1 through GEO-4, the existing geology and soils conditions would not be exacerbated by the Housing Rich Alternative such that it would impact (or worsen) on- or off-site geology and soils conditions. For this reason, the Housing Rich Alternative would not contribute to a cumulatively significant geology and soils impact. **(Less than Significant Cumulative Impact)**

4.8 GREENHOUSE GAS EMISSIONS

The following discussion is based on the analysis in the Draft EIR and a supplemental air quality and GHG emissions assessment prepared for the project by Illingworth & Rodkin, Inc. in June 2018. A copy of the supplemental assessment is included in Appendix A of this EIR Amendment.

Impact GHG-1: The project or Housing Rich 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

Table 4.8-1 summarizes the GHG emissions associated with construction of the proposed project (and General Plan Buildout with Maximum Residential Alternative, Retail and Residential Alternative, and Housing Rich Alternative).⁷ 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)**

Table 4.8-1: 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
Housing Rich Alternative	91,976

Housing Rich Alternative

Table 4.8-1 summarizes the GHG emissions associated with construction of the Housing Rich Alternative, as well as the proposed project and other project alternatives. Neither the City nor BAAQMD have an adopted threshold of significance for construction-related GHG emissions. As

⁷ The Occupied/Re-Tenanted Mall Alternative discussed in the Draft EIR would not result in the construction of new buildings. The Occupied/Re-Tenanted Mall 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 the Occupied/Re-Tenanted Mall Alternative would be less than the construction-related GHG emissions from the proposed project.

shown in Table 4.8-1, the Housing Rich Alternative would result in greater construction-related GHG emissions than the proposed project. **(Less than Significant Impact)**

Operation

Project

Table 4.8-2 summarizes the estimated operational GHG emissions in terms of metric tons of carbon dioxide equivalent (MTCO₂e) 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 of the Draft EIR and Appendix A of this EIR Amendment for modeling details, data inputs, and assumptions.

Table 4.8-2: Summary of Estimated Annual GHG Emissions (MTCO ₂ e)						
Source Category	Existing	Proposed Project	Project Alternatives			
			General Plan Buildout w/Maximum Residential	Retail and Residential	Occupied/ Re-Tenanted Mall	Housing Rich
			(MTCO ₂ e)			
Area (appliances, fireplaces, etc.)	<1	10	33	50	<1	41
Energy Consumption	38	3,442	3,417	3,102	665	4,136
Mobile	4,803	31,901	30,059	16,752	12,496	41,577
Solid Waste Generation	157	1,696	1,654	1,336	679	2,018
Water Usage	30	641	562	427	127	590
Total	5,028	37,690	35,725	21,667	13,967	48,362
Estimated MTCO ₂ e/year/service population*		3.4	3.3	2.3	5.5	3.4
Significance Threshold (MTCO ₂ e/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, 2,550 for the Occupied/Re-Tenanted Mall Alternative, and 14,085 for the Housing Rich Alternative. (Sources: 1. Economic & Planning Systems, Inc. Population and Employment Projections. April 26, 2018. 2. Economic & Planning Systems, Inc. Housing Rich Alternative Project Buildout Population Projections. June 20, 2018.)						

As shown in Table 4.8-2, buildout operation of the proposed project would have annual GHG emissions of 3.4 MTCO₂e/year/service population, which exceeds the significance threshold of 2.6 MTCO₂e/year/service population.

Mitigation Measure:

MM GHG-1.1: Under the proposed project (and General Plan Buildout with Maximum Residential Alternative and Housing Rich Alternative), the project proponent shall prepare and implement a GHG Reduction Plan to offset the project (or General Plan Buildout with Maximum Residential Alternative or Housing Rich Alternative)-related incremental increase of greenhouse gas emissions resulting in the exceedance of the significance threshold of 2.6 MTCO₂e/year/service population. Refinement of the estimated GHG emissions from the project (or General Plan Buildout with Maximum Residential Alternative or Housing Rich 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 or Housing Rich 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 or Housing Rich 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 and Housing Rich 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)**

Housing Rich Alternative

As shown in Table 4.8-2, operation of the Housing Rich Alternative at buildout would have annual GHG emissions of 3.4 MTCO₂e/year/service population, which exceeds the significance threshold of 2.6 MTCO₂e/year/service population. The Housing Rich Alternative would have a similar significant GHG impact as the proposed project (see Table 4.8-2) and would implement mitigation measure MM GHG-1.1 identified above for the proposed project. **(Less than Significant Cumulative Impact with Mitigation Incorporated)**

Impact GHG-2: The project or Housing Rich 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, Retail and Residential Alternative, and Housing Rich 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).⁸ **(Less than Significant Cumulative Impact)**

Housing Rich Alternative

The Housing Rich Alternative would result in the same consistency with *Plan Bay Area 2040* as described above for the proposed project. **(Less than Significant Cumulative Impact)**

Bay Area 2017 Clean Air Plan

Project

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 BAAQMDCAP. The proposed project is considered consistent with the 2017 BAAQMD 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 4.3-1 in Section 4.3 Air Quality.

⁸ Since the Occupied/Re-Tenanted Mall Alternative is not a new development or redevelopment project, *Plan Bay Area 2040* is not applicable.

As discussed in Section 4.3 and shown in Table 4.3-1, the proposed project (and General Plan Buildout with Maximum Residential Alternative, Retail and Residential Alternative, and Housing Rich Alternative) would include implementation of policies and measures that are consistent with the applicable 2017 BAAQMD CAP control measures. The project (and project alternatives), therefore, are consistent with the 2017 BAAQMD CAP. **(Less than Significant Cumulative Impact)**

Housing Rich Alternative

As discussed in Section 4.3 and shown in Table 4.3-1, the Housing Rich Alternative would implement policies and measures that are consistent with the applicable 2017 BAAQMD CAP control measures. The Housing Rich Alternative, therefore, is consistent with the 2017 BAAQMD CAP. The Housing Rich Alternative would result in the same less than significant cumulative impact as described above for the proposed project. **(Less than Significant Cumulative Impact)**

City of Cupertino Climate Action Plan

Project

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 4.3, the proposed Specific Plan (under the project, General Plan Buildout with Maximum Residential Alternative, Retail and Residential Alternative, and Housing Rich 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, Retail and Residential Alternative, and Housing Rich Alternative) would be consistent with the City's Climate Action Plan and would not conflict or obstruct the implementation of the City's Climate Action Plan. **(Less than Significant Cumulative Impact)**

Housing Rich Alternative

The Housing Rich Alternative would be consistent with the identified applicable goals and policies of the City's Climate Action Plan and would not conflict or obstruct the implementation of the City's Climate Action Plan for the same reasons described above for the proposed project. The Housing Rich Alternative would result in the same less than significant cumulative impact as described above for the proposed project. **(Less than Significant Cumulative Impact)**

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 the Draft EIR.

Impact HAZ-1: The project or Housing Rich 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 of the Draft EIR (and discussed in more detail in Appendix E of the Draft EIR), 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, Retail and Residential Alternative, and Housing Rich Alternative) would result in the demolition of existing structures and excavation up to a maximum depth of 20 to 50 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, Retail and Residential Alternative, and Housing Rich 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 SCCDEH for approval and the approved SMP shall be submitted to the City Building Division 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 General Plan Buildout with Maximum Residential Alternative, Retail and Residential Alternative, and Housing Rich 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 project proponent shall obtain a permit from SCCDEH to properly remove and dispose of the 750 gallon oil-water separator during redevelopment activities. Collection and analysis of confirmation soil samples would be required under oversight of SCCDEH.
- 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 on 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, Retail and Residential Alternative, and Housing Rich 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)**

Housing Rich Alternative

The Housing Rich Alternative would implement the same mitigation measures MM HAZ-1.1 through -1.4 identified above for the proposed project and result in the same less than significant impact with mitigation incorporated as the proposed project. **(Less than Significant Impact with Mitigation Incorporated)**

Impact HAZ-2: The project and Housing Rich Alternative 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 or Housing Rich Alternative would not create a significant hazard to the public or the environment as a result. **(Less than Significant Impact)**

Project

The project site does not contain any open hazardous materials cases listed on the Cortese list databases. Two closed Underground Storage Tank (UST) cases at the Sears Automotive Center and JC Penney are identified on the Cortese list. The existence of closed cases on the Cortese list within 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)**

Housing Rich Alternative

The Housing Rich Alternative would result in a less than significant impact for being identified on a list of hazardous materials sites for the same reason described above for the proposed project. **(Less than Significant Impact)**

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

Project

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)**

Housing Rich Alternative

The Housing Rich Alternative would not result in an airport-related safety hazard for people residing or working in the project area for the same reasons described above for the proposed project. **(No Impact)**

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

Project

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.⁹ 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)**

Housing Rich Alternative

The Housing Rich Alternative would not significantly impact an adopted emergency response plan or emergency evacuation plan for the same reasons described above for the proposed project. **(Less than Significant Impact)**

⁹ 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 or Housing Rich Alternative would not expose people or structures to a significant risk of loss, injury, or death involving wildland fires. (No Impact)

Project

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

Housing Rich Alternative

The Housing Rich Alternative would not be subject to wildland fires for the same reason described above for the proposed project. **(No Impact)**

Impact HAZ-6: The project or Housing Rich Alternative would not have a cumulatively considerable contribution to a significant cumulative hazardous materials impact. (Less than Significant Impact with Mitigation Incorporated)

Project

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, Retail and Residential Alternative, and Housing Rich Alternative), implementation of the above mitigation measure would reduce the project (and General Plan Buildout with Maximum Residential Alternative, Retail and Residential Alternative, and Housing Rich 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)**

Housing Rich Alternative

The Housing Rich Alternative would implement the same mitigation measure MM HAZ-6.1 as identified above for the proposed project and result in the same less than significant impact with mitigation incorporated as described above for the proposed project. **(Less than Significant Cumulative Impact with Mitigation Incorporated)**

Impact HYD-1: The project or Housing Rich Alternative 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, Retail and Residential Alternative, and Housing Rich 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, Retail and Residential Alternative, and Housing Rich 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, Retail and Residential Alternative, and Housing Rich Alternative) would disturb more than one acre and would be required to comply with the State of California General Construction Permit. The proposed project (and General Plan Buildout with Maximum Residential Alternative, Retail and Residential Alternative, and Housing Rich Alternative) 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.^{10,11,12}

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.

Operation Period

As discussed in Section 3.1.2.1 of this EIR Amendment, 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, Retail and Residential Alternative, and Housing Rich Alternative) would be irrigated. The 30-acre green roof proposed as part of the project (and the General Plan Buildout with

¹⁰ City of Cupertino. Construction Best Management Practices. September 2016. Available at: <http://www.cupertino.org/home/showdocument?id=12309>. Accessed March 21, 2018.

¹¹ 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.

¹² 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.

Maximum Residential Alternative and Housing Rich 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 and Housing Rich 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 and Housing Rich 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 $\geq 65\%$ Impervious, and is therefore exempt from MRP hydromodification management requirements.¹³

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, Retail and Residential Alternative, and Housing Rich 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 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

¹³ 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.

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, Retail and Residential Alternative, and Housing Rich Alternative) would not significantly impact water quality during and post construction. **(Less than Significant Impact)**

Housing Rich Alternative

The Housing Rich Alternative would implement the same standard permit condition identified above for the proposed project. The Housing Rich Alternative would result in a similar less than significant impact to water quality as described above for the proposed project because it would have similar excavation and grading impacts and result in the same decrease in impervious surfaces as the proposed project. **(Less than Significant Impact)**

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

Project

The implementation of the project (and project alternatives) would not require pumping of groundwater on-site. Development of the proposed below grade parking for the project and project alternatives would require excavation of 20 to 50 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 4.18.

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)**

Housing Rich Alternative

The Housing Rich Alternative would result in a less than significant impact to groundwater supplies and groundwater recharge for the same reasons described above for the proposed project. **(Less than Significant Impact)**

Impact HYD-3: The project or Housing Rich Alternative 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, Retail and Residential Alternative, and Housing Rich 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 or Housing Rich 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 Housing Rich 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 of the Draft EIR 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 and Housing Rich Alternative) would not result in significant drainage, erosion, siltation, or polluted runoff impacts. **(Less than Significant Impact)**

Housing Rich Alternative

The Housing Rich Alternative would result in less than significant drainage, surface runoff, erosion, and siltation impacts for the same reasons described above for the proposed project. **(Less than Significant Impact)**

Impact HYD-4: The project or Housing Rich Alternative 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

As discussed in the Draft EIR, 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)**

Housing Rich Alternative

The Housing Rich Alternative would result in a less than significant flooding impact for the same reasons described above for the proposed project. **(Less than Significant Impact)**

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

Project

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 of the Draft EIR 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 (and project alternatives) 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)**

Housing Rich Alternative

The Housing Rich Alternative would result in a less than significant cumulative hydrology and water quality impact for the same reasons described above for the proposed project. **(Less than Significant Cumulative Impact)**

Impact LU-1: The project or Housing Rich Alternative would not physically divide an established community. (Less than Significant Impact)

Project

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 in the Draft EIR).

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 project would result in a new residential, commercial, office, and civic space community without dividing existing communities. **(Less than Significant Impact)**

Housing Rich Alternative

Implementation of the Housing Rich Alternative would not divide existing communities for the same reasons discussed above for the proposed project. **(Less than Significant Impact)**

Impact LU-2: The project or Housing Rich 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. (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 4.11-1. The project (and General Plan Buildout with Maximum Residential Alternative, Retail and Residential Alternative, and Housing Rich Alternative) are consistent with applicable General Plan policies and strategies (refer to Table 4.11-1) or would include General Plan amendments as appropriate to insure consistency. **(Less than Significant Impact)**

Housing Rich Alternative

The Housing Rich Alternative would result in the same consistency with applicable General Plan policies and strategies as discussed above for the proposed project and summarized in Table 4.11-1. **(Less than Significant Impact)**

Table 4.11-1: 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	Housing Rich 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 3.1.2.6 of this EIR Amendment, 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.	Same as project.
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 4.3 of this EIR Amendment, 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	Same as project.
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 4.3 of this EIR Amendment, 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	Same as project.	Same as project.	Same as project.	Same as project.

Table 4.11-1: 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	Housing Rich Alternative
	required emission controls and not result in significant TAC emissions.				
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 4.3 of this EIR Amendment, 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.	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 4.4 of this EIR Amendment, future development shall comply with the City's Tree Protection Ordinance.	Same as project.	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	Same as project.

Table 4.11-1: 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	Housing Rich Alternative
				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 4.10 of this EIR Amendment, future development shall comply with Provision C.3 which requires LID practices.	Same as project.	Same as project.	N/A	Same as project.
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 4.10 in this EIR Amendment, 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	Same as project.

Table 4.11-1: 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	Housing Rich Alternative
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 4.10 in this EIR Amendment, 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	Same as project.
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 4.10 in this EIR Amendment, 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	Same as project.
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 4.10 of this EIR Amendment.	Same as project.	Same as project.	N/A	Same as project.
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 4.10 of this EIR Amendment, 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	Same as project.

Table 4.11-1: 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	Housing Rich Alternative
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 4.10 of this EIR Amendment, future development shall comply with existing regulations (including the MRP) for stormwater control.	Same as project.	Same as project.	N/A	Same as project.
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	Same as project.
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.	Same as project.

Table 4.11-1: 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	Housing Rich 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.	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 4.15 of this EIR Amendment, the SCCFD shall review future development plans.	Same as project.	Same as project.	N/A	Same as project.
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 4.7 of this EIR Amendment, the CBC requires a site-specific geotechnical investigation report be completed for future development.	Same as project.	Same as project.	N/A	Same as project.

Table 4.11-1: 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	Housing Rich 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 4.9 of this EIR Amendment 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.	Same as project.
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 4.9 of this EIR Amendment, 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	Same as project.

Table 4.11-1: 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	Housing Rich Alternative
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 4.13 of this EIR Amendment.	Same as project.	Same as project.	N/A	Same as project.
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 4.13 of this EIR Amendment to minimize noise impacts.	Same as project.	Same as project.	N/A	Same as project.
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 4.13 of this EIR Amendment to reduce truck loading and unloading noise.	Same as project.	Same as project.	N/A	Same as project.
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 4.13 of this EIR Amendment, 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	Same as project.

Table 4.11-1: 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	Housing Rich 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 4.13 of this EIR Amendment 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.	Same as project.
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 4.17 of this EIR Amendment. Future development shall implement the identified condition of approval of	Same as project.	Same as project.	N/A	Same as project.

Table 4.11-1: 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	Housing Rich Alternative
	funding neighborhood traffic and parking monitoring studies and provide fees to implement traffic calming improvements and a residential parking permit program, if needed.				
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	Same as project.
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	Same as project.
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	Same as project.

Table 4.11-1: 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	Housing Rich Alternative
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	Same as project.
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	Same as project.
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	Same as project.

Table 4.11-1: 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	Housing Rich Alternative
				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 3.1.2.6 of this EIR Amendment, 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	Same as project.
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 3.1.2.6 of this EIR Amendment, 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	Same as project.

Table 4.11-1: 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	Housing Rich Alternative
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	Same as project.
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.	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.	Same as project.

Table 4.11-1: 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	Housing Rich 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	Same as project.
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	Same as project.

Table 4.11-1: 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	Housing Rich 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 3.1.2.6 of this EIR Amendment, the Specific Plan shall include a design policy that requires future development be visually compatibility.	Same as project.	Same as project.	N/A	Same as project.
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	Same as project.

Table 4.11-1: 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	Housing Rich 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	Same as project.
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.	Consistent: The Specific Plan shall comply with this strategy.	Same as project.	Same as project.	N/A	Same as project.

Table 4.11-1: 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	Housing Rich Alternative
4. Develop uniform tree planting plans for arterials, connectors and neighborhood streets consistent 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	Same as project.

Table 4.11-1: 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	Housing Rich Alternative
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	Same as project.
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 4.5 of this EIR Amendment, 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 4.5 of this EIR Amendment additional detail).	Same as project.	Same as project.	N/A	Same as project.

Table 4.11-1: 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	Housing Rich Alternative
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	Same as project.
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 commercial uses that would generate revenue (sales tax, property tax).	Consistent: Commercial uses would generate sales tax.	Same as project.

Table 4.11-1: 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	Housing Rich Alternative
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	Same as project.
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	Same as project.
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.	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 4.1 and 4.17 of this EIR Amendment.	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 in the aesthetics of the site. Traffic	Same as project.

Table 4.11-1: 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	Housing Rich Alternative
				impacts of this alternative are discussed in Section 3.17 of the Draft EIR.	
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	Same as project.
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	Same as project.

Table 4.11-1: 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	Housing Rich 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	Same as project.
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): <ul style="list-style-type: none">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.	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.	Same as project.

Table 4.11-1: 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	Housing Rich Alternative
<ul style="list-style-type: none">• 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.					

Table 4.11-1: 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	Housing Rich 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	Same as project.
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	Same as project.
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	Consistent: The Specific Plan shall comply with this strategy.	Same as project.	Same as project.	N/A	Same as project.

Table 4.11-1: 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	Housing Rich Alternative
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.	Consistent: The Specific Plan shall comply with this strategy.	Same as project.	Same as project.	N/A	Same as project.
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	Same as project.

Table 4.11-1: 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	Housing Rich Alternative
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	Same as project.
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	Same as project.
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	Same as project.
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	Same as project.

Table 4.11-1: 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	Housing Rich Alternative
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	Same as project.
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 4.17 of this EIR Amendment).	Same as project.	Same as project.	N/A	Same as project.
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	Consistent: The level of service impacts of future development is evaluated in Section 4.17 of this EIR Amendment and mitigation measures shall be implemented to minimize transportation impacts resulting from implementation of the project.	Same as project.	Same as project.	N/A	Same as project.

Table 4.11-1: 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	Housing Rich Alternative
modes of transportation while striving to maintain the following intersection Levels of Service (LOS) at AM and PM peak traffic hours: <ul style="list-style-type: none">• 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.	Consistent: The Specific Plan shall comply with this strategy.	Same as project.	Same as project.	N/A	Same as project.
Policy M-2.3: Promote pedestrian and bicycle improvements that improve connectivity between planning areas, neighborhoods and	Consistent: The Specific Plan shall comply with this strategy.	Same as project.	Same as project.	N/A	Same as project.

Table 4.11-1: 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	Housing Rich Alternative
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 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	Same as project.
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	Same as project.

Table 4.11-1: 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	Housing Rich Alternative
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	Same as project.
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	Same as project.
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 4.17 of this EIR Amendment, roadway mitigation measure that conflict with this policy shall not be implemented.	Same as project.	Same as project.	N/A	Same as project.
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	Same as project.
Policy M-4.5: Support ROW design and amenities consistent with local transit goals to improve	Consistent: The Specific Plan shall comply with this strategy. The project also includes upgrading the existing transit hub on-site (see	Same as project.	Same as project.	N/A	

Table 4.11-1: 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	Housing Rich Alternative
transit as a viable alternative to driving.	Section 3.1.2.6 of this EIR Amendment).				
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.	Same as project.
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	Same as project.
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 4.17 of this EIR Amendment). In addition, the project includes a TDM program to reduce project trips (refer to Section 3.1.2.3 of this EIR Amendment). The project also includes upgrading the existing transit hub on-site (see Section 3.1.2.3 of this EIR Amendment).	Same as project.	Same as project.	N/A	Same as project.

Table 4.11-1: 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	Housing Rich Alternative
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 3.1.2.3 of this EIR Amendment, 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	Same as project.
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	Same as project.

Table 4.11-1: 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	Housing Rich Alternative
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	Same as project.
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 4.17 of this EIR Amendment.	Same as project.	Same as project.	N/A	Same as project.

Impact LU-3: The project or Housing Rich Alternative would not conflict with applicable habitat conservation plan or natural community conservation plan. (No Impact)

Project

As discussed in Section 4.4 of this EIR Amendment, 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)**

Housing Rich Alternative

The Housing Rich Alternative would not conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan for the same reason described above for the proposed project. **(No Impact)**

Impact LU-4: The project or Housing Rich Alternative would not have a cumulatively considerable contribution to a significant cumulative land use impact. (Less than Significant Cumulative Impact)

Project

The cumulative impact of the project (or 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)**

Housing Rich Alternative

The Housing Rich Alternative would result in a less than significant cumulative land use impact for the same reasons described above for the proposed project. **(Less than Significant Cumulative Impact)**

Impact MIN-1: The project or Housing Rich Alternative would not result in the loss of availability of a known mineral resource or locally-important mineral resource recovery site. (No Impact)

Project

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)**

Housing Rich Alternative

The Housing Rich Alternative would impact mineral resources for the same reasons described above for the proposed project. **(No Impact)**

Impact MIN-2: The project or Housing Rich Alternative would not contribute to a significant cumulative mineral resources impact. (No Cumulative Impact)

Project

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)**

Housing Rich Alternative

The Housing Rich Alternative would not contribute to a significant cumulative impact to mineral resources for the same reasons described above for the proposed project. **(No Cumulative Impact)**

4.13 NOISE AND VIBRATION

The following discussion is based on the analysis in the Draft EIR and a supplemental noise and vibration assessment completed by Illingworth & Rodkin, Inc. in June 2018. This report is included as Appendix B to this EIR Amendment.

**Impact NOI-1: The project or Housing Rich Alternative would 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

Project

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 CNEL¹⁴ 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 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 for the proposed project estimates traffic volumes along roadway segments in the project vicinity for future cumulative plus project (or project alternative) conditions (see Appendix H of the Draft EIR and Appendix C of this EIR Amendment). Under the proposed project (which would result in the highest noise level increase compared to the General Plan Buildout with Maximum Residential Alternative, Retail and Residential Alternative, and Occupied/Re-Tenanted Mall Alternative), future traffic volume increases would occur along Perimeter Road, Stevens Creek Boulevard, North Wolfe Road, and Vallco Parkway. Future traffic noise levels along

¹⁴ Refer to the Draft EIR for a more complete description of noise fundamentals. There are several methods of characterizing sound. The most common in California is the A-weighted sound level or dBA. 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. 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.

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 General Plan Buildout with Maximum Residential Alternative, Retail and Residential Alternative, or Occupied/Re-Tenanted Mall Alternative) scenarios. Details about the modeling is included in Appendix F of the Draft EIR. 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 4.13-1 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 4.13-1, there is very little difference in modeled future noise levels between the no project, proposed project, and project alternative scenarios. Figure 3.13-2 of the Draft EIR shows the future noise contours under cumulative (no project), cumulative plus project, and cumulative plus project alternative (i.e., General Plan Buildout with Maximum Residential Alternative, Retail and Residential Alternative, and Occupied/Re-Tenanted Mall Alternative) scenarios.

Table 4.13-1: Cumulative (No Project) 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 (No Project)	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	Cumulative Plus Housing Rich Alternative
I-280	85	85	85	85	85	85
Perimeter Road, north of Stevens Creek Boulevard	66	66	66	66	66	67
Perimeter Road, near Amherst Drive	62	63	62	62	62	63
Perimeter Road, west of North Wolfe Road	69	69	69	69	69	69
Perimeter Road, east of North Wolfe Road	76	76	76	76	76	76
Perimeter Road, north of Vallco Parkway	66	67	67	67	67	67
Stevens Creek Boulevard	71	71	71	71	71	71
Vallco Parkway	68	69	69	69	69	70
North Wolfe Road, north of Stevens Creek Boulevard	71	71	71	71	71	71
North Wolfe Road, at Vallco Parkway	71	71	72	72	71	72
North Wolfe Road, south of Perimeter Road	72	73	73	73	73	73
North Wolfe Road, north of Perimeter Road	74	74	74	74	74	75

- Proposed Multi-Family Residential Land Uses** – The future noise levels summarized in Table 4.13-1 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, Retail and Residential Alternative, and Housing Rich 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 4.13-2 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. If 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 4.13-2, 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).

Table 4.13-2: Cumulative Plus Project Setback Distances Needed to Meet the 65 dBA CNEL Threshold for Outdoor Use Areas at Residential Land Uses		
Roadway	Cumulative Plus Project	Cumulative Plus Housing Rich Alternative
	Distance from Centerline to 65 dBA CNEL (feet)	
I-280	1,035	1,035
Perimeter Road, north of Stevens Creek Boulevard	100	105
Perimeter Road, near Amherst Drive	35	45
Perimeter Road, west of North Wolfe Road	165	175
Perimeter Road, east of North Wolfe Road	355	355
Perimeter Road, north of Vallco Parkway	105	115
Stevens Creek Boulevard	190	195
Vallco Parkway	150	165
North Wolfe Road, north of Stevens Creek Boulevard	230	200
North Wolfe Road, at Vallco Parkway	230	215
North Wolfe Road, south of Perimeter Road	250	260
North Wolfe Road, north of Perimeter Road	290	310

- *Proposed Commercial/Office Land Uses* – The noise levels summarized in Table 4.13-1 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 4.13-3.

Table 4.13-3: Cumulative Plus Project Setback Distances to Meet the 70 dBA CNEL Threshold of Common Outdoor Use Areas at Commercial Land Uses		
Roadway	Cumulative Plus Project	Cumulative Plus Housing Rich Alternative
	Distance from Centerline to 70 dBA CNEL (feet)	
I-280	580	580
Perimeter Road, north of Stevens Creek Boulevard	30	35
Perimeter Road, near Amherst Drive	<15	<15
Perimeter Road, west of North Wolfe Road	55	55
Perimeter Road, east of North Wolfe Road	200	200
Perimeter Road, north of Vallco Parkway	35	40
Stevens Creek Boulevard	85	90
Vallco Parkway	60	65
North Wolfe Road, north of Stevens Creek Boulevard	115	115
North Wolfe Road, at Vallco Parkway	115	130
North Wolfe Road, south of Perimeter Road	125	130
North Wolfe Road, north of Perimeter Road	150	170

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 $L_{eq}(1-hr)$ 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 $L_{eq}(1-hr)$ 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 facade 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 (and General Plan Buildout with Maximum Residential Alternative, Retail and Residential Alternative, and Housing Rich Alternative) set back from the nearby roadway centerline at the distances shown in Table 4.13-2, 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 4.13-2 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 4.13-3. Commercial/office buildings proposed nearer to roadways than the minimum distances shown in Table 4.13-3 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 (and General Plan Buildout with Maximum Residential Alternative, Retail and Residential Alternative, and Housing Rich 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.

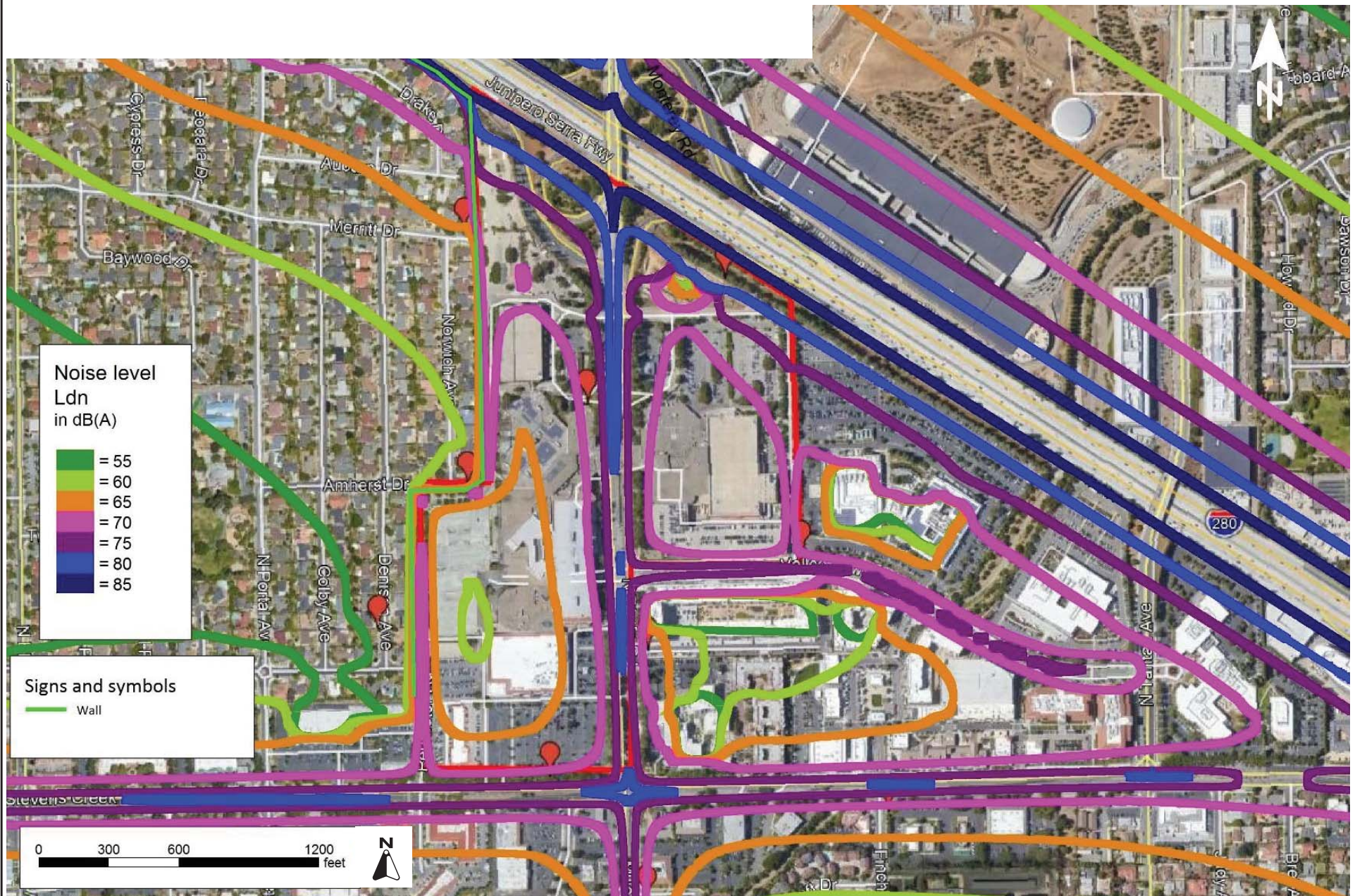
- The following shall be implemented to reduce interior noise levels to meet the normally acceptable thresholds of 45 dBA CNEL at multi-family residences or 50 dBA $L_{eq(1-hr)}$ at commercial uses during hours of operations:
 - If future exterior noise levels at residential building facades are between 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 $L_{eq(1-hr)}$ 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, Retail and Residential Alternative, or Housing Rich Alternative) conform to applicable exterior and interior noise standards.

Housing Rich Alternative

Future Exterior Noise Environment

As discussed under the proposed project above and shown in Table 4.13-1, there is very little difference in modeled future noise levels between the no project, proposed project, and project alternative scenarios. Figure 4.13-1 shows the future noise contours under cumulative plus Housing Rich Alternative scenario, which are within one dBA of the noise contours for the proposed project and other project alternatives discussed in the Draft EIR.



FUTURE NOISE CONTOURS FOR CUMULATIVE PLUS HOUSING RICH ALTERNATIVE

FIGURE 4.13-1

- *Proposed Multi-Family Residential Land Uses* – Table 4.13-2 lists the setbacks required to meet 65 dBA CNEL without additional noise control such as barriers under the Housing Rich Alternative. The distances calculated for the Housing Rich Alternative in Table 4.13-2 are within 20 feet of the distances for the proposed project.

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. If 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 4.13-2, the proposed land use would not be compatible with the noise environment and would require implementation of noise control to attenuate transportation noise to normally acceptable levels (see standard permit conditions identified above for the proposed project).

- *Proposed Commercial/Office Land Uses* – The noise levels listed in Table 4.13-1 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 Housing Rich Alternative are summarized in Table 4.13-3. The distances calculated for the Housing Rich Alternative in Table 4.13-3 are within 20 feet of the distances for the proposed project.

Future Interior Noise Environment

- *Proposed Multi-Family Residential Land Uses* – Proposed residential buildings set back from the nearby roadway centerline equivalent to the distances shown in Table 4.13-2 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 the same standard permit conditions identified above for the proposed project).
- *Proposed Commercial/Office Land Uses* – Commercial/office buildings proposed nearer to roadways than the minimum distances shown in Table 4.13-3 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 the same standard permit conditions identified above for the proposed project).

The Housing Rich Alternative would result in the same or similar future exterior and interior noise environment as described above for the proposed project and would implement the same standard permit conditions identified above for the proposed project to ensure future residential and commercial uses would conform to applicable exterior and interior noise standards.

Construction Noise

Project

It is assumed that the proposed project (and General Plan Buildout with Maximum Residential Alternative, Retail and Residential Alternative, and Housing Rich 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, Retail and Residential Alternative, or Housing Rich 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} .¹⁵ 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.

A detailed list of equipment expected for project (and General Plan Buildout with Maximum Residential Alternative, Retail and Residential Alternative, and Housing Rich Alternative) construction and construction phasing information were not available at the time of the noise study. Appendix F in the Draft EIR 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 4.13-4 summarizes the minimum distances required to meet the City's threshold.

Table 4.13-4: 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

¹⁵ Typical hourly average construction-generating noise levels include noise generated from removal of trees.

distances shown in Table 4.13-4 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, Retail and Residential Alternative, or Housing Rich Alternative) shall be conducted in accordance with provisions of the City's Municipal Code which limit temporary construction work to daytime hours,¹⁶ 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 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.

¹⁶ Per Municipal Code Section 10.48.010, daytime is defined as the period from 7:00 AM to 8:00 PM weekdays.

- 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 (and General Plan Buildout with Maximum Residential Alternative, Retail and Residential Alternative, and Housing Rich Alternative) could expose sensitive receptors to noise levels that exceed the noise standards set forth 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)**

Housing Rich Alternative

The Housing Rich Alternative would result in the same construction noise impacts as described above for the proposed project because the buildout of this alternative would construct a similar amount of development using the same construction equipment over the same period of time (i.e., 10 years). The Housing Rich Alternative would implement the same mitigation measures MM NOI-1.1 and -1.2 identified above for the proposed project, but like the proposed project, the impact would remain significant and unavoidable. **(Significant and Unavoidable Impact with Mitigation Incorporated)**

Mechanical Equipment Noise

Project

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, Retail and Residential Alternative, and Housing Rich 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, Retail and Residential Alternative, and Housing Rich Alternative) to a less than significant impact at adjacent residences. **(Less than Significant Impact with Mitigation Incorporated)**

Housing Rich Alternative

The Housing Rich Alternative would implement the same mitigation measure MM NOI-1.3 identified above for the proposed project and result in a less than significant impact with mitigation

incorporated for the same reasons described above for the proposed project. **(Less than Significant Impact with Mitigation Incorporated)**

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, Retail and Residential Alternative, and Housing Rich 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.¹⁷ 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, Retail and Residential Alternative, or Housing Rich 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.

¹⁷ 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.

- 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.

The implementation of mitigation measures MM NOI-1.4 and -1.5 would reduce the project (and General Plan Buildout with Maximum Residential, Retail and Residential Alternative, and Housing Rich 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)**

Housing Rich Alternative

The Housing Rich Alternative would implement the same mitigation measures MM NOI-1.4 and -1.5 identified above for the proposed project and result in a less than significant impact with mitigation incorporated for the same reasons described above for the proposed project. **(Less than Significant Impact with Mitigation Incorporated)**

Outdoor Activity Areas

Project

The proposed project (and General Plan Buildout with Maximum Residential Alternative, Retail and Residential Alternative, and Housing Rich Alternative) 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 3.1.2.6, the Specific Plan under the project (and General Plan Buildout with Maximum Residential Alternative, Retail and Residential Alternative, and Housing Rich 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)

Housing Rich Alternative

The Housing Rich Alternative would include the same policies for reducing noise from outdoor activity areas identified above for the proposed project and, therefore, result in a less than significant impact for the same reasons discussed above for the proposed project. **(Less than Significant Impact)**

Impact NOI-2: The project or Housing Rich 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, Retail and Residential Alternative, and Housing Rich 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 PPV¹⁸ 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, Retail and Residential Alternative, and Housing Rich 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.

¹⁸ Refer to the Draft EIR for a more complete description of vibration fundamentals. 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.

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, Retail and Residential Alternative, or Housing Rich 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)**

Housing Rich Alternative

The Housing Rich Alternative would implement the same mitigation measure MM NOI-2.1 as identified above for the proposed project and therefore, result in a less than significant impact with mitigation incorporated for the same reasons described above for the proposed project. **(Less than Significant Impact with Mitigation Incorporated)**

Impact NOI-3: The project or Housing Rich 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

To determine noise level increases at existing residential land uses due to project-generated traffic, existing plus project (or General Plan Buildout with Maximum Residential Alternative, Retail and Residential Alternative, or Occupied/Re-Tenanted Mall Alternative) peak hour traffic conditions from the project (or General Plan Buildout with Maximum Residential Alternative, Retail and Residential Alternative, or Occupied/Re-Tenanted Mall Alternative) traffic analysis were compared to the existing peak hour traffic conditions. Based upon the data from the traffic analysis (see Appendix H of the Draft EIR), 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 General Plan Buildout with Maximum Residential Alternative, Retail and Residential Alternative, or Occupied/Re-Tenanted Mall Alternative), 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, Retail and Residential Alternative, and Housing Rich 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)

Housing Rich Alternative

Receptors along Vallco Parkway and all other roadway segments in the project vicinity would experience a noise level increase of two dBA CNEL or less with traffic from the proposed project or the Housing Rich Alternative, with the exception of Perimeter Road.

Perimeter Road receptors would experience an eight dBA increase in noise levels above existing conditions with the addition of traffic from the Housing Rich Alternative. In comparison, Perimeter Road receptors would experience a seven to eight dBA increase in noise levels above existing conditions with the addition of traffic from the proposed project or other project alternatives evaluated in the Draft EIR.

The Housing Rich Alternative, therefore, would result in similar permanent increase in ambient noise levels in the project vicinity as described above for the proposed project. The Housing Rich Alternative would implement mitigation measure MM NOI-3.1 identified above for the proposed project, but like the proposed project, the impact would remain significant and unavoidable.

(Significant and Unavoidable with Mitigation Incorporated)

Impact NOI-4: The project or Housing Rich 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 in the Draft EIR, 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 in the Draft EIR), 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, Retail and Residential Alternative, or Housing Rich 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, Retail and Residential Alternative, or Housing Rich 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)

Housing Rich Alternative

The Housing Rich Alternative would result in the same temporary increase in ambient noise levels due to construction activities as described above for the proposed project in the Draft EIR. The Housing Rich Alternative would implement the same mitigation measure MM NOI-4.1 identified above for the proposed project, but like the proposed project, the impact would remain significant and unavoidable. **(Significant and Unavoidable Impact with Mitigation Incorporated)**

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)**

Project

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)**

Housing Rich Alternative

The Housing Rich Alternative would not expose people residing or working in the project area to excessive airport-related noise levels for the same reasons discussed above for the proposed project. **(No Impact)**

Impact NOI-6: The project or Housing Rich 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 4.13-5). 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 General Plan Buildout with Maximum Residential Alternative, Retail and Residential Alternative, or Occupied/Re-Tenanted Mall 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 4.13-5: Calculated Cumulative Noise Level Increases Above Existing Conditions			
Roadway Segment	Cumulative (No Project) Noise Increase	Cumulative with Project (and General Plan Buildout with Maximum Residential Alternative, Retail and Residential Alternative, and Occupied/Re-Tenanted Mall Alternative) Noise Increase	Cumulative with Housing Rich Alternative Noise Increase
	(dBA)		
Perimeter Road, north of Stevens Creek Boulevard	< 1	7 to 8	8
Perimeter Road, north of Vallco Parkway	1	6	7
North Wolfe Road, north of Vallco Parkway	1	2 to 3	3
North Wolfe Road, between Vallco Parkway and Stevens Creek Boulevard	1	2	2
Miller Avenue, south of Stevens Creek Boulevard	1	1	1
Stevens Creek Boulevard, east of North Wolfe Road	1	1 to 2	2
Stevens Creek Boulevard, between North Wolfe Road and Perimeter Road	1	1	1
Stevens Creek Boulevard, west of Perimeter Road	1	2	2
Vallco Parkway, east of Perimeter Road	2	2 to 3	3
Vallco Parkway, east of North Wolfe Road	2	3	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)**

Housing Rich Alternative

As shown in Table 4.13-5, the Housing Rich Alternative would result in a similar significant cumulative traffic noise impact as described above for the proposed project. The Housing Rich Alternative would implement the same mitigation measure MM NOI-6.1 identified above for the proposed project, but like the proposed project, the impact would remain significant and unavoidable. **(Significant and Unavoidable Cumulative Impact with Mitigation Incorporated)**

Impact POP-1: The project or Housing Rich Alternative 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 4.14-1).

Table 4.14-1: 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)	819,327	553,826	0	724
Source: City of Cupertino. <i>Cupertino General Plan Community Vision 2015-2040</i> . 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. As discussed in Section 3.18 of this EIR Amendment, sewer system improvements would be needed to serve the estimated sewage generated by development of the project. The sewer system improvements would be sized to accommodate existing flows and flows from the project 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 additional growth other than the Housing Rich Alternative. No new off-site roads would be constructed to serve the Housing Rich Alternative. 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 4.8 of this EIR Amendment, the project (and General Plan Buildout with Maximum Residential Alternative, Retail and Residential Alternative, and Housing Rich 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)**

Housing Rich Alternative

Compared to the amount of development allocated to the project site in the General Plan (refer to Table 4.14-1), the Housing Rich Alternative would develop the same amount of commercial development, three-quarters of the office development, the same number of hotel rooms, approximately four times the number of residential units, and the same amount of civic space.

Citywide residential allocations would be retained for Housing Element sites and residential areas. Residential allocations would be retained to allow development at the Oaks, Monta Vista Village, and Other areas. This would allow for a transfer of up to 377 units of the available 724 citywide residential unit allocations to the project site. Assuming the Housing Rich Alternative meets the state Density Bonus Law criteria and is granted a 35 percent density bonus above the base residential yield of 2,407 units to achieve the proposed 3,250 residential units and an additional 377 citywide residential units (in addition to the 389 residential units already allocated to the project site) are allocated to the project site, this alternative would result in 1,641 residential units above the number of available residential units citywide. Added to the projected citywide buildout of 23,294 units, this alternative (not including the 35 percent density bonus) would represent a 7.0 percent increase in the total number of residential units planned for in the City's General Plan.

While the Housing Rich Alternative would result in a 7.0 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 would support the intensification of development in an urbanized area currently served by existing roads, transit, utilities, and public services. For these reasons, the Housing Rich Alternative would not contribute to substantial growth inducement in Cupertino or in the region.

Like the proposed project, the implementation of the Housing Rich Alternative would require connections to existing utility lines in the area. The Housing Rich Alternative includes the extension of existing recycled water infrastructure currently serving the nearby Apple Park office campus to the project site. Recycled water would be used on-site for landscape irrigation. As discussed in Section 3.18 of this EIR Amendment, sewer system improvements would be needed to serve the estimated sewage generated by development of the site, including development of the Housing Rich Alternative. The sewer system improvements would be sized to accommodate existing flows and flows from the Housing Rich 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 additional growth other than the Housing Rich Alternative. No new off-site roads would be constructed to serve the Housing Rich Alternative.

In addition, as discussed in Section 4.8 of this EIR Amendment, the Housing Rich 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 (bus lines on Stevens Creek Boulevard and Wolfe Road), promoting automobile-alternative modes of transportation, implementing a TDM program, and implementing a GHG Reduction Plan. **(Less than Significant Impact)**

Impact POP-2: The project or Housing Rich Alternative would not displace substantial numbers of existing housing or residents, necessitating the construction of replacement housing elsewhere. (No Impact)

Project

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)**

Housing Rich Alternative

The Housing Rich Alternative would not displace existing housing or people for the same reasons discussed above for the proposed project. **(No Impact)**

Impact POP-3: The project or Housing Rich Alternative 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)**

Housing Rich Alternative

The Housing Rich 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 5.0 of this EIR Amendment). For this reason, the Housing Rich Alternative would result in less than significant cumulative population and housing impact. **(Less than Significant Cumulative Impact)**

4.15 PUBLIC SERVICES

The following discussion is based in part on a school impact analysis prepared by Schoolhouse Services for the proposed project in April 2018. A copy of this report is included in Appendix G of the Draft EIR.

Impact PS-1:	The Housing Rich Alternative 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)
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Project

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 (about 0.6 miles west of the project site), the Santa Clara County Fire Department (SCCFD) confirmed that the project (and General Plan Buildout with Maximum Residential, Retail and Residential Alternative, and Occupied/Re-Tenanted Mall Alternative) 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.¹⁹ 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 SCCFD. **(Less than Significant Impact)**

Housing Rich Alternative

The Housing Rich Alternative would result in a less than significant impact to fire protection facilities and services for the same reasons described above for the proposed project. **(Less than Significant Impact)**

¹⁹ Justice, John. Deputy Chief, Santa Clara County Fire Department. Personal Communication. May 10, 2018.

Impact PS-2: The project or Housing Rich Alternative 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

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.²⁰ 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)**

Housing Rich Alternative

The Housing Rich Alternative would result in a less than significant impact police protection facilities and service for the same reasons described above for the proposed project. **(Less than Significant Impact)**

Impact PS-3: The project or Housing Rich 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 of the Draft EIR, SGRs were determined for the project (and General Plan Buildout with Maximum Residential Alternative and Retail and Residential Alternative) (see Table 4.15-1). Refer to Appendix G of the Draft EIR 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.

²⁰ Urena, Rich. West Valley Patrol Division Commander, Santa Clara County Sheriff's Office. Personal Communication. April 19, 2018.

Table 4.15-1: 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 4.15-2.

Table 4.15-2: 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 Cupertino Union School District (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 of the Draft EIR for additional detail about the enrollment history and projected decline.

Elementary Schools

As discussed in more detail in Appendix G of the Draft EIR, 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 4.15-2), it is anticipated that CUSD would have sufficient capacity districtwide to accommodate students generated by the project (or General Plan Buildout with Maximum Residential Alternative or Retail and Residential Alternative). 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.²¹

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 4.15-2). 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.²²

Fremont Union High School District

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 4.15-2), 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

²¹ Jew, Chris. Chief Business Officer, Cupertino Union School District. Personal communications. May 21, 2018.

²² Ibid.

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.²³

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)**

Housing Rich Alternative

The Housing Rich Alternative would comply with the same state law (Government Code Section 65996) identified above for the proposed project to offset the demands on school facilities and, therefore, result a similar less than significant impact to local schools as described above for the proposed project. The Housing Rich Alternative, however, would result in a greater impact to school facilities than the proposed project because it proposes a greater number of residential units (which would generate a greater number of students). **(Less than Significant Impact)**

Impact PS-4:	The project or Housing Rich Alternative 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)
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Project

The Santa Clara County Library District (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.²⁴

The implementation of the project (and General Plan Buildout with Maximum Residential Alternative and Retail and Residential Alternative) 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)**

²³ Crutchfield, Jason. Director of Business Services, Fremont Union High School District. Personal communications May 21, 2018.

²⁴ City of Cupertino. *Cupertino Civic Center Master Plan Initial Study*. May 2015.

Housing Rich Alternative

The Housing Rich Alternative would result in a similar less than significant impact to library facilities as described above for the proposed project. The Housing Rich Alternative, however, would result in a greater impact to library facilities than the proposed project because it proposes a greater number of residential units (which would generate a greater number of residents who would use library facilities).

As discussed above, SCCLD anticipated that the existing SCCLD facilities and employees would adequately serve the proposed project (as well as the Retail and Residential Alternative – which would generate more residents than the Housing Rich Alternative) and new or expanded library facilities would not be required beyond what was identified in the approved Cupertino Civic Master Plan.²⁵ For this reason, it is concluded that the Housing Rich Alternative would not require new or expanded library facilities beyond what was identified in the approved Cupertino Civic Master Plan. **(Less than Significant Impact)**

Impact PS-5:	The project or Housing Rich 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)
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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.²⁶ 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 space for the project (and project alternatives) is shown in Table 4.15-3.

²⁵ The environmental analysis for the Cupertino Civic Master Plan project concluded that the expansion of the library would not result in significant environmental impacts (Source: City of Cupertino. *Cupertino Civic Center Master Plan Initial Study*. May 2015.)

²⁶ Economic & Planning Systems, Inc. *Population and Employment Projections*. April 26, 2018.

Table 4.15-3: 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
Housing Rich Alternative	17.6	40.5 to 44.0

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, Retail and Residential Alternative, or Housing Rich 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, Retail and Residential Alternative, and Housing Rich Alternative), with the implementation of the above standard permit condition, would not result in significant impacts to park facilities. **(Less than Significant Impact)**

Housing Rich Alternative

Implementation of the Housing Rich Alternative would redevelop the project site with a mix of uses, including 3,250 residential units. It is anticipated the residential units would result in 6,500 new residents on-site.²⁷ The new residents would create an incremental increase in demand on parkland.

Pursuant to Municipal Code Chapter 13.08, the Housing Rich Alternative would be required to provide approximately 17.6 acres of parkland (see Table 4.15-3). Like the proposed project, the Housing Rich Alternative includes 10.5 to 14 acres 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

²⁷ Economic & Planning Systems, Inc. *Housing Rich Alternative Project Buildout Population Projections*. June 20, 2018.

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.

The Housing Rich Alternative would implement the same standard permit condition identified above for the proposed project and result in a similar less than significant impact to park facilities as the proposed project. The Housing Rich Alternative, however, would result in a greater impact than the proposed project because it proposes a greater number of residential units (which would generate a greater number of residents that would use park facilities). **(Less than Significant Impact)**

Impact PS-6:	The project or Housing Rich Alternative would not result in significant cumulative impacts to public services. (Less than Significant Cumulative Impact)
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Fire Protection Services

Project

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.²⁸ 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)**

²⁸ Justice, John. Deputy Chief, Santa Clara County Fire Department. Personal Communication. May 10, 2018.

Housing Rich Alternative

The Housing Rich Alternative would result in a less than significant cumulative impact to fire protection services for the same reasons as described above for the proposed project. The Housing Rich Alternative, however, would result in a greater contribution to the cumulative impact than the proposed project because it would generate more average daily trips (refer to Table 4.17-7) and congestion on local roadways. **(Less than Significant Cumulative Impact)**

Police Protection Services

Project

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.²⁹ 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 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.³⁰ 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)**

Housing Rich Alternative

The Housing Rich Alternative would result in a less than significant cumulative impact to police protection services for the same reasons described above for the proposed project. The Housing Rich Alternative, however, would result in a greater contribution to the cumulative impact than the proposed project as it would generate more average daily trips (refer to Table 4.17-7) and congestion on roadways. **(Less than Significant Cumulative Impact)**

School Facilities

Project

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

²⁹ Urena, Rich. West Valley Patrol Division Commander, Santa Clara County Sheriff's Office. Personal Communication. April 19, 2018.

³⁰ Ibid.

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.^{31,32} 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.

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.³³ **(Less than Significant Cumulative Impact)**

Housing Rich Alternative

The Housing Rich Alternative would pay the appropriate school impact fees to impacted school districts and result in the same less than significant cumulative impact to school facilities as described above for the proposed project. The Housing Rich Alternative, however, would result in a greater contribution to the cumulative impact than the proposed project as it includes more residential units (which would generate a greater number of students). **(Less than Significant Cumulative Impact)**

Library Facilities

Project

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, General Plan Buildout with Maximum Residential Alternative, Retail and Residential Alternative, and Occupied/Re-Tenanted Mall Alternative), no new or expanded library facilities beyond the programming expansion identified in the Cupertino Civic Center Master Plan are required.³⁴ 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 (including the proposed project, General Plan Buildout with Maximum Residential Alternative, Retail and Residential Alternative, and Occupied/Re-Tenanted Mall Alternative) would not result in significant cumulative library impacts. **(Less than Significant Cumulative Impact)**

³¹ Jew, Chris. Chief Business Officer, Cupertino Union School District. Personal communications. May 21, 2018.

³² Crutchfield, Jason. Director of Business Services, Fremont Union High School District. Personal communications May 21, 2018.

³³ For the Occupied/Re-Tenanted Mall Alternative, it is assumed that the existing mall paid the appropriate school impact fees when it was developed.

³⁴ Varesio, Clare. Community Librarian, Cupertino Library. Personal communications. May 8, 2018.

Housing Rich Alternative

The Housing Rich Alternative would result in the same less than significant cumulative impact to library facilities as described above for the proposed project. The Housing Rich Alternative, however, would result in a greater contribution to the cumulative impact than the proposed project as it include more residential units (which would result in a greater number of residents using library facilities). **(Less than Significant Cumulative 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 and project alternatives) would not result in significant cumulative impacts to parks. **(Less than Significant Cumulative Impact)**

Housing Rich Alternative

The Housing Rich Alternative would result in a less than significant cumulative impact on park facilities for the same reason described above for the proposed project. The Housing Rich Alternative, however, would result in a greater contribution to the cumulative impact to park facilities than the proposed project because this alternative includes more residential units (which would result in a greater number of residents using local park facilities). **(Less than Significant Cumulative Impact)**

Impact REC-1: The project or Housing Rich Alternative 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.³⁵ 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, Retail and Residential Alternative, or Housing Rich 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, Retail and Residential Alternative, and Housing Rich Alternative), with the implementation of the above standard permit condition, would not result in significant impacts to recreational facilities. **(Less than Significant Impact)**

³⁵ Economic & Planning Systems, Inc. *Population and Employment Projections*. April 26, 2018.

Housing Rich Alternative

Implementation of the Housing Rich Alternative would redevelop the project site with a mix of uses, including 3,250 residential units that would result in 6,500 new residents on-site.³⁶ According to General Plan Policy RPC-1.2, the proposed Housing Rich Alternative residents would require approximately 17.6 acres of parkland. Like the proposed project, the Housing Rich 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.

The Housing Rich Alternative would implement the same standard permit condition identified above for the proposed project and, therefore, result in a less than significant impact to recreational facilities for the same reasons described above for the proposed project. The Housing Rich Alternative, however, would result in a greater impact to recreational facilities than the proposed project because it includes a greater number of residential units (which would result in a greater number of residents that would use recreational facilities). **(Less than Significant Impact)**

Impact REC-2: The proposed open space under the project or Housing Rich 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)**

Housing Rich Alternative

Like the proposed project, the development of the Housing Rich Alternative (including 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)**

³⁶ Economic & Planning Systems, Inc. *Housing Rich Alternative Project Buildout Population Projections*. June 20, 2018.

Impact REC-3: The project or Housing Rich Alternative 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, Retail and Residential Alternative, and Housing Rich Alternative) would not result in significant cumulative impacts to recreational facilities. **(Less than Significant Cumulative Impact)**

Housing Rich Alternative

The Housing Rich Alternative would result in a similar less than significant cumulative impact to recreation facilities as described above for the proposed project. The Housing Rich Alternative, however, would have a greater contribution to the cumulative impact than the proposed project because it proposes a greater number of residential units (which would generate a greater number of residents that would use residential facilities). **(Less than Significant Cumulative Impact)**

4.17 TRANSPORTATION/TRAFFIC

The following discussion is based the analysis in the Draft EIR and on a supplemental Transportation Impact Analysis (TIA) prepared by Fehr & Peers in June 2018. A copy of the supplemental TIA is included in Appendix C of this EIR Amendment.

4.17.1 Vehicle Trip Generation

The vehicle trip generation estimates for the project and project alternatives are summarized in Table 4.17-1 (refer to Appendix H of the Draft EIR and Appendix C of this EIR Amendment for details about the trip generation estimates). As shown in Table 4.17-1, the proposed project is estimated to generate 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. As shown in Table 4.17-1, the Housing Rich Alternative generates more vehicle trips than the proposed project on a daily and PM peak hour basis, but fewer in the AM peak hour.

Table 4.17-1: Summary of Project and Project Alternative Trip Generation Estimates			
	Average Daily Trips	AM Peak Hour	PM Peak Hour
Proposed Project	37,006	2,628	3,218
Alternatives			
General Plan Buildout with Maximum Residential	33,507	2,082	2,632
Retail and Residential	27,935	1,330	2,251
Occupied/Re-Tenanted Mall	23,417	307	2,398
Housing Rich	41,314	2,558	3,430

Impact TRN-1: Under existing with project conditions, the project or Housing Rich 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 and project alternatives conditions are shown in Table 4.17-3. The results for existing conditions are included for comparison purposes in Table 4.17-3, 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 of the Draft EIR, 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 4.17-2.

Table 4.17-2: 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	Housing Rich 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 4.17-3 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 4.17-3: 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				Housing Rich 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	Delay	LOS	Change in Crit. V/C	Change in Crit. Delay
1. Stevens Creek Boulevard/SR 85 Ramps (west)* – City of Cupertino	D	AM PM	22.4 31.7	C+ C	22.3 31.7	C+ C	0.005 0.005	-0.1 -0.1	22.2 31.7	C+ C	0.010 0.007	-0.2 -0.2	22.1 31.7	C+ C	0.012 0.008	-0.3 -0.2	22.3 31.7	C+ C	0.002 0.008	0.0 -0.2	22.2 31.7	C+ C	0.011 0.008	-0.2 -0.2
2. Stevens Creek Boulevard/SR 85 Ramps (east)* – City of Cupertino	D	AM PM	28.5 27.1	C C	28.3 26.6	C C	0.004 0.013	0.3 -0.6	28.5 26.4	C C	0.006 0.017	0.5 -0.8	28.7 26.1	C C	0.008 0.022	0.6 -0.9	28.5 26.6	C C	0.001 0.014	0.1 -0.6	28.5 26.2	C C	0.007 0.022	0.5 -0.9
3. Stevens Creek Boulevard/Stelling Road* – City of Cupertino	E+	AM PM	38.3 46.7	D+ D	38.5 47.5	D+ D	0.023 0.043	0.8 1.5	38.4 47.5	D+ D	0.025 0.035	0.5 1.4	38.2 47.6	D+ D	0.024 0.030	0.2 1.3	38.3 47.7	D+ D	0.004 0.033	0.1 1.6	38.4 47.7	D+ D	0.030 0.046	0.6 1.8
4. Sunnyvale-Saratoga Road/Remington Drive* – City of Sunnyvale	E	AM PM	44.5 43.7	D D	44.4 44.1	D D	0.003 0.015	0.1 0.9	44.5 44.1	D D	0.006 0.016	0.1 0.8	44.6 44.1	D D	0.008 0.018	0.2 0.8	44.6 45.0	D D	0.001 0.031	0.0 2.3	44.5 44.1	D D	0.007 0.019	0.2 0.9
5. Sunnyvale-Saratoga Road/Fremont Avenue* – City of Sunnyvale	E	AM PM	48.3 46.6	D D	48.7 47.1	D D	0.007 0.014	0.6 0.9	48.6 47.0	D D	0.008 0.013	0.5 0.6	48.5 46.9	D D	0.008 0.012	0.3 0.4	48.4 47.3	D D	0.002 0.021	0.2 1.0	48.6 47.1	D D	0.009 0.016	0.6 0.8
6. Sunnyvale-Saratoga Road/Cheyenne Drive – City of Sunnyvale	E	AM PM	11.7 10.7	B+ B+	11.6 10.6	B+ B+	0.003 0.008	0.0 -0.1	11.6 10.6	B+ B+	0.005 0.008	0.0 -0.1	11.7 10.6	B+ B+	0.006 0.01	0.0 -0.1	11.7 10.5	B+ B+	0.001 0.014	0.0 -0.2	11.6 10.5	B+ B+	0.006 0.010	0.0 -0.1
7. Sunnyvale-Saratoga Road/Alberta Avenue – City of Sunnyvale	E	AM PM	21.2 25.9	C+ C	21.1 25.5	C+ C	0.003 0.008	0.0 -0.2	21.1 25.5	C+ C	0.005 0.008	0.0 -0.2	21.1 25.5	C+ C	0.006 0.010	0.0 -0.3	21.2 25.3	C+ C	0.001 0.014	0.0 -0.4	21.0 25.5	C+ C	0.006 0.01	0.0 -0.3
8. De Anza Boulevard/Homestead Road* – City of Cupertino	D	AM PM	39.8 41.0	D D	41.2 42.3	D D	0.024 0.012	2.5 1.4	40.9 42.4	D D	0.018 0.014	1.7 1.7	40.5 42.5	D D	0.010 0.016	0.7 2.0	40.1 42.9	D D	0.004 0.019	0.3 2.4	41.1 42.7	D D	0.022 0.016	2.1 2.0
9. De Anza Boulevard/I-280 Ramps (north)* – City of Cupertino	D	AM PM	18.5 27.1	B- C	18.9 28	B- C	0.008 0.033	0.5 1.4	19.1 27.7	B- C	0.013 0.025	0.9 1.0	19.2 27.4	B- C	0.017 0.018	1.2 0.6	18.5 27.1	B- C	0.001 0.013	0.0 0.3	19.2 28	B- C	0.016 0.034	1.0 1.4
10. De Anza Boulevard/I-280 Ramps (south)* – City of Cupertino	D	AM PM	25.5 18.0	C B	26.4 18.5	C B-	0.021 0.009	0.6 0.4	26.2 18.7	C B-	0.014 0.012	0.4 0.5	25.9 18.8	C B-	0.006 0.015	0.2 0.6	25.6 18.2	C B-	0.001 0.006	0.0 0.3	26.3 18.9	C B-	0.018 0.015	0.5 0.6
11. De Anza Boulevard/Stevens Creek Boulevard* – City of Cupertino	E+	AM PM	35.6 39.9	D+ D	37.9 45.9	D+ D	0.052 0.086	3.4 9.5	37.9 43.6	D+ D	0.051 0.050	3.3 5.3	37.8 41.9	D+ D	0.046 0.019	2.7 2.0	35.9 42.3	D+ D	0.006 0.030	0.4 3.2	38.3 45.2	D+ D	0.062 0.071	3.9 7.7
12. De Anza Boulevard/McClellan Road/Pacifica Drive – City of Cupertino	D	AM PM	36.4 64.2	D+ E	36 68.8	D+ E	0.048 0.036	-0.2 6.8	36.2 66.5	D+ E	0.027 0.021	-0.2 3.6	36.5 64.8	D+ E	0.003 0.008	0.0 1.3	36.4 65.2	D+ E	0.002 0.013	0.0 2.0	36.1 67.7	D+ E	0.036 0.030	-0.2 5.4
13. De Anza Boulevard/Bollinger Road* – City of Cupertino	E+	AM PM	33.4 26.4	C- C	33.9 25.6	C- C	0.050 0.019	1.0 0.1	33.5 25.9	C- C	0.028 0.016	0.4 0.1	33.2 26.2	C- C	0.003 0.014	0.0 0.0	33.4 26.2	C- C	0.002 0.019	0.0 0.1	33.5 25.7	C- C	0.037 0.020	0.6 0.0

Table 4.17-3: 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				Housing Rich 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	Delay	LOS	Change in Crit. V/C	Change in Crit. Delay
14. De Anza Boulevard/SR 85 Ramps (north) * – City of Cupertino	D	AM PM	22.4 15.0	C+ B	24.9 15.8	C B	0.065 0.062	1.5 0.9	23.7 15.7	C B	0.040 0.041	0.8 0.9	22.5 15.7	C+ B	0.011 0.023	0.1 0.9	22.4 15.4	C+ B	0.003 0.027	0.0 0.6	24.2 16.0	C B	0.052 0.057	1.1 1.2
15. De Anza Boulevard/SR 85 Ramps (south) * – City of Cupertino	D	AM PM	12.8 15.7	B B	13.1 16.7	B B	0.024 0.066	0.4 1.3	13.2 16.3	B B	0.020 0.038	0.4 0.8	13.2 15.9	B B	0.012 0.015	0.4 0.2	12.8 15.9	B B	0.002 0.021	0.0 0.2	13.2 16.6	B B	0.024 0.055	0.5 1.1
16. Saratoga-Sunnyvale Road/Prospect Road – City of Cupertino	D	AM PM	19.8 28.8	B- C	19.8 28.4	B- C	0.016 0.014	0.0 -0.2	19.7 28.6	B- C	0.009 0.009	0.0 -0.1	19.7 28.7	B- C	0.001 0.005	0.0 -0.1	19.7 28.6	B- C	0.001 0.011	0.0 -0.1	19.7 28.5	B- C	0.011 0.011	0.0 -0.2
17. Stevens Creek Boulevard/Torre Avenue – City of Cupertino	D	AM PM	22.4 23.1	C+ C	21.1 21.7	C+ C+	0.029 0.044	-0.9 -0.6	20.9 21.8	C+ C+	0.039 0.049	-1.2 -0.7	20.9 22.0	C+ C+	0.044 0.056	-1.3 -0.7	22.2 22.0	C+ C+	0.005 0.049	-0.2 -0.7	20.7 21.6	C+ C+	0.046 0.061	-1.4 -0.8
18. Homestead Road/Blaney Avenue – City of Cupertino	D	AM PM	23.9 24.4	C C	23.9 24.7	C C	0.018 0.013	0.0 0.4	23.9 24.7	C C	0.013 0.012	0.0 0.2	24.0 24.7	C C	0.008 0.014	0.1 0.2	23.9 24.9	C C	0.004 0.020	0.0 0.4	23.9 24.8	C C	0.016 0.017	0.1 0.4
19. Stevens Creek Boulevard/Blaney Avenue – City of Cupertino	D	AM PM	34.9 33.5	C- C-	34.6 33.6	C- C-	0.048 0.063	1.3 1.6	34.6 33.6	C- C-	0.051 0.063	0.9 1.2	34.8 33.7	C- C-	0.048 0.067	0.3 1.1	34.9 34.1	C- C-	0.008 0.070	0.2 1.8	34.6 33.7	C- C-	0.061 0.079	1.1 1.7
20. Stevens Creek Boulevard/Portal Avenue – City of Cupertino	D	AM PM	21.8 13.0	C+ B	19.5 11.8	B- B+	0.029 0.045	-1.0 -0.4	19.7 12.1	B- B	0.038 0.049	-1.3 -0.4	20.2 12.4	C+ B	0.043 0.056	-1.4 -0.4	21.5 12.3	C+ B	0.005 0.052	-0.2 -0.4	19.3 11.9	B- B+	0.045 0.062	-1.5 -0.5
21. Stevens Creek Boulevard/Perimeter Road – City of Cupertino	D	AM PM	9.5 15.2	A B	26.8 32.0	C C	0.229 0.232	25.4 17.7	25.3 27.5	C C	0.188 0.149	21.8 11.8	21.2 23.8	C+ C	0.127 0.083	14.1 6.5	11.0 25.6	B+ C	0.017 0.111	1.9 9.0	28.3 31.8	C C	0.233 0.214	26.1 16.2
22. Wolfe Road/El Camino Real* – City of Sunnyvale	E	AM PM	51.0 48.1	D- D	51.4 49.1	D- D	0.031 0.032	2.4 1.6	51.2 49.1	D -D	0.030 0.035	1.4 1.5	51.0 49.3	D D	0.026 0.041	0.3 1.6	51.0 49.2	D- D	0.005 0.042	0.3 1.9	51.3 49.4	D- D	0.036 0.044	1.9 1.9
23. Wolfe Road/Fremont Avenue – City of Sunnyvale	D	AM PM	49.7 47.9	D D	50.0 49.1	D D	0.030 0.028	-0.1 1.3	49.9 49.0	D D	0.027 0.032	0.2 1.1	49.8 49.1	D D	0.021 0.038	0.5 1.0	49.8 49.5	D D	0.007 0.041	0.1 2.0	50.0 49.3	D D	0.032 0.039	0.3 1.3
24. Wolfe Road/Marion Way – City of Sunnyvale	D	AM PM	15.9 18.8	B B-	16.1 18.6	B B-	0.020 0.048	0.4 -0.8	15.8 18.6	B B-	0.029 0.042	-0.1 -0.7	15.4 18.5	B B-	0.035 0.040	-0.6 -0.7	15.9 18.6	B B-	0.005 0.049	0.0 -0.8	15.7 18.5	B B-	0.033 0.053	0.0 -0.9
25. Wolfe Road/Inverness Way – City of Sunnyvale	D	AM PM	18.3 22.8	B- C+	18.0 22.5	B C+	0.015 0.034	-0.3 0.1	17.8 22.4	B C+	0.026 0.040	-0.5 -0.1	17.6 22.2	B C+	0.035 0.048	-0.6 -0.2	18.2 22.3	B- C+	0.004 0.046	-0.1 -0.1	17.7 22.3	B C+	0.030 0.049	-0.5 0.0
26. Wolfe Road/Homestead Road – City of Cupertino	D	AM PM	32.9 43.0	C- D	33.0 43.6	C- D	0.016 0.041	-0.1 -1.0	32.9 43.5	C- D	0.028 0.043	-0.1 -1.3	32.9 43.4	C- D	0.036 0.048	-0.1 -1.6	32.9 43.6	C- D	0.005 0.051	0.0 -1.2	33.0 43.6	C- D	0.031 0.055	-0.1 -1.0
27. Wolfe Road/Apple Park – City of Cupertino	D	AM PM	9.8 15.4	A B	9.6 14.5	A B	0.015 0.030	-0.1 -0.6	9.7 14.5	A B	0.026 0.037	-0.2 -0.7	9.7 14.3	A B	0.033 0.045	-0.2 -0.8	9.8 14.3	A B	0.005 0.046	0.0 -0.8	9.6 14.3	A B	0.029 0.045	-0.2 -0.8
28. Wolfe Road/Pruneridge Avenue – City of Cupertino	D	AM PM	23.5 16.5	C B	23.2 15.9	C B	0.051 0.031	4.0 -0.2	23.7 15.9	C B	0.039 0.038	4.8 -0.2	22.3 16.0	C+ B	0.020 0.047	-1.1 -0.2	25.2 15.9	C B	0.016 0.048	6.4 -0.2	23.3 15.8	C B	0.046 0.047	4.4 -0.2
29. Wolfe Road/I-280 Ramps (north) * – City of Cupertino	D	AM PM	13.2 12	B B	15.6 13.3	B B	0.158 0.101	3.2 2.5	14.6 13.6	B B	0.085 0.116	1.4 2.9	13.3 14.1	B B	0.028 0.137	-0.3 3.6	13.3 13.7	B B	0.005 0.129	0.0 3.2	15.1 14.2	B B	0.118 0.146	2.4 4.0

Table 4.17-3: 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				Housing Rich 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	Delay	LOS	Change in Crit. V/C	Change in Crit. Delay
30. Wolfe Road/I-280 Ramps (south) * – City of Cupertino	D	AM PM	12.1 8.4	B A	13.2 9.6	B A	0.085 0.238	1.2 2.4	12.7 9.7	B A	0.086 0.204	0.6 2.5	12.6 10.1	B B+	0.108 0.183	0.9 2.7	12.2 8.7	B A	0.013 0.135	0.1 1.0	13.1 10.5	B B+	0.105 0.268	1.0 3.7
31. Wolfe Road/Vallco Parkway – City of Cupertino	D	AM PM	19.6 31.2	B- C	26.6 52.2	C D-	0.257 0.340	9.8 29.6	27.7 46.6	C D	0.246 0.262	10.5 24.2	27.9 42.8	C D	0.211 0.207	10.0 21.1	21.0 43.4	C+ D	0.040 0.199	2.1 20.6	29.4 52.3	C D-	0.295 0.36	12.7 31.4
32. Wolfe Road-Miller Avenue/Stevens Creek Boulevard* – City of Cupertino	D	AM PM	41.7 41.4	D D	45.7 44.6	D D	0.133 0.081	5.2 7.0	44.9 43.6	D D	0.105 0.064	4.3 6.3	43.9 43.1	D D	0.065 0.053	3.0 6.0	42.2 44.3	D D	0.015 0.079	0.6 7.0	45.8 44.5	D D	0.129 0.088	5.4 7.4
33. Miller Avenue/Calle de Barcelona – City of Cupertino	D	AM PM	7.5 3.0	A A	7.3 2.9	A A	0.030 0.035	-0.1 -0.1	7.4 2.9	A A	0.018 0.024	-0.1 -0.1	7.5 2.9	A A	0.003 0.015	0.0 0.0	7.5 2.9	A A	0.004 0.032	0.0 -0.1	7.4 2.9	A A	0.022 0.030	-0.1 -0.1
34. Miller Avenue/Phil Lane – City of Cupertino	D	AM PM	5.3 4.1	A A	5.4 4.1	A A	0.033 0.032	0.2 0.0	5.4 4.2	A A	0.020 0.021	0.1 0.0	5.3 4.2	A A	0.004 0.013	0.0 0.0	5.3 4.2	A A	0.004 0.029	0.0 0.0	5.4 4.2	A A	0.025 0.027	0.2 0.0
35. Miller Avenue/Bollinger Road – City of San José	D	AM PM	37.1 41.5	D+ D	38 42.3	D+ D	0.034 0.025	1.2 1.2	37.6 42.1	D+ D	0.021 0.019	0.8 0.9	37.3 42.0	D+ D	0.005 0.016	0.3 0.7	37.2 42.6	D+ D	0.005 0.036	0.2 1.7	37.8 42.2	D+ D	0.026 0.023	1 1.1
36. Miller Avenue/Rainbow Drive – City of San José	D	AM PM	23.1 22.8	C C+	23.5 22.4	C C+	0.017 0.027	0.6 -0.4	23.4 22.5	C C+	0.012 0.020	0.4 -0.3	23.2 22.6	C C+	0.004 0.016	0.1 -0.3	23.2 22.2	C C+	0.005 0.038	0.2 -0.6	23.4 22.5	C C+	0.013 0.024	0.4 -0.4
37. Stevens Creek Boulevard/Finch Avenue – City of Cupertino	D	AM PM	28.8 21.6	C C+	27.4 20.1	C C+	0.042 0.054	-1.6 -1.6	28.0 20.5	C C+	0.026 0.036	-1.0 -1.2	29.1 20.8	C C+	0.066 0.022	6.8 -0.8	29.4 20.5	C C+	0.052 0.033	7.2 -1.1	27.7 20.2	C C+	0.033 0.048	-1.3 -1.5
38. Tantau Avenue/Homestead Road – City of Cupertino	D	AM PM	34.4 43.2	C- D	34.8 43.6	C- D	0.011 0.023	-0.3 1.3	34.7 43.7	C- D	0.007 0.020	-0.2 1.3	34.4 43.8	C- D	0.003 0.020	-0.1 1.5	34.4 43.8	C- D	0.001 0.023	0.0 1.6	34.7 43.8	C- D	0.009 0.026	-0.2 1.7
39. Tantau Avenue/Pruneridge Avenue – City of Cupertino	D	AM PM	20.8 24.5	C+ C	20.9 24.6	C+ C	0.032 0.032	-0.4 -0.2	20.8 24.8	C+ C	0.025 0.024	-0.2 -0.2	20.6 25.0	C+ C	0.016 0.019	0.0 -0.2	20.8 24.9	C+ C	0.005 0.021	0.0 -0.2	20.8 24.8	C+ C	0.030 0.032	-0.2 -0.2
40. N Tantau Ave/Apple Parkway – City of Cupertino	D	AM PM	17.6 18.3	B B-	16.9 18.5	B B-	0.015 0.054	-0.5 0.4	16.9 18.4	B B-	0.022 0.04	-0.7 0.2	16.9 18.3	B B-	0.026 0.031	-0.8 0.1	17.5 18.3	B B-	0.004 0.037	-0.1 0.2	16.8 18.5	B B-	0.025 0.053	-0.8 0.3
41. Tantau Avenue/Vallco Parkway – City of Cupertino	D	AM PM	25.1 31.3	C C	27.0 34.2	C C-	0.156 0.173	0.4 3.3	27.2 33.7	C C-	0.104 0.145	0.7 3.0	27.1 33.4	C C-	0.043 0.130	0.9 3.0	25.5 34.3	C C-	0.019 0.160	0.1 4.0	27.5 34.5	C C-	0.130 0.185	0.9 4.1
42. Stevens Creek Boulevard/Tantau Avenue – City of Cupertino	D	AM PM	44.7 42.8	D D	45.6 44.5	D D	0.068 0.118	1.2 3.3	45.1 43.8	D D	0.041 0.082	0.6 2.3	44.6 43.3	D D	0.009 0.054	0.0 1.6	44.7 44.1	D D	0.005 0.085	0.1 2.9	45.2 44.2	D D	0.052 0.108	0.8 3.1
43. Stevens Creek Boulevard/Stern Avenue – City of Santa Clara	D	AM PM	37.6 40.5	D+ D	48.8 77.0	D E-	0.227 0.075	23.4 54.3	41.2 61.7	D E	0.201 0.051	12.5 32.5	37.3 51.6	D+ D-	0.172 0.033	6.6 17.8	38.2 58.2	D+ E+	0.005 0.046	0.1 27.8	43.9 72.0	D E	0.213 0.069	16.4 47.9
44. Stevens Creek Boulevard/Calvert Drive/I-280 Ramps (west)* – City of Santa Clara	E	AM PM	57.4 52.7	E+ D-	66.8 56.9	E E+	0.009 0.028	0.7 4.6	61.3 55.1	E E+	0.013 0.021	1.1 3.0	58.6 54.2	E+ D-	0.015 0.016	1.4 2.1	57.8 54.9	E+ D-	0.003 0.021	0.2 2.9	63.2 56.4	E E+	0.015 0.027	1.3 4.4
45. Stevens Creek Boulevard/Agilent Driveway – City of Santa Clara	D	AM PM	36.7 24	D+ C	45.8 24.8	D C	0.050 0.024	11.5 0.5	40.7 24.7	D C	0.031 0.025	5.0 0.5	37.6 24.6	D+ C	0.009 0.027	1.1 0.6	37.1 24.7	D+ C	0.005 0.031	0.5 0.7	42.5 24.9	D C	0.039 0.030	7.3 0.7

Table 4.17-3: 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				Housing Rich 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	Delay	LOS	Change in Crit. V/C	Change in Crit. Delay
46. Stevens Creek Boulevard/Lawrence Expressway Ramps (west)* – Santa Clara County	E	AM PM	28.9 25.4	C C	33.3 25.7	C- C	0.081 0.041	5.9 0.7	31.2 25.8	C C	0.051 0.045	3.2 0.8	29.5 25.9	C C	0.016 0.051	1.0 1.0	29.1 25.6	C C	0.007 0.052	0.4 0.8	32.1 25.9	C- C	0.065 0.055	4.4 1.0
47. Lawrence Expressway/El Camino Real* – Santa Clara County	E	AM PM	34.6 27.1	C- C	36.9 29.8	D+ C	0.040 0.050	2.5 3.3	36.7 29.7	D+ C	0.040 0.048	2.3 3.2	36.3 29.7	D+ C	0.038 0.049	2.0 3.3	34.9 28.9	C- C	0.005 0.036	0.3 2.4	37.1 30.5	D+ C	0.049 0.062	2.8 4.2
48. Lawrence Expressway/Homestead Road* – Santa Clara County	E	AM PM	71.5 66.3	E E	72.8 69.2	E E	0.009 -0.046	1.6 6.4	72.6 68.5	E E	0.011 0.015	1.5 1.3	72.3 68.1	E E	0.011 0.016	1.1 1.4	71.7 68.2	E E	0.002 0.018	0.2 1.6	72.8 69.3	E E	0.012 -0.042	1.8 6.7
49. Lawrence Expressway/Pruneridge Avenue* – Santa Clara County	E	AM PM	44.0 44.5	D D	43.9 45.2	D D	0.006 0.015	0.3 0.2	44.1 45.0	D D	0.010 0.011	0.4 0.1	44.3 44.9	D D	0.012 0.009	0.5 0.1	44.0 45.0	D D	0.001 0.011	0.1 0.2	44.1 45.2	D D	0.011 0.014	0.5 0.1
50. Stevens Creek Boulevard/Lawrence Expressway Ramps (east)* – Santa Clara County	E	AM PM	31.6 28.0	C C	33.1 28.9	C- C	0.077 0.035	1.7 0.6	32.7 28.8	C- C	0.052 0.029	1.4 0.5	32.2 28.7	C- C	0.022 0.025	1.0 0.5	31.7 28.8	C C	0.007 0.034	0.2 0.7	33.0 29.0	C- C	0.065 0.037	1.7 0.7
51. Lawrence Expressway/Calvert Drive-I-280 Southbound Ramp* – City of San José	D	AM PM	32.8 30.2	C -C	35.3 31.0	D+ C	0.007 0.029	1.6 1.5	34.2 30.7	C- C	0.009 0.019	2.1 1.0	33.2 30.5	C- C	0.010 0.011	2.3 0.5	32.9 30.6	C- C	0.001 0.013	0.2 0.6	34.7 30.9	C- C	0.011 0.027	2.4 1.3
52. Lawrence Expressway/Mitty Way* – Santa Clara County	E	AM PM	23.1 16.6	C B	23.8 16.7	C B	0.004 0.018	0.0 0.2	23.4 16.7	C B	0.003 0.010	0.0 0.1	23.1 16.7	C B	0.001 0.005	0.0 0.1	23.1 16.8	C B	0.001 0.010	0.0 0.1	23.5 16.7	C B	0.004 0.014	0.0 0.1
53. Lawrence Expressway/Bollinger Road* – Santa Clara County	E	AM PM	60.3 54.2	E D-	67.9 56.9	E E+	0.033 0.009	13.5 0.2	63.8 55.6	E E+	0.019 0.006	6.1 0.1	60.5 54.8	E D-	0.003 0.004	0.4 0.0	60.6 55.8	E E+	0.003 0.010	0.6 -0.1	65.2 56.2	E E+	0.025 0.008	8.7 0.1
54. Lawrence Expressway/Doyle Road* – Santa Clara County	E	AM PM	43.2 14.7	D B	43.3 14.7	D B	0.011 0.033	1.5 -0.1	43.1 14.7	D B	0.006 0.019	0.3 -0.1	43.2 14.8	D B	0.002 0.008	-0.2 0.0	43.2 14.8	D B	0.002 0.019	-0.1 -0.1	43.2 14.7	D B	0.008 0.026	0.9 -0.1
55. Lawrence Expressway/Prospect Road* – Santa Clara County	E	AM PM	58.3 46.7	E+ D	58.5 47.0	E+ D	0.006 0.032	-0.5 0.2	58.3 46.9	E+ D	0.004 0.019	-0.4 0.0	58.2 46.8	E+ D	0.002 0.008	-0.2 0.0	58.3 46.9	E+ D	0.002 0.018	-0.1 0.0	58.4 46.9	E+ D	0.005 0.025	-0.4 0.1
56. Lawrence Expressway/Saratoga Avenue* – Santa Clara County	E	AM PM	44 45.7	D D	53.3 46.9	D- D	0.076 0.006	16.8 -0.2	47.9 46.4	D D	0.041 0.005	7.2 -0.2	44.1 46.2	D D	0.002 0.005	0.2 -0.2	44.1 46.7	D D	0.003 0.013	0.2 -0.5	49.7 46.7	D D	0.054 0.006	10.4 -0.2
57. Saratoga Avenue/Cox Avenue – City of Saratoga	D	AM PM	45.1 37.8	D D+	45.3 38.5	D D+	0.006 0.032	0.3 2.0	45.2 38.1	D D+	0.004 0.017	0.2 1.0	45.1 37.9	D D+	0.001 0.003	0.1 0.2	45.1 37.9	D D+	0.001 0.007	0.0 0.4	45.2 38.3	D D+	0.005 0.025	0.3 1.5
58. Saratoga Avenue/SR 85 Ramps (north) - Caltrans	C	AM PM	19.1 26.7	B- C	20.1 27.0	C+ C	0.029 0.025	0.9 0.4	19.7 26.8	B- C	0.015 0.013	0.5 0.2	19.1 26.7	B- C	0.000 0.002	0.0 0.0	19.1 26.7	B- C	0.000 0.005	0.0 0.1	19.9 26.9	B- C	0.020 0.019	0.7 0.3
59. Saratoga Avenue/SR 85 Ramps (south) - Caltrans	C	AM PM	16.8 18.5	B B-	17.0 18.8	B B-	0.005 0.027	0.2 0.4	16.9 18.7	B B-	0.003 0.013	0.1 0.2	16.8 18.5	B B-	0.000 0.000	0.0 0.0	16.8 18.5	B B-	0.000 0.000	0.0 0.0	16.9 18.7	B B-	0.004 0.020	0.1 0.3

Project

As summarized in Table 4.17-2, 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 which includes a trip cap that is based on the goal of achieving a districtwide mode split target of not more than 45 percent of employees driving alone. 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 goal is 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, Retail and Residential Alternative, or Housing Rich 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 of the Draft EIR, 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, Occupied/Re-Tenanted Mall Alternative, and Housing Rich 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)**

Housing Rich Alternative

As summarized in Table 4.17-2, the implementation of the Housing Rich Alternative would result in a significant level of service impact 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.

The Housing Rich Alternative would result in the same significant impacts as identified for the proposed project. The Housing Rich Alternative would implement mitigation measures MM TRN-1.1 and -1.2 identified above for the proposed project, but like the proposed project, the impacts would remain significant and unavoidable. **(Significant and Unavoidable Impact with Mitigation Incorporated)**

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 4.17-5 and Table 4.17-6, 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 in the Draft EIR and Appendix C of this EIR Amendment 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 4.17-4).

Table 4.17-4: 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
Housing Rich Alternative	AM	13	6
	PM	18	5
Note: The impacts of the Occupied/Re-Tenanted Mall Alternative are described in this EIR for informational purposes only.			

Table 4.17-5: 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		Housing Rich Alternative	
			LOS	LOS	Project Trips	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	F C	22 3
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	F B	30 4
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	F B	40 8
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	F D	54 9
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	F C	116 51
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	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	F A	42 76
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	F B	31 61
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	F D	24 43
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	D E	38 28

Table 4.17-5: 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		Housing Rich Alternative	
			LOS	LOS	Project Trips	LOS	Project Trips	LOS	Project Trips	LOS	Project Trips	LOS	Project Trips
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	B C	51 37
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	B F	68 50
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	B F	0 0
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	B F	41 124
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	C F	10 49
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	B F	8 44
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	B F	4 22
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	C F	3 17
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	D D	66 49
Page Mill Road to La Berranca Road	9,200	AM PM	C F	C F	134 51	C F	86 64	C F	33 80	C F	8 29	C F	110 82
La Berranca 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	B F	110 82

Table 4.17-5: 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		Housing Rich Alternative	
			LOS	LOS	Project Trips	LOS	Project Trips	LOS	Project Trips	LOS	Project Trips	LOS	Project Trips
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	C F	169 126
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	C D	186 134
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	C F	227 168
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	C F	280 210
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	C F	237 175
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	C F	134 322
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	D F	172 400
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	D F	156 360
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	C F	135 325
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	C F	68 162
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	D F	60 143
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	C F	54 129

Table 4.17-5: 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		Housing Rich Alternative	
			LOS	LOS	Project Trips	LOS	Project Trips	LOS	Project Trips	LOS	Project Trips	LOS	Project Trips
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	F F	106 75
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	F D	118 83
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	F C	133 96
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	F D	267 186
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	F D	297 208
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	F D	330 229
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	F C	265 186
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	F D	144 264
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	F D	178 339
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	F D	142 266
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	E C	114 209
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	E D	107 197

Table 4.17-5: 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		Housing Rich Alternative	
			LOS	LOS	Project Trips	LOS	Project Trips	LOS	Project Trips	LOS	Project Trips	LOS	Project Trips
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	E C	86 158
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	D C	86 158
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	C F	52 95
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	F A	59 143
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	F F	53 129
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	F F	40 97
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	F F	30 73
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	D F	60 42
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	D E	80 56
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	F D	106 74
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	C C	118 82
SR 17 – Northbound													

Table 4.17-5: Existing with Project and Project Alternatives Freeway Mixed-Flow Segment Levels of Service

[illegible]

Table 4.17-6: 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		Housing Rich Alternative	
			LOS	LOS	Project Trips	LOS	Project Trips	LOS	Project Trips	LOS	Project Trips	LOS	Project Trips
SR 85 – Northbound													
Union Avenue to South Bascom Avenue	1,650	AM PM	F B	F B	6 1	F B	3 0	F B	0 0	F B	0 0	F B	4 1
South Bascom Avenue to SR 17	1,650	AM PM	F C	F C	8 1	F C	4 0	F C	0 0	F C	0 0	F C	5 1
SR 17 to Winchester Boulevard	1,650	AM PM	F A	F A	10 2	F A	5 1	F A	0 0	F A	0 0	F A	7 2
Winchester Boulevard to Saratoga Avenue	1,650	AM PM	F A	F A	14 2	F A	7 1	F A	0 0	F A	0 0	F A	9 2
Saratoga Avenue to Saratoga-Sunnyvale Road	1,650	AM PM	E A	E A	28 7	E A	15 7	E A	2 6	E A	1 5	E A	21 9
Saratoga-Sunnyvale Road to Stevens Creek Boulevard	1,650	AM PM	D A	D A	0 0	D A	0 0	D A	0 0	D A	0 0	D A	0 0
Stevens Creek Boulevard to I-280	1,650	AM PM	F B	F B	4 14	F B	6 10	F B	8 6	F B	0 3	F B	7 14
I-280 to West Homestead Road	1,650	AM PM	F A	F A	3 7	F A	5 5	F A	6 3	F A	0 1	F A	6 7
West Homestead Road to West Fremont Avenue	1,650	AM PM	F B	F B	2 8	F B	4 6	F B	4 3	F B	0 2	F B	4 8
SR 85 – Southbound													
West Fremont Avenue to West Homestead Road	1,650	AM PM	B D	B D	8 3	B D	5 4	B D	2 5	B D	0 2	B D	7 5

Table 4.17-6: 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		Housing Rich Alternative	
			LOS	LOS	Project Trips	LOS	Project Trips	LOS	Project Trips	LOS	Project Trips	LOS	Project Trips
West Homestead Road to I-280	1,650	AM PM	A D	A D	11 4	A D	7 5	A D	3 6	A D	0 2	A D	9 7
I-280 to Stevens Creek Boulevard	1,650	AM PM	A F	A F	15 5	A F	9 7	A F	3 9	A F	0 3	A F	12 9
Stevens Creek Boulevard to Saratoga-Sunnyvale Road	1,650	AM PM	A F	A F	0 0	A F	0 0	A F	0 0	A F	0 0	A F	0 0
Saratoga-Sunnyvale Road to Saratoga Avenue	1,650	AM PM	A E	A E	6 27	A E	6 15	A E	5 5	A E	0 5	A E	7 22
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	A D	1 9
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	A D	2 8
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	A F	1 4
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	A F	1 3
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	A C	25 24
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	B D	37 30
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	B F	50 37

Table 4.17-6: 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		Housing Rich Alternative	
			LOS	LOS	Project Trips	LOS	Project Trips	LOS	Project Trips	LOS	Project Trips	LOS	Project Trips
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	C F	42 31
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	B D	24 57
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	B E	25 71
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	B F	21 64
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	B F	24 57
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	B F	12 29
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	F A	24 14
I-880 to Winchester Boulevard	1,650	AM PM	F C	F C	60 24	F C	37 26	F C	10 29	F C	4 25	F C	47 33
Winchester Boulevard to Saratoga Avenue	1,650	AM PM	F B	F B	67 26	F B	41 28	F B	11 31	F B	5 27	F B	52 35
Saratoga Avenue to Lawrence Expressway	1,650	AM PM	F B	F B	75 30	F B	45 32	F B	12 36	F B	5 31	F B	58 41
Lawrence Expressway to Wolfe Road	1,650	AM PM	F B	F B	60 24	F B	36 25	F B	10 28	F B	4 25	F B	47 31

Table 4.17-6: 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		Housing Rich Alternative	
			LOS	LOS	Project Trips	LOS	Project Trips	LOS	Project Trips	LOS	Project Trips	LOS	Project Trips
Wolfe Road to De Anza Boulevard	1,650	AM PM	E B	E B	15 48	E B	22 34	E B	27 22	E B	3 13	E B	25 47
De Anza Boulevard to SR 85	1,650	AM PM	D A	E A	18 46	E A	27 32	D A	33 21	D A	3 11	E A	31 45
SR 85 to Foothill Expressway	1,650	AM PM	F B	F B	15 42	F B	22 29	F B	27 19	F B	2 10	F B	25 41
Foothill Expressway to Magdalena Avenue	1,650	AM PM	E B	E B	12 38	E B	17 26	E B	21 17	E B	2 9	E B	20 37

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.

Project

As shown in Table 4.17-4, 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, Retail and Residential Alternative, or Housing Rich 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 agreement³⁷ 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.

³⁷ 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.

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 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, Retail and Residential Alternative, and Housing Rich 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, Retail and Residential Alternative, and Housing Rich 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, Retail and Residential Alternative, and Housing Rich Alternative) would remain significant and unavoidable with the implementation of MM TRN-1.1 and -1.3. **(Significant and Unavoidable Impact with Mitigation Incorporated)**

Housing Rich Alternative

As shown in Table 4.17-4, the Housing Rich Alternative would significantly impact 13 mixed-flow segments in the AM peak hour, 18 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 Housing Rich Alternative would result in similar impacts to freeway level of service as the proposed project, although it would impact one fewer AM mixed flow lane and one additional AM HOV lane. The Housing Rich Alternative would implement mitigation measures MM TRN-1.1 and -1.3 identified above for the proposed project, but like the proposed project, the impact would remain significant and unavoidable. **(Significant and Unavoidable Impact with Mitigation Incorporated)**

Vehicle Miles Travelled

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 for the project site is approximately 44,065, with an average trip length of five miles.³⁸ The existing VMT per service population is 127.³⁹ Table 4.17-7 summarizes the total VMT estimates and VMT per service population for the proposed project and project alternatives and shows that the proposed project has a total VMT of 330,220 and a VMT per service population of 30.0.

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.

Housing Rich Alternative

As summarized in Table 4.17-7, the Housing Rich Alternative generates a greater total VMT than the proposed project. The Housing Rich Alternative, however, results in a lower VMT per service population than the proposed project. Therefore, the mix of land uses contained in the Housing Rich Alternative are more efficient from a roadway system perspective than the mix of land uses in the proposed project.

³⁸ Church, Franziska. Fehr & Peers. Personal communications. March 14, 2018.

³⁹ 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 4.17-7: 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
Housing Rich Alternative	401,316	9.71	28.5
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.			

Traffic and Parking Intrusion⁴⁰

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.

⁴⁰ Per SB 743, parking is not a CEQA impact.

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. The Housing Rich Alternative is projected to add 18 AM peak hour and 28 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 alternatives; however, travel behavior related to neighborhood intrusion is hard to predict and the project (and General Plan Buildout with Maximum Residential Alternative, Retail and Residential Alternative, and Housing Rich Alternative) would be required as a Condition of Approval to include a traffic calming program to help address any issues that should arise.

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 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 General Plan Buildout with Maximum Residential Alternative, Retail and Residential Alternative, and Housing Rich Alternative) 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, Retail and Residential Alternative, or Housing Rich Alternative) shall fund neighborhood cut-through traffic monitoring studies and provide fees in the amount of \$500,000 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, Retail and Residential Alternative, and Housing Rich 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)**

Housing Rich Alternative

The Housing Rich Alternative would result in similar traffic and parking intrusion as described above for the proposed project and would implement the same condition of approval identified above for the proposed project. **(Less than Significant Impact)**

Impact TRN-2: Under background with project conditions, the project or Housing Rich 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 of the Draft EIR 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
- Hyatt House Hotel
- Lawrence Station Project
- Lawson Lane Office Campus
- Main Street Cupertino
- Marina Plaza
- NVIDIA
- Santa Clara Square
- Scott Boulevard Office Campus
- 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).

Refer to the Draft EIR for a description of the transportation network under background conditions.

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 4.17-9. The results for background conditions are included for comparison purposes in Table 4.17-9, 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 of the Draft EIR, 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.

The significant project and project alternative impacts are summarized in Table 4.17-8.

Table 4.17-8: 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	Housing Rich 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 4.17-9 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.							

Table 4.17-9: 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				Housing Rich 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	Delay	LOS	Change in Crit. V/C	Change in Crit. Delay
1.	Stevens Creek Boulevard/SR 85 Ramps (west)* – City of Cupertino	D	AM PM	22.0 32.1	C+ C-	22 32.1	C+ C-	0.005 0.005	-0.1 -0.1	21.8 32.1	C+ C-	0.009 0.007	-0.2 -0.2	21.7 32.1	C+ C-	0.012 0.008	-0.3 -0.2	22.0 32.1	C+ C-	0.001 0.008	0.0 -0.2	21.8 32.1	C+ C-	0.011 0.008	-0.2 -0.2
2.	Stevens Creek Boulevard/SR 85 Ramps (east)* – City of Cupertino	D	AM PM	47.7 23.2	D C	48.9 23.3	D C	0.017 0.057	6.5 3.2	50.6 22.8	D C+	0.026 0.039	9.9 2.0	52.0 22.6	D- C+	0.032 0.024	12.3 1.1	47.8 22.7	D C+	0.001 0.012	0.5 0.5	51 23	D C+	0.03 0.055	11.6 3.0
3.	Stevens Creek Boulevard/Stelling Road* – City of Cupertino	E+	AM PM	38.6 48.5	D+ D	39.2 51.1	D D-	0.026 0.053	1.3 5.6	38.9 50.8	D+ D	0.030 0.043	1.1 4.4	38.8 50.8	D+ D	0.031 0.035	0.9 3.6	38.6 50.8	D+ D	0.004 0.036	0.2 4.0	39.1 51.7	D D-	0.036 0.056	1.5 6.1
4.	Sunnyvale-Saratoga Road/Remington Drive* – City of Sunnyvale	E	AM PM	55.7 47.4	E+ D	56.2 48.5	E+ D	0.004 0.015	0.7 2.0	56.7 48.6	E+ D	0.007 0.016	1.3 2.0	57.0 48.7	E+ D	0.008 0.018	1.7 2.2	56.1 50.4	E+ D	0.001 0.031	0.2 4.9	56.8 48.7	E+ D	0.007 0.018	1.5 2.3
5.	Sunnyvale-Saratoga Road/Fremont Avenue* – City of Sunnyvale	E	AM PM	53.2 50.7	D- D	54 51.9	D- D-	0.007 0.014	1.3 2.0	54.0 51.7	D- D-	0.009 0.013	1.3 1.6	53.8 51.6	D- D-	0.008 0.012	1.0 1.4	53.5 52.5	D- D-	0.003 0.021	0.4 2.7	54.1 52	D- D-	0.009 0.016	1.5 2.0
6.	Sunnyvale-Saratoga Road/Cheyenne Drive – City of Sunnyvale	E	AM PM	11.1 9.4	B+ A	11 9.4	B+ A	0.003 0.008	0.0 0.0	11.0 9.4	B+ A	0.005 0.008	0.0 0.0	11.1 9.4	B+ A	0.006 0.010	0.0 0.0	11.1 9.4	B+ A	0.001 0.014	0.0 0.1	11 9.4	B+ A	0.006 0.010	0.0 0.0
7.	Sunnyvale-Saratoga Road/Alberta Avenue – City of Sunnyvale	E	AM PM	20 23	B- C+	19.9 22.8	B- C+	0.003 0.008	0.0 0.0	19.9 22.8	B- C+	0.005 0.008	0.0 0.0	20.0 22.8	B- C+	0.006 0.010	0.0 0.0	20.0 22.8	B- C+	0.001 0.014	0.0 -0.1	19.9 22.8	B- C+	0.006 0.010	0.0 0.0
8.	De Anza Boulevard/Homestead Road* – City of Cupertino	D	AM PM	44.6 48.3	D D	47.6 51	D D-	0.023 0.016	5.5 3.4	47.2 50.9	D D	0.018 0.015	3.9 3.3	46.3 51.1	D D-	0.010 0.016	1.8 3.4	45.1 52.0	D D-	0.003 0.022	0.7 4.6	47.7 51.6	D D-	0.021 0.019	4.8 4.1
9.	De Anza Boulevard/I-280 Ramps (north)* – City of Cupertino	D	AM PM	19.3 32.1	B- C-	19.7 35.5	B- D+	0.008 0.033	0.7 5.4	19.9 34.4	B- C-	0.013 0.024	1.1 3.6	20.1 33.6	C+ C-	0.017 0.018	1.5 2.4	19.3 32.9	B- C-	0.000 0.013	0.0 1.5	20 35.5	C+ D+	0.016 0.034	1.3 5.4
10.	De Anza Boulevard/I-280 Ramps (south)* – City of Cupertino	D	AM PM	27.6 20.9	C C+	28.7 21.5	C C+	0.022 0.009	1.0 0.7	28.4 21.6	C C+	0.014 0.012	0.6 1.0	28.1 21.7	C C+	0.006 0.015	0.3 1.3	27.7 21.2	C C+	0.001 0.006	0.0 0.5	28.6 21.8	C C+	0.019 0.015	0.8 1.3
11.	De Anza Boulevard/Stevens Creek Boulevard* – City of Cupertino	E+	AM PM	38.4 46.2	D+ D	42.6 64.2	D+ E	0.058 0.112	7.0 28.4	42.3 58.2	D E+	0.060 0.081	7.3 18.7	42.0 53.9	D D-	0.056 0.057	6.7 11.6	38.8 54.4	D+ D-	0.007 0.058	0.8 12.1	43.3 64.5	D E	0.072 0.110	9.0 27.7
12.	De Anza Boulevard/McClellan Road/Pacifica Drive – City of Cupertino	D	AM PM	36.2 71.4	D+ E	36.6 78.0	D+ E-	0.048 0.036	0.9 9.6	36.4 74.9	D+ E	0.027 0.021	0.4 5.3	36.3 72.4	D+ E	0.003 0.008	0.0 1.9	36.2 73.1	D+ E	0.002 0.013	0.0 3.1	36.5 76.5	D+ E-	0.036 0.030	0.6 7.7
13.	De Anza Boulevard/Bollinger Road* – City of Cupertino	E+	AM PM	37.9 24.6	D+ C	43.7 24	D C	0.051 0.016	7.9 -0.1	40.4 24.3	D C	0.028 0.014	3.7 0.0	37.9 24.6	D+ C	0.003 0.013	0.3 0.0	38.0 24.5	D+ C	0.002 0.018	0.3 0.0	41.7 24.1	D C	0.038 0.018	5.4 -0.1
14.	De Anza Boulevard/SR 85 Ramps (north) * – City of Cupertino	D	AM PM	24.3 15.7	C B	27 18.1	C B-	0.065 0.062	1.7 3.2	25.8 17.4	C B	0.040 0.041	1.0 2.1	24.5 16.9	C B	0.012 0.023	0.1 1.6	24.4 16.7	C B	0.002 0.026	0.0 1.4	26.3 18.2	C B-	0.052 0.057	1.3 3.2

Table 4.17-9: 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				Housing Rich 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	Delay	LOS	Change in Crit. V/C	Change in Crit. Delay
15.	De Anza Boulevard/SR 85 Ramps (south) * – City of Cupertino	D	AM PM	12.6 15.3	B B	13 16.4	B B	0.024 0.066	0.4 1.5	13.0 15.9	B B	0.020 0.039	0.4 0.9	13.0 15.5	B B	0.012 0.015	0.4 0.3	12.6 15.5	B B	0.002 0.021	0.0 0.2	13.1 16.2	B B	0.024 0.055	0.5 1.2
16.	Saratoga-Sunnyvale Road/Prospect Road – City of Cupertino	D	AM PM	19.1 27.7	B- C	19.2 27.5	B- C	0.016 0.014	0.2 -0.1	19.2 27.6	B- C	0.009 0.009	0.1 -0.1	19.1 27.7	B- C	0.001 0.005	0.0 0.0	19.1 27.6	B- C	0.001 0.011	0.0 0.0	19.2 27.5	B- C	0.011 0.012	0.1 -0.1
17.	Stevens Creek Boulevard/Torre Avenue – City of Cupertino	D	AM PM	21.2 22.1	C+ C+	22.4 21.2	C+ C+	0.068 0.043	10.9 -0.3	19.9 21.3	B- C+	0.039 0.048	-1.0 -0.3	19.9 21.4	B- C+	0.044 0.055	-1.1 -0.3	21 21.4	C+ C+	0.005 0.049	-0.1 -0.3	19.7 21.2	B- C+	0.045 0.061	-1.1 -0.3
18.	Homestead Road/Blaney Avenue – City of Cupertino	D	AM PM	23.8 25.5	C C	23.9 26.2	C C	0.017 0.011	0.1 0.4	23.9 26.1	C C	0.013 0.012	0.1 0.5	23.9 26.1	C C	0.008 0.014	0.2 0.6	23.9 26.5	C C	0.003 0.017	0.0 0.7	23.9 26.3	C C	0.016 0.014	0.1 0.6
19.	Stevens Creek Boulevard/Blaney Avenue – City of Cupertino	D	AM PM	34.3 33.2	C- C-	34.5 34.1	C- C-	0.047 0.063	1.6 2.4	34.3 33.9	C- C-	0.050 0.062	1.2 2.0	34.4 34.0	C- C-	0.048 0.066	0.6 1.9	34.3 34.4	C- C-	0.007 0.069	0.2 2.7	34.4 34.3	C- C-	0.060 0.078	1.5 2.7
20.	Stevens Creek Boulevard/Portal Avenue – City of Cupertino	D	AM PM	20.2 12.4	C+ B	18.4 11.5	B- B+	0.029 0.045	-0.8 -0.2	18.5 11.7	B- B+	0.038 0.049	-1.0 -0.2	18.9 11.9	B- B+	0.043 0.056	-1.2 -0.2	19.9 11.9	B- B+	0.005 0.051	-0.2 -0.2	18.3 11.5	B- B+	0.045 0.062	-1.2 -0.2
21.	Stevens Creek Boulevard/Perimeter Road – City of Cupertino	D	AM PM	9.5 14.2	A B	31.4 34.3	C C-	0.344 0.233	33.7 18.7	27.9 29.3	C C	0.259 0.149	27 12.2	21.6 25.3	C+ C	0.146 0.083	15.5 6.5	11.3 27.2	B+ C	0.024 0.111	2.6 9.1	31.8 34.7	C C-	0.325 0.214	32.8 17.0
22.	Wolfe Road/El Camino Real* – City of Sunnyvale	E	AM PM	51.7 52.0	D- D-	52.3 53.5	D- D-	0.030 0.031	2.4 2.6	52.1 53.6	D- D-	0.029 0.035	1.5 2.8	51.9 53.8	D- D-	0.026 0.040	0.5 3.1	51.7 53.8	D- D-	0.004 0.040	0.2 3.4	52.2 54.1	D- D-	0.035 0.043	2.0 3.7
23.	Wolfe Road/Fremont Avenue – City of Sunnyvale	D	AM PM	52.7 52.0	D- D-	53.1 53.8	D- D-	0.029 0.028	0.2 1.9	53.1 53.8	D- D-	0.026 0.031	0.5 1.8	53.0 54.0	D- D-	0.020 0.037	0.7 1.8	52.8 54.5	D- D-	0.006 0.040	0.2 2.8	53.2 54.3	D- D-	0.031 0.038	0.5 2.2
24.	Wolfe Road/Marion Way – City of Sunnyvale	D	AM PM	15.0 18.2	B B-	15.3 18.2	B B-	0.019 0.047	0.6 -0.5	15 18.1	B B-	0.028 0.042	0.1 -0.4	14.7 18.1	B B-	0.034 0.040	-0.3 -0.4	15.0 18.1	B B-	0.004 0.048	0.0 -0.4	15.0 18.1	B B-	0.033 0.053	0.2 -0.5
25.	Wolfe Road/Inverness Way – City of Sunnyvale	D	AM PM	17.4 22.2	B C+	17.2 22.2	B C+	0.014 0.033	-0.2 0.3	17.1 22	B C+	0.026 0.039	-0.3 0.2	16.9 21.9	B C+	0.034 0.047	-0.4 0.1	17.3 22.0	B C+	0.004 0.045	0.0 0.2	17.0 22.0	B C+	0.03 0.048	-0.3 0.2
26.	Wolfe Road/Homestead Road – City of Cupertino	D	AM PM	36.6 48.1	D+ D	37.8 49.8	D+ D	0.046 0.043	4.0 0.5	37.7 49.7	D+ D	0.044 0.045	2.9 0.3	37.5 49.7	D+ D	0.035 0.049	1.4 0.3	36.8 50.0	D+ D	0.004 0.053	0.0 0.9	37.9 50.2	D+ D	0.055 0.057	3.7 1.3
27.	Wolfe Road/Apple Park – City of Cupertino	D	AM PM	19.3 33.0	B- C-	18.7 33.1	B- C-	0.015 0.029	-0.1 0.1	18.8 33	B- C-	0.025 0.036	-0.2 0.1	19.0 32.9	B- C-	0.032 0.044	-0.2 0.2	19.2 33.0	B- C-	0.004 0.044	0.0 0.2	18.8 33.0	B- C-	0.029 0.044	-0.2 0.2
28.	Wolfe Road/Pruneridge Avenue – City of Cupertino	D	AM PM	28.1 20.2	C C+	27.8 20.2	C C+	0.009 0.031	-0.2 0.8	27.6 20.4	C C+	0.015 0.037	-0.4 1.0	27.5 20.6	C C+	0.019 0.046	-0.5 1.3	28.0 20.5	C C+	0.002 0.046	-0.1 1.3	27.5 20.5	C C+	0.017 0.046	-0.5 1.3
29.	Wolfe Road/I-280 Ramps (north) * – City of Cupertino	D	AM PM	16.8 19.0	B B-	18.6 26.2	B- C	0.013 0.048	0.3 7.7	17.9 28.9	B C	0.027 0.057	0.8 9.9	17.6 32.1	B C-	0.035 0.078	1.1 15.3	16.9 30.9	B C	0.004 0.072	0.1 13.6	18.3 32.5	B- C-	0.031 0.088	1.0 18.0
30.	Wolfe Road/I-280 Ramps (south) * – City of Cupertino	D	AM PM	19.0 9.8	B- A	22.3 13.2	C+ B	0.052 0.229	6.1 6.6	25.5 12.5	C B	0.083 0.195	11.9 5.3	29.4 12.3	C B	0.105 0.174	17.2 4.8	19.3 10.7	B- B+	0.008 0.123	0.7 2.1	27.3 14.8	C B	0.096 0.258	15.0 9.6
31.	Wolfe Road/Vallco Parkway – City of Cupertino	D	AM PM	24.6 36.6	C D+	31.5 66.8	C E	0.248 0.370	9.5 49.2	32.1 54.2	C- D-	0.238 0.291	9.6 31.9	31.7 48.0	C D	0.202 0.236	8.3 24.4	25.1 48.2	C D	0.027 0.227	0.7 23.3	35.1 68.6	D+ E	0.287 0.390	13.6 54.4
32.	Wolfe Road-Miller Avenue/Stevens Creek Boulevard* – City of Cupertino	D	AM PM	50.5 52.3	D D-	65.7 71.0	E E	0.111 0.121	26.9 36.1	62.4 64.1	E E	0.092 0.083	21.5 23.0	58.1 59.6	E+ E+	0.063 0.051	13.8 13.6	51.6 62.6	D- E	0.010 0.064	1.9 17.4	65.8 69.7	E E	0.113 0.112	27.5 32.9

Table 4.17-9: 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				Housing Rich 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	Delay	LOS	Change in Crit. V/C	Change in Crit. Delay
33.	Miller Avenue/Calle de Barcelona – City of Cupertino	D	AM PM	7.2 2.9	A A	7.1 2.8	A A	0.029 0.035	-0.1 0.0	7.2 2.8	A A	0.017 0.023	0.0 0.0	7.2 2.8	A A	0.003 0.014	0.0 0.0	7.2 2.8	A A	0.004 0.032	0.0 0.0	7.2 2.8	A A	0.022 0.030	0.0 0.0
34.	Miller Avenue/Phil Lane – City of Cupertino	D	AM PM	5.2 4.0	A A	5.4 4.1	A A	0.033 0.032	0.3 0.1	5.3 4.1	A A	0.020 0.021	0.2 0.0	5.2 4.1	A A	0.004 0.013	0.0 0.0	5.2 4.1	A A	0.004 0.029	0.0 0.1	5.3 4.1	A A	0.025 0.027	0.2 0.1
35.	Miller Avenue/Bollinger Road – City of San José	D	AM PM	38.5 45.2	D+ D	39.6 46.3	D D	0.034 0.025	1.5 1.9	39.2 46	D D	0.020 0.018	0.9 1.4	38.7 45.9	D+ D	0.005 0.015	0.3 1.1	38.7 46.9	D+ D	0.005 0.035	0.2 2.8	39.4 46.2	D D	0.026 0.023	1.1 1.7
36.	Miller Avenue/Rainbow Drive – City of San José	D	AM PM	26.5 21.9	C C+	27.9 21.9	C C+	0.016 0.026	2.6 0.2	27.3 21.8	C C+	0.011 0.019	1.6 0.1	26.7 21.8	C C+	0.003 0.016	0.4 0.1	26.8 21.7	C C+	0.004 0.036	0.6 0.3	27.5 21.8	C C+	0.013 0.023	1.9 0.1
37.	Stevens Creek Boulevard/ Finch Avenue – City of Cupertino	D	AM PM	28.7 22.5	C C+	28.2 22.4	C C+	0.019 0.079	-0.2 0.5	28.2 22.3	C C+	0.023 0.053	-0.3 0.2	28.4 22.2	C C+	0.024 0.033	-0.3 0.1	28.6 22.2	C C+	0.004 0.049	-0.1 0.2	28.1 22.3	C C+	0.027 0.071	-0.3 0.4
38.	Tantau Avenue/Homestead Road – City of Cupertino	D	AM PM	40.1 52.2	D D-	40.8 54.0	D D-	0.011 0.022	0.0 3.7	40.6 53.9	D D-	0.007 0.020	0.0 3.5	40.3 54.0	D D-	0.003 0.020	0.0 3.6	40.2 54.2	D D-	0.001 0.022	0.0 3.9	40.7 54.4	D D-	0.009 0.026	0.0 4.5
39.	Tantau Avenue/Pruneridge Avenue – City of Cupertino	D	AM PM	22.8 23.4	C+ C	23.2 23.6	C C	0.040 0.031	0.9 0.0	23 23.8	C+ C	0.008 0.023	5.7 0.0	22.6 24.1	C+ C	-0.001 0.018	5.6 0.0	22.8 23.9	C+ C	0.004 0.020	0.1 0.0	23.1 23.9	C C	0.034 0.031	0.8 0.0
40.	N Tantau Ave/Apple Parkway – City of Cupertino	D	AM PM	23.5 27.2	C C	23.4 28.7	C C	0.014 0.053	-0.1 4.5	23.4 28.1	C C	0.021 0.039	-0.1 3.0	23.4 27.8	C C	0.025 0.029	-0.1 2.2	23.5 28.0	C C	0.003 0.035	0.0 2.7	23.4 28.6	C C	0.024 0.051	-0.1 4.3
41.	Tantau Avenue/Vallco Parkway – City of Cupertino	D	AM PM	24.5 28.8	C C	28.1 34.9	C C-	0.091 0.167	13.8 8.6	26.4 33.7	C C-	0.011 0.139	0.8 7.0	25.8 32.9	C C-	0.013 0.123	1.0 6.0	24.8 34.3	C C-	0.002 0.152	0.1 8.1	26.9 35.3	C D+	0.012 0.179	1.0 9.5
42.	Stevens Creek Boulevard/ Tantau Avenue – City of Cupertino	D	AM PM	48.6 45.9	D D	58.1 49.6	E+ D	0.108 0.116	25.4 6.1	53.5 48.1	D- D	0.065 0.081	13.7 3.8	49.4 47.2	D D	0.016 0.053	3.0 2.4	49.1 48.5	D D	0.008 0.083	1.5 4.4	55.2 49.1	E+ D	0.083 0.107	18.3 5.5
43.	Stevens Creek Boulevard/ Stern Avenue – City of Santa Clara	D	AM PM	92.3 81.9	F F	135.5 130.5	F F	0.067 0.075	59.9 73.2	117.6 113.5	F F	0.041 0.051	36.5 49.2	98.2 100.6	F F	0.011 0.032	10.0 30.9	95.2 108.9	F F	0.005 0.045	4.2 43.5	124.8 124.8	F F	0.052 0.068	46.6 66.4
44.	Stevens Creek Boulevard/ Calvert Drive/I-280 Ramps (west)* – City of Santa Clara	E	AM PM	121.6 82.6	F F	167.0 118.8	F F	0.060 0.122	60.5 46.5	148.3 105.8	F F	0.037 0.076	36.7 27.7	128.1 96.4	F F	0.010 0.039	10.0 13.5	124.6 102.6	F F	0.004 0.061	4.2 21.7	155.9 114.6	F F	0.047 0.104	47.0 39.1
45.	Stevens Creek Boulevard/ Agilent Driveway – City of Santa Clara	D	AM PM	92.6 25.6	F C	125.3 26.6	F C	0.050 0.023	40.3 0.7	112.0 26.5	F C	0.030 0.024	24.6 0.8	97.3 26.4	F C	0.008 0.027	6.7 0.9	95.0 26.6	F C	0.004 0.030	3.0 1.0	117.5 26.7	F C	0.039 0.030	31.5 1.0
46.	Stevens Creek Boulevard/ Lawrence Expressway Ramps (west)* – Santa Clara County	E	AM PM	47.1 25.6	D C	69.6 26.2	E C	0.080 0.040	28.8 1.0	60.1 26.3	E C	0.050 0.043	17.1 1.2	50.4 26.5	D C	0.015 0.050	4.8 1.4	48.5 26.2	D C	0.006 0.051	1.8 1.3	64.2 26.5	E C	0.063 0.054	22.3 1.5
47.	Lawrence Expressway/El Camino Real* – Santa Clara County	E	AM PM	38.7 33.3	D+ C-	40.7 37.4	D D+	0.039 0.049	2.2 5.7	40.5 37.2	D D+	0.039 0.047	2.1 5.5	40.1 37.3	D D+	0.037 0.048	1.7 5.7	38.8 35.9	D+ D+	0.003 0.034	0.1 3.7	40.9 38.7	D D+	0.047 0.062	2.5 7.6
48.	Lawrence Expressway/ Homestead Road* – Santa Clara County	E	AM PM	89.3 83.6	F F	91.8 88.5	F F	0.008 0.025	2.9 8.2	91.9 87.6	F F	0.011 0.023	3.6 7.0	91.7 87.2	F F	0.011 0.022	3.8 6.4	89.8 87.1	F F	0.002 0.022	0.5 5.1	92.4 88.9	F F	0.012 0.029	4.2 9.3

Table 4.17-9: 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				Housing Rich 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	Delay	LOS	Change in Crit. V/C	Change in Crit. Delay
49. Lawrence Expressway/Pruneridge Avenue* – Santa Clara County	E	AM PM	54.7 56.5	D- E+	54.8 57.6	D- E+	0.005 0.204	0.7 8.0	55.1 57.7	E+ E+	0.009 0.204	1.1 8.3	55.4 57.7	E+ E+	0.012 0.204	1.4 8.7	54.7 57.6	D- E+	0.001 0.205	0.1 8.3	55.2 58.0	E+ E+	0.011 0.206	1.2 8.7
50. Stevens Creek Boulevard/Lawrence Expressway Ramps (east)* – Santa Clara County	E	AM PM	34.2 28.9	C- C	35.8 29.5	D+ C	0.050 0.020	1.9 0.4	35.4 29.3	D+ C	0.036 0.015	1.6 0.3	34.9 29.3	C- C	0.018 0.012	1.2 0.2	34.3 29.3	C- C	0.004 0.016	0.2 0.3	35.7 29.5	D+ C	0.045 0.020	1.9 0.4
51. Lawrence Expressway/Calvert Drive-I-280 Southbound Ramp* – City of San José	D	AM PM	76.3 79.7	E- E-	81.8 79.9	F E-	0.022 0.029	6.6 0.5	79.4 79.8	E- E-	0.017 0.019	3.6 0.2	76.7 79.7	E- E-	0.011 0.011	0.3 0.1	76.7 79.6	E- E-	0.002 0.013	0.5 0.1	80.3 79.9	F E-	0.021 0.027	4.7 0.4
52. Lawrence Expressway/Mitty Way* – Santa Clara County	E	AM PM	39.6 18.4	D B-	44.2 18.8	D B-	0.016 0.018	5.9 0.5	42 18.6	D B-	0.009 0.011	3.1 0.3	39.7 18.5	D B-	0.001 0.005	0.2 0.1	39.9 18.7	D B-	0.001 0.011	0.3 0.3	42.7 18.7	D B-	0.012 0.014	4.0 0.4
53. Lawrence Expressway/Bollinger Road* – Santa Clara County	E	AM PM	104.8 87.4	F F	117.7 94.1	F F	0.016 0.029	10.4 11.2	111.2 91.2	F F	0.009 0.019	5.6 6.6	105.1 88.9	F F	0.001 0.011	0.4 2.7	105.4 91.2	F F	0.001 0.027	0.7 6.5	113.6 92.7	F F	0.012 0.025	7.5 9.0
54. Lawrence Expressway/Doyle Road* – Santa Clara County	E	AM PM	41.0 14.9	D B	41.8 15.1	D B	0.011 0.034	1.6 0.1	41.3 15.0	D B	0.006 0.020	0.4 0.1	41.1 15.0	D B	0.002 0.008	-0.1 0.0	41.1 15.1	D B	0.002 0.019	0.0 0.1	41.6 15.1	D B	0.008 0.027	1.0 0.1
55. Lawrence Expressway/Prospect Road* – Santa Clara County	E	AM PM	66.3 49.6	E D	75.6 51.2	E- D-	0.190 0.032	17.8 2.6	70.8 50.5	E D	0.177 0.019	10 1.4	66.6 50.0	E D	0.002 0.008	-0.1 0.6	66.8 50.6	E D	0.002 0.018	-0.1 1.4	54.3 48.3	D- D	0.182 0.025	9.1 1.8
56. Lawrence Expressway/Saratoga Avenue* – Santa Clara County	E	AM PM	67.9 57.2	E E+	45.4 52.3	D D-	0.046 0.288	3.0 12.2	44.3 54.4	D D-	0.025 0.005	1.3 -0.1	43.6 53.6	D D-	0.001 0.005	0.0 -0.1	43.6 52.3	D D-	0.003 0.291	0.1 12.9	44.6 51.9	D D-	0.033 0.286	1.8 11.7
57. Saratoga Avenue/Cox Avenue – City of Saratoga	D	AM PM	46.0 39.3	D D	46.0 40.9	D D	0.003 0.032	-4.2 3.4	46.2 40.1	D D	-0.013 0.017	-5.1 1.6	46.0 39.5	D D	0.001 0.003	0.1 0.3	46 39.7	D D	0.001 0.007	0.0 0.7	46.7 40.5	D D	0.005 0.025	0.3 2.5
58. Saratoga Avenue/SR 85 Ramps (north) - Caltrans	C	AM PM	21.1 27.4	C+ C	21.9 27.7	C+ C	0.033 0.025	0.8 0.5	21.5 27.5	C+ C	0.017 0.013	0.4 0.2	21.1 27.4	C+ C	0.001 0.002	0.0 0.0	21.1 27.4	C+ C	0.001 0.005	0.0 0.1	21.7 27.6	C+ C	0.023 0.019	0.6 0.4
59. Saratoga Avenue/SR 85 Ramps (south) - Caltrans	C	AM PM	17.3 19.5	B B-	17.4 19.8	B B-	0.005 0.027	0.2 0.3	17.3 19.7	B B-	0.003 0.013	0.1 0.1	17.2 19.5	B B-	0.000 0.000	0.0 0.0	17.3 19.5	B B-	0.000 0.000	0.0 0.0	17.4 19.7	B B-	0.004 0.020	0.1 0.2
60. Stevens Creek Boulevard/Cabot Avenue – City of Santa Clara	D	AM PM	58.4 49.7	E+ D	42.2 55.0	D D-	0.150 0.022	6.1 7.5	41.8 53.3	D D-	0.144 0.016	5.4 5.1	60.5 52.3	E D-	0.009 0.012	0.3 3.6	59.2 53.6	E+ D-	0.001 0.017	0.0 5.4	42.0 54.8	D D-	0.147 0.021	5.7 7.2
61. Stevens Creek Boulevard/Cronin Drive-Albany Drive – City of Santa Clara	D	AM PM	28.1 23.6	C C	28.4 24.0	C C	0.008 0.022	0.1 0.6	28.4 23.8	C C	0.009 0.017	0.2 0.4	28.3 23.8	C C	0.009 0.014	0.2 0.3	28.2 23.9	C C	0.001 0.019	0.0 0.5	28.4 23.9	C C	0.011 0.022	0.2 0.6
62. Stevens Creek Boulevard/Woodhams Road – City of Santa Clara	D	AM PM	18.7 21.6	B- C+	19.9 22.2	B- C+	0.012 0.020	1.0 0.9	19.4 22.2	B- C+	0.011 0.019	0.5 0.8	18.7 22.1	B- C+	0.008 0.019	-0.1 0.7	18.8 22.2	B- C+	0.002 0.023	0.0 0.9	19.6 22.3	B- C+	0.013 0.024	0.6 1.0
63. Stevens Creek Boulevard/Kiely Boulevard* – City of San José	D	AM PM	40.9 36.5	D D+	41.1 36.6	D D+	0.010 0.008	0.2 0.0	41.0 36.6	D D+	0.008 0.006	0.2 0.0	41.0 36.6	D D+	0.006 0.006	0.3 0.1	40.9 36.6	D D+	0.001 0.007	0.0 0.0	41.1 36.6	D D+	0.010 0.008	0.3 0.0
64. Vallco Parkway/Perimeter Road – City of Cupertino	D	AM PM	10.3 16.4	B+ B	19.5 28.1	B- C	0.294 0.394	14.0 13.4	20.9 26.1	C+ C	0.202 0.331	14.0 11.7	18.3 24.7	B- C	0.105 0.294	8.1 10.7	11.8 25.5	B+ C	0.013 0.317	1.5 11.3	21.1 29.6	C+ C	0.271 0.430	14.7 15.9

Project

As summarized in Table 4.17-8, 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.

* denotes CMP intersection

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 of the Draft EIR, 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, Retail and Residential Alternative, or Housing Rich 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, Occupied/Re-Tenanted Mall Alternative, and Housing Rich 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, Retail and Residential Alternative, and Housing Rich 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, 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-2.6. 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 and Housing Rich 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 and Housing Rich 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.

Housing Rich Alternative

As summarized in Table 4.17-8, implementation of the Housing Rich Alternative would result in 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)* – AM and PM peak hours;
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.

* denotes CMP intersection

The Housing Rich Alternative would result in the same significant impacts as identified for the proposed project, with the exception of intersection 48, Lawrence Expressway/Homestead Road. The Housing Rich Alternative is projected to have a significant impact under both the AM and PM peak hours at the intersection of Lawrence Expressway/Homestead Road, while the proposed project was projected to have a significant impact only during the PM peak hour (i.e., the impact for the proposed project was less than significant during the AM peak hour). The Housing Rich Alternative, therefore, would have greater impacts than the proposed project. The Housing Rich Alternative would implement mitigation measures MM TRN-2.1 through -2.8 identified above for the proposed project, but like the proposed project, the impact would remain significant and unavoidable. **(Significant and Unavoidable Impact with Mitigation Incorporated)**

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 4.17-11 and Table 4.17-12, respectively. Appendix H in the Draft EIR and Appendix C of this EIR Amendment 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 4.17-10).

Project

As summarized in Table 4.17-10, 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, Retail and Residential Alternative, and Housing Rich 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, Retail and Residential Alternative, and Housing Rich 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, Retail and Residential Alternative, and Housing Rich Alternative) would remain significant and unavoidable with the implementation of MM TRN-2.1 and -2.9. **(Significant and Unavoidable Impact with Mitigation Incorporated)**

Housing Rich Alternative

As summarized in Table 4.17-10, the implementation of the Housing Rich Alternative would result in a significant freeway level of service impacts under background with project conditions at 14 mixed flow lanes in the AM peak hour, 22 mixed flow lanes in the PM peak hour, eight HOV lanes in the AM peak hour, and six HOV lanes in the PM peak hour. The Housing Rich Alternative would have similar freeway impacts as the proposed project, although this alternative would impact more freeway segments than the proposed project. The Housing Rich Alternative would implement mitigation measures MM TRN-2.1 and -2.9 identified above for the proposed project, but like the proposed project, the impact would remain significant and unavoidable. **(Significant and Unavoidable Impact with Mitigation Incorporated)**

Table 4.17-10: 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
Housing Rich Alternative	AM	14	8
	PM	22	6
Note: The impacts of the Occupied/Re-Tenanted Mall Alternative is described in this EIR for informational purposes only.			

Table 4.17-11: 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			Housing Rich Alternative		
			LOS	LOS	V/C	Project Trips	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 PM	F F	F F	1.336 1.072	32 5	F F	1.333 1.071	17 2	F F	1.329 1.071	0 0	F F	1.329 1.071	0 0	F F	1.334 1.072	22 4
South Bascom Avenue to SR 17	4,600	AM PM	F B	F B	1.082 0.614	43 6	F B	1.077 0.613	22 3	F B	1.072 0.613	0 0	F B	1.072 0.613	0 0	F B	1.079 0.613	30 4
SR 17 to Winchester Boulevard	4,600	AM PM	F C	F C	1.100 0.778	58 12	F C	1.094 0.776	30 5	F C	1.088 0.775	0 0	F C	1.088 0.775	0 0	F C	1.096 0.777	40 9
Winchester Boulevard to Saratoga Avenue	4,600	AM PM	F F	F F	1.184 1.029	76 13	F F	1.176 1.028	39 6	F F	1.167 1.026	0 0	F F	1.167 1.026	0 0	F F	1.179 1.028	54 10
Saratoga Avenue to Saratoga-Sunnyvale Road	4,600	AM PM	F E	F E	1.162 0.971	157 42	F E	1.147 0.970	87 39	F E	1.130 0.970	11 36	F E	1.128 0.968	3 28	F E	1.153 0.973	116 52
Saratoga-Sunnyvale Road to Stevens Creek Boulevard	4,600	AM PM	F D	F D	1.039 0.882	0 0	F D	1.039 0.882	0 0	F D	1.039 0.882	0 0	F D	1.039 0.882	0 0	F D	1.039 0.882	0 0
Stevens Creek Boulevard to I-280	4,600	AM PM	F D	F D	1.092 0.899	24 85	F D	1.095 0.893	36 59	F D	1.096 0.888	44 36	F D	1.087 0.884	2 17	F D	1.096 0.898	42 82
I-280 to West Homestead Road	4,600	AM PM	F E	F E	1.053 0.927	18 64	F E	1.055 0.922	27 44	F E	1.057 0.918	33 27	F E	1.050 0.915	2 13	F E	1.056 0.926	31 61
West Homestead Road to West Fremont Avenue	4,600	AM PM	F E	F E	1.117 0.975	14 48	F E	1.118 0.972	20 33	F E	1.119 0.969	25 21	F E	1.114 0.967	2 10	F E	1.119 0.975	24 46
SR 85 – Southbound																		
West Fremont Avenue to West Homestead Road	4,600	AM PM	F F	F F	1.009 1.052	48 18	F F	1.005 1.053	30 23	F F	1.001 1.054	11 28	E F	0.999 1.050	2 10	F F	1.007 1.054	38 29
West Homestead Road to I-280	4,600	AM PM	B C	B C	0.665 0.710	63 22	B C	0.660 0.712	40 30	B C	0.654 0.713	14 37	B C	0.651 0.708	2 12	B C	0.662 0.713	51 37
I-280 to Stevens Creek Boulevard	4,600	AM PM	D F	D F	0.898 1.502	85 31	D F	0.892 1.505	54 41	D F	0.884 1.507	19 50	D F	0.880 1.499	2 16	D F	0.895 1.507	69 52
Stevens Creek Boulevard to Saratoga-Sunnyvale Road	4,600	AM PM	C F	C F	0.732 1.116	0 0	C F	0.732 1.116	0 0	C F	0.732 1.116	0 0	C F	0.732 1.116	0 0	C F	0.732 1.116	0 0
Saratoga-Sunnyvale Road to Saratoga Avenue	4,600	AM PM	B F	B F	0.684 1.119	33 151	B F	0.684 1.105	33 85	B F	0.683 1.093	30 29	B F	0.678 1.093	3 31	B F	0.686 1.114	41 125
Saratoga Avenue to Winchester Boulevard	4,600	AM PM	C F	C F	0.771 1.129	13 68	C F	0.769 1.121	7 32	C F	0.768 1.114	0 0	C F	0.768 1.114	0 0	C F	0.770 1.125	9 50
Winchester Boulevard to SR 17	4,600	AM PM	B F	B F	0.668 1.104	12 63	B F	0.667 1.097	6 29	B F	0.666 1.091	0 0	B F	0.666 1.091	0 0	B F	0.667 1.101	8 46
SR 17 to South Bascom Avenue	4,600	AM PM	A F	A F	0.456 1.082	6 31	A F	0.456 1.079	3 15	A F	0.455 1.075	0 0	A F	0.455 1.075	0 0	A F	0.456 1.080	4 22
South Bascom Avenue to Union Avenue	4,600	AM PM	D F	D F	0.862 1.332	4 24	D F	0.861 1.330	3 12	D F	0.861 1.327	0 0	D F	0.861 1.327	0 0	D F	0.861 1.331	3 18
Interstate 280 – Eastbound																		
Alpine Road to Page Mill Road	9,200	AM PM	D C	D C	0.883 0.753	80 31	D C	0.880 0.754	52 38	D C	0.877 0.755	20 48	D C	0.875 0.751	5 17	D C	0.882 0.755	66 49

Table 4.17-11: 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			Housing Rich Alternative		
			LOS	LOS	V/C	Project Trips	LOS	V/C	Project Trips	LOS	V/C	Project Trips	LOS	V/C	Project Trips	LOS	V/C	Project Trips
Page Mill Road to La Barranca Road	9,200	AM PM	C F	C F	0.769 1.050	134 51	C F	0.764 1.051	86 64	C F	0.758 1.053	33 80	C F	0.755 1.048	8 29	C F	0.766 1.053	110 82
La Barranca Road to El Monte Road	9,200	AM PM	C F	C F	0.769 1.050	134 51	C F	0.764 1.051	86 64	C F	0.758 1.053	33 80	C F	0.755 1.048	8 29	C F	0.766 1.053	110 82
El Monte Road to Magdalena Avenue	9,200	AM PM	B F	B F	0.694 1.057	206 78	B F	0.686 1.059	132 99	B F	0.677 1.062	50 123	B F	0.673 1.053	12 44	B F	0.690 1.062	169 126
Magdalena Avenue to Foothill Expressway	6,900	AM PM	C E	C E	0.738 0.945	235 91	C E	0.726 0.949	150 115	C E	0.712 0.953	56 143	C E	0.706 0.940	14 51	C F	0.732 0.953	192 147
Foothill Expressway to SR 85	6,900	AM PM	E F	E F	0.986 1.206	292 113	E F	0.971 1.211	187 143	E F	0.954 1.216	71 178	E F	0.946 1.199	17 64	E F	0.979 1.216	240 183
SR 85 to De Anza Boulevard	6,900	AM PM	D F	D F	0.879 1.126	365 141	D F	0.860 1.131	233 180	D F	0.839 1.137	89 222	D F	0.829 1.117	22 80	D F	0.870 1.138	299 229
De Anza Boulevard to Wolfe Road	6,900	AM PM	D F	D F	0.857 1.086	292 115	D F	0.841 1.090	185 144	D F	0.824 1.095	70 176	D F	0.817 1.079	20 69	D F	0.849 1.096	237 183
Wolfe Road to Lawrence Expressway	6,900	AM PM	D F	D F	0.817 1.166	91 380	D F	0.821 1.148	116 250	D F	0.823 1.132	127 146	D F	0.807 1.135	18 166	D F	0.824 1.161	134 343
Lawrence Expressway to Saratoga Avenue	6,900	AM PM	E F	E F	0.949 1.146	113 469	E F	0.954 1.123	143 309	E F	0.956 1.104	156 179	E F	0.936 1.108	21 204	E F	0.957 1.140	167 423
Saratoga Avenue to Winchester Boulevard	6,900	AM PM	E F	E F	0.980 1.137	102 414	E F	0.984 1.116	128 273	E F	0.986 1.100	141 158	E F	0.968 1.103	20 180	E F	0.987 1.131	150 373
Winchester Boulevard to I-880	6,900	AM PM	D F	D F	0.85 1.155	92 377	D F	0.853 1.136	116 249	D F	0.855 1.121	127 143	D F	0.839 1.124	18 164	D F	0.856 1.150	135 340
I-880 to Meridian Avenue	6,900	AM PM	D F	D F	0.836 1.187	47 191	D F	0.837 1.177	60 126	D F	0.838 1.169	66 73	D F	0.830 1.171	10 83	D F	0.839 1.184	70 172
Meridian Avenue to Bird Avenue	6,900	AM PM	F F	F F	1.164 1.492	41 159	F F	1.166 1.484	51 105	F F	1.167 1.478	56 61	F F	1.160 1.479	8 69	F F	1.167 1.490	60 143
Bird Avenue to SR 87	6,900	AM PM	D F	D F	0.865 1.446	37 143	D F	0.866 1.439	46 95	D F	0.867 1.433	50 55	D F	0.861 1.434	7 62	D F	0.867 1.444	54 129
Interstate 280 – Westbound																		
SR 87 to Bird Avenue	9,200	AM PM	F F	F F	1.070 1.056	136 55	F F	1.065 1.057	83 59	F F	1.058 1.058	23 66	F F	1.057 1.057	10 57	F F	1.067 1.058	106 75
Bird Avenue to Meridian Avenue	9,200	AM PM	F F	F F	1.133 1.032	151 61	F F	1.126 1.032	92 65	F F	1.119 1.033	26 73	F F	1.118 1.032	11 63	F F	1.129 1.034	118 83
Meridian Avenue to I-880	6,900	AM PM	F F	F F	1.242 1.027	180 71	F F	1.232 1.028	109 77	F F	1.221 1.029	30 85	F F	1.218 1.027	13 74	F F	1.237 1.030	141 97
I-880 to Winchester Boulevard	6,900	AM PM	E D	F D	1.019 0.882	342 141	E D	0.999 0.884	207 152	E D	0.977 0.886	58 169	E D	0.972 0.883	24 146	F D	1.008 0.889	267 191
Winchester Boulevard to Saratoga Avenue	6,900	AM PM	F F	F F	1.192 1.072	389 162	F F	1.170 1.074	236 174	F F	1.145 1.077	65 194	F F	1.139 1.073	27 168	F F	1.179 1.080	304 219
Saratoga Avenue to Lawrence Expressway	6,900	AM PM	F E	F E	1.154 0.986	422 175	F E	1.130 0.987	256 188	F E	1.103 0.991	71 210	F E	1.097 0.987	29 182	F E	1.141 0.994	330 237

Table 4.17-11: 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			Housing Rich Alternative		
			LOS	LOS	V/C	Project Trips	LOS	V/C	Project Trips	LOS	V/C	Project Trips	LOS	V/C	Project Trips	LOS	V/C	Project Trips
Lawrence Expressway to Wolfe Road	6,900	AM PM	F E	F E	1.125 0.942	339 143	F E	1.106 0.943	207 153	F E	1.084 0.946	58 170	F E	1.079 0.942	25 149	F E	1.114 0.949	265 192
Wolfe Road to De Anza Boulevard	6,900	AM PM	F D	F E	1.049 0.909	84 280	F D	1.054 0.897	123 197	F D	1.059 0.887	153 128	F D	1.038 0.880	14 75	F E	1.057 0.908	144 271
De Anza Boulevard to SR 85	6,900	AM PM	F E	F E	1.071 0.959	107 355	F E	1.079 0.943	158 247	F E	1.084 0.930	195 158	F E	1.058 0.919	16 83	F E	1.082 0.957	183 342
SR 85 to Foothill Expressway	6,900	AM PM	F F	F F	1.181 1.121	87 295	F F	1.187 1.108	128 205	F F	1.191 1.098	158 131	F F	1.170 1.088	12 68	F F	1.190 1.120	149 284
Foothill Expressway to Magdalena Avenue	6,900	AM PM	D D	E D	0.903 0.880	69 239	E D	0.908 0.870	101 167	E D	0.911 0.861	125 107	D D	0.895 0.853	10 55	E D	0.910 0.879	118 231
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	D C	0.808 0.710	107 197
El Monte Road to La Barranca Road	9,200	AM PM	C C	C C	0.788 0.758	50 163	C C	0.790 0.753	74 114	C C	0.792 0.748	91 73	C C	0.783 0.744	7 38	C C	0.792 0.757	86 158
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	C C	0.792 0.757	86 158
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	0.710 0.891	4 23	C D	0.715 0.898	52 95
Interstate 880 – Northbound																		
I-280 to Stevens Creek Boulevard	6,900	AM PM	F B	F B	1.058 0.690	40 158	F B	1.059 0.682	51 104	F B	1.060 0.676	55 60	F B	1.053 0.677	7 69	F B	1.060 0.688	59 143
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 1.030	50 54	F F	1.048 1.031	6 62	F F	1.055 1.041	53 129
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	1.020 1.067	38 41	F F	1.015 1.068	5 47	F F	1.020 1.075	40 97
The Alameda to Coleman Avenue	6,900	AM PM	F F	F F	1.027 1.090	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	F F	1.028 1.089	30 73
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	F F	1.001 1.027	60 42
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 1.000	17 50	D E	0.873 0.999	7 43	D F	0.884 1.001	80 56
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	D E	0.840 0.996	106 74
Stevens Creek Boulevard to I-280	6,900	AM PM	B D	B D	0.690 0.819	151 61	B D	0.681 0.820	91 65	B D	0.672 0.821	25 73	B D	0.670 0.820	10 63	B D	0.685 0.822	118 82
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	B B	0.656 0.643	17 9
Lark Avenue to SR 85	6,900	AM PM	B C	B C	0.660 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	B C	0.658 0.702	22 12

Table 4.17-12: 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			Housing Rich Alternative		
			LOS	LOS	V/C	Project Trips	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 PM	F A	F A	1.067 0.323	6 0	F A	1.065 0.323	3 0	F A	1.063 0.323	0 0	F A	1.063 0.323	0 0	F A	1.065 0.323	4 0
South Bascom Avenue to SR 17	1,650	AM PM	F A	F A	1.068 0.324	8 1	F A	1.065 0.323	4 0	F A	1.063 0.323	0 0	F A	1.063 0.323	0 0	F A	1.066 0.324	5 1
SR 17 to Winchester Boulevard	1,650	AM PM	F A	F A	1.069 0.324	10 2	F A	1.066 0.324	5 1	F A	1.063 0.323	0 0	F A	1.063 0.323	0 0	F A	1.067 0.324	7 1
Winchester Boulevard to Saratoga Avenue	1,650	AM PM	F A	F A	1.216 0.495	14 2	F A	1.212 0.494	7 1	F A	1.208 0.493	0 0	F A	1.208 0.493	0 0	F A	1.213 0.494	9 1
Saratoga Avenue to Saratoga-Sunnyvale Road	1,650	AM PM	F A	F A	1.155 0.497	28 7	F A	1.147 0.496	15 6	F A	1.139 0.496	2 6	F A	1.139 0.496	1 5	F A	1.151 0.498	21 8
Saratoga-Sunnyvale Road to Stevens Creek Boulevard	1,650	AM PM	F A	F A	1.018 0.519	0 0	F A	1.018 0.519	0 0	F A	1.018 0.519	0 0	F A	1.018 0.519	0 0	F A	1.018 0.519	0 0
Stevens Creek Boulevard to I-280	1,650	AM PM	C A	C A	0.739 0.368	4 9	C A	0.741 0.367	6 6	C A	0.742 0.365	8 4	C A	0.737 0.364	0 2	C A	0.741 0.368	7 8
I-280 to West Homestead Road	1,650	AM PM	C A	C A	0.793 0.438	3 7	C A	0.794 0.437	5 5	C A	0.795 0.436	6 3	C A	0.791 0.435	0 1	C A	0.795 0.438	6 7
West Homestead Road to West Fremont Avenue	1,650	AM PM	C A	C A	0.792 0.437	2 5	C A	0.793 0.436	4 4	C A	0.793 0.435	4 2	C A	0.791 0.435	0 1	C A	0.793 0.437	4 5
SR 85 – Southbound																		
West Fremont Avenue to West Homestead Road	1,650	AM PM	C E	C E	0.771 0.992	8 2	C E	0.769 0.992	5 3	C E	0.767 0.993	2 4	C E	0.766 0.991	0 1	C E	0.770 0.993	7 4
West Homestead Road to I-280	1,650	AM PM	C E	C E	0.773 0.993	11 4	C E	0.770 0.993	7 5	C E	0.768 0.994	3 6	C E	0.766 0.992	0 2	C E	0.772 0.995	9 7
I-280 to Stevens Creek Boulevard	1,650	AM PM	B F	B F	0.616 1.278	13 4	B F	0.613 1.278	8 5	B F	0.610 1.279	3 7	B F	0.608 1.276	0 2	B F	0.615 1.279	11 7
Stevens Creek Boulevard to Saratoga-Sunnyvale Road	1,650	AM PM	C F	C F	0.752 1.227	0 0	C F	0.752 1.227	0 0	C F	0.752 1.227	0 0	C F	0.752 1.227	0 0	C F	0.752 1.227	0 0
Saratoga-Sunnyvale Road to Saratoga Avenue	1,650	AM PM	D E	D F	0.820 1.003	6 26	D E	0.820 0.996	6 15	D E	0.819 0.99	5 5	D E	0.816 0.99	0 5	D E	0.821 1.000	7 21
Saratoga Avenue to Winchester Boulevard	1,650	AM PM	D D	D D	0.819 0.838	2 11	D D	0.818 0.835	1 5	D D	0.818 0.832	0 0	D D	0.818 0.832	0 0	D D	0.819 0.836	2 8
Winchester Boulevard to SR 17	1,650	AM PM	A A	A A	0.573 0.503	2 8	A A	0.572 0.501	1 4	A A	0.572 0.498	0 0	A A	0.572 0.498	0 0	A A	0.573 0.502	2 6
SR 17 to South Bascom Avenue	1,650	AM PM	A F	A F	0.572 1.228	1 5	A F	0.572 1.227	1 2	A F	0.572 1.225	0 0	A F	0.572 1.225	0 0	A F	0.572 1.228	1 4
South Bascom Avenue to Union Avenue	1,650	AM PM	A F	A F	0.572 1.227	1 3	A F	0.572 1.226	0 1	A F	0.572 1.225	0 0	A F	0.572 1.225	0 0	A F	0.572 1.227	1 2
Interstate 280 – Eastbound																		
Magdalena Avenue to Foothill Expressway	1,650	AM PM	A A	A A	0.491 0.336	23 7	A A	0.486 0.337	15 9	A A	0.481 0.338	6 11	A A	0.478 0.334	1 4	A A	0.488 0.338	19 11

Table 4.17-12: 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			Housing Rich Alternative		
			LOS	LOS	V/C	Project Trips	LOS	V/C	Project Trips	LOS	V/C	Project Trips	LOS	V/C	Project Trips	LOS	V/C	Project Trips
Foothill Expressway to SR 85	1,650	AM PM	A A	A A	0.598 0.455	30 9	A A	0.592 0.456	19 12	A A	0.584 0.458	7 14	A A	0.581 0.452	2 5	A A	0.595 0.458	24 15
SR 85 to De Anza Boulevard	1,650	AM PM	A F	A F	0.372 1.073	38 11	A F	0.363 1.075	24 14	A F	0.354 1.077	9 18	A F	0.350 1.070	2 6	A F	0.367 1.077	31 18
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	A F	0.392 1.082	42 23
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	A F	0.357 1.016	24 36
Lawrence Expressway to Saratoga Avenue	1,650	AM PM	A F	A F	0.383 1.040	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	A F	0.389 1.037	30 48
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	A F	0.460 1.262	27 51
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	A F	0.404 1.165	24 42
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	B D	0.662 0.844	10 19
Interstate 280 – Westbound																		
Meridian Avenue to I-880	1,650	AM	E	E	1.000	21	E	0.995	13	E	0.990	4	E	0.988	1	E	0.997	16
		PM	D	D	0.835	10	D	0.835	10	D	0.836	12	D	0.835	10	D	0.837	13
I-880 to Winchester Boulevard	1,650	AM	F	F	1.068	60	F	1.054	37	F	1.038	10	F	1.034	4	F	1.060	47
		PM	B	B	0.688	21	B	0.688	22	B	0.690	25	B	0.688	22	B	0.692	28
Winchester Boulevard to Saratoga Avenue	1,650	AM	E	E	0.945	58	E	0.932	35	E	0.916	10	E	0.913	4	E	0.938	45
		PM	B	B	0.652	18	B	0.652	19	B	0.653	21	B	0.652	19	B	0.655	24
Saratoga Avenue to Lawrence Expressway	1,650	AM	F	F	1.278	75	F	1.259	45	F	1.239	12	F	1.235	5	F	1.267	58
		PM	B	C	0.707	25	C	0.707	26	C	0.709	29	C	0.707	26	C	0.712	33
Lawrence Expressway to Wolfe Road	1,650	AM	F	F	1.234	60	F	1.219	36	F	1.204	10	F	1.200	4	F	1.226	47
		PM	B	B	0.687	19	B	0.687	20	B	0.689	23	B	0.687	20	B	0.690	25
Wolfe Road to De Anza Boulevard	1,650	AM	F	F	1.146	15	F	1.15	22	F	1.153	27	F	1.139	3	F	1.152	25
		PM	B	B	0.692	42	B	0.684	29	B	0.678	19	B	0.673	11	B	0.691	40
De Anza Boulevard to SR 85	1,650	AM	F	F	1.072	15	F	1.076	22	F	1.080	28	F	1.064	2	F	1.079	26
		PM	B	B	0.653	44	B	0.644	30	B	0.638	19	B	0.632	10	B	0.652	42
SR 85 to Foothill Expressway	1,650	AM	F	F	1.133	11	F	1.136	16	F	1.139	20	F	1.128	2	F	1.138	18
		PM	B	B	0.679	24	B	0.675	17	B	0.671	11	B	0.668	6	B	0.678	23
Foothill Expressway to Magdalena Avenue	1,650	AM	E	E	0.998	9	F	1.001	14	F	1.002	17	E	0.993	1	F	1.002	16
		PM	A	A	0.564	16	A	0.561	11	A	0.558	7	A	0.556	4	A	0.563	15
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.																		

Impact TRN-3: Project or Housing Rich 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 (or General Plan Buildout with Maximum Residential Alternative, Retail and Residential Alternative, or Housing Rich 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 4.17-9, 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, Retail and Residential Alternative, and Housing Rich Alternative), with the implementation of the above standard permit condition, would not result in significant construction-related traffic impacts. **(Less than Significant Impact)**

Housing Rich Alternative

The Housing Rich Alternative would implement the same standard permit condition identified above for the proposed project and result in a less than significant construction-related traffic impact for the same reasons described above for the proposed project. **(Less than Significant Impact)**

Impact TRN-4: The project or Housing Rich Alternative would not result in a change in air traffic patterns that results in substantial safety risks. (No Impact)

Project

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)**

Housing Rich Alternative

The Housing Rich Alternative would not result in a change in air traffic patterns that would result in substantial safety risks for the same reasons discussed above for the proposed project. **(No Impact)**

Impact TRN-5: The project or Housing Rich Alternative 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, Retail and Residential Alternative, and Housing Rich 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, Retail and Residential Alternative, and Housing Rich 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)**

Housing Rich Alternative

The Housing Rich Alternative would implement the same permit condition identified above for the proposed project and would result a less than significant impact from design hazards and emergency access for the same reasons described above for the proposed project. **(Less than Significant Impact)**

Impact TRN-6: The Housing Rich Alternative would conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities or otherwise decrease the performance or safety of such facilities. (Significant and Unavoidable Cumulative Impact with Mitigation Incorporated)

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 4.17-13. 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 4.17-13. 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 and Housing Rich Alternative would cause more delay than the other project alternatives. The proposed project would add more than one minute of delay time 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 4.17-13. 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 and Housing Rich Alternative would cause the largest delay increases compared to the other project alternatives. The proposed project 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).

Table 4.17-13: 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		Housing Rich Alternative	
				(seconds)									
Existing with Project and Project Alternative Added Transit Delay													
Route 23	De Anza College to Alum Rock Transit Center	3.9	AM PM	NC 96	76 13	NC 63	44 11	NC 36	15 10	NC 56	8 13	NC 91	63 17
Route 53	West Valley College to Sunnyvale Transit Center	0.02	AM PM	NC NC	NC NC	NC NC	NC NC	NC NC	NC NC	NC NC	NC NC	NC NC	NC NC
Express 101	Lockheed Martin Transit Center to Winchester LRT Station	1.6	AM PM	55 NS	NS 104	33 NS	NS 66	17 NS	NS 38	9 NS	NS 55	48 NS	NS 97
Express 182	Camden & Highway 85 to Palo Alto	1.5	AM PM	NS 20	12 NS	NS 15	13 NS	NS 12	9 NS	NS 9	NC NS	NS 27	17 NS
Rapid 323/523	Palo Alto to IBM/Bailey Ave	3.6	AM PM	NC 99	77 15	NC 65	45 12	7 37	15 10	NC 57	8 13	6 96	64 19
Background with Project and Project Alternative Added Transit Delay													
Route 23	De Anza College to Alum Rock Transit Center	3.9	AM PM	NC 226	222 35	NC 161	147 31	NC 105	61 28	NC 140	20 31	NC 223	196 46
Route 53	West Valley College to Sunnyvale Transit Center	2.9	AM PM	43 64	68 57	46 52	59 42	12 48	35 33	NC 62	6 33	57 77	76 75
Route 56	Lockheed Martin Transit Center to Winchester LRT Station	3.6	AM PM	26 48	NC 28	28 28	NC 23	23 16	NC 25	NC 16	NC 32	38 58	NC 37
Express 101	Camden & Highway 85 to Palo Alto	1.6	AM PM	219 NS	NS 223	160 NS	NS 147	61 NS	NS 84	17 NS	NS 124	206 NS	NS 208
Express 182	Palo Alto to IBM/Bailey Ave	1.5	AM PM	NS 52	16 NS	NS 37	17 NS	NS 28	14 NS	NS 26	NC NS	NS 69	25 NS
Rapid 323/523	Downtown San Jose to De Anza College	3.6	AM PM	NC 237	223 39	NC 169	150 34	9 110	65 29	NC 145	20 36	NC 234	200 48

Table 4.17-13: 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		Housing Rich Alternative	
				(seconds)								NB/EB	SB/WB
Cumulative with Project and Project Alternative Added Transit Delay													
Route 23	De Anza College to Alum Rock Transit Center	3.9	AM PM	NC 263	281 58	10 193	208 49	10 130	79 42	NC 170	23 46	11 262	266 74
Route 53	West Valley College to Sunnyvale Transit Center	2.9	AM PM	56 90	89 69	63 61	65 52	20 48	28 42	NC 70	8 46	78 91	89 91
Route 56	Lockheed Martin Transit Center to Winchester LRT Station	3.6	AM PM	42 71	8 54	38 45	NC 40	22 31	NC 38	6 37	NC 52	52 82	5 58
Express 101	Camden & Highway 85 to Palo Alto	1.6	AM PM	241 NS	NS 243	166 NS	NS 155	51 NS	NS 88	19 NS	NS 135	220 NS	NS 218
Express 182	Palo Alto to IBM/Bailey Ave	1.5	AM PM	NS 51	19 NS	NS 34	18 NS	NS 24	15 NS	NS 24	NC NS	NS 66	29 NS
Rapid 323/523	Downtown San Jose to De Anza College	3.6	AM PM	8 278	282 58	17 202	212 49	18 134	83 41	NC 174	25 48	21 274	270 72
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.													

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. In addition, the mitigation measures identified to improve vehicle delay would also improve transit delay. **(Less than Significant Impact)**

Housing Rich Alternative

As shown in Table 4.17-13, implementation of the Housing Rich Alternative would result similar transit delay 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 Housing Rich Alternative would implement the same condition of approval identified above for the proposed project and result in a less than significant impact for the same reasons discussed above for the proposed project. **(Less than Significant Impact)**

Transit Capacity Analysis

Project

Transit capacity is often measured in terms of the average peak load factor, a ratio of the average peak number of passengers on-board 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 4.17-14. With the proposed project, all bus routes meet the peak load factor standard established by VTA. Thus, the project would have a less than significant impact on the transit vehicle capacity of the routes that serve the project area. **(Less than Significant Impact)**

Housing Rich Alternative

As shown in Table 4.17-14, with the Housing Rich Alternative, all bus routes would meet the peak load factor standard established by VTA except for Rapid line 323/523. The Housing Rich Alternative would have a greater impact on transit capacity than the proposed project because it would exceed the peak load factor standard for Rapid line 323/523 (and the project would not) (see Table 4.17-14).

Per the VTA TIA Guidelines, if a project causes the load factor of one or more transit routes to exceed the standard established, the project should contribute to transit improvements to enhance the capacity of the affected route or provide alternative facilities.

Mitigation Measure:

MM TRN-7.17: The VTA's VTP 2040 identifies the Stevens Creek Bus Rapid Transit project (VTP ID T4) as an improvement near the project site. Ultimately, the VTP ID T4 would enhance travel choice for the Housing Rich Alternative and make more efficient use of the transportation network. Thus, future development under the Housing Rich Alternative would be required to contribute its fair-share to VTP ID T4. However, the impact would remain significant and unavoidable because the implementation of the VTP projects are within the responsibility and jurisdiction of another agency and the City cannot guarantee the improvement would be implemented concurrent with the Housing Rich Alternative. **(Significant and Unavoidable Cumulative Impact with Mitigation Incorporated)**

Table 4.17-14: 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			Housing Rich 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?	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	13	0.86	Yes
53	0.61	1.20	4	0.73	Yes	6	0.77	Yes	4	0.72	Yes	1	0.63	Yes	9	0.85	Yes
Express 101	0.43	1.00	9	0.66	Yes	12	0.73	Yes	8	0.65	Yes	1	0.46	Yes	17	0.88	Yes
Express 182	0.64	1.00	7	0.81	Yes	9	0.86	Yes	6	0.80	Yes	1	0.66	Yes	13	0.97	Yes
Rapid 323/523	0.35	1.00	18	0.80	Yes	23	0.94	Yes	17	0.78	Yes	2	0.41	Yes	35	1.24	No

Bicycle Facilities Impacts

Project

A significant impact to bicycle facilities occurs when the project (or project alternative) 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, Retail and Residential Alternative, and Housing Rich 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 3.1.2.6). 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.⁴¹ Thus, the impact of the project (and project alternatives) on bicycle facilities is less than significant. **(Less than Significant Impact)**

Housing Rich Alternative

The Housing Rich Alternative would result in a less than significant impact to bicycle facilities for the same reasons described above for the proposed project. **(Less than Significant Impact)**

Pedestrian Facilities Impacts

Project

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, Retail and Residential Alternative, and Housing Rich Alternative) would provide pedestrian enhancements within and in the immediate vicinity of the project site to improve pedestrian access.⁴² 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 (and project alternatives) 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)**

Housing Rich Alternative

The Housing Rich Alternative would result in a less than significant impact to pedestrian facilities for the same reasons described above for the proposed project. **(Less than Significant Impact)**

⁴¹ It is assumed the Occupied/Re-Tenanted Mall Alternative would not result in changes to existing bicycle facilities.

⁴² It is assumed the Occupied/Re-Tenanted Mall Alternative would not change existing pedestrian facilities.

Impact TRN-7: The project or Housing Rich 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 of the Draft EIR. Cumulative with project (or project alternative) 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).

Refer to the Draft EIR for a description of the transportation network and traffic volumes under cumulative conditions.

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 4.17-16. The results for cumulative (no project) conditions are included for comparison purposes in Table 4.17-16, 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 of the Draft EIR, 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.

The significant cumulative project and project alternative impacts are summarized in Table 4.17-15.

Table 4.17-15: 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	Housing Rich Alternative
2. Stevens Creek Boulevard/SR 85 Ramps (east)* – City of Cupertino	AM PM	■ -	■ -	■ -	- -	■ -
3. Stevens Creek Boulevard/Stelling Road* – 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	- ■	- ■	- ■	- ■	- ■
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	- ■	- ■	- ■	- -	- ■

Table 4.17-15: 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	Housing Rich Alternative
Notes: Refer to Table 4.17-16 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 4.17-16: 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				Housing Rich 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	Delay	LOS	Change in Crit. V/C	Change in Crit. Delay
1.	Stevens Creek Boulevard/SR 85 Ramps (west)* – City of Cupertino	D	AM PM	22.1 33.3	C+ C-	22.2 33.3	C+ C-	0.005 0.005	-0.1 -0.1	22.0 33.3	C+ C-	0.010 0.007	-0.2 -0.1	21.9 33.3	C+ C-	0.012 0.008	-0.3 -0.2	22.1 33.3	C+ C-	0.001 0.008	0.0 -0.2	22.1 33.3	C+ C-	0.011 0.008	-0.2 -0.2
2.	Stevens Creek Boulevard/SR 85 Ramps (east)* – City of Cupertino	D	AM PM	54.6 24.5	D- C	55.8 24.5	E+ C	0.017 0.057	6.9 9.0	57.6 25.8	E+ C	0.025 0.039	10.5 5.7	59.2 24.9	E+ C	0.032 0.024	13.3 3.2	54.6 24.5	D- C	0.001 0.011	0.3 1.4	58.1 26.6	E+ C	0.030 0.055	12.5 8.7
3.	Stevens Creek Boulevard/Stelling Road* – City of Cupertino	E+	AM PM	41.3 53.7	D D-	42.4 59.3	D E+	0.013 0.053	0.9 10.4	42.5 58.8	D E+	0.022 0.043	1.5 8.2	42.6 58.8	D E+	0.028 0.035	1.9 6.7	41.4 58.3	D E+	0.002 0.035	0.1 7.1	42.8 60.5	D E	0.025 0.056	1.7 11.2
4.	Sunnyvale-Saratoga Road/Remington Drive* – City of Sunnyvale	E	AM PM	85.8 71.4	F E	86.7 74.6	F E	0.004 0.014	1.4 5.4	87.7 74.9	F E	0.007 0.015	2.6 5.7	88.3 75.4	F E-	0.008 0.017	3.4 6.3	86.3 78.9	F E-	0.001 0.031	0.5 12.1	87.8 75.5	F E-	0.007 0.018	2.9 6.6
5.	Sunnyvale-Saratoga Road/Fremont Avenue* – City of Sunnyvale	E	AM PM	80.1 73.8	F E	81.9 77.2	F E-	0.007 0.014	3.1 5.5	82.0 76.8	F E-	0.008 0.013	3.2 4.7	81.8 76.7	F E-	0.007 0.012	2.8 4.5	80.6 78.8	F E-	0.002 0.021	0.8 7.9	82.3 77.6	F E-	0.009 0.016	3.7 6.0
6.	Sunnyvale-Saratoga Road/Cheyenne Drive – City of Sunnyvale	E	AM PM	13.3 10.6	B B+	13.3 10.6	B B+	0.003 0.008	0.1 0.1	13.3 10.6	B B+	0.005 0.008	0.1 0.1	13.4 10.6	B B+	0.006 0.010	0.1 0.1	13.3 10.6	B B+	0.001 0.014	0.0 0.1	13.3 10.6	B B+	0.006 0.010	0.1 0.1
7.	Sunnyvale-Saratoga Road/Alberta Avenue – City of Sunnyvale	E	AM PM	23.2 26.3	C C	23.2 26.3	C C	0.003 0.008	0.1 0.2	23.2 26.3	C C	0.005 0.008	0.2 0.2	23.3 26.3	C C	0.006 0.010	0.2 0.2	23.2 26.4	C C	0.001 0.014	0.0 0.3	23.2 26.3	C C	0.006 0.010	0.2 0.2
8.	De Anza Boulevard/Homestead Road* – City of Cupertino	D	AM PM	48.3 52.0	D D-	52.3 55.4	D- E+	0.023 0.016	7.1 4.4	51.7 55.3	D- E+	0.018 0.016	5.3 4.2	50.6 55.4	D E+	0.010 0.016	2.6 4.4	49.0 56.5	D E+	0.004 0.022	1.1 5.7	52.3 56.1	D- E+	0.021 0.019	6.4 5.2
9.	De Anza Boulevard/I-280 Ramps (north)* – City of Cupertino	D	AM PM	20.9 33.8	C+ C-	21.3 38.4	C+ D+	0.008 0.033	0.8 7.1	21.5 36.9	C+ D+	0.013 0.025	1.3 4.9	21.7 35.8	C+ D+	0.017 0.018	1.8 3.3	20.9 35.0	C+ C-	0.000 0.013	0.0 2.1	21.6 38.4	C+ D+	0.016 0.033	1.6 7.1
10.	De Anza Boulevard/I-280 Ramps (south)* – City of Cupertino	D	AM PM	27.7 21.9	C C+	28.8 22.6	C C+	0.022 0.009	1.1 1.0	28.5 22.7	C C+	0.014 0.012	0.7 1.4	28.2 22.8	C C+	0.006 0.015	0.3 1.9	27.7 22.2	C C+	0.001 0.006	0.1 0.7	28.7 22.9	C C+	0.018 0.015	0.9 1.9
11.	De Anza Boulevard/Stevens Creek Boulevard* – City of Cupertino	E+	AM PM	42.1 53.4	D D-	47.2 77.3	D E-	0.049 0.111	7.4 38.7	46.8 69.8	D E	0.047 0.081	7.0 26.5	46.3 64.4	D E	0.041 0.057	5.7 17.4	42.6 64.9	D E	0.005 0.058	0.7 17.9	48.1 77.7	D E-	0.057 0.110	8.8 37.9
12.	De Anza Boulevard/McClellan Road/Pacifica Drive – City of Cupertino	D	AM PM	36.3 73.0	D+ E	36.9 80.0	D+ F	0.048 0.036	1.1 10.2	36.6 76.7	D+ E-	0.027 0.021	0.5 5.7	36.4 74.1	D+ E	0.003 0.008	0.0 2.1	36.3 74.9	D+ E	0.002 0.013	0.0 3.3	36.7 78.5	D+ E-	0.036 0.030	0.8 8.2
13.	De Anza Boulevard/Bollinger Road* – City of Cupertino	E+	AM PM	39.2 24.4	D C	46.1 23.8	D C	0.050 0.017	9.3 0.0	42.4 24.1	D C	0.028 0.014	4.6 0.0	39.3 24.4	D C	0.003 0.013	0.4 0.0	39.4 24.3	D C	0.002 0.017	0.2 0.0	43.7 23.9	D C	0.037 0.018	6.4 0.0
14.	De Anza Boulevard/SR 85 Ramps (north) * – City of Cupertino	D	AM PM	24.4 16.0	C B	27.2 19.0	C B-	0.065 0.062	1.8 4.0	25.9 18.0	C B	0.040 0.041	1.0 2.6	24.6 17.4	C B	0.012 0.024	0.1 1.8	24.5 17.2	C B	0.003 0.027	0.0 1.6	26.4 19.0	C B-	0.052 0.057	1.4 3.9
15.	De Anza Boulevard/SR 85 Ramps (south) * – City of Cupertino	D	AM PM	12.6 15.2	B B	12.9 16.4	B B	0.024 0.066	0.4 1.5	13 15.9	B B	0.020 0.039	0.5 0.9	12.9 15.4	B B	0.012 0.015	0.4 0.3	12.6 15.4	B B	0.002 0.021	0.0 0.2	13.0 16.2	B B	0.024 0.055	0.6 1.3

Table 4.17-16: 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				Housing Rich 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	Delay	LOS	Change in Crit. V/C	Change in Crit. Delay
16.	Saratoga-Sunnyvale Road/ Prospect Road – City of Cupertino	D	AM PM	19.1 27.6	B- C	19.2 27.3	B- C	0.016 0.014	0.2 0.0	19.1 27.4	B- C	0.009 0.009	0.1 0.0	19.1 27.5	B- C	0.001 0.005	0.0 0.0	19.1 27.4	B- C	0.001 0.011	0.0 0.0	19.1 27.4	B- C	0.011 0.011	0.1 0.0
17.	Stevens Creek Boulevard/ Torre Avenue – City of Cupertino	D	AM PM	19.8 21.6	B- C+	20.6 21.1	C+ C+	0.029 0.043	1.3 0.0	20.4 21.1	C+ C+	0.039 0.048	1.1 0	20.4 21.2	C+ C+	0.044 0.055	1.1 0.0	19.6 21.2	B- C+	0.004 0.049	-0.1 0.0	20.3 21.1	C+ C+	0.045 0.061	1.1 0.1
18.	Homestead Road/Blaney Avenue – City of Cupertino	D	AM PM	23.8 25.8	C C	23.9 26.6	C C	0.017 0.011	0.1 0.5	23.9 26.5	C C	0.013 0.012	0.1 0.6	23.9 26.6	C C	0.008 0.014	0.2 0.7	23.8 26.9	C C	0.003 0.017	0.1 0.8	23.9 26.7	C C	0.016 0.014	0.2 0.7
19.	Stevens Creek Boulevard/ Blaney Avenue – City of Cupertino	D	AM PM	34.2 33.3	C- C-	34.9 34.9	C- C-	0.047 0.063	2.3 3.2	34.8 34.6	C- C-	0.050 0.062	2.0 2.7	34.8 34.8	C- C-	0.047 0.067	1.3 2.7	34.3 35.1	C- D+	0.007 0.069	0.2 3.5	35.0 35.2	C- D+	0.060 0.079	2.5 3.8
20.	Stevens Creek Boulevard/ Portal Avenue – City of Cupertino	D	AM PM	18.8 12.1	B- B	17.4 11.2	B B+	0.028 0.045	-0.6 0.1	17.5 11.4	B B+	0.038 0.049	-0.7 0.1	17.9 11.6	B B+	0.043 0.056	-0.8 0.1	18.6 11.5	B- B+	0.005 0.051	-0.1 0.1	17.3 11.2	B B+	0.045 0.062	-0.8 0.1
21.	Stevens Creek Boulevard/ Perimeter Road – City of Cupertino	D	AM PM	9.0 13.7	A B	31.4 34.6	C C-	0.344 0.233	34.3 19.7	27.2 29	C C	0.259 0.149	26.6 12.5	20.5 24.9	C+ C	0.146 0.083	14.7 6.6	10.8 26.8	B+ C	0.024 0.111	2.4 9.3	31.5 35.0	C C-	0.325 0.214	33.0 26.4
22.	Wolfe Road/El Camino Real* – City of Sunnyvale	E	AM PM	57.3 66.9	E+ E	58.9 71.5	E+ E	0.030 0.031	4.5 9.0	58.8 72	E+ E	0.029 0.034	3.7 9.9	58.4 72.8	E+ E	0.025 0.040	2.4 11.5	57.5 72.8	E+ E	0.004 0.040	0.4 11.9	59.2 73.4	E+ E	0.035 0.043	4.7 12.6
23.	Wolfe Road/Fremont Avenue – City of Sunnyvale	D	AM PM	58.4 64.9	E+ E	59.9 70.6	E+ E	0.029 0.028	1.4 5.4	60.0 71.2	E E	0.027 0.031	1.7 6.0	59.8 72.2	E+ E	0.020 0.037	1.6 6.9	58.7 72.8	E+ E	0.006 0.040	0.3 8.3	60.3 72.9	E E	0.031 0.038	1.9 7.5
24.	Wolfe Road/Marion Way – City of Sunnyvale	D	AM PM	16.4 20.2	B C+	16.9 20.8	B C+	0.019 0.047	0.8 0.6	16.7 20.8	B C+	0.028 0.042	0.6 0.5	16.5 20.8	B C+	0.034 0.040	0.2 0.5	16.4 20.9	B C+	0.004 0.048	0.1 0.7	16.8 20.9	B C+	0.033 0.052	0.7 0.8
25.	Wolfe Road/Inverness Way – City of Sunnyvale	D	AM PM	17.8 24.7	B C	17.9 25.3	B C	0.014 0.033	0.0 1.0	17.7 25.3	B C	0.026 0.039	0.0 1.2	17.6 25.4	B C	0.034 0.047	0.0 1.5	17.8 25.4	B C	0.004 0.045	0.0 1.4	17.7 25.5	B C	0.030 0.048	0.0 1.5
26.	Wolfe Road/Homestead Road – City of Cupertino	D	AM PM	39.4 54.2	D D-	42.6 58.8	D E+	0.057 0.041	7.0 2.4	42.2 58.6	D E+	0.055 0.042	5.8 2.4	41.4 58.9	D E+	0.046 0.047	3.6 2.9	39.8 59.6	D E+	0.009 0.051	0.8 4.0	42.9 60.1	D E	0.066 0.054	7.5 4.9
27.	Wolfe Road/Apple Park – City of Cupertino	D	AM PM	18.9 33.8	B- C-	18.5 34.2	B- C-	0.015 0.029	0.0 0.4	18.6 34.1	B- C-	0.025 0.036	0.0 0.4	18.7 34.0	B- C-	0.032 0.044	0.0 0.6	18.8 34.1	B- C-	0.004 0.044	0.0 0.6	18.5 34.2	B- C-	0.029 0.044	0.0 0.6
28.	Wolfe Road/Pruneridge Avenue – City of Cupertino	D	AM PM	28.8 21.6	C C+	28.7 22.2	C C+	0.009 0.031	-0.2 1.6	28.5 22.5	C C+	0.015 0.037	-0.3 2.1	28.3 22.9	C C+	0.019 0.046	-0.4 2.7	28.8 22.8	C C+	0.002 0.046	-0.1 2.7	28.4 22.8	C C+	0.017 0.046	-0.3 2.7
29.	Wolfe Road/I-280 Ramps (north) * – City of Cupertino	D	AM PM	19.0 13.8	B- B	21.9 15.0	C+ B	0.020 0.032	1.6 0.8	20.9 15.2	C+ B	0.027 0.039	2.0 1.0	20.9 15.6	C+ B	0.034 0.052	2.7 1.5	19.2 15.4	B- B	0.004 0.048	0.3 1.2	21.7 15.8	C+ B	0.031 0.062	2.4 2.0
30.	Wolfe Road/I-280 Ramps (south) * – City of Cupertino	D	AM PM	14.1 10.1	B B+	15.5 10.5	B B+	0.064 0.069	1.1 0.5	15.1 10.7	B B+	0.068 0.088	1.2 0.7	14.7 10.9	B B+	0.073 0.110	1.3 1.1	14.2 10.2	B B+	0.006 0.084	0.1 0.4	15.4 11.0	B B+	0.079 0.118	1.4 1.1
31.	Wolfe Road/Vallco Parkway – City of Cupertino	D	AM PM	24.2 36.1	C D+	34.7 74.7	C- E	0.248 0.337	15.0 53.9	33.6 56.9	C- E+	0.238 0.258	12.8 34.4	32.3 49.2	C- D	0.202 0.203	10.2 25.6	24.9 49.6	C D	0.027 0.194	0.9 24.4	38.7 74.4	D+ E	0.287 0.357	20.1 59.5
32.	Wolfe Road-Miller Avenue/ Stevens Creek Boulevard* – City of Cupertino	D	AM PM	71.1 64.1	E E	97.1 90.9	F F	0.112 0.121	42.9 46.0	91.2 81.5	F F	0.092 0.083	34.8 30.6	84.0 75.1	F E-	0.063 0.051	23.4 18.5	73.2 79.6	E E-	0.011 0.064	3.7 23.5	96.8 89.7	F F	0.114 0.112	43.6 42.3
33.	Miller Avenue/Calle de Barcelona – City of Cupertino	D	AM PM	7.1 2.9	A A	7.1 2.8	A A	0.030 0.035	0.0 0.0	7.0 2.8	A A	0.017 0.023	0.0 0.0	7.1 2.8	A A	0.003 0.014	0.0 0.0	7.1 2.8	A A	0.004 0.032	0.0 0.0	7.0 2.8	A A	0.022 0.030	0.0 0.0
34.	Miller Avenue/Phil Lane – City of Cupertino	D	AM PM	5.2 4.0	A A	5.4 4.1	A A	0.033 0.032	0.3 0.1	5.3 4.1	A A	0.020 0.021	0.2 0.1	5.3 4.1	A A	0.004 0.013	0.0 0.0	5.3 4.1	A A	0.004 0.029	0.0 0.1	5.4 4.1	A A	0.025 0.027	0.2 0.1

Table 4.17-16: 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				Housing Rich 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	Delay	LOS	Change in Crit. V/C	Change in Crit. Delay
35.	Miller Avenue/Bollinger Road – City of San José	D	AM PM	39.5 47.4	D D	40.8 48.9	D D	0.034 0.025	1.8 2.7	40.3 48.5	D D	0.020 0.018	1.0 1.9	39.7 48.3	D D	0.005 0.015	0.3 1.6	39.7 49.7	D D	0.005 0.035	0.2 3.9	40.5 48.8	D D	0.026 0.023	1.3 2.4
36.	Miller Avenue/Rainbow Drive – City of San José	D	AM PM	38.6 23.5	D+ C	41.6 23.7	D C	0.016 0.026	5.7 0.6	40.4 23.6	D C	0.011 0.019	3.6 0.4	39.0 23.5	D C	0.003 0.016	0.9 0.3	39.3 23.7	D C	0.004 0.037	1.4 0.9	40.8 23.6	D C	0.012 0.024	4.3 0.5
37.	Stevens Creek Boulevard/ Finch Avenue – City of Cupertino	D	AM PM	28.3 22.3	C C+	27.8 22.5	C C+	0.019 0.079	-0.2 1.1	27.9 22.2	C C+	0.023 0.053	-0.2 0.6	28.0 22.0	C C+	0.024 0.033	-0.2 0.3	28.2 22.1	C C+	0.004 0.049	0.0 0.5	27.8 22.3	C C+	0.027 0.071	-0.3 0.9
38.	Tantau Avenue/Homestead Road – City of Cupertino	D	AM PM	40.6 53.0	D D-	41.3 55	D D-	0.011 0.022	0.0 4.0	41.0 54.9	D D-	0.007 0.020	0.0 3.8	40.8 55.0	D E+	0.003 0.020	0.0 3.9	40.7 55.2	D E+	0.001 0.022	0.0 4.3	41.2 55.5	D E+	0.009 0.026	0.0 4.9
39.	Tantau Avenue/Pruneridge Avenue – City of Cupertino	D	AM PM	23.0 23.4	C C	23.5 23.6	C C	0.040 0.031	0.9 0.0	23.2 23.8	C C	0.008 0.023	5.5 0.0	22.9 24.1	C+ C	-0.001 0.018	5.4 0.0	23.1 23.9	C C	0.004 0.020	0.1 0.0	23.3 23.9	C C	0.034 0.031	0.8 0.0
40.	N Tantau Ave/Apple Parkway – City of Cupertino	D	AM PM	23.5 27.2	C C	23.4 28.7	C C	0.014 0.053	-0.1 4.5	23.4 28.1	C C	0.021 0.039	-0.1 3.0	23.4 27.8	C C	0.025 0.029	-0.1 2.2	23.5 28.0	C C	0.003 0.035	0.0 2.7	23.4 28.6	C C	0.024 0.051	-0.1 4.3
41.	Tantau Avenue/Vallco Parkway – City of Cupertino	D	AM PM	24.5 28.8	C C	28.1 34.9	C C-	0.091 0.167	13.8 8.6	26.5 33.7	C C-	0.011 0.139	0.8 7.0	25.8 32.9	C C-	0.013 0.123	1.0 6.0	24.8 34.3	C C-	0.002 0.152	0.1 8.1	27.0 35.3	C D+	0.012 0.179	1.0 9.5
42.	Stevens Creek Boulevard/ Tantau Avenue – City of Cupertino	D	AM PM	48.8 45.7	D D	57.7 50.7	E+ D	0.108 0.116	24.8 7.9	53.3 48.7	D- D	0.065 0.081	13.3 4.9	49.6 47.5	D D	0.016 0.053	3.0 3.1	49.3 49.1	D D	0.008 0.083	1.5 5.5	55.0 50.1	E+ D	0.083 0.107	17.9 7.1
43.	Stevens Creek Boulevard/ Stern Avenue – City of Santa Clara	D	AM PM	108.7 100.5	F F	152.5 150.1	F F	0.067 0.074	61.1 75.0	134.2 132.9	F F	0.041 0.051	37.2 50.7	114.4 119.6	F F	0.011 0.032	10.2 32.0	111.8 128.1	F F	0.005 0.045	4.5 44.9	141.6 144.4	F F	0.052 0.068	47.7 68.2
44.	Stevens Creek Boulevard/ Calvert Drive/I-280 Ramps (west)* – City of Santa Clara	E	AM PM	138.3 95.1	F F	184.9 133.3	F F	0.060 0.122	62.4 48.2	165.9 120	F F	0.037 0.076	37.8 28.9	145.4 110.2	F F	0.010 0.039	10.3 14.2	141.6 116.7	F F	0.005 0.061	4.6 22.7	173.9 129.0	F F	0.047 0.104	48.5 40.6
45.	Stevens Creek Boulevard/ Agilent Driveway – City of Santa Clara	D	AM PM	106.2 26.4	F C	139.0 27.5	F C	0.049 0.023	40.6 0.9	125.7 27.4	F C	0.030 0.024	24.9 0.9	110.9 27.3	F C	0.008 0.027	6.9 1.0	108.6 27.5	F C	0.004 0.030	3.0 1.2	131.3 27.7	F C	0.039 0.030	31.9 1.1
46.	Stevens Creek Boulevard/ Lawrence Expressway Ramps (west)* – Santa Clara County	E	AM PM	52.9 25.3	D- C	77.2 26	E- C	0.080 0.040	31.4 1.2	67.3 26.2	E C	0.050 0.043	19.1 1.4	56.8 26.3	E+ C	0.016 0.049	5.8 1.6	54.6 26.1	D- C	0.006 0.051	2.3 1.5	71.6 26.4	E C	0.064 0.054	24.7 1.7
47.	Lawrence Expressway/El Camino Real* – Santa Clara County	E	AM PM	40.1 37.9	D D+	42.0 44.3	D D	0.036 0.049	2.1 9.2	41.9 44.1	D D	0.040 0.047	2.1 8.9	41.5 44.2	D D	0.037 0.048	1.7 9.2	40.2 41.6	D D	0.003 0.034	0.1 5.4	42.2 46.5	D D	0.047 0.061	2.5 12.5
48.	Lawrence Expressway/ Homestead Road* – Santa Clara County	E	AM PM	98.9 94.7	F F	101.6 100.3	F F	0.008 0.025	3.2 9.7	101.9 99.5	F F	0.010 0.023	4.1 8.5	101.8 99.1	F F	0.011 0.022	4.6 7.9	99.3 98.9	F F	0.002 0.022	0.4 6.3	102.4 101.1	F F	0.012 0.03	4.8 11.3
49.	Lawrence Expressway/ Pruneridge Avenue* – Santa Clara County	E	AM PM	60.0 60.6	E E	60.2 62.3	E E	0.005 0.010	0.9 1.8	60.7 62.2	E E	0.009 0.009	1.4 2.2	61.0 62.3	E E	0.012 0.010	1.8 2.6	60.1 62	E E	0.001 0.010	0.2 2.1	60.7 62.8	E E	0.011 0.012	1.7 2.7
50.	Stevens Creek Boulevard/ Lawrence Expressway Ramps (east)* – Santa Clara County	E	AM PM	35 29.3	C- C	36.9 29.9	D+ C	0.051 0.020	2.3 0.4	36.4 29.8	D+ C	0.036 0.015	1.9 0.3	35.8 29.7	D+ C	0.018 0.012	1.3 0.2	35.1 29.8	D+ C	0.004 0.016	0.2 0.3	36.8 30.0	D+ C	0.045 0.020	2.3 0.4
51.	Lawrence Expressway/ Calvert Drive-I-280	D	AM PM	83.3 86.0	F F	88.8 86.3	F F	0.022 0.029	6.7 0.7	86.4 86.1	F F	0.017 0.019	3.6 0.3	83.6 85.9	F F	0.011 0.011	0.2 0.1	83.7 85.8	F F	0.002 0.012	0.5 0.1	87.3 86.2	F F	0.022 0.026	4.8 0.6

Table 4.17-16: 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				Housing Rich 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	Delay	LOS	Change in Crit. V/C	Change in Crit. Delay
Southbound Ramp* – City of San José																									
52.	Lawrence Expressway/Mitty Way* – Santa Clara County	E	AM PM	46.0 19.3	D B-	51.5 19.7	D- B-	0.016 0.018	7.2 0.6	48.9 19.6	D B-	0.009 0.011	3.9 0.3	46.2 19.5	D B-	0.001 0.005	0.4 0.1	46.3 19.7	D B-	0.001 0.010	0.5 0.3	49.9 19.7	D B-	0.012 0.014	5.1 0.5
53.	Lawrence Expressway/Bollinger Road* – Santa Clara County	E	AM PM	113.7 94.5	F F	126.6 101.4	F F	0.016 0.029	10.8 11.4	120.2 98.4	F F	0.009 0.019	5.9 6.6	114.0 96.1	F F	0.001 0.012	0.4 2.7	114.4 98.4	F F	0.001 0.027	0.7 6.6	122.5 99.9	F F	0.012 0.025	7.7 9.1
54.	Lawrence Expressway/Doyle Road* – Santa Clara County	E	AM PM	41.6 15.7	D B	42.5 15.9	D B	0.011 0.034	1.6 0.2	42.0 15.9	D B	0.006 0.020	0.4 0.1	41.7 15.9	D B	0.002 0.008	-0.1 0.0	41.7 16.0	D B	0.002 0.020	0.0 0.1	42.2 15.9	D B	0.008 0.027	1.0 0.1
55.	Lawrence Expressway/Prospect Road* – Santa Clara County	E	AM PM	71.2 50.7	E D	61.3 50.2	E D	0.029 0.032	12.7 3.8	77.2 51.8	E- D-	0.016 0.019	9.8 1.9	71.6 51.2	E D-	0.001 0.008	0.6 0.7	71.9 51.9	E D-	0.002 0.018	1.2 1.9	58.7 49.7	E+ D	0.021 0.025	8.4 2.7
56.	Lawrence Expressway/Saratoga Avenue* – Santa Clara County	E	AM PM	44.2 56.0	D E+	46.4 59.2	D E+	0.046 0.018	3.6 5.7	45.1 58.0	D E+	0.025 0.012	1.5 3.6	44.3 57.3	D E+	0.001 0.008	0.1 2.4	44.3 59.6	D E+	0.003 0.021	0.1 7.0	45.5 58.6	D E+	0.033 0.015	2.2 4.7
57.	Saratoga Avenue/Cox Avenue – City of Saratoga	D	AM PM	46.2 39.7	D D	46.0 41.3	D D	0.010 0.032	-3.8 3.6	46.8 40.4	D D	0.004 0.017	0.2 1.7	46.2 39.8	D D	0.001 0.003	0.1 0.3	46.2 40.0	D D	0.001 0.007	0.0 0.7	46.0 40.9	D D	0.000 0.025	-4.4 2.7
58.	Saratoga Avenue/SR 85 Ramps (north) – Caltrans	C	AM PM	21.1 27.5	C+ C	22.0 27.8	C+ C	0.033 0.025	0.8 0.5	21.6 27.6	C+ C	0.018 0.013	0.4 0.3	21.1 27.5	C+ C	0.001 0.002	0.0 0.0	21.1 27.5	C+ C	0.001 0.005	0.0 0.1	21.7 27.7	C+ C	0.024 0.019	0.6 0.4
59.	Saratoga Avenue/SR 85 Ramps (south) – Caltrans	C	AM PM	17.4 19.9	B B-	17.6 20.2	B C+	0.005 0.027	0.2 0.3	17.5 20.1	B C+	0.003 0.013	0.1 0.1	17.4 19.9	B B-	0.000 0.000	0.0 0.0	17.4 20.1	B C+	0.000 -0.015	0.0 -0.1	17.6 20.2	B C+	0.004 0.014	0.1 0.2
60.	Stevens Creek Boulevard/Cabot Avenue – City of Santa Clara	D	AM PM	42.6 58.4	D E+	44.4 68.3	D E	0.018 0.022	2.7 14.6	43.7 65.5	D E	0.013 0.016	1.7 10.5	43.0 63.6	D E	0.006 0.012	0.6 7.6	42.7 66.0	D E	0.002 0.017	0.2 11.1	44.0 67.9	D E	0.015 0.021	2.1 14.0
61.	Stevens Creek Boulevard/Cronin Drive-Albany Drive – City of Santa Clara	D	AM PM	28.4 24.1	C C	28.5 24.6	C C	0.008 0.022	0.0 0.7	28.3 24.5	C C	0.009 0.018	-0.1 0.5	28.1 24.4	C C	0.009 0.014	-0.3 0.4	28.4 24.5	C C	0.001 0.019	0.0 0.5	28.3 24.6	C C	0.011 0.023	-0.1 0.7
62.	Stevens Creek Boulevard/Woodhams Road – City of Santa Clara	D	AM PM	18.6 21.7	B- C+	19.4 22.6	B- C+	0.012 0.020	0.6 1.4	18.9 22.4	B- C+	0.011 0.019	0.2 1.1	18.8 22.3	B- C+	0.008 0.019	0.0 0.8	18.7 22.5	B- C+	0.002 0.023	0.0 1.1	19.1 22.6	B- C+	0.013 0.024	0.3 1.4
63.	Stevens Creek Boulevard/Kiely Boulevard* – City of San José	D	AM PM	40.1 36.0	D D+	40.3 36.1	D D+	0.010 0.008	0.3 0.0	40.2 36.1	D D+	0.008 0.006	0.3 0.0	40.2 36.1	D D+	0.006 0.005	0.3 0.1	40.1 36.1	D D+	0.001 0.007	0.0 0.1	40.3 36.1	D D+	0.010 0.008	0.3 0.0
64.	Vallco Parkway/Perimeter Road – City of Cupertino	D	AM PM	10.3 16.4	B+ B	19.5 28.1	B- C	0.294 0.394	14.0 13.4	20.9 26.1	C+ C	0.202 0.331	14.0 11.7	18.3 24.7	B- C	0.105 0.294	8.1 10.7	11.8 25.5	B+ C	0.013 0.317	1.5 11.3	21.1 29.6	C+ C	0.271 0.430	14.7 15.9
65.	Lawrence Expressway/Kifer Road Avenue* – Santa Clara County	E	AM PM	66.2 74.6	E E	69.4 76.0	E E-	0.013 0.012	9.3 2.7	68.7 76.8	E E-	0.011 0.018	7.3 4.2	67.6 77.8	E E-	0.008 0.024	4.2 5.9	66.4 75.8	E E-	0.001 0.010	0.5 2.2	69.2 77.5	E E-	0.014 0.023	8.9 5.5
66.	Lawrence Expressway/Reed Avenue-Monroe Street* – Santa Clara County	E	AM PM	73.5 84.9	E F	74.8 87.1	E F	0.004 0.014	2.0 4.4	76.1 87.8	E- F	0.008 0.015	3.9 5.4	77.2 88.5	E- F	0.011 0.017	5.6 6.5	73.7 86.8	E F	0.001 0.007	0.3 3.5	76.5 88.5	E- F	0.010 0.020	4.6 6.9
67.	Lawrence Expressway/Cabrillo Avenue* – Santa Clara County	E	AM PM	35.9 35.0	D+ D+	36.5 36.2	D+ D+	0.022 0.017	1.1 0.0	36.8 36.7	D+ D+	0.015 0.015	0.5 0.1	37 37.3	D+ D+	0.007 0.012	0.0 0.1	35.9 35.9	D+ D+	0.001 0.008	0.0 0.0	37.0 37.2	D+ D+	0.020 0.019	0.9 0.1

Project

As summarized in Table 4.17-15, implementation of the proposed project would result in significant intersection level of service impacts under cumulative with project conditions at the following 18 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, Retail and Residential Alternative, and Housing Rich Alternative) to a less than significant level (refer to Appendix H of the Draft EIR and Appendix C of this EIR Amendment for detailed LOS calculations). Future development under the proposed project (or General Plan Buildout with Maximum Residential Alternative, Retail and Residential Alternative, or Housing Rich 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, Retail and Residential Alternative, and Housing Rich Alternative) to a less than significant level (refer to Appendix H of the Draft EIR and Appendix C of this EIR Amendment for detailed LOS calculations). Future development under the proposed project (or General Plan Buildout with Maximum Residential Alternative, Retail and Residential Alternative, or Housing Rich 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 intersection delay to lower than cumulative conditions under the proposed project (and project alternatives). 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, Retail and Residential Alternative, or Housing Rich 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, Retail and Residential Alternative, or Housing Rich 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 of the Draft EIR and Appendix C of this EIR Amendment 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, Retail and Residential Alternative, and Housing Rich 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, Retail and Residential Alternative, and Housing Rich 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)**

Housing Rich Alternative

As summarized in Table 4.17-15, implementation of the Housing Rich Alternative would result in a significant intersection level of service impacts under cumulative with Housing Rich Alternative conditions at the following 19 intersections:

2. Stevens Creek Boulevard/SR 85 Northbound Ramps (east) (City of Cupertino)* – AM peak hour;
3. Stevens Creek Boulevard/Stelling Road (City of Cupertino)* – PM 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;
- 38. Homestead Road/Tantau Avenue (City of Cupertino) – PM peak hour;
- 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)* – AM and 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;
- 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.

* denotes CMP intersection

All of the intersections identified to have a significant impact under the Housing Rich Alternative were also identified to have a significant impact under the proposed project, with the exception of Intersection 3, Stevens Creek Boulevard/Stelling Road; Intersection 38, Tantau Avenue/Homestead Road; and Intersection 48, Lawrence Expressway/Homestead Road. The Housing Rich Alternative is projected to have a significant impact under the PM peak hour at Intersection 3, Stevens Creek Boulevard/Stelling Road, while the project would have a less than significant impact at this intersection during both peak hours. The Housing Rich Alternative is projected to have a significant impact under the PM peak hour at Intersection 38, Homestead Road/Tantau Avenue, while the project would have a less than significant impact at this intersection during both peak hours. The Housing Rich Alternative is projected to have a significant impact under the AM and PM peak hours at Intersection 48, Lawrence Expressway/Homestead Road, while the project is projected to have a significant impact only during the PM peak hour (i.e., the impact for the proposed project was less than significant during the AM peak hour). The Housing Rich Alternative, therefore, would result in a greater impact under cumulative plus project conditions than the proposed project.

The Housing Rich Alternative would implement mitigation measures MM TRN-7.1 through -7.13 identified above for the proposed project, and the mitigation measures identified below. **(Significant and Unavoidable Cumulative Impact with Mitigation Incorporated)**

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 Housing Rich Alternative (and 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)

MM TRN-7.16: Intersection 3, Stevens Creek Boulevard/Stelling Road: Provide an additional second eastbound left-turn lane from Stevens Creek Boulevard onto northbound Stelling Road. This mitigation measure would improve intersection operations to an acceptable LOS D-.

The City's TIF Program identifies the addition of a second eastbound left-turn lane from Stevens Creek Boulevard onto northbound Stelling Road as a General Plan Mitigation Measure. Future development under the Housing Rich 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)**

Mitigation measures that would change the roadway geometry or signal operations may have potential secondary effects on pedestrian and bicycle travel. Pursuant to the VTA TIA Guidelines, because mitigation measure MM TRN-7.16 would change the roadway geometry or signal operations, a pedestrian and bicycle QOS analysis was completed. The Stelling Road/Stevens Creek Boulevard intersection has long crossing distances, over six lanes on all approaches, which causes inconvenience for pedestrians with low walking speed. The QOS score would remain at 3 both with and without mitigation. The bicycle QOS score would be 4, both without and with the mitigation, denoting that most cyclists would find it uncomfortable navigating through the intersection because of the lack of right-turn lane on all approaches that could cause conflicts between right-turn bicycles and through bicycles. However, the mitigation measure would not further degrade bicycle QOS.

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 4.17-18 and Table 4.17-19, respectively. Appendix H of the Draft EIR and Appendix C of this EIR Amendment 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 4.17-17).

Project

As summarized in Table 4.17-17, 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, Retail and Residential Alternative, and Housing Rich 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, Retail and Residential Alternative, and Housing Rich 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, Retail and Residential Alternative, and Housing Rich Alternative) would remain significant and unavoidable with the implementation of MM TRN-7.1 and -7.15. **(Significant and Unavoidable Impact with Mitigation Incorporated)**

Housing Rich Alternative

As summarized in Table 4.17-17, implementation of the Housing Rich Alternative would result in significant freeway level of service impacts under cumulative with project conditions at 10 mixed flow lanes in the AM peak hour, 24 mixed flow lanes in the PM peak hour, 11 HOV lanes in the AM peak hour, and nine HOV lanes in the PM peak hour. The Housing Rich Alternative would have similar freeway impacts as the proposed project, although this alternative would impact five fewer mixed-flow lanes in the AM peak hour, two more mixed-flow lanes in the PM peak hour, one fewer HOV lane in the AM peak hour, and one more HOV lane in the PM peak hour than the proposed project. The Housing Rich Alternative would implement mitigation measures MM TRN-7.1 and -7.15 identified above for the proposed project, but like the proposed project, the impact would remain significant and unavoidable. **(Significant and Unavoidable Cumulative Impact with Mitigation Incorporated)**

Table 4.17-17: 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
Housing Rich Alternative	AM	10	11
	PM	24	9
Note: The impacts of the Occupied/Re-Tenanted Mall Alternative is described in this EIR for informational purposes only.			

Table 4.17-18: 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			Housing Rich Alternative		
			LOS	LOS	V/C	Project Trips	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 PM	F F	F F	1.122 0.718	32 4	F F	1.399 1.082	17 2	F F	1.395 1.082	0 0	F F	1.395 1.082	0 0	F F	1.400 1.083	22 4
South Bascom Avenue to SR 17	4,600	AM PM	F B	F B	1.246 1.075	51 7	F B	1.105 0.628	22 3	F B	1.100 0.628	0 0	F B	1.100 0.628	0 0	F B	1.107 0.629	35 5
SR 17 to Winchester Boulevard	4,600	AM PM	F C	F D	1.285 1.036	49 12	F D	1.128 0.800	30 5	F C	1.121 0.799	0 0	F C	1.121 0.799	0 0	F D	1.128 0.801	34 9
Winchester Boulevard to Saratoga Avenue	4,600	AM PM	F F	F F	1.185 0.782	64 13	F F	1.205 1.044	39 6	F F	1.197 1.043	0 0	F F	1.197 1.043	0 0	F F	1.207 1.045	45 11
Saratoga Avenue to Saratoga-Sunnyvale Road	4,600	AM PM	F E	F E	1.046 0.758	185 49	F E	1.161 0.988	87 38	F E	1.144 0.987	11 36	F E	1.142 0.986	3 28	F E	1.172 0.993	137 60
Saratoga-Sunnyvale Road to Stevens Creek Boulevard	4,600	AM PM	F D	F D	1.310 0.752	0 0	F D	1.068 0.887	0 0	F D	1.068 0.887	0 0	F D	1.068 0.887	0 0	F D	1.068 0.887	0 0
Stevens Creek Boulevard to I-280	4,600	AM PM	F D	F E	1.278 0.733	22 80	F E	1.137 0.904	36 55	F D	1.138 0.899	44 34	F D	1.129 0.895	2 16	F E	1.137 0.911	39 90
I-280 to West Homestead Road	4,600	AM PM	F E	F E	1.195 0.711	21 71	F E	1.076 0.936	27 42	F E	1.078 0.932	33 25	F E	1.071 0.929	2 12	F E	1.078 0.942	37 68
West Homestead Road to West Fremont Avenue	4,600	AM PM	F E	F E	1.110 0.667	16 53	F E	1.141 0.989	20 31	F E	1.142 0.987	25 20	F E	1.137 0.984	2 9	F E	1.143 0.993	28 51
SR 85 – Southbound																		
West Fremont Avenue to West Homestead Road	4,600	AM PM	F F	F F	1.032 1.090	43 15	F F	1.029 1.091	30 22	F F	1.025 1.092	11 27	F F	1.023 1.088	2 9	F F	1.030 1.093	34 33
West Homestead Road to I-280	4,600	AM PM	B C	B C	0.659 0.729	74 26	B C	0.651 0.730	40 30	B C	0.646 0.731	14 37	B C	0.643 0.726	2 12	B C	0.656 0.733	60 44
I-280 to Stevens Creek Boulevard	4,600	AM PM	E F	E F	0.950 1.561	98 35	E F	0.940 1.562	53 39	E F	0.932 1.564	19 48	E F	0.929 1.557	2 15	E F	0.946 1.566	80 59
Stevens Creek Boulevard to Saratoga-Sunnyvale Road	4,600	AM PM	C F	C F	0.744 1.147	0 0	C F	0.744 1.147	0 0	C F	0.744 1.147	0 0	C F	0.744 1.147	0 0	C F	0.744 1.147	0 0
Saratoga-Sunnyvale Road to Saratoga Avenue	4,600	AM PM	B F	B F	0.691 1.139	39 177	B F	0.69 1.119	33 85	B F	0.689 1.107	30 29	B F	0.683 1.107	3 31	B F	0.693 1.132	48 146
Saratoga Avenue to Winchester Boulevard	4,600	AM PM	C F	C F	0.777 1.159	15 79	C F	0.775 1.148	7 31	C F	0.773 1.142	0 0	C F	0.773 1.142	0 0	C F	0.776 1.154	11 58
Winchester Boulevard to SR 17	4,600	AM PM	B F	B F	0.659 1.150	14 71	B F	0.657 1.141	6 28	B F	0.656 1.135	0 0	B F	0.656 1.135	0 0	B F	0.658 1.146	10 52
SR 17 to South Bascom Avenue	4,600	AM PM	A F	A F	0.470 1.113	7 36	A F	0.469 1.108	3 14	A F	0.468 1.105	0 0	A F	0.468 1.105	0 0	A F	0.470 1.111	5 26
South Bascom Avenue to Union Avenue	4,600	AM PM	D F	D F	0.883 1.392	5 27	D F	0.882 1.388	3 11	D F	0.882 1.386	0 0	D F	0.882 1.386	0 0	D F	0.883 1.390	4 20

Table 4.17-18: 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			Housing Rich Alternative		
			LOS	LOS	V/C	Project Trips	LOS	V/C	Project Trips	LOS	V/C	Project Trips	LOS	V/C	Project Trips	LOS	V/C	Project Trips
Interstate 280 – Eastbound																		
Alpine Road to Page Mill Road	9,200	AM PM	E C	E C	0.912 0.790	80 31	E C	0.908 0.791	52 38	E C	0.905 0.792	20 48	E C	0.903 0.788	5 17	E C	0.910 0.792	66 49
Page Mill Road to La BARRanca Road	9,200	AM PM	C F	C F	0.777 1.074	134 51	C F	0.772 1.075	86 64	C F	0.766 1.077	33 80	C F	0.763 1.072	8 29	C F	0.774 1.077	110 82
La BARRanca Road to El Monte Road	9,200	AM PM	C F	C F	0.777 1.074	134 51	C F	0.772 1.075	86 64	C F	0.766 1.077	33 80	C F	0.763 1.072	8 29	C F	0.774 1.077	110 82
El Monte Road to Magdalena Avenue	9,200	AM PM	B F	B F	0.698 1.090	206 78	B F	0.690 1.092	132 99	B F	0.681 1.095	50 123	B F	0.677 1.086	12 44	B F	0.694 1.095	169 126
Magdalena Avenue to Foothill Expressway	6,900	AM PM	B E	C E	0.716 0.987	216 90	C E	0.704 0.990	140 114	B E	0.692 0.994	53 141	B E	0.686 0.981	13 50	C E	0.710 0.995	176 145
Foothill Expressway to SR 85	6,900	AM PM	E F	E F	0.989 1.252	275 111	E F	0.974 1.256	176 141	E F	0.959 1.261	67 175	E F	0.951 1.245	16 63	E F	0.982 1.262	226 181
SR 85 to De Anza Boulevard	6,900	AM PM	D F	D F	0.861 1.162	367 123	D F	0.842 1.168	234 165	D F	0.821 1.174	89 204	D F	0.811 1.155	22 73	D F	0.851 1.173	300 200
De Anza Boulevard to Wolfe Road	6,900	AM PM	C F	D F	0.842 1.107	312 104	D F	0.826 1.112	198 138	D F	0.808 1.116	75 168	D F	0.800 1.101	21 65	D F	0.834 1.116	254 167
Wolfe Road to Lawrence Expressway	6,900	AM PM	D F	D F	0.845 1.175	97 340	D F	0.849 1.160	124 235	D F	0.851 1.145	136 137	D F	0.834 1.148	19 156	D F	0.852 1.170	144 307
Lawrence Expressway to Saratoga Avenue	6,900	AM PM	E F	E F	0.959 1.115	121 423	E F	0.964 1.096	153 292	E F	0.966 1.078	167 169	E F	0.945 1.082	23 192	E F	0.968 1.109	179 382
Saratoga Avenue to Winchester Boulevard	6,900	AM PM	E F	E F	0.971 1.113	109 381	E F	0.976 1.096	137 263	E F	0.978 1.080	151 152	E F	0.959 1.083	21 173	E F	0.979 1.108	161 343
Winchester Boulevard to I-880	6,900	AM PM	D F	D F	0.836 1.161	98 343	D F	0.840 1.146	124 237	D F	0.841 1.131	136 137	D F	0.824 1.134	19 156	D F	0.843 1.156	145 309
I-880 to Meridian Avenue	6,900	AM PM	D F	D F	0.874 1.224	44 175	D F	0.876 1.216	58 119	D F	0.877 1.208	64 69	D F	0.869 1.210	9 78	D F	0.878 1.221	66 158
Meridian Avenue to Bird Avenue	6,900	AM PM	F F	F F	1.142 1.502	35 134	F F	1.143 1.495	43 89	F F	1.144 1.490	48 52	F F	1.138 1.491	7 59	F F	1.144 1.500	51 120
Bird Avenue to SR 87	6,900	AM PM	D F	D F	0.869 1.487	31 126	D F	0.870 1.480	39 83	D F	0.871 1.475	42 48	D F	0.866 1.476	6 54	D F	0.871 1.485	46 113
Interstate 280 – Westbound																		
SR 87 to Bird Avenue	9,200	AM PM	F F	F F	1.090 1.070	115 49	F F	1.085 1.070	71 53	F F	1.080 1.071	20 59	F F	1.078 1.070	8 51	F F	1.087 1.072	90 67
Bird Avenue to Meridian Avenue	9,200	AM PM	F F	F F	1.172 1.053	127 52	F F	1.167 1.054	78 55	F F	1.160 1.054	22 62	F F	1.159 1.053	9 54	F F	1.169 1.055	99 70
Meridian Avenue to I-880	6,900	AM PM	F F	F F	1.301 1.079	162 66	F F	1.292 1.080	104 74	F F	1.281 1.081	29 82	F F	1.279 1.079	12 71	F F	1.296 1.082	127 89
I-880 to Winchester Boulevard	6,900	AM PM	E D	F D	1.015 0.879	312 134	E D	1.000 0.881	207 148	E D	0.978 0.883	58 165	E D	0.973 0.880	24 143	F D	1.005 0.885	244 181

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			Housing Rich Alternative		
			LOS	LOS	V/C	Project Trips	LOS	V/C	Project Trips	LOS	V/C	Project Trips	LOS	V/C	Project Trips	LOS	V/C	Project Trips
Winchester Boulevard to Saratoga Avenue	6,900	AM PM	F F	F F	1.189 1.068	367 154	F F	1.169 1.070	230 165	F F	1.145 1.073	64 184	F F	1.139 1.069	26 160	F F	1.177 1.076	287 208
Saratoga Avenue to Lawrence Expressway	6,900	AM PM	F E	F F	1.157 1.003	403 169	F F	1.136 1.005	256 182	F F	1.109 1.008	71 203	F F	1.103 1.005	29 177	F F	1.144 1.012	314 228
Lawrence Expressway to Wolfe Road	6,900	AM PM	F E	F E	1.124 0.955	323 137	F E	1.107 0.957	207 147	F E	1.086 0.959	58 164	F E	1.081 0.956	25 144	F E	1.114 0.962	253 183
Wolfe Road to De Anza Boulevard	6,900	AM PM	F D	F D	1.061 0.882	80 272	F D	1.067 0.870	123 192	F D	1.072 0.861	153 125	F D	1.051 0.853	14 73	F D	1.069 0.881	137 263
De Anza Boulevard to SR 85	6,900	AM PM	F D	F E	1.091 0.941	99 337	F E	1.099 0.927	153 235	F E	1.104 0.914	190 150	F E	1.079 0.904	15 79	F E	1.101 0.939	169 324
SR 85 to Foothill Expressway	6,900	AM PM	F F	F F	1.244 1.122	79 270	F F	1.250 1.110	122 189	F F	1.254 1.101	151 121	F F	1.234 1.092	12 63	F F	1.252 1.121	135 259
Foothill Expressway to Magdalena Avenue	6,900	AM PM	E D	E D	0.929 0.872	63 215	E D	0.934 0.862	98 151	E D	0.937 0.855	121 97	E D	0.921 0.848	9 50	E D	0.935 0.871	109 208
Magdalena Avenue to El Monte Road	9,200	AM PM	D B	D C	0.846 0.713	62 204	D C	0.849 0.706	92 142	D C	0.851 0.700	114 91	D B	0.840 0.696	9 47	D C	0.850 0.712	107 197
El Monte Road to La Barranta Road	9,200	AM PM	D C	D C	0.811 0.753	50 163	D C	0.814 0.748	74 114	D C	0.816 0.744	91 73	D C	0.806 0.740	7 38	D C	0.815 0.753	86 158
La Barranta Road to Page Mill Road	9,200	AM PM	D C	D C	0.811 0.753	50 163	D C	0.814 0.748	74 114	D C	0.816 0.744	91 73	D C	0.806 0.740	7 38	D C	0.815 0.753	86 158
Page Mill Road to Alpine Road	9,200	AM PM	C E	C E	0.758 0.926	30 98	C E	0.759 0.922	44 68	C E	0.760 0.920	55 44	C E	0.755 0.917	4 23	C E	0.760 0.925	52 95
Interstate 880 – Northbound																		
I-280 to Stevens Creek Boulevard	6,900	AM PM	F B	F B	1.082 0.686	40 158	F B	1.083 0.678	51 104	F B	1.084 0.672	55 60	F B	1.077 0.673	7 69	F B	1.085 0.684	59 143
Stevens Creek Boulevard to North Bascom Avenue	6,900	AM PM	F F	F F	1.077 1.036	36 142	F F	1.079 1.029	46 94	F F	1.079 1.023	50 54	F F	1.073 1.024	6 62	F F	1.080 1.034	53 129
North Bascom Avenue to The Alameda	6,900	AM PM	F F	F F	1.022 1.098	27 107	F F	1.023 1.092	35 71	F F	1.024 1.088	38 41	F F	1.019 1.089	5 47	F F	1.024 1.096	40 97
The Alameda to Coleman Avenue	6,900	AM PM	F F	F F	1.035 1.127	20 80	F F	1.036 1.123	26 53	F F	1.036 1.120	29 31	F F	1.033 1.120	4 35	F F	1.037 1.126	30 73
Interstate 880 – Southbound																		
Coleman Avenue to The Alameda	6,900	AM PM	F F	F F	1.058 1.035	77 31	F F	1.053 1.035	47 33	F F	1.048 1.036	13 38	F F	1.047 1.035	5 32	F F	1.055 1.036	60 42
The Alameda to North Bascom Avenue	6,900	AM PM	D E	E F	0.913 1.004	102 41	E F	0.908 1.005	62 44	E F	0.901 1.006	17 50	D F	0.900 1.004	7 43	E F	0.90 1.006	80 56
North Bascom Avenue to Stevens Creek Boulevard	6,900	AM PM	D E	D F	0.861 1.007	136 55	D F	0.853 1.007	82 59	D F	0.845 1.008	23 66	D F	0.843 1.007	9 57	D F	0.857 1.010	106 74
Stevens Creek Boulevard to I-280	6,900	AM PM	B D	B D	0.671 0.817	151 61	B D	0.663 0.818	91 65	B D	0.653 0.819	25 73	B D	0.651 0.818	10 63	B D	0.667 0.820	118 82
SR 17 – Northbound																		

Table 4.17-19: 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			Housing Rich Alternative		
			LOS	LOS	V/C	Project Trips	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 PM	F A	F A	1.196 0.345	6 1	F A	1.195 0.344	3 0	F A	1.193 0.344	0 0	F A	1.193 0.344	0 0	F A	1.195 0.344	4 0
South Bascom Avenue to SR 17	1,650	AM PM	F A	F A	1.192 0.344	0 0	F A	1.194 0.344	4 0	F A	1.192 0.344	0 0	F A	1.192 0.344	0 0	F A	1.192 0.344	0 0
SR 17 to Winchester Boulevard	1,650	AM PM	F A	F A	1.201 0.345	19 2	F A	1.193 0.344	5 1	F A	1.190 0.344	0 0	F A	1.190 0.344	0 0	F A	1.198 0.344	13 1
Winchester Boulevard to Saratoga Avenue	1,650	AM PM	F A	F A	1.366 0.572	26 2	F A	1.355 0.571	7 1	F A	1.350 0.570	0 0	F A	1.350 0.570	0 0	F A	1.361 0.570	18 0
Saratoga Avenue to Saratoga-Sunnyvale Road	1,650	AM PM	F A	F A	1.239 0.547	0 0	F A	1.248 0.551	15 7	F A	1.240 0.550	2 6	F A	1.239 0.550	1 5	F A	1.239 0.547	0 0
Saratoga-Sunnyvale Road to Stevens Creek Boulevard	1,650	AM PM	F B	F B	1.136 0.602	0 0	F B	1.136 0.602	0 0	F B	1.136 0.602	0 0	F B	1.136 0.602	0 0	F B	1.136 0.602	0 0
Stevens Creek Boulevard to I-280	1,650	AM PM	D A	D A	0.836 0.435	6 14	D A	0.836 0.433	6 10	D A	0.838 0.430	8 6	D A	0.833 0.428	0 3	D A	0.839 0.427	10 0
I-280 to West Homestead Road	1,650	AM PM	D A	D A	0.881 0.519	0 0	D A	0.884 0.523	5 7	D A	0.884 0.522	6 5	D A	0.881 0.520	0 2	D A	0.881 0.519	0 0
West Homestead Road to West Fremont Avenue	1,650	AM PM	D A	D A	0.881 0.518	0 0	D A	0.884 0.522	4 6	D A	0.884 0.520	4 3	D A	0.881 0.519	0 2	D A	0.881 0.518	0 0
SR 85 – Southbound																		
West Fremont Avenue to West Homestead Road	1,650	AM PM	D F	D F	0.898 1.138	13 5	D F	0.893 1.138	5 4	D F	0.892 1.138	2 5	D F	0.890 1.136	0 2	D F	0.897 1.135	11 0
West Homestead Road to I-280	1,650	AM PM	D F	D F	0.889 1.135	0 0	D F	0.893 1.138	7 5	D F	0.891 1.138	3 6	D F	0.889 1.136	0 2	D F	0.889 1.135	0 0
I-280 to Stevens Creek Boulevard	1,650	AM PM	B F	B F	0.658 1.454	0 0	B F	0.663 1.458	9 7	B F	0.659 1.459	3 9	B F	0.658 1.456	0 3	B F	0.658 1.454	0 0
Stevens Creek Boulevard to Saratoga-Sunnyvale Road	1,650	AM PM	D F	D F	0.853 1.367	0 0	D F	0.853 1.367	0 0	D F	0.853 1.367	0 0	D F	0.853 1.367	0 0	D F	0.853 1.367	0 0
Saratoga-Sunnyvale Road to Saratoga Avenue	1,650	AM PM	E F	D F	0.898 1.108	0 0	E F	0.902 1.117	6 15	E F	0.901 1.111	5 5	D F	0.898 1.111	0 5	D F	0.898 1.108	0 0
Saratoga Avenue to Winchester Boulevard	1,650	AM PM	D E	D E	0.897 0.976	0 0	D E	0.898 0.979	1 6	D E	0.897 0.976	0 0	D E	0.897 0.976	0 0	D E	0.897 0.976	0 0
Winchester Boulevard to SR 17	1,650	AM PM	B A	B A	0.601 0.589	0 0	B A	0.602 0.592	1 5	B A	0.601 0.589	0 0	B A	0.601 0.589	0 0	B A	0.601 0.589	0 0
SR 17 to South Bascom Avenue	1,650	AM PM	B F	B F	0.602 1.319	0 0	B F	0.602 1.321	1 3	B F	0.602 1.319	0 0	B F	0.602 1.319	0 0	B F	0.602 1.319	0 0
South Bascom Avenue to Union Avenue	1,650	AM PM	B F	B F	0.602 1.320	0 0	B F	0.602 1.321	0 2	B F	0.602 1.320	0 0	B F	0.602 1.320	0 0	B F	0.602 1.320	0 0
Interstate 280 – Eastbound																		

Table 4.17-19: 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			Housing Rich Alternative		
			LOS	LOS	V/C	Project Trips	LOS	V/C	Project Trips	LOS	V/C	Project Trips	LOS	V/C	Project Trips	LOS	V/C	Project Trips
Magdalena Avenue to Foothill Expressway	1,650	AM PM	A A	A A	0.597 0.375	42 8	A A	0.587 0.376	25 10	A A	0.577 0.378	9 13	A A	0.573 0.373	2 5	A A	0.593 0.378	35 13
Foothill Expressway to SR 85	1,650	AM PM	B A	C A	0.702 0.499	47 11	B A	0.692 0.501	30 14	B A	0.680 0.502	11 17	B A	0.675 0.496	3 6	B A	0.696 0.502	38 17
SR 85 to De Anza Boulevard	1,650	AM PM	A F	A F	0.375 1.099	36 29	A F	0.367 1.099	23 29	A F	0.358 1.103	9 36	A F	0.354 1.089	2 13	A F	0.371 1.110	30 47
De Anza Boulevard to Wolfe Road	1,650	AM PM	A F	A F	0.396 1.106	31 25	A F	0.39 1.105	20 24	A F	0.382 1.109	7 30	A F	0.379 1.098	2 12	A F	0.393 1.115	25 39
Wolfe Road to Lawrence Expressway	1,650	AM PM	A F	A F	0.367 1.133	10 80	A F	0.368 1.11	12 42	A F	0.369 1.099	13 24	A F	0.362 1.102	2 28	A F	0.370 1.128	14 72
Lawrence Expressway to Saratoga Avenue	1,650	AM PM	A F	A F	0.399 1.156	12 99	A F	0.401 1.127	15 52	A F	0.402 1.114	17 30	A F	0.393 1.116	2 34	A F	0.402 1.150	18 89
Saratoga Avenue to Winchester Boulevard	1,650	AM PM	A F	A F	0.481 1.395	11 89	A F	0.482 1.369	14 47	A F	0.483 1.357	15 27	A F	0.475 1.359	2 31	A F	0.484 1.390	16 81
Winchester Boulevard to I-880	1,650	AM PM	A F	A F	0.419 1.245	10 80	A F	0.420 1.222	12 42	A F	0.421 1.211	13 24	A F	0.414 1.213	2 28	A F	0.421 1.241	14 73
I-880 to Meridian Avenue	1,650	AM PM	C F	C F	0.796 1.074	10 37	C F	0.796 1.064	10 21	C F	0.796 1.059	11 12	C F	0.791 1.060	2 14	C F	0.798 1.072	14 33
Meridian Avenue to Bird Avenue	1,650	AM PM	D F	D F	0.843 1.196	6 25	D F	0.844 1.190	8 16	D F	0.844 1.186	8 9	D F	0.840 1.187	1 10	D F	0.845 1.195	9 23
Bird Avenue to SR87	1,650	AM PM	B D	B D	0.673 0.878	6 17	B D	0.674 0.875	7 12	B D	0.675 0.872	8 7	B D	0.670 0.873	1 8	B D	0.675 0.878	8 16
Interstate 280 – Westbound																		
SR87 to Bird Avenue	1,650	AM PM	F C	F C	1.134 0.718	21 6	F C	1.128 0.718	12 6	F C	1.123 0.719	3 7	F C	1.122 0.718	2 6	F C	1.131 0.719	16 8
Bird Avenue to Meridian Avenue	1,650	AM PM	F F	F F	1.259 1.075	24 9	F F	1.253 1.076	14 10	F F	1.247 1.076	4 11	F F	1.246 1.075	2 9	F F	1.256 1.078	19 13
Meridian Avenue to I-880	1,650	AM PM	F F	F F	1.307 1.038	39 15	F F	1.295 1.036	18 13	F F	1.287 1.038	5 15	F F	1.285 1.036	2 13	F F	1.302 1.041	30 21
I-880 to Winchester Boulevard	1,650	AM PM	F C	F C	1.237 0.784	90 28	F C	1.205 0.783	37 26	F C	1.188 0.785	10 29	F C	1.185 0.782	4 25	F C	1.225 0.790	70 38
Winchester Boulevard to Saratoga Avenue	1,650	AM PM	F C	F C	1.092 0.758	80 26	F C	1.068 0.759	41 28	F C	1.050 0.761	11 31	F C	1.046 0.758	5 27	F C	1.081 0.763	62 35
Saratoga Avenue to Lawrence Expressway	1,650	AM PM	F C	F C	1.364 0.752	94 31	F C	1.334 0.752	45 32	F C	1.314 0.755	12 36	F C	1.310 0.752	5 31	F C	1.352 0.758	74 42
Lawrence Expressway to Wolfe Road	1,650	AM PM	F C	F C	1.321 0.733	76 25	F C	1.297 0.734	36 26	F C	1.281 0.736	10 29	F C	1.278 0.733	4 25	F C	1.311 0.739	59 34
Wolfe Road to De Anza Boulevard	1,650	AM PM	F C	F C	1.204 0.733	19 50	F C	1.206 0.724	22 34	F C	1.209 0.716	27 22	F C	1.195 0.711	3 13	F C	1.212 0.732	32 48
De Anza Boulevard to SR 85	1,650	AM PM	F B	F B	1.122 0.696	23 62	F B	1.124 0.684	27 42	F B	1.128 0.675	33 27	F B	1.110 0.667	3 14	F B	1.132 0.695	40 60

4.18 UTILITIES AND SERVICE SYSTEMS

This section is based in part on a sewer analysis, a Water Supply Assessment (WSA), and a recycled water study included in Appendix I of the Draft EIR, as well as a revised WSA by Yarne & Associates, Inc. in June 2018. A copy of the revised WSA is included in Appendix D of this EIR Amendment.

Impact UTL-1: The project or Housing Rich Alternative would not exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board. (Less than Significant Impact)

Project

Wastewater from the City of Cupertino is treated at the San José-Santa Clara Regional Wastewater Facility (RWF). 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)**

Housing Rich Alternative

The Housing Rich Alternative would result in a less than significant impact regarding wastewater treatment requirements for the same reasons described above for the proposed project. **(Less than Significant Impact)**

Impact UTL-2: The project or Housing Rich 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 Cupertino Sanitary District (CuSD) provides sewage collection, treatment, and disposal services to the City. 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 4.18-1. The project and project alternatives are estimated to generate a net increase of 0.72 to 1.15 mgd of sewage.⁴³

⁴³ 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.

Table 4.18-1: 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
Housing Rich Alternative	1.15
Note: The sewage generation identified is the net increase in sewage generation anticipated under the proposed project and project alternatives compared to existing conditions. Source for Housing Rich Alternative sewage generation: Tanaka, Richard. District Manager-Engineer, Cupertino Sanitary District. Personal Communications. June 19, 2018.	

Based on the modeling and analysis by the CuSD, development of the project (or General Plan Buildout with Maximum Residential Alternative, Retail and Residential Alternative, or Housing Rich 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, Retail and Residential Alternative, or Housing Rich Alternative), would exceed the peak flow of 13.8 mgd of the City of Santa Clara interceptor located downstream of the project site.

Mitigation Measures:

- MM UTIL-2.1:** Future development under the proposed project (or General Plan Buildout with Maximum Residential Alternative, Retail and Residential Alternative, or Housing Rich 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, Retail and Residential Alternative, or Housing Rich 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, Retail and Residential Alternative, or Housing Rich 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 4.3 Air Quality, 4.4 Biological Resources, 4.5 Cultural Resources, 4.13 Noise and Vibration, and 4.17 Transportation/Traffic. **(Less than Significant Impact with Mitigation Incorporated)**

Housing Rich Alternative

The Housing Rich Alternative would implement the same mitigation measures MM UTL-2.1 through -2.3 identified above for the proposed project. The Housing Rich Alternative would have greater impacts to the sewer system than the proposed project because it would generate a greater volume of sewage (see Table 4.18-1), but the impact would be mitigated to a less than significant level for both the proposed project and Housing Rich Alternative. **(Less than Significant Impact with Mitigation Incorporated)**

Impact UTL-3: The wastewater treatment provider (RWF) would have adequate capacity to serve the project or Housing Rich Alternative demand in addition to the provider's existing commitments. (Less than Significant Impact)

Project

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 (or project alternatives – see Table 4.18-1), it is anticipated there is sufficient treatment capacity at the RWF to serve the project (or project alternatives). **(Less than Significant Impact)**

Housing Rich Alternative

Implementation of the Housing Rich Alternative would result in a similar less than significant impact related to the treatment capacity at the RWF as described above for the proposed project. The Housing Rich Alternative would have greater impacts to the treatment capacity of the RWF than the proposed project because it would generate a greater volume of sewage (see Table 4.18-1). **(Less than Significant Impact)**

Impact UTL-4: The project or Housing Rich Alternative 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 4.10 of this EIR Amendment, redevelopment of the site under the project (or General Plan Buildout with Maximum Residential Alternative or Housing Rich 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 and Housing Rich Alternative). **(Less than Significant Impact)**

Housing Rich Alternative

The Housing Rich Alternative would result in the same less than significant impact to the storm water drainage facilities as described above for the proposed project. **(Less than Significant Impact)**

Impact UTL-5: The project or Housing Rich Alternative would have sufficient water supply available to serve the project from existing entitlements and resources. (Less than Significant Impact)

Potable Water Supply

Project

Water service is provided to the project site by Los Altos Suburban (LAS) District of Cal Water. A WSA was completed by Cal Water for the project and project alternatives, in accordance with SB 610 (refer to Appendix D of this EIR Amendment). 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 4.18-2. The proposed project would result in a net increase in water demand of 249 AFY compared to existing 2015 water demand on-site.

Table 4.18-2: 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
Housing Rich Alternative	354

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 D of this EIR Amendment). As discussed in detail in Appendix D of this EIR Amendment, 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 D of this EIR Amendment for more detail). New or expanded water entitlements are not require to serve the proposed project. **(Less than Significant Impact)**

Housing Rich Alternative

Implementation of the Housing Rich Alternative would result in a similar less than significant water supply impact as described above for the proposed project. The supplemental WSA (refer to Appendix D of this EIR Amendment) determined that adequate water supply is available for the Housing Rich Alternative. The Housing Rich 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 (refer to Table 4.18-2). **Less than Significant Impact)**

Recycled Water Infrastructure and 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.

Project

Infrastructure

The proposed project (and General Plan Buildout with Maximum Residential Alternative, Retail and Residential Alternative, and Housing Rich 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, Retail and Residential Alternative, or Housing Rich 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, Retail and Residential Alternative, or Housing Rich 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 4.3 Air Quality, 4.4 Biological Resources, 4.5 Cultural Resources, 4.13 Noise and Vibration, and 4.17 Transportation/Traffic. **(Less than Significant Impact)**

Supply

The project (and General Plan Buildout with Maximum Residential and Housing Rich Alternative) proposes 2.8 to 5.6 acres of irrigated landscaping and a 30-acre green roof (see Section 3.1.2.1 of this EIR Amendment). 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 above, 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)**

Housing Rich Alternative

The Housing Rich Alternative would result in the same less than significant recycled water infrastructure and supply impact as described for the proposed project because it proposes the same infrastructure extension and recycled water demand as the proposed project. **(Less than Significant Impact)**

Impact UTL-6: The project or Housing Rich Alternative 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)

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 2039.⁴⁴ The existing uses on-site generate approximately 1,248 cubic yards of solid waste per year.⁴⁵

Project

The estimated solid waste generation for the project (and project alternatives) is shown in Table 4.18-3. The project is estimated to generate a net increase of 9,443 cubic yards of solid waste per year compared to existing conditions.

Table 4.18-3: 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
Housing Rich Alternative	14,805
Sources: 1. Illingworth & Rodkin, Inc. <i>Vallco Special Area Specific Plan Air Quality and Greenhouse Gas Emissions Assessment</i> . May 2018. Attachment 2. and 2. Illingworth & Rodkin, Inc. <i>Housing Rich Alternative Air Quality Modeling</i> . June 2018. Attachment 1.	

As described above, 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.

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.

⁴⁴ Kelapanda, Achaya. Personal communications with Newby Island Sanitary Landfill Environmental Manager. May 17, 2018.

⁴⁵ Illingworth & Rodkin, Inc. *Vallco Special Area Specific Plan Air Quality and Greenhouse Gas Emissions Assessment*. May 2018. Attachment 2.

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)**

Housing Rich Alternative

The Housing Rich Alternative would have a greater solid waste impact than the proposed project as it would generate a greater volume of solid waste (see Table 4.18-3). However, implementation of the Housing Rich Alternative would result in a similar less than significant solid waste impact as described above for the proposed project because there is adequate capacity in the landfill for this alternative. **(Less than Significant Impact)**

Impact UTL-7: The project or Housing Rich Alternative would not result in significant cumulative impacts to utilities and service systems. (Less than Significant Cumulative Impact)

Wastewater Treatment/Sanitary Sewer System

Project

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.⁴⁶ 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 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.⁴⁷

⁴⁶ Ibid. Page 4.14-38.

⁴⁷ Ibid. Page 4.14-40.

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)**

Housing Rich Alternative

The Housing Rich Alternative would result in a similar less than significant cumulative wastewater treatment impact as described above for the proposed project. The Housing Rich Alternative, however, would result in a greater contribution to the cumulative impact than the proposed project because it generates a greater volume of sewage (refer to Table 4.18-1). **(Less than Significant Cumulative Impact)**

Storm Drain System

Project

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. The proposed project (like the General Plan Buildout with Maximum Residential Alternative and Housing Rich Alternative) would result in a net increase in pervious surfaces. In cases such as the Retail and Residential Alternative, described in the Draft EIR, which 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. For these reasons, the cumulative projects would not result in significant impacts to the storm drain system. **(Less than Significant Cumulative Impact)**

Housing Rich Alternative

The Housing Rich Alternative would result in the same less than significant cumulative impact to the storm drain system as described above for the proposed project because it would result in the same amount of pervious surfaces and surface runoff as the proposed project. **(Less than Significant Cumulative Impact)**

Water/Recycled Water Supply

Project

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 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 required. **(Less than Significant Cumulative Impact)**

Housing Rich Alternative

The Housing Rich Alternative would result in a similar less than significant impact on water supply as described above for the proposed project. As discussed previously, the LAS District would have sufficient water supplies to meet the demand of the Housing Rich Alternative 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 required to serve this alternative (refer to Appendix D of this EIR Amendment for additional details). The Housing Rich Alternative would have a greater contribution to the cumulative impact than the proposed project as it would have a greater demand for water (see Table 4.18-2). **(Less than Significant Cumulative Impact)**

Landfill Capacity

Project

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.⁴⁸

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)**

⁴⁸ Ibid. Page 4.14-52.

Housing Rich Alternative

The Housing Rich Alternative would have a greater contribution to a cumulative solid waste impact than the proposed project because it would generate a greater volume of solid waste (see Table 4.18-3). However, implementation of the Housing Rich Alternative would result in a similar less than significant cumulative solid waste impact as described above for the proposed project because there is adequate capacity in the landfill for the cumulative projects. **(Less than Significant Cumulative Impact)**

SECTION 5.0 GROWTH-INDUCING IMPACTS

Impact GRO-1: The project or Housing Rich Alternative would not foster or stimulate significant economic or population growth in the surrounding environment. (Less than Significant Impact)

Project

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 4.14, 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 projected number of employees from the project (and all project alternatives) are anticipated in the citywide buildout of the General Plan.

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 increase demands on existing community service facilities (refer to Sections 4.15 and 4.16). The project (and General Plan Buildout with Maximum Residential Alternative, Retail and Residential Alternative, and Housing Rich Alternative) include infrastructure improvements (i.e., roadway mitigation, recycled water extension, and/or sewer system upgrades) to mitigate the impacts of the proposed development.⁴⁹ 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 public facilities and services, including police and fire, schools,

⁴⁹ 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.

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)**

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
Housing Rich Alternative	3,250	6,500	7,585
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. <i>Cupertino General Plan Community Vision 2015-2040</i> . 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 (Sources: 1. Economic & Planning Systems, Inc. <i>Population and Employment Projections</i> . April 26, 2018. 2. Economic & Planning Systems, Inc. <i>Housing Rich Alternative Project Buildout Population Projections</i> . June 20, 2018.).			

Housing Rich Alternative

The Housing Rich Alternative would result in similar less than significant growth-inducing impacts as described above for the proposed project because it includes jobs and housing within the projections for the General Plan or *Plan Bay Area*. As shown in Table 4.0-1, compared to the proposed project, the Housing Rich Alternative would generate less jobs and more housing/residents. The projected number of employees from the Housing Rich Alternative are anticipated in the citywide buildout of the General Plan. The Housing Rich Alternative (not including the 35 percent density bonus) would allow for 1,641 more residential units than anticipated with buildout of the City's General Plan (see discussion in Section 4.14). These additional units, however, are within the *Plan Bay Area* projections for the City and/or County.

In addition, the impacts of the Housing Rich Alternative on community facilities is discussed in Section 4.15 and 4.16 and the alternative would construct infrastructure improvements (i.e., roadway mitigation, recycled water extension, and/or sewer system upgrades) to mitigate its impacts. Utility improvements would be sized to serve the development of the Housing Rich Alternative and would not have excess capacity. For this reason, the utility improvements would not remove obstacles to population growth. In addition, like the proposed project, the Housing Rich Alternative would pay all applicable impact fees and taxes, which would offset impacts to public facilities and services, including police and fire, schools, and parks. As a result, growth associated with implementation of the Housing Rich Alternative 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 Housing Rich Alternative would not result in significant indirect growth-including impacts. **(Less than Significant Impact)**

SECTION 6.0 SIGNIFICANT AND IRREVERSIBLE ENVIRONMENTAL CHANGES

6.1 PROJECT

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.

6.1.1 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 4.6, 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, Retail and Residential Alternative, and Housing Rich 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, Retail and Residential Alternative, and Housing Rich Alternative) would minimize potable water consumption by extending existing recycled water infrastructure to the site and using recycled water for landscape irrigation (see Section 3.1.2.4 of this EIR Amendment). In addition, as identified in Section 3.1.2.6 of this EIR Amendment, 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.

6.1.2 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.

6.1.3 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 4.9 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 4.7). For these reasons, the project (and project alternatives) would not result in irreversible damage that may result from environmental accidents.

6.2 HOUSING RICH ALTERNATIVE

6.2.1 Use of Nonrenewable Resources

The Housing Rich Alternative would result in similar use and consumption of nonrenewable resources as described above for the proposed project because it would construct and operate a similar amount of development, be subject to the same energy efficiency standards, use recycled water for landscape irrigation, and use 100 percent carbon free sources of electricity.

6.2.2 Commitment of Future Generations to Similar Use

The Housing Rich Alternative would result in similar commitment of future generations to similar use as described above for the proposed project because it would be developed on a site that is already fully developed for urban uses and commit a substantial amount of resources to prepare the site, construct the buildings, and operate them.

6.2.3 Irreversible Damage Resulting from Environmental Accidents Associated with the Project

Like the proposed project, the Housing Rich Alternative 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. There are no significant unmitigatable hazards and hazardous materials conditions on-site or off-site that would substantially affect the public and surrounding environment and there are no significant unmitigatable geology and soils impacts from implementation of the Housing Rich Alternative (refer to Sections 4.9 and 4.7 of this EIR Amendment). For these reasons, like the proposed project, the Housing Rich Alternative would not result in irreversible damage that may result from environmental accidents.

SECTION 7.0 SIGNIFICANT AND UNAVOIDABLE IMPACTS

As discussed in detail in Section 4.0, the project and/or Housing Rich Alternative would result in the following significant and unavoidable impacts:

- **Impact AQ-2:** The construction of the project or Housing Rich Alternative would violate an 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 or Housing Rich Alternative would violate an 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 project or Housing Rich Alternative would result in a cumulatively considerable net increase of criteria pollutants (ROG, NO_x, PM₁₀, 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)**
- **Impact AQ-6:** The project or Housing Rich 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 project or Housing Rich 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 or Housing Rich Alternative would 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 or Housing Rich 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 or Housing Rich 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 or Housing Rich 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 or Housing Rich 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 or Housing Rich 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-6:** The Housing Rich Alternative would conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities or otherwise decrease the performance of safety of such facilities. **(Significant and Unavoidable Cumulative Impact with Mitigation Incorporated)**
- **Impact TRN-7:** The project or Housing Rich Alternative would result in a considerable contribution to a significant cumulative transportation impact. **(Significant and Unavoidable Impact with Mitigation Incorporated)**

SECTION 8.0 ALTERNATIVES

8.1 HOUSING RICH ALTERNATIVE

A summary of the environmental impacts of the Housing Rich Alternative compared to the proposed project and other project alternatives is provided in Table 7.2-1.

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 the Draft EIR, 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.

The Housing Rich Alternative would meet all six of the project objectives identified in the Draft EIR 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.

Table 8.1-1: 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	Housing Rich Alternative
Aesthetics						
Impact AES-1: The project (and project alternatives) would not result in significant aesthetic impacts.	LTS	LTS	LTS	LTS	NI	LTS
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	LTS
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	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	NI
Air Quality						
Impact AQ-1: The project (and project alternatives) would not conflict with or	LTS	LTS	LTS	LTS	NI	LTS

Table 8.1-1: 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	Housing Rich Alternative
obstruct implementation of the applicable air quality plan.						
Impact AQ-2: The construction of the project (and General Plan Buildout with Maximum Residential Alternative, Retail and Residential Alternative, and Housing Rich Alternative) would violate an air quality standard or contribute substantially to an existing or projected air quality violation.	SU/M	SU/M	SU/M	LTS	NI	SU/M
Impact AQ-3: The operation of the project (and General Plan Buildout with Maximum Residential Alternative, Retail and Residential Alternative, and Housing Rich Alternative) would violate an air quality standard or contribute substantially to an existing or projected air quality violation.	SU/M	SU/M	SU/M	LTS	NI	SU/M
Impact AQ-4: The proposed project (and General Plan Buildout with Maximum Residential Alternative, Retail and Residential Alternative, and Housing Rich Alternative) would result in a cumulatively considerable net increase of criteria pollutants (ROG, NO _x , PM ₁₀ , and/or PM _{2.5})	SU/M	SU/M	SU/M	LTS	NI	SU/M

Table 8.1-1: 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	Housing Rich Alternative
for which the project region is non-attainment under an applicable federal or state ambient air quality standard.						
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	LTS
Impact AQ-6: The proposed project (and General Plan Buildout with Maximum Residential Alternative, Retail and Residential Alternative, and Housing Rich Alternative) would expose sensitive receptors to substantial construction dust and diesel exhaust emissions concentrations.	SU/M	SU/M	SU/M	LTS	NI	SU/M
Impact AQ-7: The proposed project (and General Plan Buildout with Maximum Residential Alternative, Retail and Residential Alternative, and Housing Rich Alternative) would expose sensitive	LTS/M	LTS/M	LTS/M	LTS	NI	LTS/M

Table 8.1-1: 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	Housing Rich Alternative
receptors to substantial TAC pollutant concentrations.						
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	LTS
Impact AQ-9: Implementation of the proposed project (and General Plan Buildout with Maximum Residential Alternative, Retail and Residential Alternative, and Housing Rich 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	SU/M
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	LTS
Impact BIO-2: The project (and project alternatives) would not have a substantial	NI	NI	NI	NI	NI	NI

Table 8.1-1: 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	Housing Rich Alternative
adverse effect on riparian habitat, wetland, or other sensitive natural community.						
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	LTS
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	LTS
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	LTS
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	LTS

Table 8.1-1: 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	Housing Rich Alternative
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	LTS
Impact CR-2: The project (and General Plan Buildout with Maximum Residential Retail and Residential Alternative, and Housing Rich Alternative) would not significantly impact archaeological resources, human remains, or tribal cultural resources.	LTS/M	LTS/M	LTS/M	LTS	NI	LTS
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	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	LTS/M

Table 8.1-1: 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	Housing Rich Alternative
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	LTS
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	LTS
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	LTS
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	LTS	LTS	LTS	LTS	NI	LTS

Table 8.1-1: 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	Housing Rich Alternative
ground failure (including liquefaction), and/or landslides.						
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	LTS
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	LTS
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	NI
Impact GEO-5: The project (and project alternatives) would not have a cumulatively	LTS	LTS	LTS	LTS	NI	LTS

Table 8.1-1: 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	Housing Rich Alternative
considerable contribution to a significant cumulative geology and soil impact.						
Greenhouse Gas						
Impact GHG-1: The project (and General Plan Buildout with Maximum Residential Alternative and Housing Rich 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	LTS/M
Impact GHG-2: The project (and General Plan Buildout with Maximum Residential Alternative, Retail and Residential Alternative, and Housing Rich Alternative) would not conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing GHG emissions.	LTS	LTS	LTS	NI	NI	LTS
Hazards and Hazardous Materials						
Impact HAZ-1: The project (and General Plan Buildout with Maximum Residential, Retail and Residential Alternative, and Housing Rich Alternative) would not create a significant hazard to the public or the	LTS/M	LTS/M	LTS/M	LTS	NI	LTS/M

Table 8.1-1: 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	Housing Rich Alternative
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.						
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	LTS
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	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	LTS

Table 8.1-1: 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	Housing Rich Alternative
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	NI
Impact HAZ-6: The project (and General Plan Buildout with Maximum Residential Alternative, Retail and Residential Alternative, and Housing Rich Alternative) would not have a cumulatively considerable contribution to a significant cumulative hazardous materials impact.	LTS	LTS	LTS	LTS	NI	LTS
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	LTS
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	LTS
Impact HYD-3: The project (and project alternatives) would not substantially alter	LTS	LTS	LTS	LTS	NI	LTS

Table 8.1-1: 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	Housing Rich Alternative
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.						
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	LTS
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	LTS
Land Use						
Impact LU-1: The project (and project alternatives) would not physically divide an established community.	LTS	LTS	LTS	LTS	NI	LTS
Impact LU-2: The project (and General Plan Buildout with Maximum Residential	LTS	LTS	LTS	LTS	NI	LTS

Table 8.1-1: 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	Housing Rich Alternative
Alternative, Retail and Residential Alternative, and Housing Rich 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.						
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	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	LTS
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	NI
Impact MIN-2: The project (and project alternatives) would not contribute to a	NI	NI	NI	NI	NI	NI

Table 8.1-1: 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	Housing Rich Alternative
significant cumulative mineral resources impact.						
Noise and Vibration						
Impact NOI-1: The project (and General Plan Buildout with Maximum Residential, Retail and Residential Alternative, and Housing Rich 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	SU/M
Impact NOI-2: The project (and General Plan Buildout with Maximum Residential, Retail and Residential Alternative, and Housing Rich Alternative) would not expose persons to or generation of excessive groundborne vibration.	LTS/M	LTS/M	LTS/M	LTS	NI	LTS/M
Impact NOI-3: The project (and General Plan Buildout with Maximum Residential, Retail and Residential Alternative, and Housing Rich Alternative) would result in a substantial permanent increase in ambient	SU/M	SU/M	SU/M	SU	NI	SU/M

Table 8.1-1: 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	Housing Rich Alternative
noise levels in the project vicinity above levels existing without the project.						
Impact NOI-4: The project (and General Plan Buildout with Maximum Residential, Retail and Residential Alternative, and Housing Rich 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	SU/M
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	NI
Impact NOI-6: The project (and General Plan Buildout with Maximum Residential Alternative, Retail and Residential Alternative, and Housing Rich Alternative) would result in a cumulatively considerable permanent noise level increase at existing residential land uses.	SU/M	SU/M	SU/M	SU	NI	SU/M

Table 8.1-1: 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	Housing Rich Alternative
Population and Housing						
Impact POP-1: The project (and project alternatives) would not induce substantial population growth in the area.	LTS	LTS	LTS	LTS	NI	LTS
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	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	LTS

Table 8.1-1: 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	Housing Rich Alternative
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	LTS
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	LTS
Impact PS-3: The project (and General Plan Buildout with Maximum Residential, Retail and Residential Alternative, and Housing Rich Alternative) would not require new or physically altered school facilities (the construction of which could	LTS	LTS	LTS	NI	NI	LTS

Table 8.1-1: 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	Housing Rich Alternative
cause significant environmental impacts) in order to maintain acceptable service ratios, response times, or other performance objectives.						
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	LTS
Impact PS-5: The project (and General Plan Buildout with Maximum Residential, Retail and Residential Alternative, and Housing Rich 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	LTS

Table 8.1-1: 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	Housing Rich Alternative
Impact PS-6: The project (and project alternatives) would not result in significant cumulative impacts to public services.	LTS	LTS	LTS	LTS	NI	LTS
Recreation						
Impact REC-1: The project (and project alternatives) would not result in substantial physical deterioration of recreational facilities.	LTS	LTS	LTS	LTS	NI	LTS
Impact REC-2: The proposed open space under the project (and General Plan Buildout with Maximum Residential Alternative, Retail and Residential Alternative, and Housing Rich Alternative) would not result in an adverse physical effect on the environment.	LTS	LTS	LTS	NI	NI	LTS
Impact REC-3: The project and project alternatives would not result in significant cumulative recreation impacts.	LTS	LTS	LTS	NI	NI	LTS
Transportation						
Impact TRN-1: Under existing with project conditions, the project (and General Plan Buildout with Maximum Residential, Retail	SU/M	SU/M	SU/M	SU	NI	SU/M

Table 8.1-1: 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	Housing Rich Alternative
and Residential Alternative, and Housing Rich 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.						
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	SU/M
Impact TRN-3: Project and project alternative construction-related traffic would not conflict with an applicable plan, ordinance, or policy establishing measures	LTS	LTS	LTS	LTS	NI	LTS

Table 8.1-1: 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	Housing Rich Alternative
of effectiveness for the performance of the circulation system.						
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	NI
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	LTS
Impact TRN-6: The Housing Rich Alternative would 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	SU/M
Impact TRN-7: The project (and General Plan Buildout with Maximum Residential Alternative, Retail and Residential Alternative, and Housing Rich Alternative)	SU/M	SU/M	SU/M	SU	NI	SU/M

Table 8.1-1: 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	Housing Rich Alternative
would result in a cumulatively considerable contribution to a significant cumulative transportation impact.						
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	LTS
Impact UTL-2: The project (and General Plan Buildout with Maximum Residential, Retail and Residential Alternative, and Housing Rich 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	LTS/M
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	LTS
Impact UTL-4: The project (and project alternatives) would not require the	LTS	LTS	LTS	LTS	NI	LTS

Table 8.1-1: 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	Housing Rich Alternative
construction of new storm water drainage facilities or expansion of existing facilities.						
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	LTS
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	LTS
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	LTS
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	LTS

SECTION 9.0 REFERENCES

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- Fehr & Peers. *Vallco Special Area Specific Plan – Housing Rich Alternative*. June 2018.
- Illingworth & Rodkin, Inc. *Addendum Letter to the Environmental Noise Assessment*. June 2018.
- . *Housing Rich Alternative Air Quality Modeling*. June 2018.
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SECTION 10.0 LEAD AGENCY AND CONSULTANTS

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