

4 Introduction to Environmental Analysis

4.1 Introduction

The environmental resource assessment below describes the potential environmental impacts associated with the implementation of the Vallco Town Center Specific Plan (Specific Plan). Each Environmental Assessment (EA) chapter describes existing environmental and regulatory conditions; presents the criteria used to determine whether an impact would be significant; analyzes significant impacts; identifies Environmental Design Features (EDFs) included as part of the Specific Plan for each significant impact; and discusses the significance of impacts after the EDFs are incorporated.

This EA is organized into the following chapters:

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4.2 Environmental Design Features

The EDFs identified as part of this EA are part of the part of the Specific Plan, included as part of Appendix A. As noted in Chapter 9.9 of the Specific Plan, the EDFs are intended to avoid or substantially reduce all potential environmental effects to the maximum extent feasible, and the City of Cupertino retains full authority to enforce each of the EDFs.

4.3 Cumulative Impacts

Cumulative impacts, *i.e.*, those impacts that evaluate the incremental effect of the Specific Plan, combined with the effects of other projects, are discussed in each respective EA discussion chapter. Significant adverse impacts of the cumulative projects would be required to be reduced, avoided or minimized through the application and implementation of EDFs.

5 Aesthetics

5.1 Introduction

This chapter describes the existing setting of the Plan Area as it relates to aesthetics; identifies applicable regulatory requirements; evaluates potential impacts on aesthetics; and references the Specific Plan Environmental Design Features (EDFs) to reduce or avoid potential impacts.

This section describes effects on aesthetics that would be caused by implementation of the Specific Plan. This analysis also considers the consistency of the Specific Plan with applicable visual resources-related policies. Visual simulations that illustrate existing and simulated representations of the Plan Area from viewpoints surrounding the Plan Area. These visual simulations and analysis in this section are based on the plans and diagrams prepared in 2016.

Information used to prepare this chapter came from the following sources:

- City of Cupertino General Plan, *Community Vision 2015-2040*, 2015, as amended.
- PlaceWorks. 2014. *General Plan Amendment, Housing Element Update, and associated Rezoning Project Draft Environmental Impact Report*. State Clearinghouse No. 2014032007. Final EIR certified December 4, 2014,
- Santa Clara Valley Transportation Authority, 2014. *Valley Transportation Plan 2040 (VTP 2040)*. Approved October 2014.
- Rafael Vinoly Architects. *Vallco Specific Plan, Town Center/Community Park Photosimulations*. March 7, 2016.
- Rafael Vinoly Architects, 2016. *The Town Center/Community Park Shadow Study*. February 2016 (see [Appendix AES](#)).

5.2 Determination of Existing Visual Quality

The analysis of the visual environment was made by describing the visual resources and character of the Plan Area and vicinity, determining the contrast of the Specific Plan with the setting, and estimating the potential viewer response to these changes in the visual environment. Viewer responses to visual changes were inferred from a variety of factors, including view exposures, type of viewer, numbers of viewers, duration of view, and viewer activities.

5.2.1 Visual Definitions

Visual Quality. Visual quality is an expression of the visual impression or appeal of a given landscape (e.g., landforms, rock forms, water features, vegetative patterns, and cultural features). Visual quality is rated from low to high. Landscapes rated low are often dominated by visually discordant human alterations. Landscapes rated high generally are memorable because of the way the individual landscape features combine in a coherent and harmonious visual pattern. Also, those landscapes are typically free from discordant human alterations, so they retain their visual integrity.

Viewer Concern. Viewer concern addresses the level of interest or concern (from low to high) of viewers regarding an area's aesthetic values and the potential for visible change to the landscape. Viewer concern is closely associated with viewers' expectations for a given viewshed (i.e., an area of land visible from a fixed vantage point) and reflects the importance placed on the human perceptions of the intrinsic beauty and visual interest of the existing landscape characteristics. Official statements of public values and goals and adopted local public policy pertaining to aesthetics or visual resources also reflect viewers' expectations regarding a visual setting and are given weight in determining levels of viewer concern.

Land uses associated with designated parks, monuments, and wilderness areas; scenic highways and corridors; recreational areas; conservation areas; and residential areas are generally considered to have high viewer concern. However, existing landscape character may temper viewer concern on some State and locally designated scenic highways and corridors though, in general, people driving for pleasure or engaged in recreational activities tend to have high viewer concern.

Travelers on other highways and roads, including those in rural or agricultural areas, may have moderate or high viewer concern depending on viewer expectations as conditioned by regional and local landscape conditions in these areas.

Commercial uses, including business parks hotels, and their occupants typically have low-to-moderate viewer concern, although some commercial developments have specific requirements related to visual quality with respect to landscaping, building height limitations, building design, and prohibition.

Industrial uses and their occupants typically have the lowest viewer concern because employees generally work in utilitarian surroundings with relatively low visual value. However, some areas of lower visual quality and degraded visual character may contain particular views of substantially higher visual quality or interest to the public.

Visibility. Visibility is a measure of how well an object can be seen. Visibility depends on the angle or direction of views; viewing distance; extent of visual screening; and topographical relationships between the object and existing homes, streets, or parks. Visibility takes into consideration any and all obstructions that may be in the sightline, including landforms, trees and other vegetation, buildings, transmission poles or towers, general air quality conditions such as haze, and general weather conditions, such as fog.

Number of Viewers. Number of viewers is a measure of the number of viewers per day who would have a view of a proposed project or a visual resource and can range from low to high. The types of viewers can include residents, employees, motorists, and recreationists.

Duration of View. Duration of view is the amount of time to view a project site or a visual resource. For example, a high or extended view of a project site is one experienced over the course of two minutes or more. In contrast, a low or brief duration of view is available in a short amount of time – generally less than 10 seconds.

Viewer Exposure. Viewer exposure is a function of three elements previously listed: visibility; number of viewers; and duration of view. Viewer exposure can range from low to high. A partially obscured and brief background view for a few motorists represents low viewer exposure, and an unobstructed foreground view from a large number of residences represents a high viewer exposure.

Visual Sensitivity. Visual sensitivity is derived from three elements previously listed – visual quality, viewer concern, and viewer exposure – and is a concluding assessment of an existing landscape’s susceptibility to an adverse visual outcome. A landscape with a high degree of visual sensitivity is able to accommodate only a lower degree of adverse visual change without resulting in a significant aesthetic impact. A landscape with a low degree of visual sensitivity is able to accommodate a higher degree of adverse visual change before exhibiting a significant aesthetic impact. Visual sensitivity can range from low to high.

5.3 Environmental Setting

This section presents information on aesthetic resource conditions in the Plan Area. The current condition and aesthetic quality of the Plan Area was used as the baseline against which to compare potential impacts of implementation of the Specific Plan.

5.3.1 Regional Setting

The City of Cupertino (City) is largely built-out and is positioned between the built environments of Los Altos and Sunnyvale to the northwest and north; Santa Clara and San Jose to the northeast and east; Saratoga to the south, and unincorporated areas (Santa Clara Valley) of Santa Clara County to the west and south.

The Plan Area is located in the northeastern portion of Cupertino. The City east of State Route (SR) 85 is composed of smaller-lot residential buildings, school and junior college campuses, distinct commercial and industrial centers, and major high-tech and corporate facilities. While most of the City is dominated by single-family development, multi-story, mixed-use developments are more prominent along the City’s major arterials and near highways. In particular, the more urban, higher-density development in the City is located near the Steven Creek Boulevard/De Anza Boulevard and Stevens Creek Boulevard/Wolfe Road intersections.

5.3.2 Specific Plan Setting

The Plan Area is generally bound by Interstate 280 (I-280) to the north, portions of Wolfe Road and Perimeter Road to the east, Stevens Creek Boulevard to the south, and another portion of Perimeter Road to the west; Perimeter Road is within the boundaries of the Plan Area.

The Plan Area is considered the City’s regional shopping district and consists of many retail stores, as well as a movie theater and a number of restaurants. The Plan Area also includes a large amount of parking, both surface and structured. The multi-story buildings and parking structures are physically separated by Wolfe Road, and are connected by an elevated enclosed bridge that connects the western and eastern portions of the existing shopping mall (the Mall).

The Plan Area is generally bordered by single-family residences to the west. Two-story office buildings with expansive surface parking lots and a mixed-use development are located to the east. A three-story mixed-use development and two- and three-story office buildings are immediately south of the Plan Area. There are also commercial strip malls and one- to two-story office buildings in the vicinity of the Plan Area.

5.3.3 Key Viewpoints

The potential aesthetic and visual impact analysis is based on viewpoints located in the vicinity of the Plan Area. The locations of these viewpoints are shown in [Figure 5-1: Location of Key Viewpoints](#). Existing and simulated views from each of these viewpoints are shown in [Figure 5-2](#) through [Figure 5-11](#). The simulated views assume that the landscaping has had three to five years of growth.

Viewpoint 1

Viewpoint 1 is located at the intersection of Stevens Creek Boulevard and Perimeter Road. The viewpoint is oriented to the northeast and includes the intersection, Stevens Creek Boulevard, and the southwest corner of the Plan Area. There are mature trees lining Stevens Creek Boulevard.

Viewpoint 2

Viewpoint 2 is located at the intersection of Wheaton Drive and Denison Avenue. The viewpoint is oriented to the east and includes single-family residences, a tree lined street, and a barrier wall located at the east end of Wheaton Drive. East of the barrier wall are tall, mature trees.

Viewpoint 3

Viewpoint 3 is located at the intersection of Amherst Drive and Denison Avenue. The viewpoint is oriented to the east and includes single-family residences, a tree lined street, power lines, and a barrier wall located at the east end of Amherst Drive. East of the barrier wall are tall, mature trees.

Viewpoint 4

Viewpoint 4 is located at the intersection of Merritt Drive and Norwich Avenue. The viewpoint is oriented to the southeast and includes single-family residences, tree lined streets, and a barrier wall located at the east end of Merritt Drive. To the east and south of the single-family residences are tall, mature trees.

Viewpoint 5

Viewpoint 5 is located on the southbound I-280, just south of the Wolfe Road overpass. The viewpoint is oriented southeast and includes the southbound freeway lanes, light poles, the shoulder, and tall, mature trees along the freeway shoulder.

Viewpoint 6

Viewpoint 6 is located on the northbound I-280, just south of the Wolfe Road off-ramp. The viewpoint is oriented northwest and includes the northbound freeway lanes, the freeway divider, light poles, the Vallco Freeway-Oriented Sign, and tall, mature trees along the freeway.

Viewpoint 7

Viewpoint 7 is located on Stevens Creek Boulevard, between Finch Avenue and Wolfe Road. The viewpoint is oriented to the west and includes Stevens Creek Boulevard, trees lining the roadway, office buildings, and retail.

Viewpoint 8

Viewpoint 8 is located on Miller Avenue, south of Stevens Creek Boulevard. The viewpoint is oriented to the north and includes the intersection of Wolfe Road and Stevens Creek Boulevard, trees lining the roadway, and one- and two-story commercial and retail buildings.

Viewpoint A

Viewpoint A is located in the planned Community Park and Nature Area, northwest of the Wolfe Road and Vallco Parkway intersection. The viewpoint is from the proposed height of the Community Park and Nature Area at that particular point. The viewpoint is oriented west and includes the top level of the parking structure, mature trees located along Perimeter Road and in the single-family neighborhood to the west, and the rooflines of single-family homes located to the northwest. The Santa Cruz Mountains are visible in the distance.

Viewpoint B

Viewpoint B is located in the planned Community Park and Nature Area, north of Vallco Parkway and near the eastern boundary of the Plan Area. The viewpoint is from the proposed height of the Community Park and Nature Area at that particular point. The viewpoint is oriented south and includes the top level of the parking structure and the off-site apartments located on the southeast corner of Wolfe Road and Vallco Parkway. Mature trees and the Santa Cruz Mountains are visible in the distance.

5.3.4 Light and Glare

There are two primary sources of nighttime light: light emanating from building interiors that pass through windows and light from exterior sources (e.g., street lighting, parking lot lighting, vehicle/truck lighting, building illumination, security lighting, and landscape lighting).

Depending on the location of the light sources and its proximity to adjacent light sensitive uses, lighting can be a nuisance affecting adjacent areas and diminishing the view of the clear night sky. Light spillage is typically defined as unwanted illumination from light fixtures on adjacent properties.

The Plan Area is located in a built-out location where night lighting is a common feature. Night lighting currently exists in the vicinity of the Plan Area in the form of street lighting, parking lot lighting, building illumination, security lighting, landscape lighting, and from the headlights of motor vehicles on the roadways and I-280. The Plan Area is currently developed with the Mall

and structured and surface parking. Existing nighttime lighting within the Plan Area includes parking lot and parking structure lighting, building illumination, security lighting, and headlights from motor vehicles entering and exiting the Mall.

Glare is the unwanted and potentially objectionable result from looking directly into a light source or a reflection which can impact sensitive uses such as residences. There is no source of substantial glare currently in the Plan Area.

5.4 Applicable Regulations, Plans, and Standards

5.4.1 State

California Scenic Highway Program

In 1963, the California Legislature established the State's Scenic Highway Program, which is intended to preserve and protect scenic highway corridors from changes that would diminish the aesthetic value of lands adjacent to highways. The State laws governing the Scenic Highway Program are found in the Streets and Highways Code, Section 260 et seq.

The State Scenic Highways program is administered by the California Department of Transportation (Caltrans). The State Scenic Highway System includes highways that are either eligible for designation as scenic highways or have been designated as such.

For Caltrans to grant an eligible route official status as a California State Scenic Highway, the local jurisdiction must implement a Corridor Protection Program by either adopting ordinances, zoning, and/or planning policies to preserve the scenic quality of the corridor, or documenting that such regulations already exist in various portions of local codes. Policies to prevent visual degradation of these view corridors might include restriction of dense and continuous development, reflective surfaces, ridgeline development, extensive cut and fill grading, disturbed hillsides and landscape, exposed earth, and non-native vegetation (Caltrans, 2012).

I-280, located directly north of the Plan Area, is an eligible State Scenic Highway but is not officially designated (DOT).

California Building Code

The California Building Code (CBC), Part 2 of Title 24 of the California Code of Regulations (CCR), is based on the International Building Code and combines three types of building standards from three different origins:

- Building standards that have been adopted by State agencies without change from building standards contained in the International Building Code.
- Building standards that have been adopted from the International Building Code to meet California conditions.

- Building standards, authorized by the California legislature, that constitute extensive additions not covered by the International Building Code that have been adopted to address particular California concerns.

The CBC includes standards for outdoor lighting that are intended to improve energy efficiency, and to reduce light pollution and flare by regulating light power and brightness, shielding, and sensor controls.

Senate Bill 743

Governor Brown signed Senate Bill (SB) 743 in September 2013, which made several changes to CEQA for projects located in “transit priority areas” (i.e., transit-oriented development). Those changes direct the Governor’s Office of Planning and Research to develop a new approach for analyzing the transportation impacts under CEQA. Relevant here, the California Public Resources Code Division 13, Chapter 2.7, Section 21099 (d)(1), provides that, “aesthetic and parking impacts of a residential, mixed use residential, or employment center project on an infill site within a transit priority area shall not be considered significant impacts on the environment.”

A project’s aesthetics impacts are no longer considered a significant impact on the environment if: (1) the project is a residential, mixed-use residential, or employment center project, and (2) the project is located on an infill site within a transit priority area. An infill site is a lot located within an urban area that has been previously developed, or is on a vacant site where at least 75 percent of the perimeter of the site adjoins, or is separated by only an improved public right-of-way from, parcels that are developed with qualified urban uses. A transit priority area is an area within one-half mile of a major transit stop that is existing or planned, if the planned stop is scheduled to be completed within the planning horizon included in a Transportation Improvement Program adopted pursuant to Section 450.216 or 450.322 of Title 23 of the Code of Federal Regulations.

This Environmental Assessment (EA) was not prepared under CEQA. However, CEQA provides the basis for a more rigorous analysis than a non-legislative EA. Thus, the CEQA Guidelines have been used as the statutory framework to provide a more conservative approach to the analysis.

5.4.2 Local

City of Cupertino General Plan

The City of Cupertino’s General Plan, *Community Vision 2015-2040* (General Plan), as amended, includes policies and strategies that shape the aesthetic character of the City. A list of the relevant General Plan polices and strategies are provided below. A General Plan Land Use Consistency Analysis for the Specific Plan is provided in [Section 13, Land Use and Planning](#).

Policy LU-3.3: Building Design

Ensure that building layouts and design are compatible with the surrounding environment and enhance the streetscape and pedestrian activity.

Strategy LU-3.3.1: Attractive Design.

Emphasize attractive building and site design by paying careful attention to building scale, mass, placement, architecture, materials, landscaping, screening of equipment, loading areas, signage, and other design considerations.

Strategy LU-3.3.2: Mass and Scale.

Ensure that the scale and interrelationships of new and old development complement each other. Buildings should be grouped to create a feeling of spatial unity.

Strategy LU-3.3.3: Transitions.

Buildings should be designed to avoid abrupt transitions with existing development, whether they are adjacent or across the street. Consider reduced heights, buffers and/or landscaping to transition to residential and/or low-intensity uses in order to reduce visual and privacy impacts.

Strategy LU-3.3.6: Architecture and Articulation.

Promote high-quality architecture, appropriate building articulation and use of special materials and architectural detailing to enhance visual interest.

Strategy LU-3.3.X: Multiple-Story Buildings and Residential Districts.

Allow construction of multiple-story buildings if it is found that nearby residential districts will not suffer from privacy intrusion or be overwhelmed by the scale of a building or group of buildings.

Policy LU-4.1: Streets and Sidewalks

Ensure that the design of streets, sidewalks and pedestrian and bicycle amenities are consistent with the vision for each Planning Area and Complete Streets policies.

Policy LU-4.2: Street Trees and Landscaping

Ensure that tree planting and landscaping along streets visually enhances the streetscape and is consistent for the vision for each Planning Area (Special Areas and Neighborhoods):

1. Maximize street tree planting along arterial street frontages between buildings and/or parking lots.
2. Provide enhanced landscaping at the corners of all arterial intersections.
3. Enhance major arterials and connectors with landscaped medians to enhance their visual character and serve as traffic calming devices.
4. Develop uniform tree planning 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: Mixed-Use Villages

Where housing is allowed along major corridors or neighborhood commercial areas, development should promote mixed-use villages with active ground-floor uses and public space. The development should help create an inviting pedestrian environment and activity center that can serve adjoining neighborhoods and businesses.

Policy LU-7.1: Public Art

Stimulate opportunities for the arts through development and cooperation with agencies and the business community.

Goal LU-12: Preserve and Protect the City's Hillside Natural Habitat and Aesthetic Values

Policy LU-12.4: Hillside Views

The Montebello foothills at the south and west boundary of the valley floor provide a scenic backdrop, adding to the City's scale and variety. While it is not possible to guarantee an unobstructed view of the hills from every vantage point, an attempt should be made to preserve views of the foothills.

Strategy LU-12.4.1: Views from Public Facilities.

Design public facilities, particularly open spaces, so they include view of the foothills or other nearby natural features, and plan hillside development to minimize visual and other impacts on adjacent public open space.

Policy LU-19.1: Specific Plan

Create a Vallco Shopping District Specific Plan prior to any development on the site that lays out the land uses, design standards and guidelines, and infrastructure improvements required. The Specific Plan will be based on the following strategies:

Strategy LU-19.1.9: Building form.

Buildings should have high-quality architecture, and an emphasis on aesthetics, human scale, and create a sense of place. Taller buildings should provide appropriate transitions to fit into the surrounding area.

Strategy LU-19.1.10: Gateway character.

High-quality buildings with architecture and materials befitting the gateway character of the site. The project should provide gateway signage and treatment.

Strategy LU-19.1.14: Neighborhood buffers.

Consider buffers such as setbacks, landscaping and/or building transitions to buffer abutting single-family residential areas from visual and noise impacts.

City of Cupertino Municipal Code

The City of Cupertino Municipal Code contains all ordinances for the City. The Municipal Code is organized by Title, Chapter, and Section. The following provisions from the Municipal Code help minimize visual impacts associated with new development projects:

- Nuisance Abatement, addresses nuisance abatement and includes provisions aimed at protecting the visual quality of the community. This chapter defines aspects that constitute a nuisance, including “a condition that diminishes property values and degrades the quality of life in the city.” This chapter requires proper maintenance of buildings and property and the abatement of visual nuisances to ensure the protection of public health and safety.
- Title 19 of the Municipal Code sets forth the City’s Zoning Ordinance, which, among other purposes, is intended to assure the orderly and beneficial development of the City, attain a desirable balance of residential and employment opportunities, and promote efficient urban design and arrangement. The Zoning Ordinance sets forth the standards requiring architectural and site review and stipulating aesthetic criteria for new development. For instance, a proposed development should ensure compatibility to adjacent uses in terms of architectural style and building size. Additionally, the Zoning Ordinance sets forth development standards related to aesthetics including fencing and signage.
- Under *Architectural and Site Review*, the Approval Body, defined as either the Director of Community Development and his/her designee, the Planning Commission or City Council depending upon context, is responsible for the review of architectural and site designs of buildings within the City to promote and ensure compliance with the goals and objectives identified in the General Plan. The findings for architectural and site review are as follows:
 - The proposal, at the proposed location, will not be detrimental or injurious to the property or improvements in the vicinity, and will not be detrimental to the public health, safety, general welfare, or convenience;
 - The proposal is consistent with the purposes of this [Architectural and Site Review] chapter, the General Plan, any specific plan, zoning ordinances, applicable planned development permit, conditional use permit, variances, subdivision maps or other entitlements to use which regulate the subject property including, but not limited to, adherence to the following specific criteria:
 - Abrupt changes in building scale should be avoided. A gradual transition related to height and bulk should be achieved between new and existing buildings.
 - In order to preserve design harmony between new and existing buildings and in order to preserve and enhance property values, the materials, textures and colors of new buildings should harmonize with adjacent

development by being consistent or compatible with design and color schemes, and with the future character of the neighborhood and purposes of the zone in which they are situated. The location, height, and materials of walls, fencing, hedges, and screen planting should harmonize with adjacent development. Unsightly storage areas, utility installations, and unsightly elements of parking lots should be concealed. The planting of ground cover or various types of pavements should be used to prevent dust and erosion, and the unnecessary destruction of existing healthy trees should be avoided. Lighting for development should be adequate to meet safety requirements as specified by the engineering and building departments, and provide shielding to prevent spill-over light to adjoining property owners.

- The number, location, color, size, height, lighting and landscaping of outdoor advertising signs and structures shall minimize traffic hazards and shall positively affect the general appearance of the neighborhood and harmonize with adjacent development.
- With respect to new projects within existing residential neighborhoods, new development should be designed to protect residents from noise, traffic, light, and visually intrusive effects by use of buffering, setbacks, landscaping, walls, and other appropriate design measures.
- Title 14, Street, Sidewalks and Landscaping, provides development standards related to aesthetics such as street improvements, encroachments, and use of the City's right-of-ways, landscaping, and undergrounding utilities.
- The Plan Area is comprised of properties zoned as Planned Development (P) zones. Section 19.80.010 provides that this zoning district, "is specifically intended to encourage variety in the development pattern of the community; to promote a more desirable living environment; to encourage creative approaches in land development; to provide a means of reducing the amount of improvements required in development through better design and land planning; to conserve natural features; to facilitate a more aesthetic and efficient use of open space; and to encourage the creation of public or private common open space."

5.5 Impacts and Environmental Design Features

5.5.1 Significance Criteria

The following significance criteria for aesthetics were derived from the Environmental Checklist in the State CEQA Guidelines Appendix G. These significance criteria have been amended or supplemented, as appropriate, to address the City's requirements and the full range of potential impacts related to implementation of the Specific Plan. Would the Specific Plan:

- a) Have a substantial adverse effect on a scenic vista?
- b) Substantially degrade scenic resources, including but not limited to trees, rock outcroppings, and historic buildings within a State scenic highway?
- c) Substantially degrade the existing visual character or quality of the site and its surroundings?
- d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?

Additionally, this chapter analyzes potential impacts associated with shadows cast on shadow-sensitive land uses such as residential, recreation, churches, schools, and pedestrian areas. The determination of impacts from shadows is a subjective assessment. For this EA, a shadow impact is considered significant if shadow-sensitive uses would be shaded by Town Center/Community Park structures for more than three hours between the hours of 9:00 AM and 3:00 PM Pacific Standard Time (PST) between late October and early April; or for more than four hours between the hours of 9:00 AM and 5:00 PM PST between early April and late October.

5.5.2 Summary of Impact Assessment

Transit-Oriented Infill Development

Under CEQA Section 21099(d) (1), “aesthetic and parking impacts of a residential, mixed-use residential, or employment center project on an infill site within a transit priority area shall not be considered significant impacts on the environment.” As discussed in Section 5.4.1 above, an infill site is a lot located within an urban area that have [either areas that have been or area that has been] been previously developed, or is on a vacant site where at least 75 percent of the perimeter of the site adjoins, or is separated by only an improved public right-of-way from parcels that are developed with qualified urban uses. Transit priority area means an area within one-half mile of a major transit stop that is existing or planned, if the planned stop is scheduled to be completed within the planning horizon included in a Transportation Improvement Program adopted pursuant to Section 450.216 or 450.322 of Title 23 of the Code of Federal Regulations.

Future development within the Plan Area would be considered infill development, because it is located in an urban area that has been previously developed. The Plan Area is located in a transit priority area, because it is within one-half mile of the existing bus stop on the north side of Stevens Creek Boulevard between Wolfe Road and Perimeter Road. Future development in the Plan Area would include developing the bus stop into a multi-modal Mobility Hub and community shuttle stop where Santa Clara Valley Transportation Authority (VTA) buses (specifically bus routes 23 and 323), and future bust rapid transit would stop. Furthermore, the Valley Transportation Plan 2040 prepared by VTA identifies the Stevens Creek corridor through Wolfe Road as a “Priority Development Area (PDA).” The VTA defines PDAs as areas, “nominated by local governments as ideal locations to concentrate growth because they contain good transit services or are accessible by walking or bicycling.”

The Specific Plan is consistent with the Bay Area Plan: Strategy for a Sustainable Future. Local governments have identified PDAs which form the implementing framework for Plan Bay Area. The preferred scenario in the Plan Bay Area is for 80 percent of residential growth and 66 percent of job growth to occur in PDAs throughout the region. As discussed above, the Stevens Creek Boulevard Corridor is designated as a PDA. Senate Bill 375 sets up a process whereby certain projects consistent with the adopted Plan Bay Area may qualify for relief from some CEQA requirements. A project may qualify for CEQA relief under SB 375 if it is, “consistent with the final approved Plan Bay Area Sustainable Communities Strategy (SGS), including all land use designations, employment distribution densities, building space intensities and applicable policies.” According to the Bay Area Plan’s Transit Priority Project (TPP) CEQA Streamlining Map, the Stevens Creek Boulevard Corridor, where the Plan Area is located is an eligible area for residential or mixed-use CEQA streamlining.

Under CEQA analysis, the aesthetic impacts of future development within the Plan Area would be considered less than significant. Although this EA is not an environmental analysis under CEQA, these criteria would otherwise be permissible given the current regulatory framework and legislative intent of the State.

5.5.3 Impacts of the Proposed Specific Plan

Impact AES-1: Would implementation of the Specific Plan have a substantial adverse effect on a scenic vista?

The Plan Area is currently developed and is located in a flat and built-out area of the City. Scenic vistas in the vicinity of the Plan Area are primarily limited to views of the Santa Cruz Mountains, located west of the Plan Area. Such views are primarily limited to Stevens Creek Boulevard. The scenic views of the mountains are unavailable from developments located to the east of the Plan Area due to the flat topography and mature trees located along Stevens Creek Boulevard and Wolfe Road. Implementation of the Specific Plan would not block views of the Santa Cruz Mountains along Stevens Creek Boulevard. Additionally, as seen in [Figure 5-10](#) and [Figure 5-11](#), implementation of the Specific Plan would allow for views of the Santa Cruz Mountains from the proposed Community Park and Nature Area located above the planned Town Center. Therefore, impacts to scenic vistas due to implementation of the Specific Plan would be less than significant.

Impact AES-2: Would implementation of the Specific Plan substantially damage scenic resources, including but not limited to trees, rock outcroppings, and historic buildings within a State scenic highway?

The segment of I-280 located directly north of the Plan Area is not an officially designated State Scenic Highway, but is considered to be an eligible State Scenic Highway. The Plan Area is in the viewshed of I-280. However, much of the Plan Area is currently screened from the view of I-280 by existing mature trees. Future development within the Plan Area would be similar to the existing conditions in the Plan Area. The Plan Area is currently developed and while the

proposed land uses and development of the Specific Plan would have a different look and architectural style from the existing development, the new development would not represent a substantial change in the land use pattern of the area, as seen in [Figure 5-6](#) and [Figure 5-7](#). As such, potential views towards the Plan Area from I-280 would not result in substantial changes to the existing visual landscape. The Specific Plan does not propose any significant changes to the existing mature trees along I-280 in the vicinity of the Plan Area.

Because of the existing site conditions and because the surrounding area has large scale retail and industrial uses, impacts to the views of scenic resources from the I-280 viewing corridor due to the development of the implementation of the Specific Plan would be less than significant and would have a less than significant impact on scenic resources.

Impact AES-3: Would implementation of the Specific Plan substantially degrade the existing visual character or quality of the site and its surroundings?

The Plan Area is currently developed with the Mall, structured parking, and surface parking lots. Future development of the Plan Area would include the redevelopment of the Mall into the Town Center/Community Park, and a hotel on Block 13. Future hotel and supporting commercial uses may be developed on Block 14, however no development is proposed at this time.

Implementation of the Specific Plan would allow the development of a Community Park and Nature Area over a Town Center, and incorporate high-quality building architecture and recognizable gateway features with an emphasis on aesthetics, human scale, and creating a sense of place. All built structures would be supported by a cohesively-designed streetscape with well-defined edges and public spaces.

Visual Simulations

Ten viewpoints (1 through 8 off site, and A and B on site) were selected to provide representative views of the existing conditions and future development within and around the Plan Area. [Figure 5-1: Location of Key Viewpoints](#) shows the location and direction of these viewpoints. [Figure 5-2](#) through [Figure 5-11](#) show the existing views of the Plan Area (upper photographs), visual simulations of the Specific Plan with an outline of structural massing (middle photograph), and simulations of the Town Center/Community Park (lower photograph) from each viewpoint.

Building heights for the project vary over the Plan Area, ranging from 30 feet on the western boundary to 95 feet on the eastern boundary. The Community Park and Nature Area would be constructed above the planned Town Center. The topography of this landscaped roof would vary over the top of the Town Center buildings, and eventually meet the existing grade at the western boundary of the Plan Area near the current alignment of Perimeter Road. Buildings along this western boundary would be set back a minimum of 35 feet from the property line. Directly adjacent to this western boundary is a double-row of mature redwood. These trees would remain in place with implementation of the Specific Plan and provide a significant visual screen between the Plan Area and the adjacent single-family Portal neighborhood to the west.

Given the lower building heights, minimum building setbacks, and significant existing visual screening, the Specific Plan would not substantially degrade the existing visual character of the adjacent residential neighborhood. Existing and simulated views from four viewpoints in the residential neighborhood are shown in [Figures 5-2 through 5-5](#).

From I-280, the Town Center would be visible in the background but would be partially screened by trees, including tall redwoods, in the foreground. The height and architectural character of the Specific Plan buildings would be consistent with the existing office buildings that front this segment of I-280 and would not substantially degrade the existing visual character as seen from I-280. Existing and simulated views from two viewpoints looking east and west on I-280 are shown in [Figures 5-6 and 5-7](#).

From Stevens Creek Boulevard, Miller Avenue, and Wolfe Road, the Town Center/Community Park would be visible but consistent with the existing developed urban character of the streetscape. Buildings visible these streets would be taller than the existing structures, however, buildings west of Wolfe Road would be no taller than the existing movie theater (83 feet). Buildings east of Wolf Road would be taller than the existing Mall (up to 95 feet), would be setback a minimum of 35 feet from the property line, and are surrounded by office buildings and a five-story apartment complex. Most of the existing ash trees, most of which are over 60 feet in height will remain, providing a visual screen along Stevens Creek Boulevard and Wolfe Road. Given the existing urban character, similarity in building heights, building setbacks, and existing vegetated screening, the Specific Plan would not substantially degrade the existing visual character of the adjacent commercial and residential uses along the southern and eastern boundaries of the Plan Area. Existing and simulation views from Stevens Creek Boulevard and Miller Avenue are shown in [Figures 5-8 and 5-9](#).

To maintain a coherent and high-quality urban character and design, the Specific Plan includes development standards, design guidelines, and environmental design features to ensure that the visual character of the project is compatible with surrounding uses. The development standards define building heights and setbacks, and screening requirements. The design guidelines address aesthetic issues such as site design, building facades, streetscape, lighting and signage.

Future development within the Mall property and any portion of Block 14 processed as a part of the Town Center/Community Park would be subject to the City of Cupertino's Architectural and Site Review Approval Process to ensure conformance with the Specific Plan. Development of Block 13, which has been approved by the City for a hotel, will remain subject to the City's Architectural and Site Approval Review, in accordance with the Zoning Ordinance.

Shadow Analysis

The topic of shade and shadow pertains to the blockage of direct sunlight by project buildings, which may affect adjacent properties. Shading is an important environmental issue because the users or occupants of certain land uses, such as residential, parks, churches, schools, outdoor restaurants, and pedestrian areas have some reasonable expectations for direct sunlight and warmth from the sun. These land uses are referred to as "shadow-sensitive."

Shadow lengths are dependent on the orientation, height, and size of a building from which they are cast and the angle of the sun, which varies with respect to the rotation of the earth (i.e., time of day) and elliptical orbit (i.e., change in seasons).

Solstice is defined as either of the two points on the ecliptic (i.e., the path of the earth around the sun) that lie midway between the equinoxes (separated from them by an angular distance of 90 degrees). At the solstices, the sun's apparent position on the celestial sphere reaches its greatest distance. In the Northern Hemisphere, the longest shadows are cast during the winter solstice (December 21-22) and the shortest shadows are cast during the summer solstice (June 21-22).

A shadow simulation was prepared by Rafael Vinoly Architects to identify potential shadow impacts on adjacent land uses ([Appendix AES](#)), particularly the shadow-sensitive single-family residential neighborhood to the west.

The shadow simulation illustrates that at 10:00 AM on December 21, shadows generated by project buildings would extend to the western property line of the Plan Area, adjacent to but not within the residential neighborhood. By noon, the shadows would extend almost due north and then move to the north east by 4:00 PM.

At no point throughout the year would shadows associated with project buildings impact shadow-sensitive uses, and therefore impacts would be less than significant.

Other Related Impacts

Urban decay can have a negative effect on the visual character and visual quality of an area. Urban decay is caused when a new development project (typically a retail center on the outer urban edge of a city) saturates a market thereby triggering long-term structural vacancies that the existing urban core cannot absorb and that cannot be otherwise repurposed for other uses. In other words, if an edge-growth development project has the potential to create competitive impacts on existing downtown (city center) retail stores leading to store closures and followed by the physical deterioration of the structures, (e.g., abandoned buildings, dumping, unauthorized use of the building, litter, graffiti, boarded up buildings, etc.), these conditions would be considered a form of urban decay and thereby adversely affecting the visual character of the urban core.

The Specific Plan would not result in adverse aesthetic impacts as a result of urban decay because it proposes to redevelop an under-performing shopping mall with existing vacancies into a mixed-use Town Center/Community Park with a range of land uses that create a balance of diverse economic drivers (office/retail/commercial/ entertainment/residential/open space and recreation uses). Urban decay in the surrounding area could result if new development were to draw existing business away from an established urban center retail areas, for example to new development areas where fewer or no retail establishments currently exist. However, the Plan Area is centrally located within the City, and located within an existing shopping district where the retail stores are concentrated. Furthermore, the Specific Plan would reduce

the amount of retail space by approximately 600,000 square feet from what is currently allowed. The revitalization of the Plan Area with a mix of integrated, vibrant and activated uses would help revitalize the retail market and further support existing retail uses. For these reasons, aesthetic impacts as a result of urban decay are considered less than significant.

Implementation of the Specific Plan would alter the visual character and quality of the site, but not in such a manner as to cause substantial degeneration of the visual character or quality of the area, nor impact shadow-sensitive uses. As a result, impacts to visual character and quality would be less than significant.

Impact AES-4: Would the Specific Plan create a new source of substantial light or glare that would adversely affect day or nighttime views of the area?

Nighttime illumination and glare impacts are the effects of exterior lighting upon adjoining uses and areas. Light and glare impacts are determined through a comparison of the existing light sources with the proposed lighting plan or policies. As discussed above, night lighting currently exists in the vicinity of the Plan Area in the form of street lighting, parking lot lighting, building illumination, security lighting, landscape lighting, and from the headlights of motor vehicles on the roadways and I-280. The Plan Area is currently developed with the Mall, structured parking and surface parking. Nighttime lighting includes parking lot and parking structure lighting, building illumination, security lighting, and headlights from motor vehicles entering and exiting the Mall.

The Specific Plan would allow for street lighting, parking lot lighting, building illumination, security lighting, and landscape lighting. **Environmental Design Feature (EDF) 24**, which requires compatibility of lighting with the surrounding area and restricts nighttime lighting to within the property limits, would reduce potential impacts to less than significant. Additionally, the proposed Community Park and Nature Area would partially block light from buildings located in the Plan Area from the surrounding uses.

The Specific Plan's development standards prohibit use of reflective building materials, including glazing, to the degree that glare would adversely affect surrounding viewers. Additionally, the proposed Community Park and Nature Area would cover most of the buildings within the Plan Area, which would deflect glare from surrounding properties and roadways. Therefore, impacts would be less than significant.

Environmental Design Feature for Impact AES-4

EDF 24 Lighting.

The Town Center/Community Park applicant and other project applicants for future development shall comply with the lighting guidelines in the Specific Plan which would prevent unnecessary glare from unshielded or undiffused light sources. The following guidelines are required to avoid light trespass across property lines:

- Unnecessary glare from unshielded or undiffused light sources should be avoided. Commercial buildings and landscaping can be illuminated indirectly by concealing light features within buildings and landscaping to highlight architectural features and avoid intrusion into neighboring properties.
- Light fixtures should be directed downward from the horizontal plane of the light source to prevent unnecessary light spillover.

5.5.4 Cumulative Impact Analysis

Impact AES-5: Implementation of the Specific Plan, in combination with past, present, and reasonably foreseeable projects, would result in less than significant cumulative impacts with respect to aesthetics.

As discussed above, implementation of the Specific Plan would not obstruct scenic views, and with comprehensive design guidelines and the planned Community Park and Nature Area, would enhance the visual quality of the Plan Area. Significant impacts to visual resources (including those associated with increased nighttime lighting) would be site-specific and would not contribute to cumulative impacts after implementation of General Plan policies and the provisions stated in the Municipal Code. Because of the developed nature of the City, implementation of the Specific Plan in combination of other new development, would not result in a significant adverse change to the visual character of the City. Moreover, because the Plan Area is a transit priority area as well as a PDA, any aesthetic impacts would not be considered significant under CEQA.

As part of the approval process, future development on the Mall property and any portion of Block 14 processed as a part of the Town Center/Community Park would be subject to the City of Cupertino's Architectural and Site Review Approval Process to ensure conformance with the Specific Plan. With the development review mechanisms in place, approved future development under the Specific Plan is not anticipated to create substantial impacts to visual resources. Therefore, implementation of the Specific Plan would result in less than cumulatively considerable contribution to aesthetic impacts.

5.6 References

Association of Bay Area Governments. 2013. *Bay Area Plan: Strategy for a Sustainable Region*.

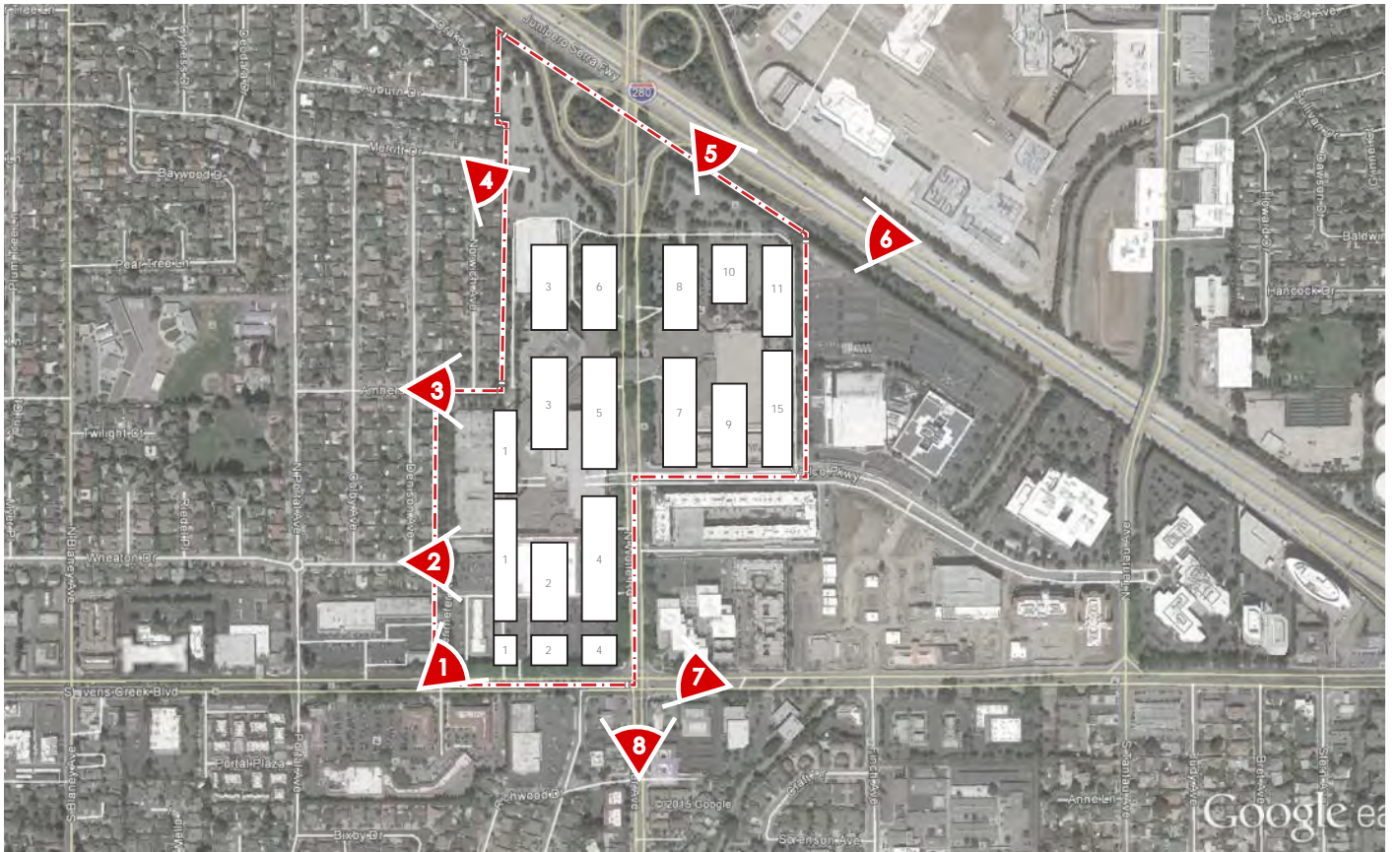
Caltrans. *Scenic Highway Guidelines*. Available at:

www.dot.ca.gov/hq/LandArch/16_livability/scenic_highways/guidelines/scenic_hwy_guidelines_04-12-2012.pdf. Accessed January 12, 2016.

DOT (Department of Transportation). California Scenic Highway Mapping System. Available at:

www.dot.ca.gov/hq/LandArch/16_livability/scenic_highways/index.htm. Accessed January 5, 2016.

LSA. 2013. *Apple Campus 2 Project Public Review Draft Environmental Impact Report*. State Clearinghouse No. 2011082055.



Vantage Points 1-8



Vantage Points A & B

Source: RVA, 2016

Figure 5-1: Location of Key Viewpoints
 Vallco Town Center Specific Plan
 Environmental Assessment



Not to scale

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Existing Conditions



Visual Outline of Town Center /Community Park



Proposed Conditions

Source: RVA, 2016



Not to scale



Existing Conditions



Visual Outline of Town Center /Community Park



Proposed Conditions

Source: RVA, 2016



Not to scale



Existing Conditions



Visual Outline of Town Center /Community Park



Proposed Conditions

Source: RVA, 2016

Figure 5-4: Vantage Point 3 - View from Amherst Drive
Vallco Town Center Specific Plan
Environmental Assessment



Not to scale

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Existing Conditions



Visual Outline of Town Center /Community Park



Proposed Conditions

Source: RVA, 2016

Figure 5-5: Vantage Point 4 - View from Merritt Drive
Vallco Town Center Specific Plan
Environmental Assessment



Not to scale

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Existing Conditions



Visual Outline of Town Center /Community Park and Block 13



Proposed Conditions

Source: RVA, 2016





Existing Conditions



Visual Outline of Town Center /Community Park



Proposed Conditions

Source: RVA, 2016

Figure 5-7: Vantage Point 6 - View from I-280 Northbound
Vallco Town Center Specific Plan
Environmental Assessment



Not to scale

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Existing Conditions



Visual Outline of Town Center /Community Park



Proposed Conditions

Source: RVA, 2016



Not to scale



Existing Conditions



Visual Outline of Town Center /Community Park



Proposed Conditions

Source: RVA, 2016



Existing Conditions



Visual Outline of Town Center /Community Park



Proposed Conditions

Source: RVA, 2016



Not to scale



Existing Conditions



Visual Outline of Town Center /Community Park



Proposed Conditions

Source: RVA, 2016

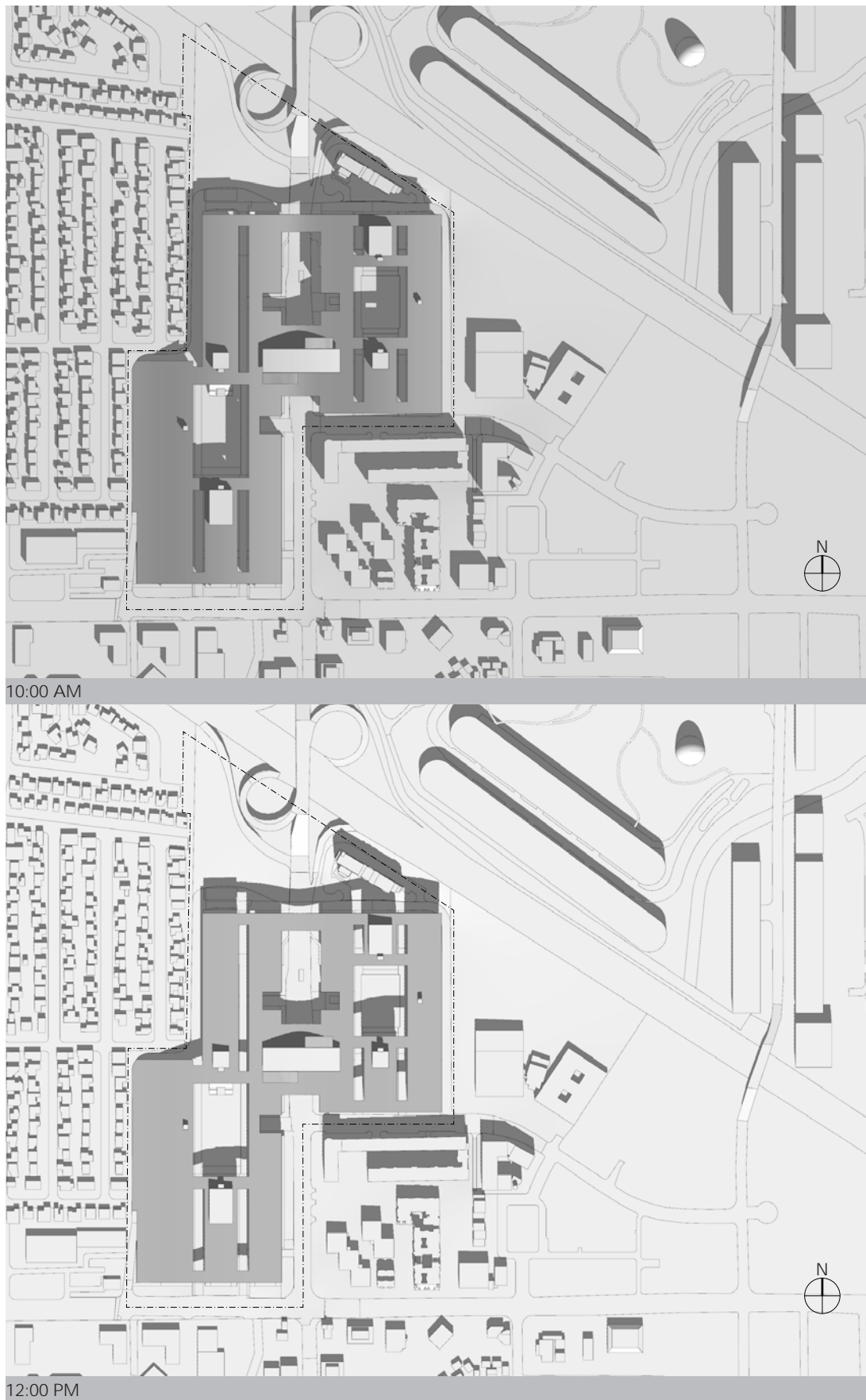
Figure 5-11: Vantage Point B - Rooftop View Towards Santa Cruz Mountains

Vallco Town Center Specific Plan
Environmental Assessment



Not to scale

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Source: RVA, 2016

Figure 5-12: December 21 Shadow Study: December 21 Conditions
 Vallco Town Center Specific Plan
 Environmental Assessment



Not to scale

6 Air Quality

6.1 Introduction

This chapter describes the existing setting of the Plan Area as it relates to air quality; identifies applicable regulatory requirements; evaluates potential impacts on air quality; and references the Specific Plan Environmental Design Features (EDFs) to reduce or avoid potential impacts.

Information used to prepare this chapter came from the following sources:

- Air quality data provided by the California Air Resources Board (CARB)
- Ramboll Environ, *The Vallco Town Center Specific Plan Air Quality and Greenhouse Gas Technical Report*. February (see [Appendix AQ](#))
- Bay Area Air Quality Management District (BAAQMD)
- City of Cupertino General Plan, *Community Vision 2015–2040*, 2015, as amended
- State Office of Environmental Health Hazard Assessment (OEHHA)

6.2 Environmental Setting

This section presents information on air quality conditions in the Plan Area. The current regional and local air quality conditions were used as the baseline against which to compare potential impacts of the implementation of the Specific Plan.

6.2.1 Climate and Topography

The Plan Area is located within the San Francisco Bay Area Air Basin (SFBAAB), which comprises all of Alameda, Contra Costa, Marin, Napa, San Francisco, San Mateo, and Santa Clara Counties; the southern parts of Sonoma County; and the southwestern portion of Solano County. BAAQMD is responsible for local control and monitoring of criteria air pollutants and toxic air contaminants throughout the SFBAAB.

Climatological conditions, an area's topography, and the quantity and type of pollutants released commonly determine ambient air quality. Climate, or the average weather condition, affects air quality in several ways. Wind patterns can remove or add air pollutants emitted by stationary or mobile sources. Inversion, a condition where warm air traps cooler air underneath it, can hold pollutants near the ground by limiting upward mixing (dilution). Topography also affects the local climate, as valleys often trap emissions by limiting lateral dispersal.

The SFBAAB is characterized by coastal mountain ranges, inland valleys, and bays, each of which distort normal wind flow patterns. The climate is dominated by a semi-permanent, subtropical high-pressure cell, which is centered over the northeastern Pacific Ocean in the summer months. This cell generally results in stable meteorological conditions, dry weather, and a

steady northwesterly¹ wind flow, which upwells cold ocean water from below the surface and produces a band of cool and moisture-laden air approaching the coast. Fog and stratus clouds are typically present along the coast, and winds from the northwest are drawn inland through the Golden Gate and channelized by the East Bay Hills northward toward Richmond and southward toward San Jose. Wind speeds increase throughout the day, except during inversion episodes, when sea breezes are inhibited and air quality stagnates.

In the winter, the high pressure cell weakens and shifts southward, resulting in wind flow offshore, upwelling, and the occurrence of storms. Weak inversions coupled with moderate winds result in low air pollution potential. Winter stagnation episodes are characterized by a nighttime reversal of usual daytime air-flow patterns, and little or no winds.

6.2.2 Air Pollutants of Primary Concern

The State and federal Clean Air Acts mandate the control and reduction of certain air pollutants. Under these Acts, the U.S. Environmental Protection Agency (U.S. EPA) and CARB have established ambient air quality standards for certain “criteria” pollutants. Ambient air pollutant concentrations are affected by the rates and distributions of corresponding air pollutant emissions, as well as by the climactic and topographic influences discussed above. The primary determinant of concentrations of non-reactive pollutants (such as carbon monoxide [CO] and inhalable particulate matter [PM₁₀]) is proximity to major sources. Ambient CO levels in particular usually closely follow the spatial and temporal distributions of vehicular traffic. A discussion of primary criteria pollutants is provided below.

Ozone. Ozone (O₃) is a colorless gas with a pungent odor. Most ozone in the atmosphere is formed as a result of the interaction of ultraviolet light, reactive organic gases (ROG), and oxides of nitrogen (NO_x). ROG (the organic compound fraction relevant to ozone formation) comprises of non-methane hydrocarbons (with some specific exclusions), and NO_x consists of different chemical combinations of nitrogen and oxygen, mainly NO and NO₂. A highly reactive molecule, ozone readily combines with many different components of the atmosphere. Consequently, high levels of ozone tend to exist only while high ROG and NO_x levels are present to sustain the ozone formation process. Once the precursors have been depleted, ozone levels rapidly decline. Given these reactions occur on a regional rather than local scale, ozone is considered a regional pollutant.

Carbon Monoxide. CO is an odorless, colorless, gas. CO causes a number of health problems including fatigue, headache, confusion, and dizziness. The incomplete combustion of petroleum fuels in on-road vehicles and at power plants is a major cause of CO. CO is also produced by use of wood stoves and fireplaces, which are more frequently used in winter months. CO tends to dissipate rapidly into the atmosphere; consequently, violations of the State CO standard are generally associated with major roadway intersections during peak hour traffic conditions.

¹ Wind direction is designated as the cardinal direction from which the wind is blowing.

Localized CO “hotspots” can occur at intersections with heavy peak hour traffic. Specifically, hotspots can be created at intersections where traffic levels are sufficiently high such that the local CO concentration exceeds the National Ambient Air Quality Standards (NAAQS) of 35.0 parts per million (ppm) or the California Ambient Air Quality Standards (CAAQS) of 20.0 ppm.

Nitrogen Dioxide. Nitrogen dioxide (NO₂) is a by-product of fuel combustion, with the primary source being motor vehicles and industrial boilers and furnaces. The principal form of nitrogen oxide produced by combustion is nitric oxide (NO), but NO reacts rapidly to form NO₂, creating the mixture of NO and NO₂ commonly called NO_x. Nitrogen dioxide is an acute irritant. A relationship between NO₂ and chronic pulmonary fibrosis may exist, and an increase in bronchitis in young children at concentrations below 0.3 ppm may occur. Nitrogen dioxide absorbs blue light and causes a reddish brown cast to the atmosphere and reduced visibility. It can also contribute to the formation of PM₁₀ and acid rain.

Particulate Matter. Suspended particulate matter (airborne dust) consists of particles small enough to remain suspended in the air for long periods. Fine particulate matter includes particles small enough to be inhaled, pass through the respiratory system, and lodge in the lungs, with resultant health effects. Particulate matter can include materials such as sulfates and nitrates, which are particularly damaging to the lungs. Studies of the health effects resulted in revision of the Total Suspended Particulate (TSP) standard in 1987 to focus on particulates that are small enough to be considered “inhalable,” i.e. 10 microns or less in size (PM₁₀). In July of 1997, a further revision of the federal standard added criteria for PM_{2.5}, reflecting recent studies that suggested that particulates less than 2.5 microns in diameter are of particular concern.

Sulfur Dioxide. Sulfur dioxide (SO₂) is produced by such stationary sources as coal and oil combustion, steel mills, refineries and pulp and paper mills. The major adverse health effects associated with SO₂ exposure pertain to the upper respiratory tract. SO₂ is a respiratory irritant with construction of the bronchioles occurring with inhalation of SO₂ at 5 ppm or more. On contact with the moist mucous membranes, SO₂ produces sulfurous acid, which is a direct irritant. Concentration rather than duration of the exposure is an important determinant of respiratory effects.

Lead. Lead (Pb) is a metal found naturally in the environment, as well as in manufacturing products. The major sources of lead emissions historically have been mobile and industrial sources. As a result of the phase-out of leaded gasoline, as discussed below, metal processing currently is the primary source of lead emissions. The highest level of lead in the air is generally found near lead smelters. Other stationary sources are waste incinerators, utilities, and lead-acid battery manufacturers.

Historically, mobile sources were the main contributor to ambient lead concentrations in the air. In the early 1970s, U.S. EPA set national regulations to gradually reduce the lead content in gasoline. In 1975, unleaded gasoline was introduced for motor vehicles equipped with catalytic converters. U.S. EPA completed the ban prohibiting the use of leaded gasoline in highway

vehicles in early 1996 (U.S. EPA, 1996). As a result of U.S. EPA's regulatory efforts to remove lead from gasoline, lead concentrations have declined substantially over the past several decades. The most dramatic reductions in lead emissions occurred prior to 1990 in the transportation sector due to the removal of lead from gasoline sold for most highway vehicles. Lead emissions were further reduced substantially between 1990 and 2008, with significant reductions occurring in the metals industries at least in part as a result of national emissions standards for hazardous air pollutants (U.S. EPA, 2013).

U.S. EPA and CARB establish ambient air quality standards for major pollutants at thresholds intended to protect public health. Federal and State standards have been established for ozone, CO, NO₂, SO₂, lead, and PM₁₀ and PM_{2.5}.

Criteria air pollutant NAAQS and CAAQS are provided in **Table 6-1: Current National and State Ambient Air Quality Standards**. California standards are more restrictive than federal standards for each of these pollutants, except for lead and the 8-hour average for CO.

6.2.3 Current Ambient Air Quality

Local air districts and CARB monitor ambient air quality to assure that air quality standards are met, and if they are not met, to develop strategies to meet the standards. Air quality monitoring stations measure pollutant ground-level concentrations (typically, ten feet above ground level). Depending on whether the standards are met or exceeded, the local air basin is classified as in "attainment" or "non-attainment." Some areas are unclassifiable, which means no monitoring data are available. Unclassifiable areas are considered to be in attainment. **Table 6-2: Attainment Status of the Bay Area Air Basin** summarizes the State and federal attainment status for criteria pollutants in the SFBAAB.

Ambient air quality is monitored at seven BAAQMD-operated monitoring stations located throughout the Bay Area. **Table 6-3: Ambient Air Quality Data** summarizes the representative annual air quality data for the Plan Area vicinity over the most recent three years for which data is available. The nearest monitoring station to the Plan Area with complete data for all pollutants for those years is the San Jose – Jackson Street station, located approximately 6.25 miles east of the Plan Area.²

² From 2011 through 2013, BAAQMD undertook Special Purpose Monitoring at Monte Vista Park in to document air quality in neighborhoods that could be affected by emissions from the Lehigh Cement Plant and associated diesel truck traffic. The data collected was averaged over the three-year period and compared with data from regional monitoring locations. The data and comparisons are presented in a summary available here: <http://www.baaqmd.gov/research-and-data/special-air-monitoring-projects/cupertino>. The Monte Vista Park monitoring station was closed at the end of 2013.

Given that the SFBAAB is designated as non-attainment for State standards for ozone and PM₁₀, as well as State and federal standards for PM_{2.5}, these are the primary pollutants of concern for the NCCAB. As indicated in [Table 6-3: Ambient Air Quality Data](#), there were two federal or State ozone exceedances at the SFBAAB monitoring station from 2012 to 2014. The State and federal standards for PM₁₀ and PM_{2.5} were also exceeded in 2012, 2013, and 2014.

Table 6-1: Current National and State Ambient Air Quality Standards

Pollutant	Averaging Time	California Standard	Federal Primary Standard
Ozone (O ₃)	1 Hour	0.09 ppm	---
	8 Hour	0.070 ppm	0.070 ppm
Carbon Monoxide (CO)	1 Hour	20.0 ppm	35.0 ppm
	8 Hour	9.0 ppm	9.0 ppm
Nitrogen Dioxide (NO _x)	1 Hour	0.18 ppm	0.100 ppm
	Annual	0.030 ppm	0.053 ppm
Sulfur Dioxide (SO _x)	1 Hour	0.25 ppm	0.075 ppm
	24 Hour	0.04 ppm	---
	Annual	---	---
Inhalable Particulates (PM ₁₀)	24 Hour	50 µg/m ³	150 µg/m ³
	Annual	20 µg/m ³	---
Fine Particulates (PM _{2.5})	24 Hour	---	35 µg/m ³
	Annual	12 µg/m ³	12 µg/m ³
Lead (Pb)	30 Day Average	1.5 µg/m ³	---
	Calendar Quarter	---	1.5 µg/m ³
	Rolling 3 Month Average	---	0.15 µg/m ³
Sulfates	24 Hour	25 µg/m ³	---
Hydrogen Sulfide	1 Hour	0.03 ppm	---
Vinyl Chloride	24 Hour	0.01	---
Visibility-Reducing Particles	8 Hour	Extinction of .023 per kilometer	---

ppm = parts per million;

µg/m³ = micrograms per cubic meter

Source: CARB, 2015a.

Table 6-2: Attainment Status of the San Francisco Bay Area Air Basin

Pollutant	Averaging Time	State Standard		Federal Standard	
		Standard	Attainment Status	Standard	Attainment Status
Ozone (O ₃)	1 Hour	0.09 ppm	N	NA	NA
	8 Hour	0.07 ppm	N	0.07 ppm	N (See Note 1)
Carbon Monoxide (CO)	1 Hour	20 ppm	A	35 ppm	A
	8 Hour	9 ppm	A	9 ppm	A
Nitrogen Dioxide (NO _x)	1 Hour	0.18 ppm	A	0.100 ppm	U
	Annual	0.030 ppm	NA	0.053 ppm	A
Sulfur Dioxide (SO _x)	1 Hour	0.25 ppm	A	0.075 ppm	A
	24 Hour	0.04 ppm	A	0.14 ppm	A
	Annual	NA	NA	0.03 ppm	A
Coarse Particulate Matter (PM ₁₀)	24 Hour	50 µg/m ³	N	150 µg/m ³	U
	Annual	20 µg/m ³	N	NA	NA
Fine Particulate Matter (PM _{2.5})	24 Hour	NA	NA	35 µg/m ³	N
	Annual	12 µg/m ³	N	12 µg/m ³	U/A
Lead (Pb)	30 Day	1.5 µg/m ³	A	NA	NA
	Cal. Quarter	NA	NA	1.5 µg/m ³	A
	Rolling 3 Month Ave.	NA	NA	0.15 µg/m ³	See Note 2
Sulfates	24 Hour	25 µg/m ³	A	NA	NA
Hydrogen Sulfide	1 Hour	0.03 ppm	U	NA	NA
Vinyl Chloride	24 Hour	0.10 ppm	No info available	NA	NA
Visibility-Reducing Particles	8 Hour	See note 3	U	NA	NA

Notes:

A = Attainment; N = Non-Attainment; U = Unclassifiable; NA = Not Applicable, no applicable standard; ppm = parts per million; 150 µg/m³ = micrograms per cubic meter

1. On October 1, 2015, U.S. EPA adopted a new 8-hour ozone standard of 0.070 ppm, effective December 28, 2015. However, U.S. EPA has not yet reviewed recent SFBAAB emissions to determine attainment with the current 0.070 ppm standard.
2. On October 15, 2008, U.S. EPA substantially strengthened the national ambient air quality standard for lead by lowering the level of the primary standard from 1.5 µg/m³ to 0.15 µg/m³. Final designations were made by U.S. EPA in November 2011.
3. Statewide visibility-reducing particle standard: Particles in sufficient amount to produce an extinction coefficient of 0.23 per kilometer when relative humidity is less than 70 percent.

Source: BAAQMD. 2016. Air Quality Standards and Attainment Status.

Table 6-3: Ambient Air Quality Data

Pollutant	Most Stringent Applicable Standard	Number of Days Standards Were Exceeded and Maximum Concentrations Measured ^a		
		2012	2013	2014
Ozone				
Days 1-Hour Standard Exceeded		1	0	0
Maximum 1-Hour Concentration (pphm)	9 pphm ^b	10.1	9.3	8.9
Days 8-Hour Standard Exceeded		0	1	0
Maximum 8-Hour Concentration (pphm)	7 pphm ^c	6.2	7.9	6.6
Carbon Monoxide				
Days 1-Hour Standard Exceeded		0	0	0
Maximum 1-Hour Concentration (ppm)	20 ppm ^b	2.6	3.1	2.4
Days 8-Hour Standard Exceeded		0	0	0
Maximum 8-Hour Concentration (ppm)	9 ppm ^b	1.9	2.5	1.9
Nitrogen Dioxide (NO₂)				
Days 1-Hour Standard Exceeded		0	0	0
Maximum 1-Hour Concentration (pphm)	18 pphm	6.7	5.9	5.8
Annual Average (pphm)	3 pphm ^b	1.3	1.5	1.3
Sulfur Dioxide (SO₂)				
Days 1-Hour Standard Exceeded		0	0	0
Maximum 1-Hour Concentration (ppb)	7.5 ppb ^c	7.9	2.5	3.0
Days 24-Hour Standard Exceeded		0	0	0
Maximum 24-Hour Concentration (ppb)	40 ppb ^b	2.8	1.4	0.9
Coarse Particulates (PM₁₀)				
Days 24-Hour Standard Exceeded		1	5	1
Maximum 24-Hour Concentration (µg/m ³)	50 µg/m ³ ^b	60	58	55
Annual Average (µg/m ³)	20 µg/m ³ ^b	18.8	22.3	19.9
Fine Particulates (PM_{2.5})				
Days 24-Hour Standard Exceeded		2	6	2
Maximum 24-Hour Concentration (µg/m ³)	35 µg/m ³ ^c	38.4	57.7	60.4
Annual Average (µg/m ³)	12 µg/m ³ ^b	9.1	12.4	8.4

Sources: BAAQMD, Air Quality Summary Reports: 2014, 2013, 2012;

ppm = parts per million; pphm = parts per hundred million; ppb = parts per billion; PM₁₀ – particulate matter 10 microns in diameter or less; NM = not measured; µg/m³ = micrograms per cubic meter; PM_{2.5} = particulate matter 2.5 microns in diameter or less;

Notes: a. Number of days exceeded is for a full year, except for PM₁₀ and PM_{2.5}, which are out of approximately 60 annual samples.

b. State standard not to be exceeded.

c. Federal standard not to be exceeded

6.2.4 Hazardous Air Pollutants/Toxic Air Contaminants

Both the U.S. EPA and CARB regulate hazardous air pollutants (HAPs)/ toxic air contaminants (TACs). According to Section 39655 of the California Health and Safety Code, a TAC is “an air pollutant which may cause or contribute to an increase in mortality or an increase in serious illness, or which may pose a present or potential hazard to human health.” In addition, 189 substances that have been listed as federal hazardous air pollutants (HAPs) pursuant to Section 7412 of Title 42 of the United States Code are TACs under the State’s air toxics program pursuant to Section 39657(b) of the California Health and Safety Code.

TACs can cause various cancers, depending on the particular chemicals, their type and duration of exposure. Additionally, some of the TACs may cause other health effects with short or long term exposure. The ten TACs posing the greatest health risk in California are acetaldehyde, benzene, 1-3 butadiene, carbon tetrachloride, hexavalent chromium, para-dichlorobenzene, formaldehyde, methylene chloride, perchlorethylene, and diesel particulate matter (DPM). Mobile sources of TACs include freeways and other roads with high traffic volumes, while stationary sources include distribution centers, rail yards, ports, refineries, dry cleaners, and large gas dispensing facilities. The Plan Area is located near I-280, which is a potential major source of TACs.

For cancer health effects, the risk is expressed as the number of chances in a population of a million people who might be expected to get cancer over a 70-year lifetime. Acute and chronic exposure to non-carcinogens is expressed as a hazard index, which is the ratio of expected exposure levels to acceptable reference exposure levels.

6.3 Regulatory Setting

This analysis has been prepared based upon the standards and regulations of the California Environmental Quality Act of 1970 and associated Guidelines (Public Resources Code, Section 21000 *et seq.* and California Code of Regulations, Title 14, Chapter 3, sections 15000–15387) as well as local, State and federal laws, including those administered by BAAQMD, CARB, and the U.S. EPA. The principal air quality regulatory mechanisms include the following:

- Federal Clean Air Act (FCAA), in particular, the 1990 amendments;
- California Clean Air Act (CCAA);
- California Health and Safety Code (H&SC), in particular, Chapter 3.5 (Toxic Air Contaminants) (H&SC Section 39650 *et seq.*) and Part 6 (Air Toxics “Hot Spots” Information and Assessment) (H&SC Section 44300 *et seq.*); and
- BAAQMD’s Rules and Regulations and air quality planning documents:
 - 2010 Clean Air Plan;
 - Community Air Risk Evaluation (CARE) Program; and
 - 2010 CEQA Guidelines.

6.3.1 Federal and State

As discussed more fully below, the federal and State governments have been empowered by FCAA and CCAA, respectively, to regulate the emission of airborne pollutants and have established ambient air quality standards for the protection of public health. U.S. EPA is the federal agency designated to administer air quality regulation, while CARB is the State equivalent in California. Local control in air quality management is provided by CARB through county-level or regional (multi-county) air pollution control districts (APCDs). CARB establishes air quality standards and is responsible for control of mobile emission sources, while the local APCDs are responsible for enforcing standards and regulating stationary sources. CARB has established 14 air basins statewide.

Federal Clean Air Act

U.S. EPA is charged with implementing national air quality programs. U.S. EPA's air quality mandates are drawn primarily from the FCAA. The FCAA was passed in 1963 by the U.S. Congress and has been amended several times. The 1970 FCAA amendments strengthened previous legislation and laid the foundation for the regulatory scheme of the 1970s and 1980s. In 1977, Congress again added several provisions, including non-attainment requirements for areas not meeting NAAQS and the Prevention of Significant Deterioration program. The 1990 FCAA amendments represent the latest in a series of federal efforts to regulate the protection of air quality in the U.S. The FCAA allows states to adopt more stringent standards or to include other pollution species.

National Ambient Air Quality Standards

The FCAA requires U.S. EPA to establish primary and secondary NAAQS for a number of criteria air pollutants. The air pollutants for which standards have been established are considered the most prevalent air pollutants that are known to be hazardous to human health. NAAQS have been established for the following pollutants: O₃, CO, SO₂, PM₁₀, PM_{2.5}, and Pb.

Title III of the Federal Clean Air Act

As discussed above, HAPs are the air contaminants identified by U.S. EPA as known or suspected to cause cancer, other serious illnesses, birth defects, or death. The FCAA requires U.S. EPA to set standards for these pollutants and reduce emissions of controlled chemicals. Specifically, Title III of the FCAA requires U.S. EPA to promulgate National Emissions Standards for Hazardous Air Pollutants (NESHAP) for certain categories of sources that emit one or more pollutants that are identified as HAPs. The FCAA also requires U.S. EPA to set standards to control emissions of HAPs through mobile source control programs. These include programs that reformulated gasoline, national low emissions vehicle standards, Tier 2 motor vehicle emission standards, gasoline sulfur control requirements, and heavy-duty engine standards.

HAPs tend to be localized and are found in relatively low concentrations in ambient air. However, they can result in adverse chronic health effects if exposure to low concentrations occurs for long periods. Many HAPs originate from human activities, such as fuel combustion and solvent use. Emission standards may differ between "major sources" and "area sources" of

the HAPs/TACs. Under the FCAA, major sources are defined as stationary sources with the potential to emit more than 10 tons per year (tpy) of any one HAP or more than 25 tpy of any combination of HAPs; all other sources are considered area sources. Mobile source air toxics (MSATs) are a subset of the 188 HAPs. Of the 21 HAPs identified by U.S. EPA as MSATs, a priority list of six HAPs were identified that include: diesel exhaust, benzene, formaldehyde, acetaldehyde, acrolein, and 1, 3-butadiene. While vehicle miles traveled in the United States are expected to increase by 64 percent over the period 2000 to 2020, emissions of MSATs are anticipated to decrease substantially as a result of efforts to control mobile source emissions (by 57 percent to 67 percent depending on the contaminant) (FHWA, 2006).

California Clean Air Act

The CCAA, signed into law in 1988, requires all areas of the State to achieve and maintain the CAAQS by the earliest practical date. CARB is the State air pollution control agency and is a part of the California Environmental Protection Agency (Cal EPA). CARB is the agency responsible for coordination and oversight of State and local air pollution control programs in California, and for implementing the requirements of the CCAA. CARB oversees local district compliance with California and federal laws, approves local air quality plans, submits the State Implementation Plans (SIPs) to U.S. EPA, monitors air quality, determines and updates area designations and maps, and sets emissions standards for new mobile sources, consumer products, small utility engines, off-road vehicles, and fuels.

California Ambient Air Quality Standards

The CCAA requires CARB to establish CAAQS. Similar to the NAAQS, CAAQS have been established for the following pollutants: O₃, CO, NO₂, SO₂, PM₁₀, PM_{2.5}, Pb, vinyl chloride, hydrogen sulfide, sulfates, and visibility-reducing particulates. In most cases, the CAAQS are more stringent than the NAAQS. The CCAA requires that all local air districts in the State endeavor to achieve and maintain the CAAQS by the earliest practical date. The CCAA specifies that local air districts should focus particular attention on reducing the emissions from transportation and area-wide emission sources, and provides districts with the authority to regulate indirect sources.

Tanner Air Toxics Act and Air Toxics Hot Spots Information and Assessment Act

TACs³ in California primarily are regulated through the Tanner Air Toxics Act (AB 1807) and the Air Toxics Hot Spots Information and Assessment Act of 1987 (AB 2588) (Hot Spots Act). As discussed above, HAPs/TACs are a broad class of compounds known to cause morbidity or mortality (cancer risk). HAPs/TACs are found in ambient air, especially in urban areas, and are caused by industry, agriculture, fuel combustion, and commercial operations (e.g. dry cleaners). Because chronic exposure can result in adverse health effects, TACs are regulated at the regional, State and federal level.

AB 1807 sets forth a formal procedure for CARB to designate substances as TACs. Research,

³ TACs are referred to as HAPs under the FCAA.

public participation, and scientific peer review are necessary before CARB can designate a substance as a TAC. To date, CARB has identified more than 21 TACs and adopted the U.S. EPA's list of HAPs as TACs. In 1998, DPM was added to CARB's list of TACs. Once a TAC is identified, CARB adopts an Airborne Toxic Control Measure for sources that emit that particular TAC. If a safe threshold exists at which no toxic effect occurs from a substance, the control measure must reduce exposure below that threshold. If no safe threshold exists, the measure must incorporate Best Available Control Technology (BACT) to minimize emissions.

The Hot Spots Act requires existing facilities that emit toxic substances above a specified level to prepare a toxic emissions inventory and a risk assessment if the emissions are significant, to notify the public of significant risk levels, and prepare and implement risk reduction measures.

Diesel Exhaust and Diesel Particulate Matter

Diesel exhaust is the predominant TAC in urban air environments and is estimated to represent about two-thirds of the cancer risk from TACs (based on the statewide average). According to CARB, diesel exhaust is a complex mixture of gases, vapors, and fine particles. This mixture makes the evaluation of health effects of diesel exhaust a complex scientific issue. Some chemicals in diesel exhaust, such as benzene and formaldehyde, have been previously identified as TACs by CARB, and are listed as carcinogens either under State Proposition 65 or under the Federal Hazardous Air Pollutants programs.

CARB reports that recent air pollution studies have shown an association between diesel exhaust and other cancer-causing toxic air contaminants emitted from vehicles and much of the overall cancer risk from TACs in California. DPM was found to compose much of that risk. CARB has adopted and implemented a number of regulations for stationary and mobile sources to reduce emissions of DPM. Several of these regulatory programs affect medium- and heavy-duty diesel trucks that generate the bulk of DPM emissions from California highways. These include the solid waste collection vehicle (SWCV) rule, in-use public and utility fleet regulations, and the heavy-duty diesel truck and bus regulations. In 2011, CARB approved the latest regulation to reduce emissions of DPM and NO_x from existing on-road heavy-duty diesel fueled vehicles.⁴ The regulation requires affected vehicles to meet specific performance requirements between 2012 and 2023, with all affected diesel vehicles required to have 2010 model-year engines or the equivalent by 2023. These requirements are phased in over the compliance period and depend on the model year of the vehicle. With implementation of CARB's Risk Reduction Plan, DPM concentrations are expected to be reduced by 85 percent in 2020 from the estimated year-2000 level (CARB, 2000). As emissions are reduced, risks associated with exposure to emissions also are expected to be reduced.

CARB Air Quality and Land Use Handbook

In April 2005, CARB released the final version of its *Air Quality and Land Use Handbook: A Community Health Perspective*. This guidance document is intended to encourage local land use

⁴ Title 13 CCR, Section 2205.

agencies to consider the risks from air pollution before they approve the siting of sensitive land uses (e.g. residences, schools, hospitals, etc.) near sources of air pollution, particularly TACs (e.g. freeway and high traffic roads, commercial distribution centers, rail yards, ports, refineries, dry cleaners, gasoline stations and industrial facilities). These advisory recommendations include general setbacks or buffers from air pollution sources. However, unlike industrial or stationary sources of air pollution, the siting of new sensitive land use does not require air quality permits or approval by air districts, and as noted above, the CARB handbook provides guidance only rather than binding regulations.

CAPCOA Health Risk Assessments for Proposed Land Use Projects

The California Air Pollution Control Officer's Association (CAPCOA), which is a consortium of air district managers throughout California, provides guidance material to addressing air quality issues in the State. As a follow up to CARB's 2005 *Air Quality and Land Use Handbook*, CAPCOA prepared the *Health Risk Assessments for Proposed Land Use Projects* (CAPCOA, 2009). CAPCOA released this guidance document to ensure that the health risk of projects be identified, assessed, and avoid or mitigated, if feasible, through the CEQA process. The CAPCOA guidance document provides recommended methodologies for evaluating health risk impacts for development projects.

California Green Building Standards Code

The 2013 *California Green Building Standards Code*, as specified in Title 24, Part 11 of the *California Code of Regulations*, specifies building standards to improve public health, safety, and general welfare by enhancing the design and construction of buildings through the use of building concepts having a positive environmental impact and encouraging sustainable construction practices in five categories: planning and design, energy efficiency, water efficiency and conservation, material conservation and resource efficiency, and environmental quality. The provisions of this code apply to the planning, design, operation, construction, replacement, use and occupancy, location, maintenance, removal and demolition of every building or structure or any appurtenances connected or attached to such building structures throughout California.

California Mechanical Code

The 2013 California Mechanical Code, as specified in Title 24, Part 4 of the *California Code of Regulations*, amends the 2012 Uniform Mechanical Code to minimize risk by specifying technical standards of design, materials, workmanship and maintenance for mechanical systems. The main aims of the code are to ensure that planners, administrators and mechanical system installers develop the required competency to ensure that the codes are applied and upheld; that standards are set to ensure that mechanical assemblies, materials and technologies are safe and effective; and that mechanical installations meet these standards. The Mechanical Code includes specific requirements for exhaust ventilation for enclosed parking garages.

Carl Moyer Program

The Carl Moyer Memorial Air Quality Standards Attainment Program (Carl Moyer Program) is a voluntary program that offers grants to owners of heavy-duty vehicles and equipment. The program is a partnership between CARB and the local air districts throughout the State to reduce air pollution emissions from heavy-duty engines. Locally, the air districts administer the Carl Moyer Program.

6.3.2 Regional

BAAQMD regulates air quality in the SFBAAB, and is responsible for attainment planning related to criteria air pollutants and for district rule development and enforcement. The district inspects stationary sources and responds to citizen complaints, monitors ambient air quality and meteorological conditions, and implements programs and regulations required by law. It also reviews air quality analyses prepared for CEQA assessments, and has published the *CEQA Air Quality Guidelines* documents for use in evaluation of air quality impacts.

Clean Air Plan

The BAAQMD is responsible for developing a Clean Air Plan, which guides the region's air quality planning efforts to attain the CAAQS. The BAAQMD's 2010 Clean Air Plan is the latest Clean Air Plan which contains district-wide control measures to reduce ozone precursor emissions (i.e., ROG and NO_x), particulate matter, and greenhouse gas emissions. The Bay Area 2010 Clean Air Plan updates the Bay Area 2005 Ozone Strategy in accordance with the requirements of the California Clean Air Act to implement "all feasible measures" to reduce ozone; provides a control strategy to reduce ozone, PM, TACs, and greenhouse gases in a single, integrated plan; reviews progress in improving air quality in recent years; and establishes emission control measures to be adopted or implemented in the 2010 to 2012 timeframe. The 2016 Clean Air Plan/Regional Climate Protection Strategy, currently under preparation, will update the 2010 Clean Air Plan.

CARE Program

Initiated in 2004, the CARE program evaluates and reduces health risks associated with exposures to outdoor TACs in the Bay Area. The program examines TAC emissions from point sources, area sources, and on-road and off-road mobile sources with an emphasis on diesel exhaust. The CARE program ongoing and encourages community involvement and input. The technical analysis portion of the CARE program is being implemented in three phases that include an assessment of the sources of TAC emissions, modeling and measurement programs to estimate concentrations of TACs, and an assessment of exposures and health risks. Throughout the program, information derived from the technical analyses will be used to focus emission reduction measures in areas with high TAC exposures and a high density of sensitive populations. Risk reduction activities associated with the CARE program are focused on the most at-risk communities in the Bay Area. BAAQMD has identified six affected communities. The City of Cupertino has not been included as an affected community. However, nearby Redwood City, East Palo Alto, and San Jose have all been identified as in need of immediate action.

For commercial and industrial sources, the BAAQMD regulates TACs using a risk-based approach. This approach uses a health risk assessment to determine what sources and pollutants to control as well as the degree of control. A health risk assessment is an analysis in which human health exposure to toxic substances is estimated and considered together with information regarding the toxic potency of the substances, in order to provide a quantitative estimate of health risks.⁵ As part of ongoing efforts to identify and assess potential health risks to the public, the BAAQMD has collected and compiled air toxics emissions data from industrial and commercial sources of air pollution throughout the Bay Area.

BAAQMD CEQA Air Quality Guidelines

The BAAQMD *CEQA Air Quality Guidelines* were prepared to assist in the evaluation of air quality impacts of projects and plans proposed within the Bay Area. The guidelines provide recommended procedures for evaluating potential air impacts during the environmental review process, consistent with CEQA requirements, and include recommended thresholds of significance, mitigation measures, and background air quality information. They also include recommended assessment methodologies for air toxics, odors, and greenhouse gas emissions. In June 2010, the BAAQMD's Board of Directors adopted CEQA thresholds of significance and an update of the *CEQA Guidelines*. In May 2011, the updated BAAQMD *CEQA Air Quality Guidelines* were amended to include a risk and hazards threshold for new receptors and modified procedures for assessing impacts related to risk and hazard impacts.

The thresholds BAAQMD adopted were set aside by an Alameda County Superior Court ruling in March 2012. In May 2012, BAAQMD updated its CEQA Air Quality Guidelines to continue to provide direction on recommended analysis methodologies, but without recommended quantitative significance thresholds. In August 2013, the First District Court of Appeal reversed the Superior Court judgment and upheld the BAAQMD's CEQA thresholds.

In December 2015, the California Supreme Court held that CEQA does not generally require an agency to consider the effects of existing environmental conditions on a proposed project's future users or residents, such as the effects of toxic air contaminants and fine particulate matter from existing sources on future residents or users of a project. Nevertheless, the Supreme Court stated that lead agencies still must evaluate existing environmental conditions in order to assess whether a project could exacerbate hazards that are already present. The Supreme Court did not apply a holding to reach a conclusion on the validity of BAAQMD's receptor thresholds. Instead, the Supreme Court remanded the case to the Court of Appeal to decide the question in light of the Court's opinion. As of the date of this document, BAAQMD has not formally re-instated the thresholds.

⁵ In general, a health risk assessment is required if the BAAQMD concludes that projected emissions of a specific air toxic compound from a proposed new or modified source suggests a potential public health risk. Such an assessment generally evaluates chronic, long-term effects, including the increased risk of cancer as a result of exposure to one or more TACs.

Emissions Reduction Funding Programs

BAAQMD's Strategic Incentives Division administers programs to reduce air pollutant emissions in the region. Through its Mobile Source Incentive Fund, the district collects revenues from vehicle registration fees and provides grants for projects eligible for the Carl Moyer program (described above), as well as vehicle scrappage, agricultural assistance and school bus pollution reduction programs. In addition, through the Transportation Fund for Clean Air, revenues are collected from vehicle registration and awarded to eligible on-road emissions reduction programs.

BAAQMD continues to seek funding opportunities and partners to develop, demonstrate and deploy technologies to reduce air emissions in the Bay Area. The district allows an applicant to enter into an agreement to pay an offset fee per weighted ton per year of ozone precursors (ROG and NOx) to fund one or more emissions reduction projects within the SFBAAB.

6.3.3 Local

City of Cupertino General Plan

The City of Cupertino General Plan, *Community Vision 2015–2040* (General Plan), as amended, Mobility Element and Environmental Resources and Sustainability Element includes policies related to air quality. A list of the relevant General Plan polices and strategies are provided below. A General Plan Land Use Consistency Analysis for the Specific Plan is provided in [Chapter 13, Land Use and Planning, Table 13-1](#).

GOAL M-8: Promote Policies to Help Achieve State, Regional and Local Air Quality and Greenhouse Gas Emission Reduction Targets

GOAL ES-4: Maintain Healthy Air Quality Levels

Policy ES-4.1: New Development.

Minimize the air quality impacts of new development projects and air quality impacts that affect new development.

Strategy ES-4.1.1: Toxic Air Contaminants

Continue to review projects for potential generation of toxic air contaminants at the time of approval and confer with Bay Area Air Quality Management District on controls needed if impacts are uncertain.

Strategy ES-4.1.2: Dust Control

Continue to require water application to non-polluting dust control measures during demolition and the duration of the construction period.

Strategy ES-4.1.3: Planning

Ensure that land use and transportation plans support air quality goals.

Policy ES-4.3: Use of Open Fires and Fireplaces

Discourage high pollution fireplace use.

Strategy ES-4.3.1: Education

Continue to make BAAQMD literature on reducing pollution from fireplace use available.

Strategy ES-4.3.2: Fireplaces

Continue to prohibit new wood-burning fireplaces, except U.S. EPA certified wood stoves as allowed by the Building Code.

City of Cupertino Municipal Code

The City of Cupertino Municipal Code contains all ordinances for the City. The Municipal Code is organized by Title, Chapter, and Section. Title 19 of the Municipal Code is the City's Zoning Ordinance, which, among other purposes, is intended to assure the orderly and beneficial development of the City, attain a desirable balance of residential and employment opportunities, and promote efficient urban design and arrangement. The Zoning Ordinance contains the standards for emissions from development projects in Section 19.72.050. No use shall be allowed which is or will be offensive by emission of dust, smoke, or fumes.

6.4 Impacts and Environmental Design Features

6.4.1 Significance Criteria

The following significance criteria for land use planning were derived from the Environmental Checklist in the State CEQA Guidelines Appendix G. These significance criteria have been amended or supplemented, as appropriate, to address the City of Cupertino requirements and the full range of potential impacts related to implementation of the Specific Plan.

An impact of the Specific Plan would be considered significant and would require mitigation if it met one of the following criteria:

- a) Conflict with or obstruct implementation of the applicable air quality plan;
- b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation;
- c) Result in a cumulatively considerable net increase of any criteria air pollutant for which the project region is in non-attainment under an applicable federal or state ambient air quality standard (including releasing emission which exceed quantitative thresholds for ozone precursors);
- d) Expose sensitive receptors to substantial pollutant concentrations; or
- e) Create objectionable odors affecting a substantial number of people.

Approach to Analyses

The air quality impact analysis below uses the previously-adopted 2011 thresholds of the BAAQMD to determine the potential impacts of the project. While the significance thresholds adopted by BAAQMD in 2011 are not currently recommended by the BAAQMD, these thresholds are based on substantial evidence identified in BAAQMD’s 2009 *Justification Report* and represent the best available science (BAAQMD, 2009). BAAQMD’s significance thresholds for each State CEQA Guidelines Appendix G criterion are provided below. Plan-level impact thresholds for the Specific Plan are presented first, followed by project-level impact thresholds.

Approach to Specific Plan Analysis

The plan-level significance thresholds are summarized in **Table 6-4: Plan-Level Significance Thresholds for Operational Emissions** and further explained below.

Table 6-4: Plan-Level Significance Thresholds for Operational Emissions

Pollutant of Concern	Operational-Related Threshold
Criteria Air Pollutants and Precursors	1. Consistency with Current Air Quality Plan control measures, and 2. Projected VMT or vehicle trip increase is less than or equal to projected population increase
Risks and Hazards	Overlay zones around existing and planned sources of TACs (including adopted Risk Reduction Plan areas) and overlay zones of at least 500 feet from all freeways and high volume roadways. ⁶
Odors	Identify the location, and include policies to reduce the impacts, of existing or planned sources of odors

Source: BAAQMD, 2011.

Criteria Air Pollutants and Consistency with Applicable Clean Air Plan (Criteria (a) through (c))

This plan-level review includes a consistency evaluation of the Specific Plan with current air quality plan control measures. The current air quality plan is the 2010 Bay Area Clean Air Plan. The Specific Plan would be considered consistent with the Clean Air Plan if:

- The Specific Plan policies are consistent with the Clean Air Plan control measures; and
- The Specific Plan vehicle miles traveled or vehicle trip increase is less than or equal to the projected population increase.

In addition, although BAAQMD’s CEQA Air Quality Guidelines do not require an emissions inventory of criteria air pollutants for plan-level analyses, an inventory of criteria air pollutants was generated for the Specific Plan because enough information regarding future implementation of the Specific Plan is available and can be used to identify the magnitude of emissions.

⁶ Overlay zones may not be warranted if a project level analysis demonstrates that impacts are less than significant.

Community Risks and Hazards (Criterion (d))

As indicated in the Environmental Setting, above, for cancer health effects, the risk is expressed as the number of chances in a population of a million people who might be expected to get cancer over a 70-year lifetime. Acute and chronic exposure to non-carcinogens is expressed as a hazard index, which is the ratio of expected exposure levels to acceptable reference exposure levels.

At the plan level, community risks and hazards may be analyzed using the plan's Land Use Diagram. This diagram may identify:

- Special overlay zones around existing and planned sources of TACs and PM (including adopted risk reduction plan areas) where community risks and hazards could exceed project-level thresholds, as follows:
 - Increased cancer risk of > 10.0 in a million
 - Increased non-cancer risk of > 1.0 Hazard Index (chronic or acute)
 - Ambient PM_{2.5} increase > 0.3 µg/m³ annual average
- Special overlay zones of at least 500 feet on each side of all freeways and high-volume roadways.

The plan must also identify goals, policies, and objectives to minimize potential impacts and create overlay zones around the sources of TACs, PM, and hazards. While BAAQMD recommends this overlay zone approach for planning level documents, as described below, this EA analyzes impacts of the Town Center/Community Park at a project level, and Block 14 does not include new sensitive receptors. As such, this overlay zone approach is not warranted.

BAAQMD also recommends analysis of accidental release of acutely hazardous air pollutants. The impact threshold is the location of storage or use of acutely hazardous materials near existing receptors, or location of new receptors near existing storage or use of hazardous materials. Please see [Chapter 11, Hazardous and Hazardous Materials](#), for an analysis of this impact.

Odors (Criterion (e))

For odors, a plan must identify the location of existing and planned odor sources in the Plan Area. The plan must also include policies to reduce potential odor impacts in the Plan Area. Typical odor sources of concern include wastewater treatment plants, sanitary landfills, transfer stations, composting facilities, petroleum refineries, asphalt batch plants, chemical manufacturing facilities, fiberglass manufacturing facilities, auto body shops, rendering plants, and coffee roasting facilities.

Cumulative Impacts

No single plan or project is sufficient in size, by itself, to result in nonattainment of ambient air quality standards for criteria air pollutants. Instead, a plan or project's individual emissions

contribute to existing cumulatively significant adverse air quality impacts. If a plan or project's contribution to the cumulative impact is considerable, then the plan or project's impact on air quality would be considered significant. Therefore, the assessment of direct air quality impacts related to criteria air pollutants represents a cumulative analysis.

With respect to health risks and hazards, cancer risks in the area from local mobile and stationary sources are combined with plan or project operational and construction-related contributions, assuming a 70-year exposure period, and compared to the cumulative threshold of 100 in one million, which represents a cumulative exposure analysis. Therefore, impacts may occur at a cumulative level when a plan or project results in:

- An excess cancer risk level of more than 100 in one million, or a non-cancer (chronic) hazard index greater than 10.0; or

An incremental increase of greater than 0.8 micrograms per cubic meter ($\mu\text{g}/\text{m}^3$) annual average $\text{PM}_{2.5}$.

Approach to Analysis of the Town Center/Community Park

The Specific Plan would facilitate the development of individual projects that would result in emissions of air pollutants. Because the Specific Plan contains more detail on a portion of the Plan Area – namely, the Town Center/Community Park – this section also provides a “project-level” impact assessment for this component of the Specific Plan, using the project-level thresholds adopted by BAAQMD in 2011. **Table 6-5: Project-Level Significance Thresholds for Construction and Operational Emissions** summarizes these impact thresholds, discussed below.

Criteria Air Pollutants and Consistency with Applicable Clean Air Plan (Criteria (a) through (c))

At the development level, the assessment of criteria air pollutant impacts addresses the first through third bulleted significance criteria identified above. The SFBAAB experiences low concentrations of most pollutants when compared to federal or State standards and is designated as either in attainment or unclassifiable for most criteria pollutants with the exception of ozone, $\text{PM}_{2.5}$, and PM_{10} , for which these pollutants are designated as non-attainment for either the State or federal standards. A project's individual emissions contribute to existing cumulative air quality impacts. If a project's contribution to cumulative air quality impacts is considerable, then the project's impact on air quality would be considered significant. **Table 6-5: Project-Level Significance Threshold for Operational Emissions** identifies thresholds for ROG, NO_x , PM_{10} , and $\text{PM}_{2.5}$. These levels represent emissions by which new sources are not anticipated to contribute to an air quality violation or result in a considerable net increase in criteria air pollutants.

Dust emissions are typically generated during construction phases. Studies have shown that the application of best management practices (BMPs) at construction sites significantly control dust. Individual measures have been shown to reduce dust by anywhere from 30 to 90 percent. BAAQMD has identified a number of BMPs to control dust emissions from construction activities.

Local Carbon Monoxide Hotspots

SFBAAB is in attainment of the California and National AAQS for CO, and CO concentrations in the Air Basin have steadily declined. Because CO concentrations have improved, the analysis of CO determines if the Town Center/Community Park would increase traffic volumes at affected intersections to more than 44,000 vehicles per hour, or to more than 24,000 vehicles per hour where vertical and/or horizontal mixing is substantially limited. CO hotspots are analyzed only during operations.

Community Risks and Hazards (Criterion (d))

Local community risk and hazard impacts apply to both the siting of a new source and to the siting of a new receptor. Local community risk and hazard impacts are associated with TACs and PM_{2.5} because emissions of these pollutants can have significant health impacts at the local level. For both construction and operation, impacts may occur at a project level when a project would result in:

- An excess cancer risk level of more than 10 in one million, or a non-cancer (chronic or acute) hazard index greater than 1.0; or
- An incremental increase of greater than 0.3 micrograms per cubic meter ($\mu\text{g}/\text{m}^3$) annual average PM_{2.5}.

Operations of the Town Center/Community Park component of the Specific Plan would generate 99 percent of mobile and stationary source TAC emissions. Therefore, the “project-level” health risk analysis of the Town Center/Community Park references the “plan-level” health risk analysis of the Specific Plan.

Table 6-5: Project-Level Significance Thresholds for Operational Emissions

Pollutant of Concern	Construction-Related	Operational-Related	
Pollutant	Average Daily Emissions	Average Daily Emissions	Maximum Annual Emissions
ROG	54 lbs/day	54 lbs/day	10 tons/year
NO _x	54 lbs/day	54 lbs/day	10 tons/year
PM ₁₀	82 lbs/day (exhaust)	82 lbs/day	15 tons/year
PM _{2.5}	54 lbs/day (exhaust)	54 lbs/day	10 tons/year
PM ₁₀ / PM _{2.5} (dust)	Best Management Practices	None	
Local CO	None	> 44,000 vehicles per hour at affected intersections, or > 24,000 vehicles per hour where mixing is limited	
Risks and Hazards for new sources and receptors (Project-Level)	Same as Operational	Increased cancer risk of > 10.0 in a million Increased non-cancer risk of > 1.0 Hazard Index (chronic or acute) Ambient PM _{2.5} increase > 0.3 µg/m ³ annual average	
Risks and Hazards for new sources and receptors (Cumulative)	Same as Operational	Cancer > 100 in a million Non-cancer > 10.0 Hazard Index (chronic) PM _{2.5} > 0.8 µg/m ³ annual average	

Source: BAAQMD, 2011.

Odors (Criterion (e))

BAAQMD’s Regulation 7, Odorous Substances, places general limitations on odorous substances and specific emission limitations on certain odorous compounds. In addition, BAAQMD Regulation 1, Rule 1-301, Public Nuisance, states that no person shall discharge from any source whatsoever such quantities of air contaminants or other material which cause injury, detriment, nuisance or annoyance to any considerable number of persons or the public; or which endangers the comfort, repose, health or safety of any such persons or the public, or which causes, or has a natural tendency to cause, injury or damage to business or property. Under BAAQMD’s Rule 1-301, a facility that receives three or more violation notices within a 30-day period can be declared a public nuisance. BAAQMD has established odor screening thresholds for land uses that have the potential to generate substantial odor complaints, including wastewater treatment plants, landfills or transfer stations, composting facilities, confined animal facilities, food manufacturing, and chemical plants.

Cumulative Impacts

No single project is sufficient in size, by itself, to result in nonattainment of ambient air quality standards for criteria air pollutants. Instead, a project's individual emissions contribute to existing cumulatively significant adverse air quality impacts. If a project's contribution to the cumulative impact is considerable, then the project's impact on air quality would be considered significant. Therefore, the assessment of direct air quality impacts related to criteria air pollutants represents a cumulative analysis.

With respect to health risks and hazards, cancer risks in the area from local mobile and stationary sources are combined with project operational and construction-related contributions, assuming a 70-year exposure period, and compared to the cumulative threshold of 100 in one million, which represents a cumulative exposure analysis. Therefore, impacts may occur at a cumulative level when a project results in:

- An excess cancer risk level of more than 100 in one million, or a non-cancer (chronic) hazard index greater than 10.0; or
- An incremental increase of greater than 0.8 micrograms per cubic meter ($\mu\text{g}/\text{m}^3$) annual average $\text{PM}_{2.5}$.

6.4.2 Summary of No Impacts

Odors

Implementation of the Specific Plan, including buildout of the Town Center/Community Park, would not result in development of facilities commonly known to generate annoying odors. Restaurants built within the Plan Area would be required to implement standard odor-controlling, ventilation, and filtration technologies, and food odors would be typical of those for other restaurants in mixed-use settings. Solid waste would be stored in centralized locations and regularly removed according to standard practices. For these reasons, there would be no impacts.

6.4.3 Impacts of the Proposed Specific Plan

These analyses summarize the findings of the *Vallco Town Center Specific Plan Air Quality and Greenhouse Gas Technical Report*, which is included in the [Appendix AQ](#).

Impact AQ-1: Would implementation of the Specific Plan conflict with or obstruct implementation of the applicable air quality plan, violate an air quality standard, contribute substantially to an existing or projected air quality violation, or result in a cumulatively considerable net increase in criteria air pollutants?

Consistency with Clean Air Plan Control Measures

The current applicable air quality plan is the 2010 Clean Air Plan, the primary goal of which is to attain State and federal AAQS, reduce population exposure and protect public health in the Bay

Area, and reduce greenhouse gas emissions (see [Chapter 10](#) for further discussion of greenhouse gases). The Clean Air Plan contains 55 control measures aimed at reducing air pollution in the Bay Area. Eighteen of these measures address stationary sources (such as printing facilities and cement kilns, but also including residential and commercial heating systems), and will be implemented by BAAQMD using its permit authority and are therefore not suited to implementation through local planning efforts. The remaining measures are grouped into Mobile Source, Transportation, Land Use and Local Impact, and Energy and Climate measures. The Specific Plan's consistency with these measures is summarized below.

Mobile Source

The Mobile Source measures are aimed at reducing emissions by accelerating the replacement of older, dirtier vehicles and equipment and promoting advanced technology vehicles that reduce emissions of criteria pollutants and/or greenhouse gases. Implementation of these measures relies heavily upon incentive programs, such as the Carl Moyer Program and the Transportation Fund for Clean Air, to achieve voluntary emission reductions in advance of, or in addition to, CARB requirements. Measures related to the Specific Plan include promotion of clean and fuel-efficient light- and medium-duty vehicles, expansion of use of zero-emissions vehicles, and reduction of emissions from lawn and garden equipment through voluntary retirement and replacement programs.

The Specific Plan would be consistent with applicable Mobile Source measures. The Plan calls for provision of charging stations for electric vehicles and encourages transit use, which would lower overall mobile source emissions compared to traditional development.

Transportation

Transportation Control measures aim to reduce vehicle trips, vehicle use, VMT, vehicle idling, or traffic congestion for the purpose of reducing motor vehicle emissions. The measures seek to improve transit service; encourage walking, bicycling, and transit use; improve efficiency of the regional transit and roadway systems; support focused growth; and develop and implement pricing strategies.

The Specific Plan would be consistent with applicable Transportation Control Measures. The Specific Plan's relative density and mix of land uses, as well as its provisions of bicycle and pedestrian facilities, would encourage walking and cycling instead of driving, which would reduce overall VMT. In addition, the new Mobility Hub at Steven's Creek Boulevard would improve transit use and efficiency.

Land Use and Local Impacts

Land Use and Local Impacts measures are designed to promote mixed-use, compact development to reduce VMT and associated emissions, as well as ensure planning for focused growth that protects people from stationary and mobile sources of emissions. These measures put a special focus on reducing the exposure of populations to hazardous pollutants in communities most heavily impacted by emissions. These measures rely primarily upon

BAAQMD action to reduce TAC emissions through enforcement, source review, development of revised CEQA guidelines and thresholds of significance, and tracking and monitoring of air quality and health risks. The health risk impacts of Specific Plan implementation are documented under **Impact AQ-2**, below. The Specific Plan would not conflict with these measures.

Energy and Climate

Energy and Climate measures are designed to reduce ambient concentrations of criteria air pollutants through promotion of energy conservation, renewable energy, reduced “urban heat island” effect, and plantings of trees. As indicated in **Chapter 19, Energy Conservation**, the Specific Plan would be consistent with these objectives.

Vehicle Miles Traveled

As indicated in **Chapter 17, Transportation and Circulation**, implementation of the Specific Plan would result in increased VMT compared to the baseline condition. The Specific Plan would also result in an increase in the Plan Area’s service population, which comprises the daily residents and employees of the Plan Area.

Baseline VMT is based on a daily trip rate of approximately 30,000 trips per day for the Plan area, and an average trip distance of 4.8 miles in Santa Clara County. As shown in **Table 6-6: Specific Plan Vehicle Miles Traveled per Capita**, under baseline conditions, the Plan Area has a VMT of approximately 53 million per year, and a service population of 860. VMT per capita is calculated by dividing the total miles traveled by the service population (in this case, 53 million divided by 860). The resulting VMT per service population is 61,370.

Reducing VMT per capita can help a region achieve air quality and congestion reduction goals while still allowing for population and economic growth. Although VMT increases with population growth, VMT per capita can decrease if the service population of an area increases at a more rapid rate than the VMT increases. A reduced VMT per capita indicates an overall reduced dependence on automobile travel because residents and workers switch to other modes of transportation, such as transit, walking, and cycling.

With implementation of the Specific Plan, VMT would increase approximately 62 percent to approximately 86 million miles per year. However, service population would increase more substantially, by approximately 1,113 percent, to 10,429 persons. The resulting VMT per capita for the Specific Plan Area would drop by approximately 87 percent, to 8,199. With implementation of the Specific Plan, VMT per capita would substantially decrease compared to baseline conditions.⁷

⁷ As further explained in **Chapter 17, Transportation and Circulation**, due to the currently high vacancy rate at the existing mall, the baseline traffic counts and service population were adjusted to reflect traffic conditions and service population associated with the historic 82 percent (82%) occupancy of the Mall.

Table 6-6: Specific Plan Vehicle Miles Traveled per Capita

Scenario	VMT	Service Population	VMT per Capita
Baseline Conditions ¹	52,767,257	860	61,370
Specific Plan	85,510,941	10,429	8,199
% Change	+62%	+1,113%	-87%

Source: Ramboll Environ, 2016.

(1) Due to the currently high vacancy rate at the existing shopping mall, the baseline traffic counts were adjusted to reflect traffic conditions associated with the historic the 82 percent (82%) occupancy of the Mall.

Source: Ramboll Environ, 2016.

Quantification of Criteria Air Pollutant Emissions

As stated above, although a criteria air pollutant emissions inventory is not required for a plan-level analysis, such an inventory was prepared for the Specific Plan because the necessary information is available and can be used to identify the magnitude of emissions. **Table 6-7: Specific Plan Operational Emissions without Environmental Design Features** identifies the emissions associated with operation of the Specific Plan absent implementation of the EDFs identified in the Project Description.

Table 6-7: Specific Plan Operational Emissions without Environmental Design Features

Emission Source	Pollutants (tons/year)				Pollutants (pounds/day)			
	ROG	NO _x	PM ₁₀ (total)	PM _{2.5} (total)	ROG	NO _x	PM ₁₀ (total)	PM _{2.5} (total)
<i>Specific Plan</i>								
Architectural Coating	2.5	-	-	-	14	-	-	-
Consumer Products	17	-	-	-	95	-	-	-
Hearths	0.0027	0.023	0.0019	0.0018	0.015	0.13	0.01	0.01
Landscaping	0.0002	0.0000	0.0000	0.0000	0.0009	0.0001	0.0001	0.0001
Energy Use	0.08	0.69	0.05	0.05	0.42	3.8	0.29	0.29
On-Road Dust	-	-	27	6.6	-	-	148	36
On-Road Exhaust	19	17	4.66	1.99	106	93	26	11
Central Plant Boilers	0.94	3.4	1.3	1.3	5.2	19	7.2	7.2
Emergency Generators	0.04	0.05	0.78	0.03	0.24	0.25	4.3	0.14
Total	40	21	34	10	220	116	185	55
<i>Existing Land Uses</i>								
Architectural Coating	0.63	-	-	-	3.4	-	-	-
Consumer Products	4.7	-	-	-	26	-	-	-
Landscaping	0.0011	0.0001	0.0000	0.0000	0.0062	0.0006	0.0002	0.0002
Energy Use	0.019	0.17	0.013	0.013	0.10	0.94	0.072	0.072
On-Road Dust	-	-	17	4.1	-	-	92	23
On-Road Exhaust	21	23	3.0	1.4	118	124	17	7.5
Emergency Generators	0.02	0.06	0.02	0.02	0.1	0.31	0.1	0.1
Total	27	23	20	5.5	147	126	109	30
Difference (Proposed - Existing)	13	-1.9	14	4.5	73	-10	77	25
Significance Threshold	Consistency with Current Air Quality Plan measures AND Projected VMT <= projected population increase							

Source: Ramboll Environ, 2016.

Specific “project-level” analyses, such as the analysis of the Town Center/Community Park component of the Specific plan provided below, are required to assess potential impacts under “project-level” thresholds.

Conclusion

The Specific Plan would not hinder implementation of 2010 Clean Air Plan control measures. In addition, implementation of the Specific Plan would generate a percentage increase in VMT that is substantially less than the projected percentage increase in service population. Therefore, the Specific Plan would be consistent with the 2010 Clean Air Plan, and the impact would be less than significant.

Impact AQ-2: Would implementation of the Specific Plan generate toxic air contaminants, which would expose sensitive receptors to substantial pollutant concentrations?

BAAQMD Guidelines recommend that plans incorporate special overlay zones containing goals, policies, and objectives to minimize potential TAC exposure in areas located within 1,000 feet of existing and planned TAC sources and within 500 feet of freeways and high-volume roadways.

The Specific Plan would introduce new residential development in proximity to vehicle traffic on I-280 and Stevens Creek Boulevard, as well in proximity to emergency backup generators installed to serve Specific Plan uses. Existing residential development west and south of the Plan Area would also be proximate to TAC emissions from proposed emergency backup generators.

Table 6-8: Specific Plan Operational Health Risk Impacts at Existing Sensitive Receptors and Table 6-9: Specific Plan Operational Health Risk Impacts at Proposed Sensitive Receptors indicate that health risks associated with the Specific Plan would not exceed the project-level thresholds. As such, the impact would be less than significant and overlay zones are not warranted.

Table 6-8: Specific Plan Operational Health Risk Impacts at Existing Sensitive Receptors

Emission Source	Cancer Risk Impact (in one million)	Chronic Non-Cancer Hazard Index	Acute Non-Cancer Hazard Index	Annual PM _{2.5} Concentration (µg/m ³)
Mobile	5.0	0.010	0.05	0.11
Emergency Generators	0.4	0.00019	0.04	0.00066
Total	5.3	0.010	0.09	0.11
Operational Threshold	10	1	1	0.3
Exceeds Threshold?	No	No	No	No

Note: Evaluated operational activities include new traffic associated with the Vallco Specific Plan, as well as 14 planned emergency generators
Source: Ramboll Environ, 2016.

Table 6-9: Specific Plan Operational Health Risk Impacts at Proposed Sensitive Receptors

Emission Source	Cancer Risk Impact (in one million)	Chronic Non-Cancer Hazard Index	Acute Non-Cancer Hazard Index	Annual PM _{2.5} Concentration (µg/m ³)
Mobile	6.7	0.002	0.03	0.16
Emergency Generators	1.3	0.03	0.35	0.00018
Total	8.0	0.03	0.38	0.16
Operational Threshold	10	1	1	0.3
Exceeds Threshold?	No	No	No	No

Note: Evaluated operational activities include new traffic associated with the Vallco Specific Plan, as well as 14 planned emergency generators
Source: Ramboll Environ, 2016.

6.4.4 Impacts of the Town Center/Community Park

These analyses summarize the findings of the *Vallco Town Center Specific Plan Air Quality and Greenhouse Gas Technical Report*, which is included in the [Appendix AQ](#).

Impact AQ-3: Would construction of the Town Center/Community Park generate dust and criteria air pollutants, which could violate an air quality standard, contribute substantially to an existing or projected air quality violation, or result in a cumulatively considerable net increase in criteria air pollutants?

Construction activities associated with the Town Center/Community Park would result in emissions of ozone precursors and particulate matter in the form of dust (dust) and exhaust (e.g., vehicle tailpipe emissions). Emissions of ozone precursors and particulate matter are primarily a result of the combustion of fuel from on-road and off-road vehicles. ROG's would be emitted from activities that involve painting, architectural coatings, and asphalt paving. Demolition and construction activities would require the use of heavy trucks, material loaders, cranes, concrete breakers, and other mobile and stationary construction equipment.

Dust

Site preparation and project construction would involve demolition of the existing structures on the project site (existing Mall), clearing, cut-and-fill activities, grading, and building activities. Construction-related effects on air quality generated by the Town Center/Community Park would be greatest during the site preparation phase because most engine emissions are associated with the excavation, handling, and transport of soils on the site. Sources of dust (PM₁₀ and PM_{2.5}) would include disturbed soils at the construction sites and trucks carrying uncovered loads of soils. Unless properly controlled, vehicles leaving the site would deposit dirt and mud on local streets, which could be an additional source of airborne dust after it dries.

The Specific Plan includes **Environmental Design Feature (EDF) 25: Dust Control**, which would require implementation of the BAAQMD's Best Management Practices to reduce dust emissions to a less-than-significant level.

Criteria Air Pollutants

Construction activities would result in emissions of criteria air pollutants from the use of off- and on-road vehicles and equipment. Criteria and ozone precursor pollutant exhaust emissions from construction equipment and truck and other vehicle trips would incrementally add to the regional atmospheric loading of these pollutants during construction of the Town Center/Community Park. Daily exhaust emissions from construction activities, are compared with significance thresholds in **Table 6-10: Town Center/Community Park Daily Construction Mass Emissions without Emissions Controls**. As shown, although daily ROG, PM₁₀, and PM_{2.5} emissions would be below thresholds of significance, daily NO_x emissions would exceed the threshold of significance.

Table 6-10: Town Center/Community Park Daily Construction Mass Emissions without Emissions Controls

Construction Source	Criteria Air Pollutant Emissions			
	ROG	NO _x	PM ₁₀ (exhaust)	PM _{2.5} (exhaust)
Off-Road Emissions	6,003	62,027	3,323	3,058
On-Road Emissions	5,282	90,773	4,188	1,956
Paving Off-Gas Emissions	60	-	-	-
Architectural Coating	43,726	-	-	-
Total	55,071	152,801	7,512	5,013
Days of construction	1,825			
Average Daily Emissions (lbs/day)	30	84	4.1	2.7
Significance Threshold (lbs/day)	54	54	82	54
Exceeds Threshold?	No	Yes	No	No

Source: Ramboll Environ, 2016.

The Specific Plan includes **EDF 26: Construction Emissions Minimization**, which would require preparation and adherence of an Emissions Reduction Plan. **Table 6-11: Town Center Community Park Daily Construction Mass Emissions with Emissions Controls** indicates that daily NO_x emissions would be reduced, by approximately 38 percent, to a less-than-significant level.

Table 6-11: Town Center/Community Park Daily Construction with Emissions Controls

Construction Source	Criteria Air Pollutant Emissions			
	ROG	NO _x	PM ₁₀ (exhaust)	PM _{2.5} (exhaust)
Off-Road Emissions	1,225	6,890	136	125
On-Road Emissions	5,282	90,773	4,188	1,956
Paving Off-Gas Emissions	60	-	-	-
Architectural Coating	43,726	-	-	-
Total	50,293	97,663	4,324	2,081
Days of construction	1,825			
Average Daily Emissions (lbs/day)	28	53.5	2.4	1.1
Significance Threshold (lbs/day)	54	54	82	54
Exceeds Threshold?	No	No	No	No

Source: Ramboll Environ, 2016.

Environmental Design Features for Impact AQ-3

Environmental Design Feature 25: Dust Control

The Bay Area Air Quality Management District (BAAQMD) Best Management Practices for dust control shall be required for all construction activities within the Town Center/Community Park. These measures will reduce dust emissions primarily during soil movement, grading and demolition activities, but also during vehicle and equipment movement on unpaved project sites:

- (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 mph.
- (5) All streets, 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 5 minutes (as required by the California airborne toxics control measure Title 13, Section 2485 of 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) A publicly visible sign shall be posted 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. BAAQMD’s phone number shall also be visible to ensure compliance with applicable regulations.

Environmental Design Feature 26: Construction Emissions Minimization

The Town Center/Community Park applicant and other project applicants for future development shall require in its construction specifications an Emissions Reduction Plan that requires the following:

- That all off-road equipment shall have engines that meet either U.S. EPA or California Air Resources Board (CARB) Tier 4 final off-road emission standards. If engines that comply with Tier 4 off-road emission standards are not commercially available, then the contractor shall provide the next cleanest piece of off-road equipment as provided by the step down schedules in the table below. “Commercially available” shall mean the availability of Tier 4 equipment taking into consideration factors such as: (i) critical path timing of construction; (ii) geographic proximity to the Project site of equipment; and (iii) geographic proximity of access to off haul deposit sites. The applicant(s) and contractor shall maintain records concerning its efforts to comply with this requirement.

Off-Road Equipment Compliance Step-Down Schedule

Compliance Alternative	Engine Emission Standard
1	Tier 4 Interim
2	Tier 3
3	Tier 2

Abbreviations:

CARB = California Air Resources Board

N/A = not applicable

Note: How to use the table: If the requirements of the above table cannot be met, Compliance Alternative 1 shall be met. If Compliance Alternative 1 cannot be met, then Compliance Alternative 2 would need to be met. If Compliance Alternative 2 cannot be met, then Compliance Alternative 3 would need to be met.

- The idling time for off-road and on-road equipment be limited to no more than two minutes, except as provided in exceptions to the applicable state regulations regarding idling for off-road and on-road equipment. Legible and visible signs shall be posted in multiple languages (English, Spanish, and Chinese) in designated queuing areas and at the construction site to remind operators of the two minute idling limit.

- Construction operators shall properly maintain and tune equipment in accordance with manufacturer specifications.

Impact AQ-4: Would operation of the Town Center/Community Park result in emissions of criteria air pollutants at levels that could violate an air quality standard, contribute to an existing or projected air quality violation, or result in a cumulatively considerable net increase in criteria air pollutants?

After construction is completed and the Town Center/Community Park is fully operational, criteria pollutant emissions would be emitted as a result of natural gas combustion for heating, landscape and maintenance equipment operations, and increased motor vehicle emissions. Also, operation of generators pursuant to BAAQMD requirements would reduce emissions, but generators would still result in criteria pollutant emissions.

Town Center/Community Park operational emissions, which would include both area and mobile emissions, are presented in **Table 6-12: Town Center/Community Park Operational Emissions**. Emissions from operations of the existing Mall are also shown to determine the net difference in emissions. The Town Center/Community Park would result in operational emissions of ROG that would exceed thresholds. ROG emissions would be primarily related to use of consumer products by tenants of the development. The use of these products cannot be controlled by the applicant. The impact would be significant, and there is no feasible measure to reduce the impact to a less-than-significant level.

Carbon Monoxide

As discussed above, a project could result in a CO hot spot if it increases traffic volumes at affected intersections to more than 44,000 vehicles per hour. The transportation study shows the maximum traffic volumes that would occur with the Town Center/Community Park would be approximately 10,400 vehicles per hour at the intersection of Homestead Road and Lawrence Expressway in the Cumulative + Project PM peak hour scenario. This volume is less than 24 percent of the BAAQMD screening volume of 44,000 vehicles per hour. The maximum traffic volume associated with the Town Center/Community Park would be substantially lower than the 44,000 vehicles per hour screening threshold.

Regarding CO in parking garages, pursuant to the California Mechanical Code Section 403.9, parking garages constructed within The Town Center/Community Park would be designed and constructed with adequate CO monitoring and ventilation systems.

Therefore, the impact related to CO hot spots would be less than significant.

Conclusion

Operation of the Town Center/Community Park would generate criteria air pollutants. All emissions would be below applicable thresholds, except ROG emissions would exceed the air quality thresholds previously recommended by BAAQMD. There is no feasible measure to reduce the ROG emissions below thresholds, and the impact would remain significant.

Table 6-12: Town Center/Community Park Operational Emissions

Emission Source	Pollutants (tons/year)				Pollutants (pounds/day)			
	ROG	NO _x	PM ₁₀ (total)	PM _{2.5} (total)	ROG	NO _x	PM ₁₀ (total)	PM _{2.5} (total)
<i>Town Center/Community Park</i>								
Architectural Coating	2.4	-	-	-	13	-	-	-
Consumer Products	16	-	-	-	89	-	-	-
Hearths	0.0027	0.023	0.0019	0.0018	0.015	0.13	0.01	0.01
Landscaping	-	-	-	-	-	-	-	-
Energy Use	0.02	0.15	0.01	0.01	0.09	0.83	0.06	0.06
On-Road Dust	-	-	26	6	-	-	144	35
On-Road Exhaust	19	17	4.5	1.9	103	90	25	11
Central Plant Boilers	0.94	3.4	1.3	1.3	5.2	19	7.2	7.2
Emergency Generators	0.04	0.73	0.025	0.025	0.23	4.0	0.13	0.13
Total	38	21	32	10	210	114	176	53
<i>Existing Land Uses</i>								
Architectural Coating	0.63	-	-	-	3.4	-	-	-
Consumer Products	4.7	-	-	-	26	-	-	-
Landscaping	0.0011	0.0001	0.0000	0.0000	0.0062	0.0006	0.0002	0.0002
Energy Use	0.019	0.17	0.013	0.013	0.10	0.94	0.072	0.072
On-Road Dust	-	-	17	4.1	-	-	92	23
On-Road Exhaust	21	23	3.0	1.4	118	124	17	7.5
Existing Boiler	0.02	0.06	0.02	0.02	0.09	0.31	0.12	0.12
Emergency Generators	0.01	0.11	0.008	0.008	0.05	0.63	0.04	0.04
Total	27	23	20	5.5	147	126	109	30
Difference (Proposed - Existing)	11	-2.2	12	4.2	63	-12	68	23
Significance Threshold	10	10	15	10	54	54	82	54
Exceeds Threshold?	Yes	No	No	No	Yes	No	No	No

Source: Ramboll Environ, 2016.

Impact AQ-5: Would construction of the Town Center/Community Park generate toxic air contaminants, including diesel particulate matter, which would expose sensitive receptors to substantial pollutant concentrations?

Construction of the Town Center/Community Park would result in DPM and PM_{2.5} emissions due to exhaust emissions from equipment, such as loaders, backhoes and cranes, as well as haul truck and vendor trips. These emissions could result in elevated concentrations of DPM and PM_{2.5} at nearby receptors. These elevated concentrations could lead to an increase in the risk of cancer or other health impacts. Due to the variable nature of construction activity, the generation of TAC emissions in most cases would be temporary, especially considering the short amount of time such equipment is typically within an influential distance that would result in the exposure of sensitive receptors to substantial concentrations.

Construction-related TAC emissions were quantified and analyzed to assess the impact on health risk to nearby receptors. See **Appendix AQ** for a detailed discussion of methodology and inputs. Based on the modeling conducted, and the conservative assumptions included in the analysis, modeled cancer risks and hazards associated with construction-period TAC emissions could exceed the threshold of significance. **Table 6-13: Town Center/Community Park Construction Health Risk Impact at Sensitive Receptors without EDFs** shows the maximum health risks and applicable thresholds for a project-level impact. The cancer risk impact would exceed the significance criterion. This would be a significant impact.

Table 6-13: Town Center/Community Park Construction Health Risk Impacts at Sensitive Receptors without EDFs

Emission Source	Cancer Risk Impact (in one million) ¹	Chronic Non-Cancer Hazard Index ²	Acute Non-Cancer Hazard Index ³	Annual PM _{2.5} Concentration (µg/m ³) ¹
Construction	83	0.065	0.21	0.296
Significance Criteria	10	1	1	0.3
Exceeds Threshold?	Yes	No	No	No

Notes:

1. The MEISR for cancer risk and annual PM_{2.5} concentration is located at Norwich Avenue.
2. The MEISR for chronic hazard index is located at Wolfe Road.
3. The MEISR for acute hazard index is located at Denison Avenue.

Source: Ramboll Environ, 2016.

The Specific Plan includes **EDF 26: Construction Emissions Minimization**, described above under **Impact AQ-3**, which would require use of Tier 4 diesel engines to reduce TAC emissions below applicable thresholds. **Table 6-14: Town Center/Community Park Construction Health Risk Impact at Sensitive Receptors with EDFs** shows the reduced maximum health risks. With implementation of EDFs, the impact would be less than significant.

Environmental Design Feature for Impact AQ-5

Environmental Design Feature 26: Construction Emissions Minimization (see above)

Table 6-14: Town Center/Community Park Construction Health Risk Impacts at Sensitive Receptors with EDFs

Emission Source	Cancer Risk Impact (in one million) ¹	Chronic Non-Cancer Hazard Index ¹	Acute Non-Cancer Hazard Index ²	Annual PM _{2.5} Concentration (µg/m ³) ¹
Construction	7.5	0.0063	0.089	0.024
Significance Criteria	10	1	1	0.3
Exceeds Threshold?	No	No	No	No

Notes:

1. The MEISR for cancer risk, chronic hazard index, and annual PM_{2.5} concentration is located at 19800 Vallco Parkway

2. The MEISR for acute hazard index is located at the I-280 westbound onramp.

Source: Ramboll Environ, 2016.

Impact AQ-6: Would operation of the Town Center/Community Park generate toxic air contaminants, which would expose sensitive receptors to substantial pollutant concentrations?

The Town Center/Community Park would introduce new residential development in proximity to vehicle traffic on I-280 and Stevens Creek Boulevard, as well in proximity to emergency backup generators installed to serve the development project. Existing residential development west and south of the Town Center/Community Park would also be proximate to TAC emissions from proposed emergency backup generators.

As indicated in the “Approach to Analysis,” above, operations of the Town Center/Community Park component of the Specific Plan would generate 99 percent of mobile and stationary source TAC emissions. As shown in Table 6-8: Specific Plan Operational Health Risk Impacts at Existing Sensitive Receptors and Table 6-9: Specific Plan Operational Health Risk Impacts at Proposed Sensitive Receptors indicate that health risks associated with the Specific Plan would not exceed project-level thresholds. Therefore, this impact would be less than significant.

6.4.5 Cumulative Impacts

As indicated in the Approach to Analysis, above, no single plan or project is sufficient in size, by itself, to result in nonattainment of ambient air quality standards for criteria air pollutants. Instead, a plan or project’s individual emissions contribute to existing cumulatively significant adverse air quality impacts. If a plan or project’s contribution to the cumulative impact is considerable, then the plan or project’s impact on air quality would be considered significant. Therefore, the assessment of direct air quality impacts related to criteria air pollutants above represents a cumulative analysis.

The analysis of cumulative impacts related to health risk, which are localized and influenced by individual projects, is also presented below.

Impact AQ-7: Would operation of the Specific Plan, combined with past, present, and reasonably foreseeable future development, generate toxic air contaminants, which would expose sensitive receptors to substantial pollutant concentrations?

As detailed above, emissions from implementation of the Specific Plan, including the Town Center/Community Park, would not result in considerable air quality impacts with the implementation of the identified EDFs. Accordingly, the cumulative air quality impacts with respect to criteria air pollutants would be less than significant.

Additionally, emissions from cumulative developments in the vicinity of the Specific Plan—including a gas station, as well as nearby roadways—would emit TACs that could combine with TAC emissions from the Specific Plan to result in cumulative impacts. Table 6-15: Cumulative Health Risk at Existing Sensitive Receptors and Table 6-16: Cumulative Health Risk at Proposed Sensitive Receptors indicates that health risks associated with the Specific Plan would not exceed any cumulative-level thresholds. The cumulative impact from TAC emissions would be less than significant.

Table 6-15: Cumulative Health Risk Impacts at Existing Sensitive Receptors

Emission Source	Cancer Risk Impact (in one million)	Chronic Non-Cancer Hazard Index	Acute Non-Cancer Hazard Index	Annual PM _{2.5} Concentration (µg/m ³)
Existing Sources				
76 Gas Station	1.2	0.002	0.002	n/a
Background Traffic	27	0.054	0.23	0.62
Subtotal	28	0.06	0.23	0.62
Specific Plan				
Construction	7.5	0.006	0.09	0.02
Traffic	5.0	0.010	0.05	0.11
Generators	0.4	0.00019	0.04	0.00066
Total	41	0.07	0.40	0.76
Significance Criteria	100	10	10	0.8
Exceed Threshold	No	No	No	No

Notes: Stationary source data were obtained from BAAQMD. BAAQMD indicates that two nearby dry cleaners no longer pose risks to nearby residents.

Source: Ramboll Environ, 2016.

Table 6-16: Cumulative Health Risk Impacts at Proposed Sensitive Receptors

Emission Source	Cancer Risk Impact (in one million)	Chronic Non-Cancer Hazard Index	Acute Non-Cancer Hazard Index	Annual PM _{2.5} Concentration (µg/m ³)
Existing Sources				
76 Gas Station	3.0	0.005	0.005	n/a
Background Traffic	19.0	0.028	0.17	0.35
Subtotal	22	0.033	0.17	0.35
Specific Plan				
Traffic	6.7	0.002	0.03	0.16
Generators	1.3	0.030	0.35	0.00018
Total	30	0.06	0.55	0.51
Significance Criteria	100	10	10	0.8
Exceed Threshold	No	No	No	No

Notes: Stationary source data were obtained from BAAQMD. BAAQMD indicates that two nearby dry cleaners no longer pose risks to nearby residents.

Source: Ramboll Environ, 2016.

6.5 References

Bay Area Air Quality Management District (BAAQMD). 2016. Air Quality Standards and Attainment Status. Web page: <http://www.baaqmd.gov/research-and-data/air-quality-standards-and-attainment-status#fourteen>. Accessed January 11.

_____. 2016. Air Quality Summary Reports: 2014, 2013, 2012. Web page: <http://www.baaqmd.gov/about-air-quality/air-quality-summaries>. Accessed January 11.

_____. 2011. California Environmental Quality Act: Air Quality Guidelines. May.

California Air Resources Board (CARB). 2015a. Current Air Quality Standards.

<http://www.arb.ca.gov/research/aaqs/aaqs2.pdf>.

_____. 2010b. iADAM Air Quality Data Statistics. <http://www.arb.ca.gov/adam/>

_____. 2007. Resolution 07-19 (July 19) regarding CCR Title 13, Article 4.8, Chapter 9, Section 2449: <http://info.sen.ca.gov>

_____. 2000. Risk Reduction Plan to Reduce Particulate Matter Emissions from Diesel-Fueled Engines and Vehicles.

California Air Pollution Control Officers Association (CAPCOA). 2009. *Health Risk Assessments for Proposed Land Use Projects*. Available online: http://www.capcoa.org/wp-content/uploads/2012/03/CAPCOA_HRA_LU_Guidelines_8-6-09.pdf.

California Code of Regulations. 2015. Title 13, Division 3, Chapter 1. Available online: <http://www.arb.ca.gov/msprog/onrdiesel/documents/tbfinalreg.pdf>. Accessed in January 2016.

City of Cupertino. 2014. General Plan: *Community Vision 2015–2040*.

Federal Highway Administration (FHWA). 2006. *Interim Guidance on Air Toxic Analysis in NEPA Documents*. Available online: http://www.fhwa.dot.gov/environment/air_quality/air_toxics/policy_and_guidance/aqintguidmem.cfm.

Ramboll Environ. 2016. *The Vallco Town Center Specific Plan Air Quality and Greenhouse Gas Technical Report*. March.

United States Environmental Protection Agency (U.S. EPA). 1996. 40 CFR Part 80, <http://www2.epa.gov/aboutepa/epa-takes-final-step-phaseout-leaded-gasoline>, accessed January 20, 2016.

_____. 2013. Policy Assessment for the Review of the Lead National Ambient Air Quality Standards – External Review Draft. Available online: http://www3.epa.gov/ttn/naags/standards/pb/data/010913_pb-draft-pa.pdf.

7 Biological Resources

7.1 Introduction

This chapter describes the existing setting of the Plan Area as it relates to biological resources; identifies applicable regulatory requirements; evaluates potential impacts on biological resources; and references Specific Plan Environmental Design Features (EDFs) to reduce or avoid potential impacts.

Information used to prepare this chapter came from the following sources:

- Cupertino, City of. 2015 (December 1). *City of Cupertino, California Municipal Code, Title 14, Streets, Sidewalks and Landscaping*.
- PlaceWorks. 2014. General Plan Amendment, Housing Element Update, and associated Rezoning Project Draft Environmental Impact Report. State Clearinghouse No. 2014032007. Final EIR certified December 4, 2014.
- PlaceWorks. 2014. Hyatt House Hotel at Vallco Park Project Initial Study. State Clearinghouse No. 2014082055.
- San Francisco Planning Department. 2011. *Standards for Bird-Safe Buildings*.
- Walter Levison Consulting (WLC) Biologist, *Assessment of 895 Trees at the Town Center/Community Park Project, Wolfe Road, Cupertino, California, 2016* (see [Appendix BIO](#)).

7.2 Environmental Setting

This chapter presents information on biological resources conditions in the Plan Area. The current condition and quality of resources within the Plan Area was used as the baseline against which to compare potential impacts associated with implementation of the Specific Plan.

7.2.1 Regional Setting

The majority of land within the Cupertino City boundary has been urbanized and now supports roadways, structures, other impervious surfaces, areas of turf, and ornamental landscaping. Remnant native trees are scattered throughout the urbanized areas, together with non-native trees, shrubs, and groundcovers. The developed areas within the City boundary are bordered by natural areas supporting a cover of grassland, chaparral and brush lands, with woodlands and forest in the western portion of the City.

7.2.2 Specific Plan Setting

The Plan Area is a developed property bordered by urban development. The Plan Area is bound by I-280 to the north; Stevens Creek Boulevard and Vallco Parkway to the south; by Wolfe Road and Perimeter Road to the east; and another portion of Perimeter Road to the west; Perimeter Road is within the boundaries of the Plan Area. Urban land uses border and are located in the immediate vicinity of the Plan Area.

7.3 Existing Conditions

The Plan Area includes three properties under separate ownership: the existing shopping mall (the Mall) (approximately 51 acres), Block 13 (approximately 2 acres), and Block 14 (approximately 5 acres). The Mall property is a developed site consisting of shopping mall, various related satellite buildings, and surface and structured parking. Vegetation on the Mall property is limited to landscape groundcover, shrubs, and trees around the perimeter of the property, in surface parking areas, and adjacent to the buildings. The majority of the trees are located around the perimeter of the Mall property and the Plan Area.

An arborist report was prepared for the Plan Area, exclusive of Block 13; Block 13 was studied in a separate arborist report (WLC, 2016). The arborist report included a tree survey that mapped the Mall property, and identified and evaluated the condition (health) of the existing trees on the Mall and Block 14 properties.

With respect to the Town Center/Community Park (the Mall property), the arborist report identified approximately 875 trees. The locations of these trees are shown in [Figure 7-1: Existing Trees Map](#). Of the trees on the property, the predominant species are Shamel ash (*Fraxinus uhdei*), coast redwood (*Sequoia sempervirens*), and various species of pine (mainly *Pinus radiata* and *Pinus pinea*). Of the approximately 875 trees, 399 are Shamel ash, 319 are coast redwood, and approximately 65 are pine. The remaining trees on the site include but are not limited to evergreen pear (*Pyrus kawakamii*), flowering pear (*Pyrus calleryana* Cult.), Chinese elm (*Ulmus parvifolia*), southern magnolia (*Magnolia grandiflora*), and California sycamore (*latanus racemose*). Trees located within the center median of Wolfe Road were also counted. There are 20 trees located in the median of which 17 are Shamel ash and 3 are Southern magnolia. The number of trees by species is included in the arborist report ([Appendix BIO](#)).

[Table 7-1: Town Center/Community Park Tree Conditions](#) summarizes the condition (health) of the two dominant tree species on the Mall property: Shamel ash and coast redwood. The table identifies that the majority of these trees are in poor to fair condition. The majority of the trees in the center median of the street are also in poor to fair condition. The roots of the trees have been damaged from mowing activities and curb replacement.

Table 7-1: Town Center/Community Park Tree Conditions

Tree Species	Number of individuals	Dead	Very Poor	Poor	Fair	Good	Excellent
Shamel ash	399	2	65	161	156	15	0
Percent of Shamel ash population	(100%)	<1%	16%	40%	39%	4%	0%
Coast redwood	319	15	52	74	110	66	2
Percent of redwood population	(100%)	5%	16%	23%	34%	21%	<1%

Source: WLCA 2016.

Both Shamel ash and coast redwood are very heavy water users, and have been suffering for years during the continuing California drought conditions with subnormal rainfall. Because of the low soil moisture conditions in the San Francisco Bay Area for multiple years and continued subnormal natural rainfall conditions, the moisture available to the coast redwood and Shamel ash tree root zones is very minimal. This has resulted in chronic loss of live twig density and live foliar density in the trees which appears as dead patches in tree canopies. Very heavy supplemental irrigation on a regular basis throughout the year is crucial to keeping coast redwood and Shamel ash alive and vigorous. Prior to 2015, the ash and redwood specimens at the Mall property did not receive this level of irrigation and are in decline or in many cases are dead. However, the trees have been irrigated since 2015.

The approximately 5-acre Block 14 property is currently a parking lot and has been identified as a location for a future parking lot or hotel with supporting commercial uses, or as right-of-way for a direct southbound ramp connection from I-280 into the Plan Area. No development is proposed for this property at this time. Trees located on Block 14 were also counted as a part of the arborist report. There are approximately 230 trees on the property of which 181 are coast redwood with 26 various species of pine. The remainder of the trees are primarily honey locust (*Gleditsia triacanthos*), Shamel ash, and evergreen pear. The majority of the trees are in poor to moderate health.

Block 13 is also an existing paved parking lot. The property has been approved by the City of Cupertino for the development of a 5-story, 148-room hotel. An Initial Study leading to a Mitigated Negative Declaration (IS/MND) was prepared to evaluate the impacts of the proposed hotel development (PlaceWorks, 2014). As a part of the IS/MND, an arborist report was prepared. The arborist report identified 150 trees on Block 13 of which 114 trees would be removed to allow for development of the hotel. The property contains the following species of trees listed in order of number of trees (high to low): coast redwood, Shamel ash, honey locust, Monterey pine and evergreen pear, coast live oak, cork oak, and pin oak. All trees along the west side of the property would be removed to accommodate a connection to a future trail. As a part of the hotel development, the IS/MND identified that 116 trees would be replaced. The IS/MND found that the implementation of mitigation would reduce the impacts to trees to a less than significant level. No other biological impacts were identified in the IS/MND related to the hotel development.

7.4 Applicable Regulations, Plans, and Standards

The following section contains a discussion of the laws, ordinances, regulations, and standards applicable to the Plan Area that govern biological resources and that must be adhered to prior to and during implementation of the Specific Plan.

7.4.1 Federal

Migratory Bird Treaty Act (16 USC § 703 *et seq.*)

Migratory birds, including raptors (e.g., eagles, hawks, and owls) and their nests are protected by the Migratory Bird Treaty Act (MBTA). The MBTA makes it unlawful, unless permitted by regulations, to “pursue, hunt, take, capture, kill, attempt to take, capture, or kill, possess, offer for sale, sell, offer to barter, barter, offer to purchase, purchase, deliver for shipment, ship, export, import, cause to be shipped, exported, or imported, deliver for transportation, transport or cause to be transported, carry or cause to be carried, or receive for shipment, transportation, carriage, or export, any migratory bird, any part, nest, or egg of any such bird” (16 USC § 703).

In 1972, the MBTA was amended to include protection for migratory birds of prey (e.g., raptors). Six families of raptors occurring in North America were included in the amendment: Accipitridae (kites, hawks, and eagles); Cathartidae (New World vultures); Falconidae (falcons and caracaras); Pandionidae (ospreys); Strigidae (typical owls); and Tytonidae (barn owls). The provisions of the 1972 amendment to the MBTA protect all species and subspecies of these families.

7.4.2 State

Nesting Bird Protection (California Fish and Game Code §§ 3503 *et seq.*)

Section 3503 of the California Fish and Game Code prohibits activities that would result in the taking, possessing, or needlessly destroying of the nest or eggs of bird.

Section 3503.5 prohibits taking, possessing, or destroying birds in the orders in the order Falconiformes or Strigiformes (birds-of-prey), including their eggs and nests. Construction-related disturbance during the breeding season could result in the incidental loss of fertile eggs or nestlings or otherwise lead to nest abandonment. Disturbance that causes nest abandonment and/or loss of reproductive effort is considered “take” by the California Department of Fish and Wildlife (CDFW).

Section 3511 prohibits taking or possessing any fully protected bird; namely: American peregrine falcon (*Falco peregrinus anatum*); Brown pelican; California black rail (*Laterallus jamaicensis coturniculus*); California clapper rail (*Rallus longirostris obsoletus*); California condor (*Gymnogyps californianus*); California least tern (*Sterna albifrons browni*); Golden eagle; Greater sandhill crane (*Grus canadensis tabida*); Light-footed clapper rail (*Rallus longirostris levipes*); Southern bald eagle (*Haliaeetus leucocephalus leucocephalus*); Trumpeter swan

(*Cygnus buccinator*); White-tailed kite (*Elanus leucurus*); and Yuma clapper rail (*Rallus longirostris yumanensis*).

Section 3513 makes it unlawful to take or possess any migratory nongame bird as designated in the MBTA.

7.4.3 Local

City of Cupertino General Plan

The City of Cupertino's General Plan, *Community Vision 2015–2040* (General Plan), as amended, includes goals, policies and strategies that encourage the protection of the City's urban and rural ecosystems. A General Plan Land Use Consistency Analysis for the Specific Plan is provided in [Chapter 13, Land Use and Planning, Table 13-1](#).

City of Cupertino Municipal Code

The City of Cupertino Municipal Code contains all ordinances for the City. The Municipal Code is organized by Title, Chapter, and Section. The following sections of the Municipal Code are applicable.

- The City of Cupertino's Protected Tree Ordinance includes regulations for the protection, preservation, and maintenance of trees of certain species and sizes, as described in the Cupertino Municipal Code. Removal of a protected tree requires a tree removal permit from the City. Pursuant to the Municipal Code, "protected" trees include heritage trees in all zoning districts; trees located on private property of a noted species and trunk diameter (noted below); any tree required to be planted or retained as part of an approved development application, building permit, tree removal permit, or code enforcement action in all zoning districts; and approved privacy protection planting in R-1 zoning districts.

Protected trees on private property are of the following species and have a single trunk diameter of 12 to 24 inches or minimum multi-trunk diameter of 24 to 48 inches measured 4.5 feet from the natural grade. These trees are native oak tree species (*Quercus*), including coast live oak (*Q. agrifolia*), valley oak (*Q. lobata*), black oak (*Q. kelloggii*), blue oak (*Q. douglasii*), and interior live oak (*Q. wislizeni*); California buckeye (*Aesculus californica*); big leaf maple (*Acer macrophyllum*); deodar cedar (*Cedrus deodara*); blue atlas cedar (*Cedrus atlantica* 'Glauca'); bay laurel or California bay (*Umbellularia californica*); and western sycamore (*Platanus racemosa*).

- The Municipal Code addresses the purchase, planting, and maintenance of public trees in the City. It also identifies that where street improvements would occur as a part of residential, commercial, or industrial development, the Town Center/Community Park is subject to the payment of fees to the City for the purchase, planting, and maintenance of trees by the City.

7.5 Impacts and Environmental Design Features

7.5.1 Significance Criteria

Would the Specific Plan:

- a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?
- b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, and regulations or by the California Department of Fish and Wildlife or US Fish and Wildlife Service?
- c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to marshes, vernal pools, coastal areas, etc.) through direct removal, filling, hydrological interruption or other means?
- d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?
- e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?
- f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or State habitat conservation plan?

7.5.2 Summary of Impact Assessment

Riparian Habitat or Other Sensitive Natural Communities (Thresholds a and b)

The Environmental Resources/Sustainability Element of the City's General Plan, finds that most native vegetation in the City has been removed and/or reduced through urbanization and from past agriculture activities. The General Plan does not identify any habitat in the Plan Area. The Plan Area contains no riparian habitat or sensitive natural communities. Therefore, the Specific Plan would have no impact on these resources and no further discussion of this topic is warranted.

Federally Protected Wetlands (Threshold c)

The Plan Area is developed and contains only landscape plantings and trees. There are no water resources within the Plan Area. Therefore, the Specific Plan would have no impact on wetlands and no further discussion of this topic is warranted.

Migratory Wildlife Corridors (Threshold d)

The Cupertino General Plan 2040 EIR notes that development and land use activities consistent with the land use plan would primarily occur in urbanized areas where sensitive wildlife resources and important wildlife movement corridors are no longer present because of existing development. Wildlife species common to urban and suburban habitat could be displaced where existing structures are demolished and landscaping is removed as part of development but these species are relatively abundant and adapted to human disturbance. The Plan Area is located in an urbanized, developed area. No impacts are anticipated and no further discussion of this topic is warranted.

Local Policies and Ordinances (Threshold e)

The City of Cupertino Municipal Code addresses the purchase, planting, and maintenance of public trees in the City. The City's Protected Tree Ordinance includes regulations for the protection, preservation, and maintenance of trees of certain species and sizes. An arborist report, including a tree survey, has been prepared for the Town Center/Community Park and Block 14. A separate arborist report was prepared as a part of the Block 13 hotel IS/MND. Both reports identify the number of trees on the properties by species and the condition of the trees. The hotel IS/MND identifies the approximate number of trees to be removed and provides a tree replacement program consistent with the City's Protected Tree Ordinance and with respect to public street trees. The Specific Plan identifies that the Town Center/Community Park will retain the majority of the existing healthy trees. Additional trees will be planted resulting in a net increase of trees within the Plan Area.

Habitat Conservation Plans (Threshold f)

The City of Cupertino General Plan identifies that the entirety of the City is located adjacent to but outside of the boundaries of the Santa Clara Valley Habitat Conservation Plan/Natural Community Conservation Plan (HCP/NCCP). The City does not have a habitat conservation plan. Therefore, the Plan Area is not covered by the HCP/NCCP.

7.5.3 Impacts of the Proposed Specific Plan

Impact BIO-1: Would implementation of the Specific Plan have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?

Avian injury and mortality resulting from collisions with buildings could occur with future implementation of the Specific Plan. Some birds are unable to detect and avoid glass and have difficulty distinguishing between actual objects and their reflected images. In addition, internal building lighting can interfere with some night-migrating birds. The frequency of bird collisions in any particular area depends on many factors, including local and migratory avian populations; densities and species composition; migration characteristics; resting and feeding patterns; habitat preferences; time of year; prevailing winds; and weather conditions.

Where future buildings in the Plan Area include wide expanses of glass or railings, there is the potential for bird collisions and mortalities. One of the features of the Town Center/Community Park is the approximately 30-acre Community Park and Nature Area to be constructed over most of the buildings in the Town Center/Community Park. The coverage of the majority of the property by the green roof structure reduces the visibility of buildings to birds flying over the Plan Area and may decrease the chance of collision.

The Plan Area is located in a highly urbanized area which is atypical for migratory bird flight path. It is not expected that there will be any substantial adverse effect on sensitive species because of the lack of suitable foraging habitat to attract such species to the area in the first place. The Specific Plan encourages the use of low-reflective glass on building facades and prohibits the use of mirrored glass at the street level. The Specific Plan also includes the consideration of using bird-friendly site and building lighting methods such as implementing a “lights out” policy on the green roof during peak bird migration periods and reducing light trespass from interior sources. Compliance with the Town Center Design Guidelines and EDF 24, Lighting, and EDF 27, Building Materials, which is included in the Specific Plan, would minimize potential impacts to a less-than-significant level.

Environmental Design Features for Impact BIO-1

EDF 24 **Lighting** (see Chapter 5)

EDF 27 **Building Materials**

To limit reflectivity and prevent exterior glass from attracting birds, projects shall use low-reflectivity glass to minimize bird collision. Low reflectivity glass shall be used for the entirety of a building’s glass surface (not just the lower levels nearest trees where bird collisions may be the most common), and other measures shall be undertaken for avian safety.

Impact BIO-2: Would implementation of the Specific Plan conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?

The potential for occurrence of special-status species in developed areas is very remote in comparison to undeveloped lands with natural habitat. As previously discussed, the Plan Area has been improved with structures and paving; contains no native habitat; and has been highly disturbed by ongoing use of the properties; therefore no special-status plant or animal species are expected to occur in the Plan Area. The hotel IS/MND found that the hotel development would not impact the populations or habitats of candidate, sensitive, or special status species.

Although the Plan Area contains no native habitat, birds may currently nest in trees found within its boundaries. There are approximately 875 trees on the Mall property and 20 trees in the street median (together approximately 895 trees), approximately 230 trees on Block 14, and 150 trees on Block 13 (the hotel development). A tree replacement mitigation program for the hotel development has already been approved by the City of Cupertino. There are no proposals to develop Block 14 at this time.

Of the approximately 895 trees associated with the Mall property and street trees, the majority of trees that would be removed are located on the interior of the Town Center/Community Park where future buildings and infrastructure would be constructed. It is anticipated that implementation of the Town Center/Community Park would also impact some of the public street trees. Existing healthy trees located on the perimeter of the Town Center/Community Park would be retained. It is anticipated that approximately 400 trees could be removed because of their location within the Town Center/Community Park or because of the condition of the trees. The replacement of trees would occur within the Plan Area. Should additional trees require removal beyond the estimated 400 trees, the replacement of these trees would also occur within the Plan Area.

As a part of the Town Center/Community Park, additional trees would be planted at street level resulting in a net increase in the number of trees on the property. There are 20 street trees, and many are in poor condition due to root damage. The Specific Plan identifies that existing street trees would be retained as feasible and would be replaced in accordance with City requirements. New street trees would include incorporate the variety of trees currently found along the existing roadways. Additional trees would be planted to provide cover and landscape for the Community Park and Nature Area. The additional trees would be native or drought-tolerant species. The General Plan's Environmental Resources and Sustainability Element notes that green roofs can help certain plant and animal species thrive better than in natural environments.

As previously noted, the majority of the existing trees are located along the perimeter of the Plan Area. As a part of the implementation of the Specific Plan, the majority of mature, healthy trees along Wolfe Road, Stevens Creek Boulevard, and Perimeter Road would be retained with additional trees planted in these locations. Compliance with Specific Plan EDF 28, which requires preparation of a Tree Management Plan, and EDF 29, which requires preparation of bird surveys prior to activities that would affect trees, would minimize potential impacts to a less-than-significant level.

Environmental Design Features for Impact BIO-2

EDF 28 Tree Replacement

Prior to the issuance of the first demolition permit, the Town Center/Community Park applicant and other project applicants for future development shall submit a Tree Management Plan for review and approval by the City of Cupertino. The Tree Management Plan shall be prepared in compliance with the Municipal Code sections that address retention, relocation, and replacement of trees.

EDF 29 Nesting and Migratory Bird Surveys

The Town Center/Community Park applicant and other project applicants for future development shall retain a qualified biologist to perform nesting bird surveys prior to prior to tree pruning, tree removal, transplanted, ground disturbing activities, or

construction activities that could affect nesting and migratory birds. Preconstruction surveys are not required for tree removal, tree pruning, and ground disturbance or construction activities outside the nesting period. All necessary vegetation clearing shall be performed prior to the nesting season, if at all possible. Vegetation can be cleared and maintained to prevent migratory bird nesting. Recommendations of the biologist shall be implemented such that no birds, nests with eggs, or nests with hatchlings are disturbed. An annual report shall be submitted to the City of Cupertino and the California Department of Fish and Wildlife (CDFW) documenting the observations and actions implemented to comply with this Environmental Design Feature.

Impact BIO-3: Would implementation of the Specific Plan conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or State habitat conservation plan?

The Santa Clara Valley Habitat Conservation Plan/Natural Community Conservation Plan (HCP/NCCP) (herein referred to as the Conservation Plan), identifies invertebrates, amphibians and reptiles, birds, mammals, and plants and potential impacts associated with nitrogen deposition from vehicle exhaust. Although the City of Cupertino falls outside of the Conservation Plan area boundaries, the following information is provided for informational purposes.

The purpose of the Conservation Plan “is to protect and enhance ecological diversity and function in the greater portion of Santa Clara County, while allowing appropriate and compatible growth and development in accordance with applicable laws. To this end, the Plan describes how to avoid, minimize, and mitigate impacts on endangered and threatened species, thereby addressing the permitting requirements relevant to these species for activities conducted in the Plan area by the Permittees...This Plan is both a habitat conservation plan (HCP) intended to fulfill the requirements of the ESA and a natural community conservation plan (NCCP) to fulfill the requirements of the California Natural Community Conservation Planning Act (NCCP Act). As an NCCP, this Plan not only addresses impact mitigation, but will also contribute to the recovery and delisting of listed species and help preclude the need to list additional species in the future.”

Implementation of the Habitat Plan relies on two types of fees to pay for mitigation: (1) Land Cover Fees that apply to land being affected by a project and (2) Special Fees that apply, in addition to the Land Cover Fees, to impacts that require more expensive mitigation. Special Fees apply to impacts on wetlands, serpentine land covers, western burrowing owl nesting areas, and nitrogen deposition. The nitrogen deposition fee applies to all new development within the permit area if it generates new vehicular trips.

Nitrogen in the air (nitrogen makes up almost 80% of our atmosphere) reacts with oxygen at the high temperatures and pressure inside engines producing nitrogen oxides (NO_x). Nitrous oxide (N₂O) and NO_x are the nitrogen emissions that come from automobiles. The cumulative deposition of atmospheric nitrogen onto serpentine grasslands has been shown to increase the

vegetative cover of non-native grasses. This ecological shift has been shown to reduce the availability of essential larval host plants for the federally listed threatened Bay checkerspot butterfly.

The Plan Area is within an urban area that does not support Bay checkerspot butterfly (checkerspot) habitat and is not adjacent to checkerspot habitat; further, the City inclusive of the Plan Area is located outside the boundaries of the Conservation Plan area. According to Figure 3-9 of the Santa Clara Valley HCP/NCCP, the nearest area of mapped grassland is located approximately 7.5 miles southeast of the Plan Area.

Given the highly urbanized nature of the Plan Area and the surrounding area, the fact that the proposed Specific Plan represents a reuse of a currently developed area (as opposed to new greenfield development) and the high level of urbanized lands and freeways, its contribution to any cumulative impact on nitrogen deposition rates would not be cumulatively considerable; please see [Chapter 6, Air Quality](#), of the EA.

Further, although NO_x is a precursor to smog and acid rain, there is no reliable way to quantify what portion of smog or acid rain caused by tailpipe emissions from vehicles associated with a project gets deposited to the ground. As such, the appropriate place to evaluate nitrogen pollutants is through analysis of potentially polluted surface water runoff. The Specific Plan incorporates measures that reduce polluted surface water runoff; please see [Chapter 12, Hydrology and Water Quality](#), of the EA.

Implementation of the Specific Plan would not violate any water quality standards or otherwise result in water quality degradation during operation because storm water runoff from the Plan Area would be managed consistently with the provisions of the Santa Clara Municipal Regional Stormwater National Pollutant Discharge Elimination (NPDES) permit. The provisions of this permit require new development projects to treat storm water runoff to reduce the amount of pollutants washing off the site and to maintain pre-development surface water runoff rates. In accordance with these requirements, storm water runoff from the new impervious surfaces (e.g., streets, parking areas, and building rooftops) would be treated through a series of biotreatment areas located throughout the Plan Area before entering the storm water system.

The Specific Plan incorporates Low Impact Development (LID) requirements including: implementation of source control features to minimize the generation of storm water pollutants; design features to minimize impervious surfaces and direct on-site drainage to natural areas for infiltration or storage containers for reuse; and storm water treatment measures to treat site drainage. For the reasons discussed above, potential impacts from nitrogen deposition as a result of the Specific Plan are considered less than significant.

As noted previously, the City is located outside of the boundaries of the Conservation Plan. Therefore, the Specific Plan is not covered by the Conservation Plan and would not be required to pay Conservation Plan development fees, including the Nitrogen Deposition Fee. However, in response to the environmental concerns, the Town Center/Community Park applicant has voluntarily agreed to pay the Nitrogen Deposition Fee. This payment agreement is included in the Specific Plan as [EDF 30](#).

Environmental Design Feature for Impact BIO-3

EDF 30 Nitrogen Deposition Fee

The Town Center/Community Park applicant and other project applicants for future development shall pay a Santa Clara Valley Habitat Conservation Plan/Natural Community Conservation Plan Nitrogen Deposition Fee to the Implementing Entity of the Habitat Conservation Plan, the Santa Clara Valley Habitat Agency, even though the fee would not otherwise be legally applicable to the future development. The Town Center/Community Park applicant shall pay the Nitrogen Deposition Fee commensurate with the issuance of building permits within the Town Center/Community Park.

7.5.4 Cumulative Impact Analysis

Impact BIO-4: Would implementation of the Specific Plan, in combination with past, present, and reasonably foreseeable projects, result in significant cumulative impacts with respect to biological resources?

Implementation of the Specific Plan would not contribute to the cumulative regional loss of open lands/habitat which may support special-status species and sensitive communities which also provide for wildlife movement. Due to prior disturbance and lack of suitable habitat on the property, no impacts to special-status species or sensitive habitats would be expected. With implementation of the Environmental Design Features, the implementation of the Specific Plan would not make a significant contribution to cumulative impacts to nesting birds or to the loss of trees. Therefore, the Specific Plan would not significantly contribute to cumulative biological impacts.

7.6 References

Cupertino, City of. 2015 (December 1). *City of Cupertino, California Municipal Code, Title 14, Streets, Sidewalks and Landscaping*.

PlaceWorks. 2014. General Plan Amendment, Housing Element Update, and associated Rezoning Project Draft Environmental Impact Report. State Clearinghouse No. 2014032007. Final EIR certified December 4, 2014.

PlaceWorks. 2014. Hyatt House Hotel at Vallco Park Project Initial Study. State Clearinghouse No. 2014082055.

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

Walter Levison Consulting (WLC) Biologist, Assessment of 895 Trees at the Town Center/Community Park Project, Wolfe Road, Cupertino, California, 2016.



Source: Walter Levison Consulting, 2016

Figure 7-1: Existing Trees Map

Vallco Town Center Specific Plan
Environmental Assessment



Not to scale

Kimley»Horn

Expect More. Experience Better.

8 Cultural Resources

8.1 Introduction

This chapter describes the existing setting of the Plan Area as it related to cultural resources; identifies associated regulatory requirements; evaluates potential impacts on historical and archaeological resources; and references the Specific Plan Environmental Design Features (EDFs) to reduce or avoid potential impacts.

Information used to prepare this chapter came from the following sources:

- City of Cupertino General Plan, *Community Vision 2015-2040*, 2015, as amended.
- Holman & Associates, *Archaeological Literature Review for the Proposed Vallco Project, Cupertino, Santa Clara County, California (Archaeological Literature Review)*, 2015.
- PlaceWorks. 2014. *General Plan Amendment, Housing Element Update, and associated Rezoning Project Draft Environmental Impact Report*. State Clearinghouse No. 2014032007. Final EIR certified December 4, 2014.

8.2 Environmental Setting

This section presents information on cultural resource conditions in the Plan Area. The current condition and quality of cultural resources was used as the baseline against which to compare potential impacts of the implementation of the Specific Plan.

8.2.1 Prehistoric Setting

Archaeological evidence indicates that human occupation of California began at least 12,000 years ago. Early occupants appear to have been an economy based largely on hunting, with limited exchange, and social structures based on extended family units. Later, milling technology and an inferred acorn economy were introduced. This diversification of economy appears coeval with the development of sedentism¹, population growth, and expansion. Sociopolitical complexity and status distinctions based on wealth are also observable in the archaeological record, as evidenced by an increased range and distribution of trade goods (e.g., shell beads, obsidian tools), which are possible indicators of both status and increasingly complex exchange systems.

At the time of European settlement, the area that includes the City of Cupertino was situated within the area controlled by the Tamyen linguistic group of the Ohlone/Costanoan, near the linguistic boundary with the Ramaytush group. The Ohlone/Costanoan hunter-gathers lived in rich environments that allowed for dense populations with complex social structures. They settled in large, permanent villages, about which were distributed seasonal camps and task-

¹ Sedentism means the transition from a nomadic lifestyle to a society which remains in one place.

specific sites. Primary village sites were occupied throughout the year and other sites were visited in order to procure particular resources that were especially abundant or available only during certain seasons. Sites often were situated near fresh water sources and in ecotones where plant life and animal life were diverse and abundant.

8.2.2 Historic Setting

Colonel Juan Baustita de Anza's party passed through the arroyo of San Joseph de Cupertino during exploration in March 1776. One year later, recruitment escalated at the missions of the San Francisco Bay area. By the end of 1795, all of the Tamyen/Tamien villages had been abandoned and their former inhabitants baptized.

During the 19th Century, the area was planted with vineyards and orchards by early European settlers and flourished; drawing more settlers to the area. Due to European vineyards failing in the late 1870s by *phylloxera*, California vineyards and wines did well, leading small communities to have wide-scale development and expansion. By the 1880s, *phylloxera* had spread from Europe to California, causing communities to shift toward fruit production.

Before the community at the crossroads of Stevens Creek Road and Saratoga-Sunnyvale Road (De Anza Boulevard) changed its name to Cupertino in 1904, the community was simply known as West Side. Cupertino was taken from John T. Doyle's winery Cupertino. The winery was named after the nearby creek, which in turn was named by Petrus Font during De Anza's 1776 expedition.

By the 1920s, Cupertino had a population of about 500 residents, and development of the area centered around the agricultural economy, with a focus on wineries, canneries, and fruit drying and packing facilities. The Permanente Corporation was formed in 1939 to provide cement for the construction of Shasta Dam, with a huge plant and quarry just west of Cupertino (still located outside of City limits today). During World War II, the plant also made record shipments of cement to the Pacific Theatre. As the gateway to the Pacific Theatre, the San Francisco Bay area experienced a post-war population boom, which in turn created a need for urban planning. In 1955, Cupertino was incorporated as Santa Clara County's 13th city. The City was incorporated in part to combat the encroachment by the surrounding cities of Santa Clara, San Jose, Sunnyvale, and Los Altos.

In the 1960s, Cupertino transitioned from farming to industry and commercial. This transition was carried out in anticipation of, rather than as a reaction to emerging economic shifts. Today, Cupertino is part of Silicon Valley, a world-renowned high-technology center and is home to many companies at the forefront of innovation.

In the 1960s, 25 Cupertino families and property owners came together to launch the overall scheme for an approximately 300-acre area identified as Vallco Park. The Vallco Park name was constructed from the first initials of each of the primary developers: Varian Associates and the Leonard, Lester, Craft, and Orlando families. The existing mall (the Mall) was established as a retail component within the approximately 300-acre Vallco Park in 1976. At the time of its

launch, it was one of the largest shopping malls in Silicon Valley, drawing visitors from throughout the region. The Mall thrived from the mid-1970s to the mid-1980s.

Mall ownership has turned over many times since the original ownership group, with multiple foreclosures and a bankruptcy. Occupancy began to deteriorate at an accelerated rate in the 1990s. Mall tenancy continued its steady decline into the mid-2000s.

8.2.3 Paleontological Setting

The majority of the City of Cupertino, including the Plan Area, is on recent alluvium deposits of the Holocene (11,700 years ago to present). Holocene deposits are too recent to contain fossils.

8.3 Existing Conditions

8.3.1 Record Searches

An archaeological literature review was conducted by Holman & Associates on August 28, 2015, at the Northwest Information Center (NWIC) of the California Historical Resources Information System, Sonoma State University. The NWIC, an affiliate of the State of California Office of Historic Preservation, is the official State repository of cultural resources records and reports for Santa Clara County. The literature review found that very few archaeological field studies have been completed for the Plan Area and general surroundings extending a quarter mile from it. Only one survey had been conducted on a portion of the Plan Area and one survey was conducted for Calabazas Creek. Several other small surveys inside the quarter mile radius had no findings.

In 1974, Rob Edwards conducted one of the first archaeological surveys of the area. He surveyed Calabazas Creek from Lawrence Expressway to Wolfe Road for the Santa Clara Water District. He reported no discoveries of archaeological resources (historic and prehistoric) along the watershed of the creek, considered to be the most archaeologically sensitive areas at the time.

In 2014, Virginia Ton and Thomas Origer completed an archaeological study of the Block 13 area, which is located within the Plan Area. No resources were discovered during the literature review or field inspection.

As part of the records search, the following inventories for cultural resources were reviewed:

- National Register of Historic Places, National Park Service;
- California Historical Landmarks, California Office of Historic Preservation;
- City of Cupertino General Plan, *Community Vision 2015-2040*, 2015, as amended; and
- City of Cupertino Municipal Code, current through Ordinance 15-2137, passed December 1, 2015.

There are no sites listed on the National Register of Historic Places or the California Historical Landmarks database within the Plan Area. The City of Cupertino General Plan, *Community Vision 2015-2040* (General Plan) Figure LU-5, Historic Resources designates the Vallco Shopping District as a Community Landmark H. The City's Municipal Code designates the Vallco Freeway-Oriented Sign, located on the south side of I-280, just east of the Wolfe Road exit, as a landmark sign.

8.3.2 Field Reconnaissance

According to the *Archaeological Literature Review* a visual inspection of the Plan Area is not possible due to landscaping, building, and parking lots which cover the approximately 58 acres.

8.4 Applicable Regulations, Plans, and Standards

8.4.1 Federal

National Historic Preservation Act

The federal law that governs the treatment of cultural resources is Section 106 of the National Historic Preservation Act (NHPA). Under Section 106, a federal agency must consider the effects on historic properties of the projects they carry out, approve, or fund. A historic property is defined as any prehistoric or historic district, site, building, structure, or object included on, or eligible for inclusion on, the National Register of Historic Places (National Register), including artifacts, records, and material remains relating to the district, site, building structure, or object. The National Register is administered by the National Park Service.

Properties eligible for listing in the National Register possess integrity of location, design, setting, materials, workmanship, feeling and association, and:

- Are associated with important historical events (Criterion A);
- Are associated with the lives of significant persons in our past (Criterion B);
- Embody the distinct characteristics of a type, period, or method of construction (Criterion C); or
- May yield information important in prehistory or history (Criterion D).

Listing in the NRHP does not guarantee specific protection or assistance for a property, but it helps to ensure its recognition in the planning process for federal or federally-assisted projects (see Section 106), eligibility for federal tax benefits, and qualification for federal historic preservation assistance. In addition, the National Register is designed to achieve uniform standards of documentation and evaluation for historic properties.

Executive Order 11593, 36 Federal Register 8921 (May 13, 1971)

Executive Order 11593, *Protection and Enhancement of the Cultural Environment*, orders the protection and enhancement of the cultural environment through providing leadership, establishing state offices of historic preservation, and developing criteria for assessing resource values.

American Indian Religious Freedom Act and Native American Graves and Repatriation Act

The American Indian Religious Freedom Act establishes that it is the nation's policy to protect and preserve for American Indians their inherent right of freedom to believe, express, and exercise their traditional religions, including access to sites, use and possession of sacred objects, and the freedom to worship through ceremonials and traditional rites. Additionally, Native American remains are protected by the Native American Graves and Repatriation Act of 1990.

8.4.2 State

California Register of Historical Resources

The California Register of Historical Resources (California Register) serves as a guide to identify the State's historical resources and to indicate what properties are to be protected, to the extent prudent and feasible, from substantial adverse change (Pub. Res. Code [PRC] § 5024.1(a)), and it is a guide to cultural resources that must be considered when a government agency undertakes a discretionary action subject to CEQA. A historical resource is any object, building, structure, site, area, place, record, or manuscript which is historically or archaeologically significant, or which is significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural history of California (14 California Code of Regulations [CCR] Appendix A).

The California Register is administered by the State Office of Historic Preservation (OHP) that is part of the California State Parks system.

Under PRC Section 5024.1, a historical resource may be listed in the California Register if it meets any of the following criteria:

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

The California Register includes properties that are listed or have been formally determined eligible for listing in the National Register, State Historical Landmarks, and eligible Points of Historical Interest. Other resources that may be eligible for the California Register, and which require nomination and approval for listing by the State Historic Resources Commission, include resources contributing to the significance of a local historic district, individual historical resources, historical resources identified in historic surveys conducted in accordance with OHP procedures, historic resources or districts designated under a local ordinance consistent with the procedures of the State Historic Resources Commission, and local landmarks or historic properties designated under local ordinance.

In addition to meeting one or more of the above criteria, the State regulations require that to be listed in the California Register, sufficient time must have passed to allow a “scholarly perspective on the events or individuals associated with the resource.” Fifty years is used as a general estimate of the time needed to understand the historical importance (14 CCR § 4852(d)). The California Register also requires a resource to possess integrity, which is defined as “the authenticity of an historical resource’s physical identity evidenced by the survival of characteristics that existed during the resource’s period of significance. Integrity is evaluated with regard to the retention of location, design, setting, materials, workmanship, feeling, and association.”

The OHP also administers the California Historical Landmarks and the California “Points of Historical Interest” Programs. California Historical Landmarks are buildings, sites, features, or events that are of statewide significance and have anthropological, cultural, military, political, architectural, economic, scientific or technical, religious, experimental, or other historical value. California Points of Historical Interest are buildings, sites, features, or events that are of local (city or county) significance and have anthropological, cultural, military, political, architectural, economic, scientific or technical, religious, experimental, or other historical value (California Office of Historic Preservation 2016).

Human Remains

Section 7050.5 of the California Health and Safety Code provides that in the event of discovery or recognition of any human remains in any location other than a dedicated cemetery, there shall be no further excavation or disturbance of the find or any nearby area reasonably suspected to overlie adjacent remains until the coroner of the county in which the remains are discovered has determined whether or not the remains are subject to the Coroner’s authority. If the Coroner recognizes that human remains to be of a Native American origin, or they believe that they are of a Native American origin, the Coroner must notify the Native American Heritage Commission within 24 hours.

Title 14, Penal Code, Section 622.5

According to Penal Code Section 622.5, anyone (except the owner of the item at issue) who willfully damages or destroys an item of archaeological or historic interest or value is guilty of a misdemeanor.

California Historical Building Code, California Code of Regulations, Title 24, Part 8

The California Historical Building Code, defined in Sections 18950 to 18961 of Division 13, Part 2.7 of the Health and Safety Code, provides regulations and standards for the rehabilitation, preservation, restoration (including related reconstruction) or relocation of historical buildings or structures deemed by any level of government as having importance to the history, architecture, or culture of an area.

8.4.3 Local

City of Cupertino General Plan

The City of Cupertino's General Plan, *Community Vision 2015-2040* (General Plan), as amended includes policies and strategies that encourage the conservation and proper management of the community's historic and cultural resources in the Land Use and Community Character Element. A list of the relevant General Plan policies and strategies are provided below. A General Plan Land Use Consistency Analysis for the Specific Plan is provided Chapter 13, *Land Use and Planning, Table 13-1*.

Policy LU-6.1: Historic Preservation

Maintain and update an inventory of historically significant structures and sites in order to protect resources and promote awareness of the City's history in the following four categories: Historic Sites, Commemorative Sites, Community Landmarks and Historic Mention Sites.

Policy LU-6.2: Historic Sites

Projects on Historic Sites shall meet the Secretary of Interior Standards for Treatment of Historic Properties.

Policy LU-6.3: Historic Sites, Commemorative Sites and Community Landmarks

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 resources. The plaque shall include the City seal, name of resource, date it was built, a written description and photograph. The plaque shall be placed on a location where the public can view the information.

Policy LU-6.4: Public Access

Coordinate with property owners of public and quasi-public sites to allow public access of Historic and Commemorative Sites to foster public awareness and education. Private property owners will be highly encouraged, but not required, to provide public access to Historic and Commemorative Sites.

Policy LU-6.5: Historic Mention Sites

These are sites outside the City's jurisdiction that have contributed to the City's history. Work with agencies that have jurisdiction over the historical resource to encourage adaptive reuse and rehabilitation and provide public access and plaques to foster public awareness and education.

Policy LU-6.6: Incentives for Preservation of Historic Resources

Utilize a variety of techniques to serve as incentives to foster the preservation of rehabilitation of Historic Resources including:

1. Allow flexible interpretation of the zoning ordinance not essential to public health and safety. This could include land use, parking requirements and/or setback requirements.
2. Use the California Historical Building Codes standards for rehabilitation of historic structures.
3. Tax rebates (Milles Act or local tax rebates).
4. Financial incentives such as grants/loans to assist rehabilitation efforts.

Policy LU-6.8: Cultural Resources

Promote education related to the City's history through public art in public and private developments.

City of Cupertino Municipal Code

The City of Cupertino Municipal Code contains all ordinances for the City. The Municipal Code is organized by Title, Chapter, and Section. Title 19 of the Municipal Code is the City's Zoning Ordinance, which, among other purposes, is intended to assure the orderly and beneficial development of the City, attain a desirable balance of residential and employment opportunities, and promote efficient urban design and arrangement. The Zoning Ordinance contains the following provision that help minimize impacts to cultural resources associated with new development projects:

- With respect to landmark signs, the Municipal Code exempts existing ground signs that have been designated as Landmark Signs from nonconforming sign regulations. If damaged or destroyed, signs may be structurally rebuilt or reinforced to its original design and specifications. Minor modifications to such signs may be allowed such that they do not distract from or alter the unique architectural style of the sign with a Director's Minor Modification.

8.5 Impacts and Environmental Design Features

8.5.1 Significance Criteria

The following significance criteria for land use planning were derived from the Environmental Checklist in the State CEQA Guidelines Appendix G. These significance criteria have been amended or supplemented, as appropriate, to address the City of Cupertino requirements and the full range of potential impacts related to implementation of the Specific Plan. Would the Specific Plan:

- a) Cause a substantial adverse change in the significance of a historical resource?
- b) Cause a substantial adverse change in the significance of an archaeological resource?
- c) Directly or indirectly destroy a unique paleontological resource or site, or unique geologic feature?
- d) Disturb any human remains, including those interred outside of formal cemeteries?

8.5.2 Impact Assessment Methodology

For cultural resources, impact assessment is based on a comparison of known resource locations with the placement of ground-disturbing activities that have the potential to remove, relocate, damage, or destroy the physical evidence of past cultural activities. If such ground disturbance overlaps recorded site locations, then a direct impact may occur. Historical buildings and structures may be directly impacted if the nearby setting and context is modified substantially, even if the building or structure itself is not physically affected. Indirect impacts may occur if activities occur near, but not directly on, known cultural resources.

8.5.3 Impacts of the Proposed Specific Plan

Impact CUL-1: Would implementation of the Specific Plan cause a substantial adverse change in the significance of a historical resource?

The record searches conducted for the Plan Area found no historical site records on file. The existing shopping mall was constructed and opened in 1976 and is less than 50 years old. With regard to qualifying for a listing on the California Register or the National Register, the existing development within the Plan Area does not represent local or regional history of the cultural heritage of California or the United States. It has not been associated with lives or a person or persons important to local, California, or national history. The design of the existing shopping mall does not represent the work of a master architect or possess high artistic values. However, the City of Cupertino's General Plan identifies the Vallco Shopping District as a Community Landmark. As discussed above, Policy LU-6.3 of the General Plan states:

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 resources. The plaque shall include the City seal, name of resource, date it was built, a written description and photograph. The plaque shall be placed on a location where the public can view the information.

Implementation of future development within the Plan Area would need to comply with the City's policy for Community Landmarks by providing a plaque, reader board, and/or other educational tool explaining the significance of the Vallco Shopping District and including information required by Policy LU-6.3 of the General Plan. Compliance with Policy LU-6.3 would reduce potential impacts to less than significant.

The City of Cupertino Municipal Code identifies the Vallco Freeway-Oriented sign as a Landmark Sign. As discussed above, minor modifications are allowed that do not alter the unique architectural style of the sign. **Environmental Design Feature (EDF) 31** would minimize impacts associated with future development on the Landmark Sign. Compliance with Section 19.104.210 of the Municipal Code and **EDF 31** would protect the architectural integrity of the sign and reduce potential impacts to less than significant.

Environmental Design Feature for Impact CUL-1

EDF 31 Signage Program.

If the Town Center/Community Park applicant desires to maintain the existing Vallco Freeway Oriented Sign, it shall do so in accordance with the signage program included in the Specific Plan. In view of the changes in land use and new design themes and characteristics described in this Specific Plan, the applicable signage program includes guidelines to address the architectural integrity of the Vallco Freeway-Oriented Sign, while also allowing for modifications.

Impact CUL-2: Would implementation of the Specific Plan cause a substantial adverse change in the significance of an archaeological resource?

No recorded archaeological resources were identified in the Plan Area. According to the *Archaeological Literature Review*, the Plan Area has a low to moderate potential to contain archaeological resources. Based on an examination of archaeological site maps at the NWIC, there are very few recorded archaeological resources within approximately one mile of the Plan Area. The most archaeologically sensitive feature of the area, Calabazas Creek, had negative findings inside its riparian zone. During development of the area in the vicinity of the Specific Plan, few archaeological field studies and no recorded historic and/or prehistoric sites were discovered, suggesting that the general vicinity had a low to moderate potential for containing Native American cultural resources associated with village and/or temporary camp sites. Nonetheless, EDF 32 would require an archaeological monitor to inspect the ground surface at the completion of demolition activities as they occur, and reduce any potential impacts to less than significant. For this reason, and because no archeological resources have been identified in the Plan Area, implementation of the Specific Plan would have less than significant impacts on known archeological resources.

Environmental Design Feature for Impact CUL-2

EDF 32 Archaeological monitor.

The Town Center/Community Park applicant and other project applicants for future development shall retain an archaeological monitor to inspect the ground surface at the completion of demolition activities as they occur to search for archaeological site indicators. If archaeological resources are found to be significant, the archaeological monitor shall determine appropriate actions, in coordination with a qualified archaeologist, City staff, and the project applicant(s).

Impact CUL-3: Would implementation of the Specific Plan directly or indirectly destroy a unique paleontological resources or site or unique geologic feature?

No recorded paleontological resources were identified in the Plan Area. In addition, the flat area contains no unique geologic features, such as large, above-ground rock formations. The

underlying geological units have a low potential to produce paleontological resources. As discussed in Section 4.4, Cultural Resources, of the City of Cupertino General Plan Update EIR, the majority of the City is located on Holocene alluvium deposits which are too recent to contain fossils. Although the Plan Area has been previously developed, it is unknown what potential paleontological resources may exist on site undisturbed beneath the existing development. EDF 33 would require implementation of a paleontological monitoring program during grading and earthwork activities associated with implementation of future development within the Plan Area. Potential impacts would be reduced to a less than significant level.

Environmental Design Feature for Impact CUL-3

EDF 33 Paleontological monitor.

The Town Center/Community Park applicant and other project applicants for future development shall retain a paleontological monitor to respond on an as-needed basis to address unanticipated paleontological discoveries. In the event that paleontological resources are encountered during grading and construction operations, all construction activities shall be temporarily halted or redirected to permit a qualified paleontologist to assess the find for significance. If paleontological resources are found to be significant, the paleontological monitor shall determine appropriate actions, in coordination with a qualified paleontologist, City staff, and the project applicant(s).

Impact CUL-4: Would implementation of the Specific Plan disturb any human remains, including those interred outside of formal cemeteries?

The Plan Area is not currently used as a cemetery and is not otherwise known to contain human remains. However, this does not preclude finding human remains during Specific Plan-related ground disturbance. In compliance with State regulations, should any human remains be encountered during construction activities, State Health and Safety Code Section 7050.5 states that no further disturbances shall occur in the immediate area until the County Coroner has made the necessary findings as to origin and disposition pursuant to California Public Resources Code Section 5097.98. In addition, in accordance with State and local guidelines, if the Coroner determines the remains to be of a Native American, the Coroner shall contact the Native American Heritage Commission within 24 hours for identification of the most likely descendent of the deceased Native American. Adherence to the State Health and Safety Codes and other State and local guidelines would ensure that any potential impacts remain less than significant.

8.5.4 Cumulative Impact Analysis

Impact CUL-5: Would implementation of the Specific Plan, in combination with past, present, and reasonably foreseeable projects, result in significant cumulative impacts with respect to cultural resources?

Most cultural resources-related impacts from development are site-specific and, if development complies with federal, State, and local regulations and policies, would not have a significant impact on cultural resources. Therefore, past, present, and reasonably foreseeable future development in Cupertino is not expected to have a significant effect on cultural resources.

The City of Cupertino maintains an inventory of historically significant structures, organized into four categories (Historic Sites, Commemorative Sites, Community Landmarks and Historic Mention Sites), and has policies in place to protect resources and preserve the City's history. The City's policies on historic resources would be expected to prevent a significant loss of historic resources in the City. Therefore, future development in the City is not expected to result in a significant cumulative effect on historic resources.

Implementation of the Specific Plan is not anticipated to have a significant impact on cultural resources, as result of compliance with existing regulatory requirements and the implementation of EDFs. Therefore, implementation of the Specific Plan would not make a significant contribution to cumulative cultural resources impacts.

8.6 References

Barrett, S. 1908. *The Ethno-Geography of the Pomo and Neighboring Indians*. University of California Publications in American Archaeology and Ethnology Vol. 6, No. 1. University of California Press, Berkeley.

California Office of Historic Preservation website. Available at <http://ohp.parks.ca.gov/>. Accessed January 29, 2016.

Holman & Associates, *Archaeological Literature Review for the Proposed Vallco Project, Cupertino, Santa Clara County, California (Archaeological Literature Review)*, 2015.

Kroeber, A. 1925. *Handbook of the Indians of California*. Bureau of American Ethnology, Bulletin 78, Smithsonian Institution, Washington D.C.

LSA Associates. 2013. *Apple Campus 2 Project Public Review Draft Environmental Impact Report*. State Clearinghouse No. 2011082055.

9 Geology, Soils, and Mineral Resources

9.1 Introduction

This chapter describes the existing setting of the Plan Area as it relates to geology, soils, and mineral resources; identifies associated regulatory requirements; evaluates potential effects on geology, soils, and mineral resources; and references the Specific Plan Environmental Design Features (EDFs) to reduce or avoid potential impacts.

Information used to prepare this chapter came from the following sources:

- TRC, Preliminary Geotechnical Investigation, Town Center/Community Park, Wolfe Road and Vallco Parkway, Cupertino, California (Geotechnical Investigation), 2015 (see Appendix GEO).
- City of Cupertino General Plan, *Community Vision 2015-2040*, 2015, as amended.
- PlaceWorks. 2014. *General Plan Amendment, Housing Element Update, and associated Rezoning Project Draft Environmental Impact Report*. State Clearinghouse No. 2014032007. Final EIR certified December 4, 2014.
- PlaceWorks. 2014. *Hyatt House Hotel at Vallco Park Project Initial Study*.
- Geologic maps and literature from the U.S. Geological Survey and California Geological Survey.
- Geologic and soils GIS data.
- Online reference materials.

9.2 Environmental Setting

This section presents information on geology, mineral resources, and soil conditions in the Plan Area. The Regional Setting provides information on the baseline conditions in the region. The Project Setting describes baseline conditions for geology, mineral resources, and soils within the Plan Area.

9.2.1 Regional Setting

The City of Cupertino lies in the west-central part of the Santa Clara Valley, a broad, mostly flat alluvial plain that extends southward from the San Francisco Bay. Major right-lateral strike-slip faults occur on either side of the valley, including the San Andreas Fault on the west and the Hayward and Calaveras Faults on the east.

9.2.2 Specific Plan Setting

Topography

The Plan Area is located in an urbanized area approximately eight miles south of San Francisco Bay in the Santa Clara Valley on nearly flat valley floor alluvial deposits. The existing ground surfaces slopes generally in a northerly direction, with elevations ranging from approximately 169 feet above mean sea level (msl) to 199 feet above msl.

Geology

The Plan Area comprises young Quaternary alluvium which consists of unconsolidated sediment that is exposed along the lower reaches of present-day drainages. These sediments have been described as Holocene-age younger alluvium that are composed of unconsolidated, poorly sorted gravel, silt, sand, and clay and organic matter. Underlying the Plan Area is the Santa Clara Formation, a lower Pleistocene to Upper Pliocene age assemblage of moderately to well-consolidated fluvial deposits of pebble and cobble gravel with lesser amounts of sand, silt, and clay (Cupertino, 2014).

The *Geotechnical Investigation* prepared for the Town Center/Community Park indicates that the portion of the Plan Area west of Wolfe Road generally consists of very stiff to hard lean clay, stiff to hard silty clay, and stiff to hard sandy lean clay with some interbedded granular layers to a depth of approximately 35 feet. The interbedded layers consisted of medium dense to very dense silty gravel, medium dense to dense clayey gravel, dense well graded gravel, loose to very dense sand, loose to very dense silty sand, medium dense to very dense well graded sand, and medium dense to very dense poorly graded sand. Fill was encountered consisting of stiff lean clay to depths of approximately two and five feet, respectively, below the surface. Below the depth of 35 feet, granular soils consisting of dense to very dense clayey sand and dense poorly graded sand with some interbedded layers consisting of very stiff to hard lean clay were encountered.

The portion of the Plan Area on the east side of Wolfe Road consists of interbedded layers consisting of stiff to hard sandy clay, stiff to hard silt clay, very stiff gravelly clay, very stiff silt, medium dense to very dense poorly graded gravel, medium dense to very dense clayey gravel, medium dense to dense silty gravel, loose to very dense clayey sand, loose to very dense silty sand, and dense to very dense poorly graded sand to a depth of 50 feet.

Groundwater was encountered at a depth of 68 feet in the Plan Area. The depth to historically high ground water levels in the vicinity of the Plan Area is estimated to be greater than 50 feet below the ground surface.

Faults and Seismicity

The San Francisco Bay area is vulnerable to seismic activity due to the presence of several active faults in the region. The significant earthquakes that occur in the Bay Area are generally associated with crustal movement along well-defined active fault zone of the San Andreas Fault system, which regionally trend in a northwesterly direction. Other active earthquake faults in

the Santa Clara Valley region include the Hayward Fault which lies roughly 8 miles to the east, the Calaveras Fault, which is approximately 15 miles to the east, and the San Gregorio Fault, which passes approximately 15 miles southwest of the Plan Area.

Other potentially significant mapped faults include the Sargent–Berrocal and Monte Vista–Shannon Fault systems, both which are northwest-southeast trending reverse faults. Neither fault has been mapped by the California Geological Survey as an “active” fault because of the lack of conclusive evidence of Holocene displacement, such that the faults would meet current criteria for being “sufficiently active” for zoning under the Alquist-Priolo Act.

Active and potentially active faults that are significant potential seismic sources are presented in **Table 9-1: Regional Faults and Seismicity**.

Table 9-1: Regional Faults and Seismicity

Fault System	Causative Faults ^a	Distance from Plan Area (approx.)	Maximum Historic Moment Magnitude ^a	Maximum Probably Moment Magnitude ^a	Est. Recurrence Interval of Max. Prob. Earthquake ^a
San Andreas System	San Andreas	5.5 miles	7.9	7.9	220 years
	Hayward (South)	10 miles	7.0	7.0	236 years
	Calaveras (Central)	14 miles	6.3	7.0	374 years
Sargent-Berrocal System	Sargent-Berrocal	3.5 miles	3.7-5.0	6.8	330 years
	Monta Vista-Shannon	2 miles	2.0-3.0	6.8	2,400 years

a. Source: City of Cupertino General Plan, *Community Vision 2015-2040*, 2015, as amended.

Surface Fault Rupture

Fault rupture is the surface displacement that occurs when movement on a fault deep within the earth breaks through to the surface. The Alquist-Priolo Earthquake Fault Zoning Act delineates fault rupture zones approximately 1,000 feet wide, or 500 feet on either side of an active fault trace. Fault rupture and displacement almost always follows preexisting faults, which are zones of weakness; however, not all earthquakes result in surface rupture, i.e., earthquakes that occur on blind thrusts do not result in surface fault rupture. Rupture may occur suddenly during an earthquake or slowly in the form of fault creep. In addition to damage caused by ground shaking from an earthquake, fault rupture is damaging to buildings and other structures due to the differential displacement and deformation of the ground surface that occurs from the fault offset. This leads to damage or collapse of structures across this zone. Fault rupture displacements in large earthquakes can range from several feet to greater than 15 feet.

The Plan Area is not located within a currently designated Alquist-Priolo Earthquake Fault Zone, or a Santa Clara County Fault Rupture Hazard Zone. No known surface expression of active faults is believed to cross the Plan Area (Cupertino 2014).

Seismic Ground Shaking

An earthquake is classified by the amount of energy released, which traditionally has been quantified using the Richter scale (M_L). Currently, however, seismologists most commonly use the Moment Magnitude (M_w) scale because it provides a more accurate measurement of the size of major earthquakes. For earthquakes of less than $M 7.0$, the Moment and Richter Magnitude scales are nearly identical. For earthquake magnitudes greater than $M 7.0$, readings on the Moment Magnitude scale are slightly greater than a corresponding Richter Magnitude.

The intensity of the seismic shaking, or strong ground motion, during an earthquake is dependent on the distance between the Plan Area and the epicenter of the earthquake, the magnitude of the earthquake, and the geologic conditions underlying and surrounding the Plan Area. Earthquakes occurring on faults closest to the Plan Area would most likely generate the largest ground motion.

According to the *Geotechnical Investigation*, a maximum considered earthquake geometric mean peak ground acceleration (PGA_M) of 0.62g can be expected in the Plan Area. Although research on earthquake prediction has greatly increased in recent years, seismologists cannot predict when or where an earthquake will occur. The U.S. Geological Survey's Working Group on California Earthquake Probabilities (WGCEP) estimates there is a 72 percent chance of at least one magnitude 6.7 earthquake occurring in the San Francisco Bay region between 2014 and 2044. This result is an important outcome of WGCEP's work because any major earthquake can cause damage throughout the region. The 1989 Loma Prieta earthquake demonstrated this potential by causing severe damage in the cities of Oakland and San Francisco, more than 50 miles from the fault epicenter.

Although earthquakes can cause damage at a considerable distance, shaking will be very intense near the fault rupture. Therefore, earthquakes located in urbanized areas of the region have the potential to cause much more damage than the 1989 Loma Prieta earthquake.

Liquefaction and Lateral Spreading

Liquefaction tends to occur in loose, saturated fine grained sands, coarse silts, or clays with low plasticity. The liquefaction process typically occurs at depths less than 50 feet below the ground surface, although liquefaction can occur at deeper intervals, given the right conditions. The most susceptible zone occurs at depths shallower than 30 feet below the ground surface. For liquefaction to occur, there must be the proper soil type, soil saturation, and cyclic accelerations of sufficient magnitude to progressively increase the water pressures within the soil mass. Non-cohesive soil shear strength is developed by the point-to-point contact of the soil grains. As the water pressures increase in the void spaces surrounding the soil grains, the soil particles become supported more by the water than the point-to-point contact. When the water pressures increase sufficiently, the soil grains begin to lose contact with each other

resulting in the loss of shear strength and continuous deformation of the soil where the soil begins to liquefy.

Liquefaction can lead to several types of ground failure, depending on slope conditions and the geological and hydrological settings, of which the four most common types of ground failure are: (1) lateral spreads, (2) flow failures, (3) ground oscillation, and (4) loss of bearing strength.

Based on a review of regional liquefaction maps, the Plan Area is classified as having a low potential for liquefaction. The different types of ground failure associated with liquefaction often leaves geomorphic evidence after the event in the form of scarps, and open (or unfilled) groups cracks, and sand volcanoes.

Groundwater was encountered in the Plan Area at a depth of 68 feet and California Geologic Survey estimates depth to historically high ground water levels in the vicinity of the Plan Area to be greater than 50 feet below the ground surface. Therefore, the risk of liquefaction in the Plan Area is low.

Lateral spreading typically occurs as a form of horizontal displacement of relatively flat-lying alluvial material towards an open or “free” face such as an open body of water, channel, or excavation. In soils, this movement is generally due to failure along a weak plane, and may often be associated with liquefaction. As cracks develop within the weakened material, blocks of soil displace laterally towards the open face. Cracking and lateral movement may gradually propagate away from the face as blocks continue to break free.

Calabazas Creek is located approximately 700 feet southeast of the Plan Area boundary. Because of the low potential for liquefaction, the risk of lateral spreading in the Plan Area is low.

Landslides

Landslides are gravity-driven movements of earth materials that may include rock, soil, unconsolidated sediment, or combinations of such materials. The primary factors influencing the stability of a slope are the nature of the underlying soil or bedrock, the geometry of the slope (height and steepness), and rainfall. The presence of historic landslide deposits is a good indicator of future landslides. Landslides are commonly triggered by unusually high rainfall and the resulting soil saturation, by earthquakes, or a combination of these conditions. There are no Seismic Hazard Zones for landslides in the Plan Area (California Geologic Survey, 2002). Slope stability issues on relatively flat sites are generally related directly to construction activities such as soil and dirt stockpiling, and trenching and subsurface excavation activities.

Subsidence

Subsidence is the lowering of the land-surface elevation. Groundwater removal from the aquifers beneath Santa Clara Valley has caused subsidence of the ground surface over broad areas by compaction of the dewatered sediments. The rate of subsidence was greatest in the first half of the 20th Century when pumping for agriculture was at its peak. The Plan Area

subsided approximately four feet in the period from 1915 to 1967. Subsidence has stopped or greatly slowed in the present due to improved groundwater management.

Soil Expansion

Expansive soils can change dramatically in volume depending on moisture content. When wet, these soils can expand; conversely, when dry, they can contract or shrink. Sources of moisture that can trigger this shrink-swell phenomenon can include seasonal rainfall, landscape irrigation, utility leakage, and/or perched groundwater. Expansive soil can develop wide cracks in the dry season, and changes in soil volume have the potential to damage concrete slabs, foundations, and pavements. Special building/structure design or soil treatment are often needed in areas with expansive soils.

According to the *Geotechnical Investigation*, Plasticity Index tests of near surface soils resulted in Plasticity Index from 12 to 25, indicating low to moderate expansion potential due to changes in soil moisture content.

Soils

Web-accessible soil mapping data compiled by the National Cooperative Soil Survey and operated by the U.S. Department of Agriculture National Resources Conservation Service was used to identify the major soil types within the Plan Area. The predominant soil type in the Plan Area is Urban Land-Stevenscreek complex. The southeastern portion of the Plan Area is comprised of Urban Land-Elpaloalto complex. The northwestern portion of the Plan Area comprises Urban Land-Flaskan complex. In almost all instances, these soils are generally formed on slopes of 0 to 2 percent, are reportedly well drained, and are typified by low runoff (National Resources Conservation Service 2015).

Mineral Resources

The City of Cupertino's Mineral Resources Map (Figure ES-2 in the Environmental Resources and Sustainability Element) shows that the Plan Area is not located within one of the City's Mineral Resources Zones.

9.3 Applicable Regulations, Plans, and Standards

9.3.1 Federal

International Building Code

Published by the International Code Council, the scope of this code covers major aspects of construction and design of structures and buildings, except for three-story one- and two-family dwellings and town homes. The 2015 International Building Code (IBC) is the most current edition of the IBC and contains provisions for structural engineering design. Published by the International Conference of Building Officials, the 2015 IBC addresses the design and installation of structures and building systems through requirements that emphasize performance. The IBC includes codes governing structural as well as fire- and life-safety provisions covering seismic, wind, accessibility, egress, occupancy, and roofs.

9.3.2 State

Alquist-Priolo Earthquake Fault Zoning Act

The Alquist-Priolo Earthquake Fault Zoning Act, Public Resources Code (PRC), Section 2621-2630 (formerly the Special Studies Zoning Act), regulates development and construction of buildings intended for human occupancy to avoid the hazard of surface fault rupture. This act categorizes faults as active, potentially active, and inactive. Historic and Holocene age faults are considered active, Late Quaternary and Quaternary age faults are considered potentially active, and pre-Quaternary age faults are considered inactive. These classifications are qualified by the conditions that a fault must be shown to be “sufficiently active” and “well defined” by detailed site-specific geologic explorations to determine whether building setbacks should be established. This Act requires the State Geologist to establish regulatory zones (Earthquake Fault Zones) around the surface traces of mapped active faults, and to publish appropriate maps that depict these zones.

The Seismic Hazards Mapping Act

The Seismic Hazards Mapping Act, PRC, Section 2690-2699, of 1990 directs the California Department of Conservation, Division of Mines and Geology (now called California Geological Survey) to delineate Seismic Hazard Zones. The purpose of the act is to reduce the threat to public health and safety and to minimize the loss of life and property by identifying and mitigating seismic hazards. Cities, counties, and State agencies are directed to use seismic hazard zone maps developed by the California Geological Survey in their land-use planning and permitting processes. The act requires that site specific geotechnical investigations be performed prior to permitting most urban development projects within seismic hazard zones.

California Building Code

The California Building Code (CBC), Part 2 of Title 24 of the California Code of Regulations (CCR), is based on the International Building Code and combines three types of building standards from three different origins:

- Building standards that have been adopted by State agencies without change from building standards contained in the International Building Code.
- Building standards that have been adopted and adopted from the International Building Code to meet California conditions.
- Building standards, authorized by the California legislature, that constitute extensive additions not covered by the International Building Code that have been adopted to address particular California concerns.

Chapter 16 of the CBC contains definitions of seismic sources and the procedure used to calculate seismic forces on structures. Chapter 33 of the CBC contains requirements relevant to the construction of underground transmission lines. Building permits for individual projects within the Plan Area will be reviewed to ensure compliance with the CBC.

9.3.3 Local

City of Cupertino General Plan

The City of Cupertino's current General Plan, *Community Vision 2015-2040* (General Plan), as amended, includes policies and strategies in the Health and Safety Element that reduce the risks associated with geologic and seismic hazards. A list of the relevant General Plan policies and strategies are provided below. A General Plan Land Use Consistency Analysis for the Specific Plan is provided in Table 13-1 of Chapter 13, *Land Use and Planning*.

Policy HS-5.1: Seismic and Geologic Review Process

Evaluate new development proposals within mapped potential hazard zones using a formal seismic/geologic review process. Use Table HS-3 of this Element to determine the level of review required.

Strategy HS-5.1.1: Geotechnical and Structural Analysis.

Require any site with a slope exceeding 10 percent to reference the Landslide Hazard Potential Zone maps of the State of California for all required geotechnical and structural analysis.

Strategy HS-5.1.3: Geologic Review.

Continue to implement and update geologic review procedures for Geologic Reports required by the Municipal Code through the development review process.

City of Cupertino Municipal Code

The City of Cupertino Municipal Code contains all ordinances for the City. The Municipal Code is organized by Title, Chapter, and Section. The following provisions of the Municipal Code apply to building structures and safety with regards to reducing impacts related to geologic hazards:

- Chapter 16.04 Building Code, incorporates by reference the 2013 CBC and certain CBC appendices. The Cupertino Building Code prohibits most uses of structural plain concrete in structures assigned to Seismic Design Category C, D, E, or F.
- Chapter 16.08, Excavations, Grading and Retaining Walls, includes provisions that govern construction-related excavation and grading. Section 16.08.110 requires the preparation and submittal of Interim Erosion and Sediment Control Plans for all projects subject to City-issued grading permits, and Sections 16.08.120, Engineering Geological Reports, and 16.08.130, Soils and Engineering Reports, give the City the discretionary authority to require geological engineering and soils engineering investigations where potential geological hazards warrant.

Additionally, Sections 16.08.170, Grading Permit – Approval, and 16.08.180, Grading Permit – Denial, set forth the standards for issuing and denying grading permits. Specifically, grading permits are denied where such activity could interfere with a

drainage system, if the area is subject to geological or flood hazards to the extent that no reasonable amount of corrective work can eliminate or sufficiently reduce the hazard to human life or property, and where interim plan is inadequate to certain sediment on-site or control erosion.

- Chapter 16.12, Soils and Foundations, requires the conduct of a detailed soils investigation for proposed subdivision construction projects that are subject to the Cupertino Building Code.

9.4 Impacts and Environmental Design Features

9.4.1 Significance Criteria

The following significance criteria for land use planning were derived from the Environmental Checklist in the State CEQA Guidelines Appendix G. These significance criteria have been amended or supplemented, as appropriate, to address the City of Cupertino requirements and the full range of potential impacts related to implementation of the Specific Plan. Would the Specific Plan:

- a) Expose people or structures to substantial risk of loss, injury, or death involving:
 - i. Surface rupture along a known active fault, including those faults identified on recent Alquist-Priolo Earthquake Fault Zoning (A-PEFZ) Map issued by the State Geologist for the area or based on other substantial evidence of a known fault?
 - ii. Strong seismic ground shaking?
 - iii. Seismic-related ground failure, including liquefaction?
 - iv. Landslides?
- b) Result in substantial soil erosion or the loss of topsoil?
- c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the implementation of the Specific Plan, and potentially result in on- or off-site landsliding, lateral spreading, subsidence, liquefaction, or collapse?
- d) Be located on expansive soil, (as defined in Table 18-1-B of the 1994 Uniform Building Code) or corrosive soils, creating substantial risks to life or property?
- e) Result in the loss of availability of a known mineral resources that would be of value to the region and residents of the State; or
- f) Result in the loss of availability of a locally –important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?

9.4.2 Summary of Impact Assessment

Exposure to Earthquake-Related Ground Rupture

The Alquist-Priolo Earthquake Fault Zoning Act delineates fault rupture zones approximately 1,000 feet wide, or 500 feet on either side of an active fault trace. The Plan Area is not located

within an Alquist-Priolo Earthquake Fault Zoning Map as mapped by the State Geologist. The closest known fault to the Plan Area is the San Andreas Fault, located approximately 5.5 miles to the west. There are no known or potentially active faults located within the Plan Area. Based on the distance of the Plan Area from the San Andreas Fault, implementation of the Specific Plan would not expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving fault rupture, and therefore there would be no impact.

Extraction of Mineral Resources

The City of Cupertino's Mineral Resources Map shows that the Plan Area is not located within one of the City's Mineral Resources Zones, and therefore there would be no impact with regard to the loss of availability of a known mineral resource or an important mineral resource recovery site. Implementation of the Specific Plan would have no impact on the City's mineral resources and no further analysis is required.

9.4.3 Impacts of the Proposed Specific Plan

Impact GEO-1: Would implementation of the Specific Plan expose people or structures to risk of loss, injury, or death involving potential substantial adverse effects, including strong seismic ground shaking; seismic-related ground failure, including liquefactions; of landslides?

Ground Shaking

Moderate to strong ground shaking may occur in the Plan Area during the life of uses constructed pursuant to the Specific Plan. Due to the proximity of the San Andreas Fault System, local strong ground shaking with vertical and horizontal ground accelerations could potentially occur. However, adherence to CBC design requirements would reduce the potential for significant damage to buildings and facilities planned for the Plan Area. These design requirements would apply to all components of the proposed Specific Plan, in addition to the proposed buildings, such as the proposed Community Park and Nature Area and parking structures including underground parking structures. The proposed Community Park and Nature Area would have a concrete framing system and would be seismically isolated from the mixed-use buildings below. During a seismic event, the Community Park and Nature Area structure would slide independently of the buildings below, and would reduce act as a damper (shock absorber) reducing the seismic response (swaying) of the buildings below.

Future development within the Plan Area would be designed to comply with the CBC as well as the American Society of Civil Engineers (ASCE) 7-10 Minimum Design Loads for Buildings and Other Structures, published by the ASCE. Development of the buildings, including above ground and underground parking garages would require special inspections, in accordance with the CBC (Chapter 17), as well as any additional inspections required by the City. The *Geotechnical Investigation* prepared for the Town Center/Community Park provides requirements for foundation designs that would be required to minimize seismic risk for future development of the Town Center/Community Park. Recommendations in the *Geotechnical Investigation* include design requirements for the basement level parking under the proposed buildings and structures within the Town Center/Community Park. Implementation of **Environmental Design**

Feature (EDF) 34 would ensure those impacts are implemented during construction and would reduce potential impacts to less than significant.

Potential development on Block 13 in the Plan Area was previously approved by the City and was determined not to have any significant impacts due to geologic hazards, including severe ground shaking, soil instability, landslides, and ground failure with the incorporation of mitigation, which requires the preparation of geotechnical reports prior to the issuance of a building permit. Incorporation of **EDF 35**, which requires the preparation of a site-specific geotechnical report, would reduce potential impacts due to geological hazards to less than significant. Additionally, future development on Block 13 would be required to adhere to the CBC design requirements, which would further reduce potential impacts.

Future development on Block 14 would be required to adhere to CBC design requirements and would implement **EDF 35**, which would reduce potential geological hazard impacts to less than significant.

Standard geotechnical engineering practices, adherence to seismic building code requirements, and compliance with **EDF 34** and **EDF 35** would minimize potential impacts to a less than significant level.

Ground Failure Including Liquefaction

The Plan Area is located on soil types that have been classified as having a low potential for liquefaction. Given this, as well as the absence of shallow groundwater, the potential for liquefaction and seismic settlement is low. Therefore, impacts due to the risk of liquefaction would be less than significant.

Landslides

The topography of the Plan Area is generally flat and is not located within a Seismic Hazard Zone for landslides. However, implementation of the Specific Plan would include the development of a Community Park and Nature Area that slopes gradually from street level to above the planned Town Center. The slope of the Community Park and Nature Area would be moderate. Access to the Community Park and Nature Area would have to comply with Americans with Disability Act (ADA) standards, so therefore, could not have areas with excessive slopes. Any irrigation on the Community Park and Nature Area would comply with the City's requirements for water efficient landscaping and therefore, would include mechanical controls on the irrigation system that would prevent overwatering. As discussed above, the proposed structural design would comply with all seismic safety standards, including the recommendations in the *Geotechnical Investigation (EDF 34)*. This includes a concrete framing system and would be seismically isolated from the structures below it. Therefore, with compliance with applicable standards and regulations and **EDF 34**, impacts due to landslides would be less than significant.

Environmental Design Features for Impact GEO-1

EDF 34 Geotechnical Report Recommendations.

Prior to the issuance of grading permits or improvements plans, the Town Center/Community Park applicant and other project applicants for future development shall demonstrate to the satisfaction of the Director of Public Works that all earthwork operations, including site preparation, and the selection, placement, and compaction of fill materials have incorporated the recommendations and the project specifications set forth in the *Geotechnical Investigation* (TRC, 2015) to ensure the safety of people and structures.

EDF 35 Site-Specific Geotechnical Reports.

Prior to the issuance of grading permits or improvements plans, the Town Center/Community Park applicant shall be required to prepare and submit site-specific Geotechnical Reports that would be reviewed and approved by the City of Cupertino. All earthwork operations, including site preparation, and the selection, placement, and compaction of fill materials shall incorporate the recommendations and the project specifications set forth in the site-specific Geotechnical Report to ensure the safety of people and structures.

Impact GEO-2: Would the Specific Plan result in substantial soil erosion or loss of topsoil?

According to the *Geotechnical Investigation*, due to the presence of near surface clay and silty clay soils and the relatively flat site topography, soil erosion is not anticipated to be a significant concern for the Plan Area. Additionally, compliance with existing regulatory requirements, such as implementation of grading erosion control measures as specified in the City of Cupertino's Municipal Code, would reduce impacts from erosion and the loss of topsoil. Specifically, Section 16.08.110, would require the preparation of an Interim Erosion and Sediment Control Plan, either integrated with the site map/grading plan or submitted separately, to the Director of Public Works. The Interim Erosion and Sediment Control Plan must calculate the maximum runoff from the site for the 10-year storm event and describe measures to be undertaken to retain sediment on the site, a brief description of the surface runoff and erosion control measures to be implemented, and vegetative measures to be undertaken. Therefore, Specific Plan related activities would not be expected to result in substantial erosion and impacts are considered less than significant.

Impact GEO-3: Would the Specific Plan are be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the Specific Plan, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse.

Based on the nature of the on-site formational deposits, as well as the absence of shallow groundwater, the potential for liquefaction that could result in lateral spreading or collapse and seismic settlement is low. Therefore, impacts would be less than significant.

Impact GEO-4: Would the Plan Area be located on expansive soils (as defined in Table 18-1-B of the Uniform Building Code) or corrosive soils, creating substantial risks to life or property?

According to the *Geotechnical Investigation*, Plasticity Index tests of near surface soils resulted in Plasticity Index from 12 to 25, indicating low to moderate expansion potential due to changes in soil moisture content. However, future development in the Plan Area would be subject to the CBC regulations and provisions, as adopted in Chapter 12.04 of the City's Municipal Code and enforced by the City during plan review prior to building permit issuance. This would include provisions for other soil properties as well, including corrosive soils. The CBC contains specific requirements for seismic safety, excavation, soil stability, foundations, retaining walls, and site demolition, and also regulates grading activities, including drainage and erosion control. Standard geotechnical engineering practices, adherence to seismic building code requirements, and compliance with EDF 34 and EDF 35 would minimize potential impacts to a less than significant level.

9.4.4 Cumulative Impact Analysis

Impact GEO-5: Would implementation of the Specific Plan, in combination with past, present, and reasonably foreseeable projects, result in significant cumulative impacts with respect to geology and soils?

Most geologic-related impacts from development are site-specific and, if properly designed, would not result in worsening of the environmental or public health and safety. All current and future development within the City of Cupertino and the surrounding area is generally exposed to the same seismic risks as the Plan Area. Future development requires compliance with the same building code requirements to address seismic hazards as the proposed Specific Plan. The Specific Plan does not propose any mineral or soil extraction at the existing Lehigh and Stevens Creek quarries. The existing quarries are located approximately four miles to the west of the Plan Area, outside of the Cupertino city limits. No cumulatively considerable geotechnical constraints or seismic hazards have been identified as a result of operation of the quarries and development within the Plan Area. The Specific Plan does not propose any landform modification or alteration of any existing geologic formations. No cumulatively considerable impacts with other existing projects have been identified. Future development would be subject to site-specific geologic and/or soils constraints analysis pursuant to the City of Cupertino's building code requirements, a registered geotechnical engineer would investigate site-specific conditions and minimize exposure to hazards or constraints with implementation of their recommendations.

Cumulative development would also involve the exposure of an increased number of people and/or structures to risk of earthquakes and their associated geologic hazards. The impacts of existing environmental conditions, such as seismic hazards, on the future users of a proposed development are not required under the California Environmental Quality Act (CEQA). However, new construction would be required to comply with the most current CBC and Municipal Code requirements, which establishes building standards to minimize risk based on the geologic and seismic conditions of the region in which a project is located. Compliance with these building code requirements would, to the maximum extent practicable, reduce cumulative, development-related impacts that relate to seismically induced ground shaking, liquefaction, and expansive soils.

With administration of these requirements and adherence to the CBC, potential cumulative geologic and soils impacts would be less than significant.

9.5 References

California Geological Survey. 2002. Seismic Hazards Zone, Cupertino Quadrangle, Official Map, released September 23, 2002. Scale 1:24,000.

NRCS (Natural Resources Conservation Service). Web Soil Survey. Available at: <http://websoilsurvey.sc.egov.usda.gov/App/HomePage.htm>. Accessed December 22, 2015.

Scharer, K. 2010. "Changing Views of the San Andreas Fault." *Science*, Vol. 327, p. 1089-1090. February 26. Available at: <http://www.sciencemag.org/content/327/5969/1089>. Accessed December 22, 2015.

USGS (United States Geological Survey). 1994. Geomorphic Investigations of Deformation Along the Northeastern Margin of the Santa Cruz Mountains by Christopher S. Hitchcock, Keith I. Kelson and Stephen C. Thompson, Open File Report 94-187.

_____. 2002. Subsurface and Petroleum Geology of the Southwestern Santa Clara Valley ("Silicon Valley"), California, Professional Paper 1663, by Richard G. Stanley, Robert C. Jachens, Paul G. Lillis, Robert J. McLaughlin, Keith A. Kvenvolden, Frances D. Hostettler, Kristin A. McDougall, and Leslie B. Magoon.

10 Greenhouse Gas Emissions

10.1 Introduction

This chapter describes the existing setting of the Plan Area as it relates to greenhouse gases; identifies applicable regulatory requirements; evaluates potential impacts on greenhouse gases; and references the Specific Plan Environmental Design Features (EDFs) to reduce or avoid potential impacts.

Information used to prepare this chapter came from the following sources:

- Ramboll Environ, 2016. *The Vallco Town Center Specific Plan Air Quality and Greenhouse Gas Technical Report*. March (see [Appendix AQ](#))
- Bay Area Air Quality Management District (BAAQMD)
- City of Cupertino General Plan, *Community Vision 2015–2040*, 2015, as amended
- *City of Cupertino Climate Action Plan (CAP) – 2015*

The study area for climate change and the analysis of greenhouse gas (GHG) emissions is broad because climate change is influenced by world-wide emissions and their global effects. Though this EA has not been prepared as a California Environmental Quality Act (CEQA) document, the methodology utilized to assess the range of GHG emission impacts has been prepared in compliance with the State CEQA Guidelines for purposes of providing a rigorous analysis and full disclosure using prevailing legislative guidelines. Thus, for purposes of this analysis, the study area is limited by the CEQA Guidelines (Section 15064(d), which directs lead agencies to consider an “indirect physical change” only if that change is a reasonably foreseeable impact that may be caused by the proposed project. This analysis limits discussion to those physical changes to the environment that are not speculative and are reasonably foreseeable.

10.2 Environmental Setting

10.2.1 Climate Change and Greenhouse Gases

Climate change is the observed increase in the average temperature of the Earth’s atmosphere and oceans along with other substantial changes in climate—such as wind patterns, precipitation, and storms—over an extended period of time. Gases that absorb and re-emit infrared radiation in the atmosphere are called greenhouse gases (GHGs). GHGs are present in the atmosphere naturally, are released by natural sources, or are formed from secondary reactions taking place in the atmosphere. The gases that are widely seen as the principal contributors to human-induced climate change include carbon dioxide (CO₂), methane (CH₄), nitrous oxides (N₂O), fluorinated gases such as hydrofluorocarbons (HFCs) and perfluorocarbons (PFCs), and sulfur hexafluoride (SF₆) (CEQA Guidelines Section 15364.5). Water vapor is excluded from the list of GHGs because it is short-lived in the atmosphere and its atmospheric concentrations are largely determined by natural processes, such as oceanic evaporation.

GHGs are emitted by both natural processes and human activities. Of these gases, CO₂ and CH₄ are emitted in the greatest quantities from human activities. Emissions of CO₂ are largely by-products of fossil fuel combustion, whereas CH₄ results from off-gassing associated with agricultural practices and landfills. GHGs have the potential to adversely affect the environment because such emissions contribute, on a cumulative basis, to climate change. Climate change is by definition a cumulative impact because it occurs worldwide. Although emissions of one single project do not cause climate change, GHG emissions from multiple projects (past, present and future) throughout the world could result in a cumulative impact with respect to climate change.

Man-made GHGs, many of which have greater heat-absorption potential than CO₂, include fluorinated gases and SF₆ (California Environmental Protection Agency [CalEPA], 2006). Different types of GHGs have varying global warming potentials (GWPs). The GWP of a GHG is the potential of a gas or aerosol to trap heat in the atmosphere over a specified timescale (generally, 100 years). Because GHGs absorb different amounts of heat, a common reference gas (CO₂) is used to relate the amount of heat absorbed to the amount of the gas emissions, referred to as “carbon dioxide equivalent” (CO₂e), and is the amount of a GHG emitted multiplied by its GWP. Carbon dioxide has a 100-year GWP of one. By contrast, methane CH₄ has a GWP of 25, meaning its global warming effect is 25 times greater than carbon dioxide on a molecule per molecule basis (United Nations Intergovernmental Panel on Climate Change [IPCC], 2006).

The accumulation of GHGs in the atmosphere regulates the earth’s temperature. Without the natural heat trapping effect of GHGs, Earth’s surface would be about 34° C cooler (CalEPA, 2006). However, it is believed that emissions from human activities, particularly the consumption of fossil fuels for electricity production and transportation, have elevated the concentration of these gases in the atmosphere beyond the level of naturally occurring concentrations.

Carbon Dioxide

CO₂ was the first GHG demonstrated to be increasing in atmospheric concentration, with the first conclusive measurements being made in the last half of the 20th Century. Concentrations of CO₂ in the atmosphere have risen approximately 40 percent since the industrial revolution. The global atmospheric concentration of CO₂ has increased from a pre-industrial value of about 280 parts per million (ppm) to 391 ppm in 2011 (IPCC, 2007; Oceanic and Atmospheric Association [NOAA], 2010). The average annual CO₂ concentration growth rate was larger between 1995 and 2005 (average: 1.9 ppm per year) than it has been since the beginning of continuous direct atmospheric measurements (1960–2005 average: 1.4 ppm per year), although there is year-to-year variability in growth rates (NOAA, 2010). In 2010, CO₂ represented an estimated 82.8 percent of total GHG emissions (Department of Energy [DOE] Energy Information Administration [EIA], August 2010).

Methane

According to the United States Environmental Protection Agency (U.S. EPA), CH₄ is primarily produced through anaerobic decomposition of organic matter in biological systems. Agricultural processes such as wetland rice cultivation, enteric fermentation in animals, and the decomposition of animal wastes emit CH₄, as does the decomposition of municipal solid wastes. CH₄ is also emitted during the production and distribution of natural gas and petroleum, and is released as a by-product of coal mining and incomplete fossil fuel combustion. (U.S. EPA, 2015). Methane is an effective absorber of radiation, though its atmospheric concentration is less than that of CO₂ and its lifetime in the atmosphere is limited to 10 to 12 years. It has a GWP approximately 25 times that of CO₂. Over the last 250 years, the concentration of CH₄ in the atmosphere has increased by 148 percent (IPCC, 2007), although emissions have declined from 1990 levels.

Nitrous Oxide

Concentrations of nitrous oxide (N₂O) began to rise at the beginning of the industrial revolution and continue to increase at a relatively uniform growth rate (NOAA, 2010). N₂O is produced by microbial processes in soil and water, including those reactions that occur in fertilizers that contain nitrogen, fossil fuel combustion, and other chemical processes. Use of these fertilizers has increased over the last century. Agricultural soil management and mobile source fossil fuel combustion are the major sources of N₂O emissions. The GWP of nitrous oxide is approximately 298 times that of CO₂ (IPCC, 2007).

Fluorinated Gases (HFCs, PFCs and SF₆)

Fluorinated gases, such as HFCs, PFCs, and SF₆, are powerful GHGs that are emitted from a variety of industrial processes. Fluorinated gases are used as substitutes for ozone-depleting substances, such as chlorofluorocarbons (CFCs), hydrochlorofluorocarbons (HCFCs), and halons, which have been regulated since the mid-1980s because of their ozone-destroying potential and were phased out of use pursuant to the Montreal Protocol (1987) and Clean Air Act Amendments of 1990. Electrical transmission and distribution systems account for most SF₆ emissions, while PFC emissions result from semiconductor manufacturing and as a by-product of primary aluminum production. Fluorinated gases are typically emitted in smaller quantities than CO₂, CH₄, and N₂O, but these compounds have much higher GWPs. SF₆ is the most potent GHG that the IPCC has evaluated.

10.2.2 Greenhouse Gas Emissions Inventory

Greenhouse gas inventories are typically prepared using a production-based method, which accounts for the emissions and trends due to human activities occurring within a defined geographic or territorial boundary.

National

Total U.S. GHG emissions were 6,673 million metric tons (MMT) CO₂e in 2012. Annual U.S. emissions have increased by 5.9 percent since 1990; emissions rose by 2.0 percent from 2012

to 2013. The increase from 2012 to 2013 was primarily due to an increase in the carbon intensity of fuels consumed to generate electricity: more coal and less natural gas. In addition, emissions increased due to increased consumption of heating oil due to relatively cool winters, increased industrial production, and increased in vehicle miles traveled. Since 1990, U.S. emissions have increased at an average annual rate of 0.3 percent. In 2013, the transportation and industrial end-use sectors accounted for 27 percent and 29 percent of CO₂e emissions, respectively. Meanwhile, the residential and commercial end-use sectors each accounted for 17 percent of CO₂e emissions (U.S. EPA, 2015).

State

Based upon the California Air Resources Board (CARB) California Greenhouse Gas Inventory for 2000–2013, California produced 459.3 MMT CO₂e in 2013. The major source of GHGs in California is transportation, contributing 37 percent of the state’s total GHG emissions. Industrial activity is the second largest source, contributing 23 percent of the state’s GHG emissions (CARB, 2015). CARB has projected statewide unregulated GHG emissions for the year 2020 will be 507 MMT CO₂e (CARB, 2013). These projections represent the emissions that would be expected to occur in the absence of any GHG reduction actions.

Regional and Local

BAAQMD published the first regional GHG inventory for the base year 2002 (issued in 2006), followed by an updated for the 2007 base year (issued in 2010). The most current inventory is for the 2011 base year (issued in 2015). That year, 86.6 MMT CO₂e were emitted by the San Francisco Bay Area. The transportation sector contributed approximately 39.7 percent of all emissions, followed by 35.7 percent from the industrial and commercial sector (BAAQMD, 2015a).

BAAQMD, in collaboration with the University of California at Berkeley’s Cool Climate Network, has also prepared a Consumption-Based GHG Inventory, which estimates the amount of GHGs emitted in the production of goods and services all over the world that are consumed by Bay Area residents. It is based on a full life-cycle analysis of emissions generated by production, shipping, use, and disposal of each product consumed in the Bay Area, regardless of where the GHG emissions were released to the atmosphere. The consumption-based method resulted in approximately 35 percent higher GHG emissions than the traditional territorial approach for the region, largely due to higher emissions from imported food and goods. Transportation is the largest source of emissions (33%), followed by food (19%), goods (18%), services (18%), heating fuels (5%), home construction (3%), electricity (2%), and waste (1%), (Jones and Kammen, 2015).

The *City of Cupertino Climate Action Plan (CAP)* includes an inventory of 2010 emissions, as well as projections of emissions under a business-as-usual (BAU) scenario, which assumes historic trends describing energy and water consumption, travel, and solid waste generation will remain the same in the future. The BAU scenario includes growth factors based upon the City of Cupertino General Plan, *Community Vision 2015–2040* (General Plan), and the estimated

growth in population, employment, and vehicle miles traveled. Year 2010 and projected BAU emissions in metric tons (MT) CO₂e per year are shown in [Table 10-1: Community-Wide BAU Emissions and Reductions Targets](#). Energy consumption comprises the majority (approximately 55 percent) of GHG emissions, followed by the transportation sector (approximately 44%) (City of Cupertino, 2014).

10.2.3 Potential Effects of Climate Change

According to the CalEPA's *2010 Climate Action Team Biennial Report*, potential impacts of climate change in California may include loss in snow pack, sea level rise, more extreme heat days per year, more high ozone days, more large forest fires, and more drought years (CalEPA, 2010). Below is a summary of some of the potential effects that could be experienced in California as a result of climate change.

Table 10-1: Community-wide BAU Emissions and Reduction Targets (in MT CO₂e/Year)

Emission Sector	2010 (baseline)	2020	2035	2050
BAU Emissions				
Energy	169,547	195,535	234,518	273,500
Transportation	104,112	119,641	142,569	165,371
Off-Road Sources	22,390	27,519	35,214	42,909
Solid Waste	5,403	6,215	7,558	8,714
Wastewater	4,640	5,325	6,318	7,285
Potable Water	1,197	1,374	1,630	1,880
Total BAU Emissions	307,288	355,610	427,807	499,659
Reduction Targets				
Reduction Target	N/A	15% below 2010 levels	49% below 2010 levels	83% below 2010 levels
Reductions Needed		94,415	271,090	447,420

Source: City of Cupertino 2015.

Sea Level Rise

According to *The Impacts of Sea-Level Rise on the California Coast*, prepared by the California Climate Change Center (CCCC) (May 2009), climate change has the potential to induce substantial sea level rise in the coming century. The rising sea level increases the likelihood and risk of flooding. Sea levels are rising faster now than in the previous two millennia, and the rise is expected to accelerate, even with implementation of robust GHG emission control measures. The most recent IPCC report (2013) predicts a mean sea level rise of 11 to 38 inches by 2100. This prediction is more than 50 percent higher than earlier projections of 7 to 23 inches, when comparing the same emissions scenarios and time periods. The previous IPCC report (2007) identified a sea level rise of 8 inches on the California coast over the past century. The California Climate Adaptation Strategy (California Natural Resources Agency, December 2009) estimates a sea level rise of up to 55 inches by the end of this century.

Air Quality

Higher temperatures, which are conducive to air pollution formation, could worsen air quality in California. Climate change may increase the concentration of ground-level ozone, but the magnitude of the effect, and therefore its indirect effects, are uncertain. If higher temperatures are accompanied by drier conditions, the potential for large wildfires could increase, which, in turn, would further worsen air quality. However, if higher temperatures are accompanied by wetter conditions, the rains would tend to temporarily clear the air of particulate pollution and reduce the incidence of large wildfires, thereby ameliorating the pollution associated with wildfires. Additionally, severe heat accompanied by drier conditions and poor air quality could increase the number of heat-related deaths, illnesses, and asthma attacks throughout the state (California Energy Commission [CEC], March, 2009).

Water Supply

Analysis of paleoclimatic data (such as tree-ring reconstructions of stream flow and precipitation) indicates a history of naturally and widely varying hydrologic conditions in California and the west, including a pattern of recurring and extended droughts. Uncertainty remains with respect to the overall impact of climate change on future water supplies in California. However, the average early spring snowpack in the Sierra Nevada decreased by about 10 percent during the last century, which represents a loss of 1.5 million acre-feet of snowpack storage. During the same period, the sea level rose 8 inches along California's coast. California's temperature has risen 1°F, mostly at night and during the winter, with higher elevations experiencing the highest increase. From 1999 to 2008, Southern California cities experienced their lowest recorded annual precipitation twice within the decade. In a span of only 2 years, Los Angeles experienced both its driest and wettest years on record (California Department of Water Resources [DWR], 2008; CCCC, May 2009).

This uncertainty complicates the analysis of future water demand, especially where the relationship between climate change and its potential effect on water demand is not well understood. The Sierra snowpack provides the majority of California's water supply by accumulating snow during the state's wet winters and releasing it slowly during the state's dry springs and summers. Based upon historical data and modeling, DWR projects that the Sierra snowpack will experience a 25- to 40-percent reduction from its historic average by 2050. Climate change is also anticipated to bring warmer storms that result in less snowfall at lower elevations, reducing the total snowpack (DWR, 2008).

Agriculture

California has a \$30 billion annual agricultural industry that produces half of the country's fruits and vegetables. Higher CO₂ levels can stimulate plant production and increase plant water-use efficiency. However, if temperatures rise and drier conditions prevail, water demand could increase; crop-yield could be threatened by a less reliable water supply; and greater air pollution could render plants more susceptible to pest and disease outbreaks. In addition, temperature increases could change the time of year certain crops, such as wine grapes, bloom or ripen, and thereby affect their quality (CCCC, 2006).

Ecosystems and Wildlife

Climate change and the resulting changes in weather patterns could have ecological effects on a global and local scale. Increasing concentrations of GHGs are likely to accelerate the rate of climate change. Scientists project that the average global surface temperature could rise by 1.0–4.5°F (0.6-2.5°C) in the next 50 years, and 2.2–10°F (1.4-5.8°C) in the next century, with substantial regional variation. Soil moisture is likely to decline in many regions, and intense rainstorms are likely to become more frequent. Rising temperatures could have four major impacts on plants and animals: (1) timing of ecological events; (2) geographic range; (3) species' composition within communities; and (4) ecosystem processes, such as carbon cycling and storage (Parmesan, C. and H. Galbraith, 2004).

10.3 Applicable Regulations, Plans, and Standards

10.3.1 Federal

Federal Clean Air Act and U.S. EPA

U.S. EPA is charged with implementing national air quality programs. U.S. EPA's air quality mandates are drawn primarily from the Federal Clean Air Act (FCAA). The FCAA was passed in 1963 by the U.S. Congress and has been amended several times. The 1970 FCAA amendments strengthened previous legislation and laid the foundation for the regulatory scheme of the 1970s and 1980s. In 1977, Congress again added several provisions, including non-attainment requirements for areas not meeting NAAQS and the Prevention of Significant Deterioration program. The 1990 FCAA amendments represent the latest in a series of federal efforts to regulate the protection of air quality in the U.S. The FCAA allows states to adopt more stringent standards or to include other pollution species.

The United States Supreme Court in *Massachusetts et al. v. Environmental Protection Agency*, 549 U.S. 497 (2007), held that the U.S. EPA has the authority to regulate motor-vehicle GHG emissions under the FCAA.

The U.S. EPA publishes an annual GHG inventory (Inventory of U.S. Greenhouse Gas Emissions and Sinks),¹ which tracks the national trend in GHG emissions and removals back to 1990. The report contains total U.S. emissions by source, economic sector, and GHG. U.S. EPA uses national energy data, data on national agricultural activities, and other national statistics to provide a comprehensive accounting of total GHG emissions for all man-made sources in the country. U.S. EPA also collects GHG emissions data from individual facilities and suppliers of certain fossil fuels and industrial gases through the Greenhouse Gas Reporting Program (U.S. EPA, 2015).

¹ A greenhouse gas "sink" is a process, activity, or mechanism that absorbs more greenhouse gases than it releases.

In May 2010, U.S. EPA and the Department of Transportation's National Highway Traffic Safety Administration (NHTSA) published the final rule-making for a national program that would reduce GHG emissions and improve fuel economy for new cars and trucks sold in the United States. The standards that make up the first phase of this national program apply to passenger cars, light-duty trucks, and medium-duty passenger vehicles, covering model years 2012 through 2016. They require these vehicles to meet an estimated combined average emissions level of 250 grams of CO₂ per mile, equivalent to 35.5 miles per gallon (MPG), if the automobile industry were to meet this CO₂ level solely through fuel economy improvements.

In October 2012, U.S. EPA and NHTSA published the final rule-making for the second phase of the national program, which covers model years 2017 through 2025. The final standards are projected to result in an average industry fleetwide level of 163 grams of CO₂ per mile, equivalent to 54.5 MPG, if the automobile industry were to meet this CO₂ level solely through fuel economy improvements. U.S. EPA does not regulate residential sources of GHG emissions.

Energy Policy Act of 2005

The Energy Policy Act of 2005 sets equipment energy efficiency standards and seeks to reduce reliance on non-renewable energy resources and provide incentives to reduce current demand on these resources. For example, under the act, consumers and businesses can attain federal tax credits for purchasing fuel-efficient appliances and products, including hybrid vehicles; constructing energy-efficient buildings; and improving the energy efficiency of commercial buildings. Additionally, tax credits are available for the installation of qualified fuel cells, stationary micro-turbine power plants, and solar power equipment.

Executive Order 13693 (Planning for Federal Sustainability in the Next Decade), signed in 2015, seeks to maintain Federal leadership in sustainability and greenhouse gas emission reductions. Its goal is to reduce agency Scope 1 and 2 greenhouse gas emissions² by at least 40 percent by 2025, foster innovation, reduce spending, and strengthen communities through increased efficiency and improved environmental performance. Sustainability goals are set for building efficiency and management, energy portfolio, water use efficiency, fleet efficiency, sustainable acquisition and supply chain greenhouse gas management, pollution prevention, and electronic stewardship.

10.3.2 State

CARB is responsible for the coordination and oversight of State and local air pollution control programs in California. Various statewide and local initiatives to reduce California's contribution to GHG emissions have raised awareness about climate change and its potential for severe long-term adverse environmental, social, and economic effects.

² In greenhouse gas inventories, direct emissions are Scope 1; indirect emissions from consumption of purchased electricity, heat or steam are Scope 2; and other indirect emissions (such as extraction and production of purchased materials and fuels, transport in vehicles not controlled by the reporting entity, outsourced activities) are Scope 3.

Assembly Bill (AB) 1493

Passed in 2002, AB 1493 required CARB to develop and adopt regulations to achieve “the maximum feasible and cost-effective reduction of GHG emissions from motor vehicles.” The resulting regulations are known as the “Pavley” regulations. On June 30, 2009, U.S. EPA granted the waiver of Clean Air Act preemption to California for its greenhouse gas emission standards for motor vehicles beginning with the 2009 model year. The first set of emissions standards took effect for model years 2009 to 2016, and the second set of emissions standards covers model years 2017 to 2025.

Under these standards, fleet average emission standards were intended to reach 22 percent reduction from 2009 levels by 2012 and 30 percent by 2016. The Advanced Clean Cars program coordinates the goals of the Low Emissions Vehicles (LEV), Zero Emissions Vehicles (ZEV), and Clean Fuels Outlet programs and would provide major reductions in GHG emissions. By 2025, when the rules would be fully implemented, new automobiles would emit 34 percent less GHGs. Statewide CO_{2e} emissions would be reduced 3 percent by 2020 and 12 percent by 2025. The reduction would increase to 27 percent in 2035 and even further to 33 percent reduction in 2050 (CARB, 2013).

Executive Order (EO) S-3-05

In 2005, then-Governor Schwarzenegger issued EO S-3-05, establishing statewide GHG emissions reduction targets. EO S-3-05 provides that by 2010, emissions shall be reduced to 2000 levels; by 2020, emissions shall be reduced to 1990 levels; and by 2050, emissions shall be reduced to 80 percent below 1990 levels (CalEPA, 2006).

In response to EO S-3-05, CalEPA created the Climate Action Team (CAT), which in March 2006 published the Climate Action Team Report (the “2006 CAT Report”) (CalEPA, 2006). The 2006 CAT Report identified a recommended list of strategies that the state could pursue to reduce GHG emissions. These are strategies that could be implemented by various state agencies to ensure that the emission reduction targets in EO S-3-05 are met and can be met with existing authority of the state agencies. The strategies include the reduction of passenger and light duty truck emissions, the reduction of idling times for diesel trucks, an overhaul of shipping technology/infrastructure, increased use of alternative fuels, increased recycling, and landfill methane capture, etc.

Assembly Bill 32

California’s major initiative for reducing GHG emissions is outlined in AB 32, the “California Global Warming Solutions Act of 2006.” AB 32 codifies the statewide goal of reducing GHG emissions to 1990 levels by 2020 (essentially a 15 percent reduction below 2005 emission levels; the same requirement as under S-3-05), and requires CARB to prepare a Scoping Plan that outlines the main state strategies for reducing GHGs to meet the 2020 deadline. In addition, AB 32 requires CARB to adopt regulations to require reporting and verification of statewide GHG emissions.

After completing a comprehensive review and update process, CARB approved a 1990 statewide GHG level and 2020 limit of 427 MMT CO₂e. CARB approved the Scoping Plan on December 11, 2008. The Scoping Plan includes measures to address GHG emission reduction strategies related to energy efficiency, water use, and recycling and solid waste, among other measures. Many of the GHG reduction measures included in the Scoping Plan (e. g Low Carbon Fuel Standard, Advanced Clean Car standards, and Cap-and-Trade) have been adopted and implementation activities are ongoing.

In May 2014, CARB approved the first update to the AB 32 Scoping Plan. The 2014 Scoping Plan update defines CARB's climate change priorities for the next 5 years and sets the groundwork to reach post-2020 goals set forth in EO S-3-05. The update highlights California's progress toward meeting the "near-term" 2020 GHG emission reduction goals defined in the original Scoping Plan. It also evaluates how to align the State's longer-term GHG reduction strategies with other State policy priorities, such as for water, waste, natural resources, clean energy and transportation, and land use (CARB, 2014). The Scoping Plan includes a comprehensive list of recommended actions for each of the major sectors of the State-wide emissions inventory, including energy actions, transportation actions, agriculture actions, water actions, waste management actions, natural and working lands actions, short-lived climate pollutants actions, green building actions, cap-and-trade actions, and evaluations actions.

The AB 32 Scoping Plan also identifies a cap-and-trade program as one of the strategies California will employ to reduce the GHG emissions. Under the cap-and-trade program, an overall limit on GHG emissions from capped sectors has been established and facilities subject to the cap are able to trade permits (allowances) to emit GHGs. The program began on January 1, 2012, with an enforceable compliance obligation beginning with the 2013 GHG emissions.

Senate Bill 1078 and 107; Executive Order S-14-08, S-21-09, and SB 2X

SB 1078 requires retail sellers of electricity, including investor-owned utilities and community choice aggregators, to provide at least 20 percent of their supply from renewable sources by 2017. SB 107 changed the target date to 2010. In November 2008, then-Governor Schwarzenegger signed Executive Order S-14-08, which expands the state's Renewable Portfolio Standard to 33 percent renewable power by 2020. In September 2009, then-Governor Schwarzenegger continued California's commitment to the Renewable Portfolio Standard by signing EO S-21-09, which directs the ARB under its AB 32 authority to enact regulations to help the state meet its Renewable Portfolio Standard goal of 33 percent renewable energy by 2020. In April 2011, Governor Brown signed SB X1-2 (also known as SB 2X), which codified the prior Executive Order S-14-08 renewable standard.

Executive Order B-30-15 and Senate Bill 350

In April 2015, Governor Edmund G. Brown Jr. issued EO B-30-15, which established a greenhouse gas reduction target of 40 percent below 1990 levels by 2030. SB 350 advanced these goals through two measures. First, the law increases the renewable power goal from 33 percent renewables by 2020 to 50 percent by 2030. Second, the law requires the CEC to

establish annual targets to double energy efficiency in buildings by 2030. The law also requires the California Public Utilities Commission (CPUC) to direct electric utilities to establish annual efficiency targets and implement demand-reduction measures to achieve this goal.

Assembly Bill 1803

AB 1803 made CARB responsible for developing and maintaining an inventory of GHG emissions. These estimates rely on regional, state, and national data sources and facility-specific emissions data reported through a mandatory reporting program. Pursuant to CCR Sections 95100–95158, CARB institutes the mandatory reporting requirements for facilities emitting more than 25,000 MT CO₂e. For facilities with emissions between 10,000 and 25,000 MT CO₂e, facility operators have the option of filing abbreviated reports using simpler calculation methods, and they are not subject to third-party verification.

Senate Bill 375

SB 375, signed in August 2008, enhances the state’s ability to reach AB 32 goals by directing CARB to develop regional GHG emission reduction targets to be achieved from vehicles for 2020 and 2035. In addition, SB 375 directs each of the state’s 18 major Metropolitan Planning Organizations (MPOs) to prepare a “sustainable communities strategy” (SCS) that contains a growth strategy to meet these emission targets for inclusion in the Regional Transportation Plan (RTP). On September 23, 2010, CARB adopted final regional targets for reducing GHG emissions from 2005 levels by 2020 and 2035. The San Francisco Bay Area was assigned a target of 7 percent per capita reduction from 2005 levels by 2020, and a 15 percent per capita reduction from 2005 levels by 2035.

Senate Bill 743

Changes to transportation analysis as part of the CEQA Guidelines are currently under development pursuant to SB 743. A key change will be to use Vehicle Miles Travelled (VMT), induced vehicle travel and local safety as the metrics for identifying significant traffic impacts, rather than a sole basis of using Level of Service (LOS). The implementation of this change is still in-progress, however key components include:

- A new focus on transportation analysis to include assessment of VMT, induced vehicle travel, local safety and greenhouse gas (GHG) emissions;
- Evaluation on induced travel due to the effects of roadway capacity expansion on VMT and GHG emissions. The addition of general purpose highway or arterial lanes in urban areas may indicate a significant impact due to induced travel. However, managed lanes, transit, and active-mode projects would most likely not result in significant impacts in this regard;
- Localized effects may also be considered by lead agencies on transportation safety.

This revision to the CEQA guidelines for transportation has not formally been approved or implemented; they may be applied only to projects with a Notice of Preparation (NOP) issued after consolidation and formalization of these changes. Although this EA was not prepared

pursuant to CEQA, it is guided in substantial part by CEQA requirements and principles. This document does not incorporate elements addressed in the preliminary draft of the State CEQA guidelines in light of the uncertainty on final guidelines this process may take when the guidelines are approved formally.

California Green Building Standards Code

The 2013 *California Green Building Standards Code*, as specified in Title 24, Part 11 of the California Code of Regulations, specifies building standards to improve public health, safety, and general welfare by enhancing the design and construction of buildings through the use of building concepts having a positive environmental impact and encouraging sustainable construction practices in five categories: planning and design, energy efficiency, water efficiency and conservation, material conservation and resource efficiency, and environmental quality. The provisions of this code apply to the planning, design, operation, construction, replacement, use and occupancy, location, maintenance, removal and demolition of every building or structure or any appurtenances connected or attached to such building structures throughout California.

California Environmental Quality Act

The State CEQA Guidelines contain provisions regarding the analysis and feasible mitigation of GHG emissions or the effects of GHG emissions. The adopted CEQA Guidelines provide general regulatory guidance on the analysis and mitigation of GHG emissions in CEQA documents, while giving lead agencies the discretion to set quantitative or qualitative thresholds for the assessment and mitigation of GHGs and climate change impacts. To date, the South Coast Air Quality Management District (SCAQMD), the San Luis Obispo Air Pollution Control District (SLOAPCD), and the San Joaquin Valley Air Pollution Control District (SJVAPCD) have adopted quantitative significance thresholds for GHGs.

10.3.3 Regional & Local

Plan Bay Area

Plan Bay Area is the Bay Area's Regional Transportation Plan (RTP)/Sustainable Community Strategy (SCS). The Plan Bay Area was adopted jointly by the Association of Bay Area Governments (ABAG) and Metropolitan Transportation Commission (MTC) in July 2013. The SCS lays out a development scenario for the region, which, when integrated with the transportation network and other transportation measures and policies, would reduce GHG emissions from transportation (excluding goods movement) beyond the per capita reduction targets identified by CARB. According to Plan Bay Area, the Plan meets a 16 percent per capita reduction of GHG emissions by 2035 and a 10 percent per capita reduction by 2020 from 2005 conditions.

In 2008, MTC and ABAG initiated a regional effort (FOCUS) to link local planned development with regional land use and transportation planning objectives. Through this initiative, local governments identified Priority Development Areas (PDAs). The PDAs form the implementing framework for *Plan Bay Area*. The PDAs are areas along transportation corridors which are

served by public transit and allow opportunities for implementation of transit-oriented, infill development within existing communities. PDAs are expected to host the majority of future development within the Bay Area. Overall, well more than two-thirds of all regional growth by 2040 is allocated within PDAs. If such development occurs within these PDAs, the overall jobs-housing balance would be improved compared to greenfield development.³ The PDAs throughout the San Francisco Bay Area are expected to accommodate 80 percent (more than 525,570 units) of new housing and 66 percent (or 744,230) of new jobs. The southern portion of the Specific Plan is located within a PDA, as indicated in [Figure 15-1: Priority Development Areas](#), in [Chapter 15, Population and Housing](#), of this EA (ABAG, 2013).

2010 Clean Air Plan and Resolution No. 2013-11

As described in [Chapter 6, Air Quality](#), BAAQMD is responsible for attaining and maintaining federal and State air quality standards in the San Francisco Bay Area Air Basin (SFAB). BAAQMD's most recent air quality plan, the *2010 Clean Air Plan*, includes a goal of reducing GHG emissions to 1990 levels by 2020 and 40 percent below 1990 levels by 2035 (BAAQMD, 2010). In 2013, the air district built upon these goals through adoption of Resolution No. 2013-11, which set a goals of (a) reducing GHG emissions to 80 percent below 1990 levels by 2050, (b) developing a Regional Climate Action Strategy toward achieving the 2050 goals, and (c) directing staff to develop a work program to guide and document BAAQMD's climate protection activities. BAAQMD is developing a climate protection program to reduce pollutants that contribute to global climate change and set the region on a pathway toward meeting the 2050 goal (BAAQMD, 2013).

City of Cupertino General Plan

The City of Cupertino's General Plan, *Community Vision 2015–2040*, as amended, Mobility and Environmental Resources and Sustainability Elements, includes policies related to greenhouse gases. A list of the relevant General Plan polices and strategies are provided below. A General Plan Land Use Consistency Analysis for the Specific Plan is provided in [Chapter 13, Land Use and Planning](#), [Table 13-1](#).

GOAL M-8: Promote Policies to Help Achieve State, Regional and Local Air Quality and Greenhouse Gas Emission Reduction Targets

Policy M-8.1: Greenhouse Gas Emissions

Promote transportation policies that help to reduce greenhouse gas emissions.

³ A "greenfield" project is one that lacks constraints imposed by prior work. In real estate development, construction on "greenfield" land is where there is no need to work within the constraints of existing buildings or infrastructure. Such developments are typically constructed on land formerly used for agricultural use or open space.

Policy ES-3.1: Principles of Sustainability

Incorporate the principles of sustainability into Cupertino's planning, infrastructure and development process in order to improve the environment, reduce greenhouse gas emissions and meet the needs of the community without compromising the needs of future generations.

Strategy ES-3.1.1: Climate Action Plan (CAP)

Adopt, implement and maintain a Climate Action Plan to attain greenhouse gas emission targets consistent with state law and regional requirements. This qualified greenhouse gas emissions reduction plan, by BAAQMD's definition, will allow for future project CEQA streamlining and will identify measures to:

- Reduce energy use through conservation and efficiency;
- Reduce fossil fuel use through multi-modal and alternative transportation;
- Maximize use of and, where feasible, install renewable energy resources;
- Increase citywide water conservation and recycled water use;
- Accelerate Resource Recovery through expanded recycling, composting, extended producer responsibility and procurement practices; and
- Promote and incentivize each of those efforts to maximize community participation and impacts; and
- Integrate multiple benefits of green infrastructure with climate resiliency and adaptation.

Please also see [Chapter 17, Transportation and Circulation](#), and [Chapter 19, Energy Conservation](#), which list policies encouraging reduction in vehicle miles traveled and reduction in energy demand, both of which are directly related to reductions in greenhouse gas emissions.

Cupertino Climate Action Plan

The City Council adopted the *City of Cupertino Climate Action Plan (CAP)* in January 2015. As directed by the City's General Plan Sustainability Element, as amended, the CAP seeks to identify emissions reduction strategies that are informed by the goals, values, and priorities of the community. It contains a greenhouse gas inventory and emissions targets, community-wide reduction measures, municipal reduction measures, personal actions, adaptation measures, and next steps and benchmarks.

The State's near-term emissions reduction goal, as defined in Assembly Bill 32, is to return to 1990 levels by 2020. Most local governments do not have baseline inventory data for 1990, so CARB and BAAQMD have developed guidance suggesting that a reduction of 15 percent below the CAP's 2010 baseline year by 2020 can approximate a return to 1990 levels. Therefore, the CAP sets forth a reduction target of 15 percent below 2010 levels. This goal was extrapolated to 2050 to mirror the State's goal for 80 percent below 1990 levels, which results in a City goal of

83 percent below 2010 levels by 2050. The City identified five overarching goals within the CAP for reducing greenhouse gas emissions: reduce energy use / improve facilities, encourage alternative transportation / convert vehicle fleet, conserve potable water, reduce solid waste, and expand green infrastructure, as listed below. The CAP concludes that the measures and actions identified in the CAP, combined with statewide actions, will allow Cupertino to meet its emissions reduction targets for 2020 shown in [Table 10-1: Community-Wide BAU Emissions and Reductions Targets](#).

Energy Measures

- C-E-1: Energy Use Data and Analysis: Increase resident and building owner/tenant/operator knowledge about how, when, and where building energy is used;
- C-E-2: Retrofit Financing: Promote existing and support development of new private financing options for home and commercial building retrofits and renewable energy development;
- C-E-3: Home & Commercial Building Retrofit Outreach: Develop aggressive outreach program to drive voluntary participation in energy- and water-efficiency retrofits;
- C-E-4: Energy Assurance & Resiliency Plan: Develop a long-term community-wide energy conservation plan that considers future opportunities to influence building energy efficiency through additional or enhanced building regulations;
- C-E-5: Community-Wide Solar Photovoltaic Development: Encourage voluntary community-wide solar photovoltaic development through regulatory barrier reduction and public outreach campaigns;
- C-E-6: Community-Wide Solar Hot Water Development: Encourage communitywide solar hot water development through regulatory barrier reduction and public outreach campaigns; and
- C-E-7: Community Choice Energy Option: Partner with other Santa Clara County jurisdictions to evaluate the development of a regional CCE option, including identification of the geographic scope, potential costs to participating jurisdictions and residents, and potential liabilities.

Transportation and Land Use Measures

- C-T-1: Bicycle & Pedestrian Environment Enhancements: Continue to encourage multi-modal transportation, including walking and biking, through safety and comfort enhancements in the bicycle and pedestrian environment;
- C-T-2: Bikeshare Program: Explore feasibility of developing local bikeshare program;
- C-T-3: Transportation Demand Management: Provide informational resources to local businesses subject to SB 1339 transportation demand management program requirements and encourage additional voluntary participation in the program;

- C-T-4: Transit Route Expansion: Explore options to develop local community shuttle or community-wide car sharing to fill gaps in existing transit network;
- C-T-5: Transit Priority: Improve transit service reliability and speed;
- C-T-6: Transit-Oriented Development: Continue to encourage development that takes advantage of its location near local transit options (e.g., major bus stops) through higher densities and intensities to increase ridership potential; and
- C-T-7: Community-Wide Alternative Fuel Vehicles: Encourage community-wide use of alternative fuel vehicles through expansion of alternative vehicle refueling infrastructure.

Water Measures

- C-W-1: SB X7-7: Implement water conservation policies contained within Cupertino's Urban Water Management Plan to achieve 20 percent per capita water reductions by 2020; and
- C-W-2: Recycled Water Irrigation Program: Explore opportunities to use recycled water for irrigation purposes to reduce potable water demands.

Solid Waste Measures

- C-SW-1: Zero Waste Goal: Maximize solid waste diversion community-wide through preparation of a zero-waste strategic plan;
- C-SW-2: Food Scrap and Compostable Paper Diversion: Continue to promote the collection of food scraps and compostable paper through the City's organics collection program; and
- C-SW-3: Construction & Demolition Waste Diversion Program: Continue to enforce diversion requirements in City's Construction & Demolition Debris Diversion and Green Building Ordinances.

Green Infrastructure Measures

- C-G-1: Urban Forest Program: Support development and maintenance of a healthy, vibrant urban forest through outreach, incentives, and strategic leadership.

The CAP was developed to meet BAAQMD's definition of a "qualified GHG reduction plan" to allow for streamlining of environmental review of future projects, pursuant to State CEQA Guidelines Section 15183.5. To meet the standards of a "qualified GHG reduction plan," the plan achieves the following criteria:

- Complete a baseline emissions inventory and project future emissions;
- Identify a community-wide reduction target;
- Prepare a CAP to identify strategies and measures to meet the reduction target;

- Monitor effectiveness of reduction measures and adapt the plan to changing conditions; and
- Adopt the CAP in a public process following environmental review (City of Cupertino, 2014).

Cupertino Municipal Code

The City of Cupertino Municipal Code contains all ordinances for the City. The Municipal Code is organized by Title, Chapter, and Section. Title 16 of the Municipal Code is the City's Building and Construction Ordinance, which, among other purposes, provides for the administration and enforcement of building codes adopted by the City of Cupertino. The following provisions of the Code sections apply to impacts related to GHG emissions:

Chapter 16.58, Green Building Standards Code, includes the CALGreen requirements with local amendments for projects in the city. As part of the City's Green Building Standards Code, the City of Cupertino requires new construction over certain sizes (greater than 9 residential units or 25,000 square feet of non-residential development and greater) to build to Leadership in Energy and Environmental Design (LEED) or alternative reference standards. The LEED construction and/or other types of equivalent green building verification systems typically require enhanced building energy efficiency, which reduces heating and cooling requirements of a building and therefore also reduces GHG emissions.

Chapter 16.72, Recycling and Diversion of Construction and Demolition Waste, establishes regulations to comply with the California Waste Management Act of 1989. The City of Cupertino has adopted construction and demolition debris diversion requirements that are consistent with the new requirements under CALGreen for mandatory construction recycling. Construction and demolition debris recycling requirements vary by project type. Pursuant to the Chapter 16.72, projects that involve the construction, demolition, or renovation of 3,000 square feet or more are required to adhere to the City's construction and demolition diversion requirements. Applicants for any covered project are required to recycle or divert (recycle or salvage) at least 60 percent of all generated construction and demolition debris tonnage. Applicants are required to prepare and submit a Waste Management Plan to the Public Works Department.

10.4 Impacts and Environmental Design Features

10.4.1 Significance Criteria

The following significance criteria for greenhouse gases were derived from the Environmental Checklist in the State CEQA Guidelines Appendix G. These significance criteria have been amended or supplemented, as appropriate, to address the City of Cupertino requirements and the full range of potential impacts related to implementation of the Specific Plan.

An impact associated with the Specific Plan would be considered significant and would require mitigation if it met one of the following criteria:

- a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment; and/or
- b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases.

Approach to Analyses

These analyses summarize the findings of the *Vallco Town Center Specific Plan Air Quality and Greenhouse Gas Technical Report*, which calculated emissions using CalEEMod version 2013.2.2. The methodologies for calculation of these emissions are described in the technical report ([Appendix AQ](#)).

Global climate change is, by definition, a cumulative impact of GHG emissions. The baseline against which to compare impacts of the Specific Plan includes the natural and anthropogenic drivers of global climate change, including world-wide GHG emissions from human activities that grew more than 70 percent between 1970 and 2004 (IPCC, 2007). As such, the geographic extent of the climate change and greenhouse gas emissions cumulative impact discussion is worldwide.

The greenhouse gas impact analysis uses the previously-adopted 2011 thresholds of the BAAQMD to determine the potential impacts associated with implementation of the Specific Plan. While the significance thresholds adopted by BAAQMD in 2011 are not currently recommended by the BAAQMD, these thresholds are based on substantial evidence and represent the best available science.

Specific Plan Thresholds

A plan would result in less-than-significant impacts related to greenhouse gases if it would:

- Result in operational emissions of less than 6.6 MT CO₂e per service population per year (CO₂e/SP/yr); or
- Comply with a qualified GHG reduction plan.

In the analysis below, the Specific Plan (the Town Center/Community Park and the uses on Block 14) is analyzed pursuant to the 6.6 MT CO₂e/SP/yr operational threshold. Total construction emissions from the Specific Plan are provided for informational purposes.

The discussion below also analyzes the consistency of the Specific Plan with the Cupertino CAP, which was drafted to meet the standards of a “qualified GHG reduction plan.”

Individual Development Thresholds

This section also provides a “project-level” impact assessment for the Town Center/Community Park, which represents approximately 77 percent of the development potential within the Plan

area, using the previously-adopted 2011 thresholds of the BAAQMD.⁴ An individual development would result in less-than-significant impacts related to global climate change if it would:

- Result in annual emissions of less than 1,100 MT CO₂e per year;
- Result in operational emissions of less than 4.6 MT CO₂e/SP/yr; or
- Comply with a qualified GHG reduction plan.

In the analysis below, the Town Center/Community Park is analyzed pursuant to the 4.6 MT CO₂e/SP/yr operational threshold. Total construction emissions from the Town Center/Community Park are provided for informational purposes.

New stationary sources, such as the Central Boiler Plant that would be included in the Town Center/Community Park component of the Specific Plan, would result in less-than-significant impacts related to global climate change if the stationary source would:

- Result in annual emissions of less than 10,000 MT CO₂e per year.

BAAQMD Guidance states that stationary sources should be calculated separately from a project's operational emissions (BAAQMD, 2011). To provide a conservative assessment of operational emissions, emissions from the Central Plant Boilers and Emergency Generators are presented twice. They are first included with operational emissions, and then separately analyzed pursuant to BAAQMD guidance.

10.4.2 Cumulative Impact Analysis of Specific Plan

Impact GHG-1: Would implementation of the Specific Plan generate operational greenhouse gas emissions at levels that would considerably contribute to global climate change?

Construction emissions. Construction contemplated by the Specific Plan would result in on-road GHG emissions associated with worker vehicles, vendor trips, and hauling. Off-road GHG emissions would be associated with construction equipment. In addition, the calculation of construction emissions includes the carbon sequestration effects of tree planting, which are credited as a "one-time vegetation change." **Table 10-2: Specific Plan Construction Greenhouse Gas Emissions** summarizes these totals. As shown, one-time GHG emissions would be approximately 22,042 MT CO₂e. Annual construction emissions would be substantially lower, given these emissions would be dispersed over the duration of buildout of the Town Center/Community Park and Block 14. There are no significance thresholds for construction-related greenhouse gas emissions.

⁴ As noted in Chapter 6, Air Quality, operations of the Town Center/Community Park component of the Specific Plan would generate 99 percent of mobile and stationary source TAC emissions.

Table 10-2: Specific Plan Construction Greenhouse Gas Emissions

Emissions Source	MT CO ₂ e
Construction Off-Road Emissions	3,866
Construction On-Road Emissions	19,549
One-Time Vegetation Change	-1,373
Total One-Time GHG Emissions	22,042

Source: Ramboll Environ, 2016.

Operational emissions. The land uses contemplated under the Specific Plan would emit greenhouse gases associated with vehicular transportation to and from the Plan Area, off-road equipment use (such as landscaping equipment), electricity and natural gas use, embodied energy in water use and wastewater generation, and landfill gas from solid waste generation. **Table 10-3: Specific Plan Operational Greenhouse Gas Emissions** shows net operational GHG emissions under the Specific Plan, as well as net operational emissions per service population (SP).

Operation of uses associated with the Specific Plan (the Town Center/Community Park and Block 14) would result in approximately 60,065 MT CO₂e per year, primarily from on-road exhaust, the Central Plant for the Town Center/Community Park, and energy use.

These emissions would be generated by a service population of 10,429 people. This service population is based upon:

- (1) The net new jobs that would be generated by the Specific Plan, as presented in a Fiscal and Economics Assessment prepared for the development (KMA, 2016);
- (2) The net new residents that would live at the Town Center/Community Park, based upon the Cupertino average of 2.84 residents per renter household, including a vacancy rate of 4.7 percent (U.S. Census, 2016);

Existing land uses, assuming the historic occupancy level of 82 percent, replaced by the Specific Plan emit approximately 25,457 MT CO₂e per year, primarily from on-road exhaust. Existing emissions are generated by a service population of approximately 860 people. Therefore, the Specific Plan would result in approximately 34,608 MT CO₂e net new GHG emissions over a net service population of 9,569 people, resulting in 3.6 MT CO₂e/SP/yr. Therefore, Specific Plan emissions would be below the 6.6 MT CO₂e efficiency threshold recommended in 2010 BAAQMD CEQA Guidelines, and the impact would be less than significant.

Impact GHG-2: Would implementation of the Specific Plan conflict with policies or plans adopted for the purpose of reducing greenhouse gas emissions?

As indicated in the Regulatory Setting, above, the Cupertino CAP sets forth a reduction target of 15 percent below baseline 2010 levels by 2020, consistent with AB 32 and guidance from BAAQMD. As such, consistency with statewide GHG reduction goals would be achieved through consistency with the CAP.

Table 10-4: Cupertino Climate Action Plan Consistency sets forth the consistency of the Specific Plan with each applicable CAP Strategy. Implementation of the Specific Plan would be substantially consistent with the Cupertino CAP and would not preclude the implementation of any CAP strategies. The Specific Plan, inclusive of the Town Center/Community Park, would not conflict with plans or policies adopted for the purpose of reducing greenhouse gas emissions.

Table 10-3: Specific Plan Operational Greenhouse Gas Emissions

Emissions Source	GHG Emissions	Units	
<i>Specific Plan</i>			
Hearths	27	MT CO ₂ e/yr	
Landscaping - see electricity use	0.0036		
Energy Use	11,076		
Water Use	170		
Waste Disposed	1,643		
On-Road Exhaust	28,347		
Central Plant Boilers (also subject to stationary source threshold)	18,699		
Emergency Generators (also subject to stationary source threshold)	102		
Total - Plan	60,065		MT CO ₂ e/yr
Service Population - Specific Plan ²	10,429		SP
<i>Existing Land Use</i>			
Landscaping	0.023	MT CO ₂ e/yr	
Energy Use	2,822		
Water Use	230		
Waste Disposed	573		
On-Road Exhaust	21,517		
Existing Boiler	310		
Emergency Generators	4		
Total - Existing Land Use	25,457	MT CO ₂ e/yr	
Service Population - Existing Land Use ²	860	SP	
<i>Difference (Specific Plan - Existing Land Use)</i>	<i>34,608</i>	<i>MT CO₂e/yr</i>	
Emissions per Service Population - Net New ³	3.6	MT CO ₂ e/SP/yr	
Plan-Level Efficiency Threshold	6.6		

Notes:

1. Emissions estimated using methods consistent with CalEEMod version 2013.2.2.
2. See Chapter 15, Population and Housing, for further explanation of net new jobs and residents associated with the Specific Plan.
3. The emissions per service population calculation is based on the Total Specific Plan GHG emissions value minus the Total Existing Land Use GHG emissions, divided by the Specific Plan service population minus the Existing Land Use service population.

Abbreviations:

BAAQMD: Bay Area Air Quality Management District; CalEEMod: California Emissions Estimator Model; CO₂e: carbon dioxide equivalent; GHG: greenhouse gas; MT: metric ton; SP: service population; yr: year
Source: Ramboll Environ, 2016.

Table 10-4: Cupertino Climate Action Plan Consistency

CAP Strategy	Specific Plan Analysis
Goal 1 – Reduce Energy Use	
<p>C-E-1: Energy Use Data and Analysis: Increase resident and building owner/tenant/operator knowledge about how, when, and where building energy is used.</p>	<p>This strategy applies to City departments. There is no action applicable to new development.</p> <p>The Specific Plan would be designed to achieve LEED Platinum level intent, which would involve implementation of energy-efficiency requirements to reduce water demand.</p>
<p>C-E-2: Retrofit Financing: Promote existing and support development of new private financing options for home and commercial building retrofits and renewable energy development.</p>	<p>This strategy is not applicable to new development.</p>
<p>C-E-3: Home & Commercial Building Retrofit Outreach: Develop aggressive outreach program to drive voluntary participation in energy- and water-efficiency retrofits.</p>	<p>This strategy is not applicable to new development.</p>
<p>C-E-4: Energy Assurance & Resiliency Plan: Develop a long-term community-wide energy conservation plan that considers future opportunities to influence building energy efficiency through additional or enhanced building regulations.</p>	<p>This strategy applies to City departments. There is no action applicable to new development.</p> <p>The Specific Plan would be designed to achieve LEED Platinum level intent, which would involve implementation of water-efficiency requirements to reduce water demand.</p>
<p>C-E-5: Community-Wide Solar Photovoltaic Development: Encourage voluntary community-wide solar photovoltaic development through regulatory barrier reduction and public outreach campaigns.</p>	<p>The Specific Plan states that public open spaces may include alternative energy (e.g. solar, wind) facilities provided they are adequately screened and/or aesthetically integrated in a reasonable manner.</p>
<p>C-E-6: Community-Wide Solar Hot Water Development: Encourage communitywide solar hot water development through regulatory barrier reduction and public outreach campaigns.</p>	<p>This strategy is not considered feasible by 2020, and as such the CAP does not anticipate any GHG reductions from this strategy until 2035. In the future, installations of solar thermal systems may become more financially viable as technology costs decrease or energy prices increase. The Specific Plan does not preclude the installation of such systems.</p>

CAP Strategy	Specific Plan Analysis
<p>C-E-7: Community Choice Energy Option: Partner with other Santa Clara County jurisdictions to evaluate the development of a regional CCE option, including identification of the geographic scope, potential costs to participating jurisdictions and residents, and potential</p>	<p>This strategy applies to City departments and is not applicable to the Specific Plan.</p>
<p>Goal 2 – Encourage Alternative Transportation</p>	
<p>C-T-1: Bicycle & Pedestrian Environment Enhancements: Continue to encourage multi-modal transportation, including walking and biking, through safety and comfort enhancements in the bicycle and pedestrian environment.</p>	<p>The Specific Plan calls for provision of bicycle lanes and paseos as dedicated routes for cyclists and pedestrians connecting to the existing street grid. Logical, identifiable, and safe pedestrian and bicycle connections would be provided between public roadways and parking areas, and sidewalks would be improved. Streets would be designed according to their assigned hierarchy and intended uses. The applicant for the Town Center/Community Park component will undertake bicycle connectivity improvements.</p>
<p>C-T-2: Bikeshare Program: Explore feasibility of developing local bikeshare program.</p>	<p>This strategy applies to City departments. The applicant for the Town Center/Community Park component will undertake bicycle connectivity improvements.</p>
<p>C-T-3: Transportation Demand Management: Provide informational resources to local businesses subject to SB 1339 transportation demand management program requirements and encourage additional voluntary participation in the program.</p>	<p>The Specific Plan would include a series of Transportation Demand Management features. See Chapter 17, Transportation and Circulation, for more details.</p>
<p>C-T-4: Transit Route Expansion: Explore options to develop local community shuttle or community-wide car sharing to fill gaps in existing transit network.</p>	<p>The Specific Plan would include a high level of transportation services including shuttles, on-site bike commuter amenities, car-share, and other features in order to encourage alternative transportation modes. The Specific Plan will also include a multi modal Mobility Hub that will accommodate the VTA’s future bus rapid transit (BRT) on Stevens Creek Boulevard.</p>
<p>C-T-5: Transit Priority: Improve transit service reliability and speed.</p>	<p>This strategy applies to City Departments and VTA The Specific Plan will also include a multi modal Mobility Hub that will accommodate the VTA’s future bus rapid transit (BRT) on Stevens Creek Boulevard.</p>
<p>C-T-6: Transit-Oriented Development: Continue to encourage development that takes advantage of its location near</p>	<p>The Specific Plan would include provision of accessible transit via a multi modal Mobility Hub at Steven’s Creek Boulevard.</p>

CAP Strategy	Specific Plan Analysis
local transit options (e.g., major bus stops) through higher densities and intensities to increase ridership potential.	
C-T-7: Community-Wide Alternative Fuel Vehicles: Encourage community-wide use of alternative fuel vehicles through expansion of alternative vehicle refueling infrastructure.	The Specific Plan would accommodate electric vehicle parking and charging.
Goal 3 - Water Conservation	
C-W-1: SB X7-7 (Senate Bill X7-7): Implement water conservation policies contained within Cupertino's Urban Water Management Plan to achieve 20 percent per capita water reductions by 2020.	The Specific Plan would be designed to achieve LEED Platinum level intent, which would involve implementation of water-efficiency requirements to reduce water demand.
C-W-2: Recycled Water Irrigation Program: Explore opportunities to use recycled water for irrigation purposes to reduce potable water demands.	Implementation of the Specific Plan would include landscape and irrigation plans utilizing recycled water.
Goal 4 - Reduce Solid Waste	
C-SW-1: Zero Waste Goal: Maximize solid waste diversion community-wide through preparation of a zero-waste strategic plan.	Developments under the Specific Plan would participate in Recology South Bay recycling programs.
C-SW-2: Food Scrap and Compostable Paper Diversion: Continue to promote the collection of food scraps and compostable paper through the City's organics collection program.	Bins for compostables would be provided in all public areas and for future residents of the project. Collected compostables for commercial uses would be digested or collected to ensure diversion from the waste stream.
C-SW-3: Construction & Demolition Waste Diversion Program: Continue to enforce diversion requirements in City's Construction & Demolition (C&D)	Developments under the Specific Plan would divert 60 percent of C&D waste pursuant to City requirements.

CAP Strategy	Specific Plan Analysis
Debris Diversion and Green Building Ordinances.	
Goal 5 - Expand Green Infrastructure	
C-G-1: Urban Forest Program: Support development and maintenance of a healthy, vibrant urban forest through outreach, incentives, and strategic leadership.	The Town Center/Community Park component of the Specific Plan would include 30-acre Community Park and Nature Area, which would include new trees. Street trees would also be planted along Specific Plan roadways. To the extent possible under the redevelopment scenario, all healthy trees not affected by construction will be retained.

Source: City of Cupertino, 2014b.

10.4.3 Cumulative Impact Analysis of the Town Center/Community Park

Impact GHG-3: Would operation of the Town Center/Community Park generate greenhouse gas emissions at levels that would considerably contribute to global climate change?

Construction of the Town Center/Community Park would represent the largest component of Specific Plan construction-related greenhouse gas emissions. **Table 10-5: Town Center/Community Park Construction Greenhouse Gas emissions** summarizes these totals. As stated above, there are no significance thresholds for construction-related greenhouse gas emissions, so the emissions are provided for informational purposes only. As shown, the Town Center/Community Park would result in approximately 21,441 MT CO₂e over the duration of the approximately five-year construction period, or an average of approximately 4,290 MT CO₂e per year. Therefore, emissions during construction would be substantially less than the approximately 25,487 MT CO₂e generated by the existing Mall.

Table 10-5: Town Center/Community Park Greenhouse Gas Emissions

Emissions Source	MT CO ₂ e
Construction Off-Road Emissions	3,483
Construction On-Road Emissions	19,331
One-Time Vegetation Change	-1,373
Total One-Time GHG Emissions	21,441

Source: Ramboll Environ, 2016.

The land uses of the Town Center/Community Park component of the Specific Plan would emit greenhouse gases during operations. **Table 10-6: Town Center/Community Park Operational Greenhouse Gas Emissions** shows net operational GHG emissions of the Town Center/Community Park component.

The Town Center/Community Park would result in approximately 58,358 MT CO₂e per year, primarily from on-road exhaust, the Central Plant, and energy use. GHG emissions from the Town Center/Community Park would be generated by a service population (SP) of approximately 10,286 people. The Town Center/Community Park would increase trip generation compared to existing conditions, which is reflected in the increased on-road exhaust

from the development. However, the low-carbon fuel standard (LCFS) and other vehicle efficiencies, as well as increased prevalence of electric vehicles, will result in a cleaner vehicle fleet over the next five years. As such, although on-road-exhaust would increase with the Town Center/Community Park component, GHG emissions per vehicle mile traveled will decrease statewide.

The existing land uses at the current shopping mall (the Mall) emit approximately 25,457 MT CO₂e per year, primarily from on-road exhaust. Existing emissions are generated by a service population of approximately 860 people. Therefore, the Town Center/Community Park would result in 32,901 MT CO₂e net new GHG emissions per year.

The 32,901 MT CO₂e of net new emissions would be spread over the Town Center/Community Park net service population of 9,426 people, resulting in 3.5 MT CO₂e/SP/yr. Therefore, greenhouse gas emissions from the Town Center/Community Park would be below the 4.6 MT CO₂e efficiency threshold recommended in 2010 BAAQMD CEQA Guidelines, and the impact would be less than significant.

Impact GHG-4: Would stationary sources that would be installed under the Town Center/Community Park component of the Specific Plan generate greenhouse gas emissions that would considerably contribute to cumulative greenhouse gas impacts?

Given that the technical specifications of the Central Plant Boilers are unknown at this time, the calculation of GHG emissions provides conservative assumptions regarding duration and efficiency of operation. As indicated in [Table 10-3: Specific Plan Operational Greenhouse Gas Emissions](#) and [Table 10-6: Town Center/Community Park Operational Greenhouse Gas Emissions](#), operation of the Central Plant Boilers and Emergency Generators would result in greenhouse gas emissions exceeding the 10,000 MT CO₂e/yr stationary source bright line threshold. This would be a significant cumulative impact.

As a stationary source emitting more than 10,000 MT CO₂e/yr, the Central Boiler Plant would be subject to CARB's mandatory reporting requirements, as described in the Regulatory Setting, above. [Environmental Design Feature 36](#) requires monitoring of Central Boiler Plant emissions upon buildout of the Town Center/Community Park and would reduce the impact to a less than significant level.

Table 10-6: Town Center/Community Park Operational Greenhouse Gas Emissions

Emissions Source	GHG Emissions	Units
<i>Town Center/Community Park</i>		
Hearths	27	MT CO ₂ e/yr
Landscaping - see electricity use	0	
Energy Use	10,196	
Water Use	160	
Waste Disposed	1,596	
On-Road Exhaust	27,584	
Central Plant Boilers (also subject to stationary source threshold)	18,699	
Emergency Generators (also subject to stationary source threshold)	96	
Total - Town Center/Community Park	58,358	MT CO₂e/yr
Service Population - Town Center/Community Park ¹	10,286	SP
<i>Existing Land Use</i>		
Landscaping	0.023	MT CO ₂ e/yr
Energy Use	2,822	
Water Use	230	
Waste Disposed	573	
On-Road Exhaust	21,517	
Existing Boiler	310	
Emergency Generators	4	MT CO ₂ e/yr
Total - Existing Land Use	25,457	
Service Population - Existing Land Use ²	860	SP
<i>Difference (Town Center/Community Park - Existing Land Use)</i>	<i>32,901</i>	<i>MT CO₂e/yr</i>
Emissions per Service Population - Net New ³	3.5	MT CO ₂ e/SP/yr
Development-Level Efficiency Threshold	4.6	

Notes:

1. Emissions estimated using methods consistent with CalEEMod version 2013.2.2.
2. See Chapter 15, Population and Housing, for further explanation of net new jobs and residents associated with the Town Center/Community Park.
3. The emissions per service population calculation is based on the Total Town Center/Community Park GHG emissions value minus the Total Existing Land Use GHG emissions, divided by the Town Center/Community Park service population minus the Existing Land Use service population.

Abbreviations:

BAAQMD: Bay Area Air Quality Management District; CalEEMod: California Emissions Estimator Model; CO₂e: carbon dioxide equivalent; GHG: greenhouse gas; MT: metric ton; SP: service population; yr: year
Source: Ramboll Environ, 2016.

Environmental Design Feature for Impact GHG-4

EDF 36: Central Plant Boilers Carbon Offsets

Prior to completion and operation of any Central Plant Boilers with emissions above 10,000 MT CO₂e/yr., the Town Center/Community Park applicant and other project applicants for future development shall enter into one or more contracts to purchase voluntary carbon credits from a qualified greenhouse gas emissions broker in an amount

sufficient to offset the operational emissions above 10,000 MT CO₂e/yr., on a net present value basis in light of the fact that the applicant shall acquire such credits in advance of any creation of the emissions subject to the offset.

Pursuant to CARB's Mandatory Reporting Requirements, applicant(s) shall register the Central Plant Boilers in the Mandatory Greenhouse Gas Emissions Reporting Program. The applicant(s) shall provide copies of carbon purchase contracts to CARB during registration.

10.5 References

Association of Bay Area Governments. (ABAG). 2013. Plan Bay Area. Available online:

<http://planbayarea.org/plan-bay-area.html>.

Bay Area Air Quality Management District (BAAQMD). 2010. Clean Air Plan. Available online:

<http://www.baaqmd.gov/plans-and-climate/air-quality-plans/current-plans>

_____. 2013. Resolution No. 2013 – 11. A Resolution of the Board of Directors of the Bay Area Air Quality Management District. Resolution Adopting a Greenhouse Gas Reduction Goal and Commitment to Develop a Regional Climate Protection Strategy. Available online:

<http://www.baaqmd.gov/~media/files/planning-and-research/climate-protection-program/climateresolution.pdf?la=en>.

_____. 2015a. Bay Area Emissions Inventory Summary Report: Greenhouse Gases, Base Year 2011. Available online:

http://www.baaqmd.gov/~media/Files/Planning%20and%20Research/Emission%20Inventory/BY2011_GHGSummary.ashx?la=en

Jones, Christopher M. and Daniel M. Kammen. 2015. A Consumption-Based Greenhouse Gas Inventory of San Francisco Bay Area Neighborhoods, Cities and Counties: Prioritizing Climate Action for Different Locations. Available online:

<http://www.baaqmd.gov/research-and-data/emission-inventory/consumption-based-ghg-emissions-inventory>.

California Air Pollution Control Officers Association (CAPCOA). July 2013. California Emissions Estimator Model: User's Guide, Version 2013.2. Available at:

<http://www.calemod.com/>

_____. January 2008. CEQA and Climate Change: Addressing Climate Change through California Environmental Quality Act (CEQA). Available at: <http://opr.ca.gov/docs/june08-ceqa.pdf>

CARB (California Air Resources Board). May 2014. AB 32 Scoping Plan. Available at:

http://www.arb.ca.gov/cc/scoping_plan/scoping_plan.htm

_____. 2013. Annual Report to the Joint Legislative Budget Committee on Assembly Bill 32. Available at: <http://www.arb.ca.gov/cc/jlbcreports/jan2013jlbcreport.pdf>.

_____. 2008. Climate Change Scoping Plan, Framework for Change, as Approved December 2008, Pursuant to AB32. Available at: <http://www.arb.ca.gov/cc/scopingplan/scopingplan.htm>

_____. 2015. California Greenhouse Gas Emission Inventory – 2015 Edition (Greenhouse Gas Inventory Data – 2000 to 2013). Available at: <http://www.arb.ca.gov/cc/inventory/data/data.htm>

California Climate Action Registry (CCAR). January 2009. General Report Protocol, Reporting Entity-Wide Greenhouse Gas Emissions, Version 3.1. Available at: http://www.sfenvironment.org/sites/default/files/fliers/files/ccar_grp_3-1_january2009_sfe-web.pdf

California Climate Change Center (CCCC). 2006. Climate Scenarios for California. Available at: <http://www.energy.ca.gov/2005publications/CEC-500-2005-186/CEC-500-2005-186-SF.PDF>

_____. May 2009. The Impacts of Sea-Level Rise on the California Coast. Available at: <http://www.energy.ca.gov/2009publications/CEC-500-2009-024/CEC-500-2009-024-F.PDF>

California Department of Water Resources. October 2008. Managing an Uncertain Future: Climate Change Adaption Strategies for California’s Water. Available at: <http://ww.water.ca.gov/climatechange/docs/ClimateChangeWhitePaper.pdf>

_____. March 2009. Environmental Health and Equity Impacts from Climate Change and Mitigation Policies in California: A Review of the Literatures. Available at: <http://www.energyc.ca.gov/2009publications/CEC-500-2009-038/CEC-500-2009-038-D.PDF>

California Environmental Protection Agency (CalEPA). 2010. Climate Action Team Biennial Report. Final Report. Available at: http://www.climatechange.ca.gov/climate_action_team/reports/

_____. March 2006. Climate Action Team Report to Governor Schwarzenegger and the Legislature. Available at: http://www.climatechange.ca.gov/climate_action_team/reports/2006report/2006-04-03_FINAL_CAT_REPORT.PDF

California Natural Resources Agency. December 2009. 2009 California Climate Adaptation Strategy. Available online: http://resources.ca.gov/docs/climate/Statewide_Adaptation_Strategy.pdf.

City of Cupertino. 2014a. Community Vision 2015–2040.

_____. 2014b. Climate Action Plan. Public Review Draft. December 2014.

Energy Information Administration, U.S. Department of Energy. August 2010. Annual Energy Review 2009. Available at: <http://www.eia.gov/aer/envir.html>

IPCC (Intergovernmental Panel on Climate Change). 2006. Revised 2006 IPCC Guidelines for National Greenhouse Gas Inventories. Available at: <http://www.ipcc-nggip.iges.or.jp/public/index.html>

_____. 2007. Climate Change 2007: Synthesis Report, the Fourth IPCC Assessment Report. Available at: <http://www.ipcc-nggip.iges.or.jp/public/index.html>

_____. 2013. 2013: Summary for Policymakers. : <http://www.ipcc-nggip.iges.or.jp/public/index.html>

Keyser-Marston Associates, Inc. (KMA). 2016. *Fiscal and Economic Impacts Assessment: Vallco Shopping Specific Plan*. Cupertino, CA. March.

National Oceanic & Atmospheric Administration (NOAA). September 2010. Annual Greenhouse Gas Index. Available at: <http://ww.esrl.noaa.gov/gmd/aggi/aggi.html>

Parmesan C., Galbraith, H. 2004. Observed Ecological Impacts of Climate Change in North America. Available at: <http://www.c2es.org/publications/observed-impacts-climate-change-united-states>

Ramboll Environ, 2016. *The Vallco Town Center Specific Plan Air Quality and Greenhouse Gas Technical Report*. March U.S. Census. 2016. Profile of General Population and Housing Characteristics. 2010 Demographic Profile Data. Cupertino City, California. Accessed February 3.

United States Environmental Protection Agency (U.S. EPA.) 2015. Inventory of U.S. Greenhouse Gas Emissions and Sinks: 1990-2013. Available at: <http://www.epa.gov/climatechange/emissions/usinventoryreport.html>

11 Hazards and Hazardous Materials

11.1 Introduction

This chapter describes the existing setting of the Plan Area as it relates to hazards and hazardous materials; identifies associated regulatory requirements; evaluates potential effects hazards and hazardous materials; and references Specific Plan Environmental Design Features (EDFs) to reduce or avoid potential impacts.

Information used to prepare this chapter came from the following sources:

- City of Cupertino General Plan, *Community Vision 2015-2040*, 2015, as amended.
- WSP Services, Inc., *Phase I Environmental Site Assessment Vallco Fashion Mall, Cupertino, California*, January 7, 2014.
- WSP Services, Inc., *Limited Phase I Environmental Site Assessment of Sears/Bay Club Retail Facilities in the Vallco Shopping Center in Cupertino, California*, June 26, 2014.
- WSP Services, Inc., *Updated Information to the January 7, 2014 Phase I Environmental Site Assessment of Vallco Fashion Mall in Cupertino, California*, January 11, 2016.

11.2 Environmental Setting

This section presents information on hazards and hazardous material conditions in the Plan Area. The current condition was used as the baseline against which to compare potential impacts associated with implementation of the Specific Plan.

As previously described in the Project Description, the Plan Area is comprised of three separate ownership properties: the existing shopping mall property (the Mall), and the Block 13 and Block 14 properties. Block 13 is currently a parking lot and was recently approved by the City of Cupertino for the development of a hotel. A separate Phase I Environmental Site Assessment (ESA) was prepared for this parcel and included in the environmental review during the entitlement process for the now-approved hotel. Given that the Block 13 property has been analyzed under a separate CEQA document, the focus of this section is on the potential hazards and hazardous material impacts associated with implementation of the Town Center/Community Park development plan, which will occupy the current location of the Mall (the subject of the 2014 Phase I Environmental Site Assessment (ESA) and Addendum and 2016 Update). This section also analyzes Block 14, which is currently a parking lot and has been identified as a possible location for the development of a hotel with supporting commercial uses. However, there are no active development plans for Block 14.

The 2014 Phase I ESA and 2016 Update were conducted in accordance with (1) the United States Environmental Protection Agency (U.S. EPA) Standards and Practices for All Appropriate Inquiries ((AAI), 40 CFR Part 312) and (2) guidelines established by the American Society for Testing and Materials (ASTM) in the *Standard Practice for Environmental Site Assessments*:

Phase I Environmental Site Assessment Process / Designation E 1527-13 (ASTM Standard Practice E 1527-13). ASTM Standard Practice E 1527-13 defines a Recognized Environmental Condition (REC) as the presence or likely presence of any hazardous substances or petroleum products in, on, or at a property: (1) due to any release to the environment; (2) under conditions indicative of a release to the environment; or (3) under conditions that pose a material threat of a future release to the environment. The Phase I ESA, Addendum and Update for the Mall property did not identify any RECs.

A historical REC (HREC), as defined in the ASTM Standard, is a past release of any hazardous substance and/or petroleum product that has been addressed to the satisfaction of the applicable regulatory authority or meeting unrestricted use criteria. The Phase I ESA, Addendum and Update for the Mall property identified the former presence of LUSTs at the site of the former Sears Automotive Center and the current location of JC Penney as HRECs. However, the Phase I ESA, Addendum and Update concluded in accordance with Section 3.2.42 (ASTM Standard Practice E 1527-13) that the HRECs do not pose any immediate environmental concern to the subject property and no further investigation or corrective action is currently required.

Regulatory database searches of the Department of Toxic Substances Control (DTSC)'s Envirostor website (<http://www.envirostor.dtsc.ca.gov/public/>) and the State Water Resources Control Board's Geotracker website (<http://geotracker.waterboards.ca.gov/>) were performed to identify hazardous material regulated facilities on or in the vicinity of the Block 13 and Block 14 properties, which were not covered by the 2014 Phase I ESA and Addendum and 2016 Update. This section of the EA incorporates the information contained within the 2014 Phase I ESA and Addendum, the 2016 Update, and the results of the regulatory database searches performed in January 2016.

11.2.1 Present Use

A Phase I ESA and Addendum were prepared for the Mall property in 2014. An Update to the Phase I ESA was prepared in January 2016. According to those reports, the subject property is a large retail shopping mall and is comprised of eight parcels located in the area of 10123 Wolfe Road, including parcels east of Wolfe Road: APN 316-20- 94 (JC Penney), 316-20-95 (parking structure), and 316-20-99 and -100 (mall, bowling alley, and restaurant) and parcels west of Wolfe Road: 316-20-80 and -81 (former Sears), and 316-20-106 and -107 (former Macy's, restaurant, and theater). These parcels total approximately 51 acres of land and including one approximately 477,663 square foot building. Adjacent parcels to the Mall property include the former Sears Store and Automotive Center, a fitness center, and parking areas to the south, and the current JC Penney store and parking areas to the east.

11.2.2 General Description

The Mall property is approximately 51 acres and contains one irregularly shaped, two-story 477,663 square feet steel-framed building and two small detached buildings. The building is part of a larger enclosed shopping mall with 1,115,000 square feet of floor space that was

constructed between 1974 and 1979 and renovated in 1988 and 2006. There are six escalators, one public elevator, and one service elevator within the subject property. The Mall has approximately 110 tenant spaces. The Mall was anchored by Macy's, Sears, and JC Penney (though Macy's and Sears have now vacated the property, and JC Penney announced in January 2016 that it intends to vacate the property in spring 2016). The Mall also contains three detached buildings located north and northeast of the shopping mall, located at 10343 Wolfe Road, Cupertino, California (restaurant), 10330 Wolfe Road, Cupertino, California (restaurant), and 10101 Wolfe Road, Cupertino, California (former Sears automotive center building). As noted, the current location of JC Penney, the former Macy's and the former Sears are also part of the Mall.

A public ice rink and cooling tower are located in the northeastern portion of the Mall property. An adjacent three-level covered parking garage is located on the north and west sides of the Mall property. A 750-space parking garage is located north of the former Macy's location. Outdoor asphalt-paved parking areas are located on the west, south, and east, adjacent to the former Sears, on the north and on the south side of the current JC Penney, on the north side of two restaurants.

The area surrounding the Plan Area is residential and commercial. The Mall property has been in use as a retail shopping mall since at least 1979 based on historical aerial photographs reviewed.

11.2.3 Past Uses

Based on review of historical aerial photographs and previous Phase I ESAs, prior to construction, the Mall property contained orchards since at least 1939. The area surrounding the property also contained orchards, agricultural land, and farmhouses. The Mall property has been in use as a retail shopping mall since at least 1979 based on a review of historical aerial photographs.

The customary and legal application of herbicides, pesticides, and fertilizers, in conjunction with the former agricultural land use, may have contributed to the potential degradation of the soil quality on the property. However, agricultural use of the property was not recent; the Mall property has been developed since at least 1979, so it is unlikely that soil contamination from past use of herbicides, pesticides, and fertilizers is an environmental concern. Proper management and special handling of the soil maybe warranted during construction.

According to the general manager of the Mall property and a review of public records, previous owners of the Mall property, in chronological order, have included Vallco International Shopping Mall, LLC; GKK Cupertino Owner LLP, Teachers Annuity Trust, Jacobs Group, Heightman, and Westfield. The Mall underwent significant renovations in 1988 and 2006. In 2006, two new parking structures were constructed, additional parking was added south of JC Penney, additional retail stores were added along the west side of Wolfe road, and the AMC movie theater was added to the third level of the Mall. In 2012, Sears renovated their store building and a fitness facility, was established in the southeast corner of the Sears building.

11.2.4 Environmental Setting

According to the U.S. Geological Survey Cupertino, California quadrangle (7.5-minute series) map, the ground elevation of the subject property is approximately 185 feet above mean sea level. The site is located on relatively flat land with the property sloping slightly to the northeast. The general area surrounding the site is residential and commercial. The subject property is bound to the north by Highway 280 and to the east and south by Calabazas Creek. Based on information from the database search and evidence from investigations in the area, groundwater flow is presumed to be to the northeast.

The U.S. Department of Agriculture Soil Conservation Service indicates that the soils at the subject property are classified as Botella. The soils texture is identified as a clay loam. The bedrock underlying the property consists of rocks from the Quaternary Series.

According to the Federal Emergency Management Agency Flood Insurance Rate Map, the subject property is located within the 500-year flood plain.

11.3 Existing Conditions

11.3.1 Current Operations and Conditions

Raw Materials Handling and Storage Practices

At the time the Phase I ESA and Addendum were prepared in 2014, Sears, the Sears Automotive Center, Macy's and other tenants were operational. The Phase I ESA Update prepared in January 2016 stated the Sears retail operations and the Sears Automotive Center were closed and vacated as of October 4, 2014. Macy's closed in March 2015. Other tenants in the Mall have also closed and vacated the premises and many others are in the process of leaving on or before April 2016. JC Penney announced in January 2016 that the store will be closed in spring 2016. The theaters, fitness club, ice rink and several restaurants will continue to operate within the Mall. The following information is taken from the 2014 Phase I ESA and Addendum when the Sears, the Sears Automotive Center, and Macy's were operational.

The various retail tenants and restaurants within the Mall property handle and store a variety of retail materials, products, and foodstuffs unique to their places of business. No major quantities of chemicals or hazardous materials are currently stored onsite. A small maintenance supply room was observed on the second level of the parking garage structure. There was a flammable storage cabinet containing numerous household size containers of paint, stains, and lacquers, as well as other common maintenance supplies. The facility has two man lifts, a propane powered forklift, two golf carts, and a pickup truck; major maintenance of these vehicles is performed offsite.

The former Sears retail store handled, stored, and sold a variety of retail materials and products unique to their place of business. There were a basement and three retail floors. No major quantities of chemicals or hazardous materials were stored onsite. The former Sears retailed small containers of gasoline/oil mixtures for use in lawn equipment and sold small propane gas

containers. Paints and small quantities of cleaners were stored within a basement office in Sears. There was also a small dental office (Cupertino Square Dentist) in the former Sears retail building that operated independently of Sears. A fitness center occupies an area (approximately 140,000 square feet of floor space) within the former Sears retail building.

A fitness center leases the space from the former Sears and renovated the area in early 2013. The A fitness center is a fitness center with various exercise facilities and equipment, a Starbucks shop, a whirlpool lounge, a dry sauna, and a steam room. Small quantities of chemicals for treatment of water in the whirlpool are stored on the portion of the rooftop above the fitness center.

The former Sears Automotive Center is a separate building located in the parking area northwest of the former Sears retail building. Construction of the Sears buildings were completed in October 1970. Bulk product oil was stored in aboveground contained tanks within the eastern portion of the Automotive Center when it was operational. Waste oils were contained within an aboveground tank in the same area when the Automotive Center was operational. Several drums of oils and lubricants within containment were stored in the same area when the Automotive Center was operational. Product oil was delivered and waste oil was removed by Hunt and Sons when the Automotive Center was operational. The Automotive Center stored tires, batteries, and small quantities of retail oils and lubricants in the basement. There were hydraulic lifts within the former Automotive Center and there were several unidentified surface caps for access to potential below ground equipment installations in the paved parking area south of the former Automotive Center.

The Phase I ESA, Addendum and Update for the site did not identify any significant staining or stressed vegetation on the subject property.

The Mall property General Manager indicated that the Mall and its tenants undergo periodic inspections by the Santa Clara County Fire Department (SCCFD), the City of Cupertino, and the Santa Clara County Department of Environmental Health (DEH) and that no major problems or issues associated with environmental practices have been identified.

The Phase I ESA, Addendum and Update for the Mall did not identify any RECs based on a review of the subject property's raw materials handling practices.

Solid and Hazardous Waste

No evidence of hazardous materials or hazardous waste was observed on the subject property. The subject property is not currently registered as a generator of hazardous waste. Although the property is listed in the environmental database search as being a RCRA small quantity generator of hazardous waste, no hazardous wastes are routinely generated on the Mall property. The listing likely resulted from previous tenants (Expressly Portraits, Fox Photo, Inc., Kits Camera, and The Picture People, Inc.) that were engaged in photo developing activities that generated hazardous waste.

General solid wastes and trash are disposed in various dumpsters and compactors located within the Mall property. Various materials are separated for recycling. The Dynasty Restaurant maintains its own dumpster. The dumpsters and recyclable materials are serviced by Recology. Small quantities of waste paints and associated materials were observed during the site visit staged for disposal along a curb near a dumpster to the west of the AMC theater. It is recommended that pending removal for offsite disposal, these residual paints and associated materials should be placed in a more secure and contained area.

No onsite pits, ponds, or lagoons were observed that would suggest onsite waste disposal.

The Phase I ESA, Addendum and Update for the Mall property did not identify any RECs based on a review of the subject property's waste management practices.

Underground and Aboveground Tanks

Based on a review of historical records and information from the Santa Clara Valley Water District (SCVWD), no underground storage tanks (UST) are currently present on the Mall property. Additionally, WSP did not observe evidence of underground storage tanks (such as fill or vent piping) or aboveground storage tanks during the site visit.

Four gasoline and two motor oil USTs were removed from the former Sears Automotive Center site in 1985.

Dispenser islands and product lines were removed from the site in 1994. Seven borings were installed and sampling was conducted in soil and groundwater in 1999 to assess hydrocarbon concentrations at the site. Groundwater was not encountered in any of the borings at a depth of 44 feet below ground surface (bgs). Concentrations of ethylbenzene, total xylenes, and lead were reported below regulatory action levels and the site was granted case closure on December 6, 1999. The SCVWD concluded that contamination in the subsurface from the former USTs is minimal.

JC Penney, located adjacent and to the east of the Mall property, was listed as a leaking underground storage tank (LUST) site in the environmental database report. Two USTs, one 350-gallon diesel tank and one 350-gallon waste oil tank, were removed from the site on November 15, 1989. Three hundred and three tons of contaminated soil was removed from the UST excavations. A 750-gallon waste oil/water sump was closed in-place on January 21, 1994. Groundwater monitoring results collected from four monitoring wells installed on the current JC Penney site indicated that there were no detectable levels of target chemical constituents. The site was granted case closure on September 1, 1994 by the SCVWD.

There is no evidence to suggest that the former Sears and current JC Penney sites have impacted the property.

The former presence of LUSTs at the former Sears Automotive Center and the current JC Penney location represent historical recognized environmental conditions (RECs), but do not

pose any immediate environmental concern to the subject property and no further investigation or corrective action is currently required. Any future subsurface disturbance in the areas of the former LUSTs at the former Sears Automotive Center and the current JC Penney location should be performed with care with an awareness of the past releases in these areas.

Water, Wastewater and Storm Water

Potable water is provided to the subject property by Cal Water. Wastewater is treated in the City of San Jose wastewater treatment plant. No wastewater permits are required for the collective sanitary wastewater discharge from the Mall property. There are two small sanitary wastewater lift station systems in the basement of the former Sears retail building. There are reportedly no grease traps in the former Sears/fitness center building. As noted previously, the expansion of the Mall property in 2006 included the addition of the AMC movie theater. The movie theater expansion required the addition of a small sanitary wastewater pump station to accommodate the increased volume.

There are separate grease traps in many of the food and restaurant businesses within the Mall property. The grease traps are managed and maintained by the Mall property management and a contractor, Trap Recyclers. The grease traps are regularly inspected by the San Jose Environmental Department under an agreement with the Cupertino Sanitation District. According to the Mall property General Manager, no issues or violations have resulted from the operations of the grease traps.

Storm water that contacts the Mall property infiltrates into the soil, runs off by sheet flow or along curbs and gutters into storm drains within the property or along the streets bordering the property. Storm water that contacts the areas surrounding the former Sears/fitness center building and the former Automotive Center infiltrates into small landscaped soil areas, runs off by sheet flow or along curbs and gutters into storm drains within the parking areas. No evidence of stains or stressed vegetation was observed. No storm water permit is maintained and none appears to be required. According to the Mall property General Manager, heavy precipitation previously caused minor flooding conditions within the two traffic tunnels beneath Wolfe Road connecting the east and west sides of the Mall property. Maintenance personnel perform cleaning of gutters and storm drains to address these conditions and small pumps and sumps within the tunnels have been added to prevent or minimize possible flooding conditions.

The Phase I ESA, Addendum and Update for the Mall property did not identify any RECs based on a review of the subject property's water, wastewater, or storm water discharges.

Air Emissions

The Mall property's heating, ventilation, and air conditioning (HVAC) system and the ice rink contain Freon-based cooling systems and undergo preventative maintenance by the Mall property personnel and rink staff, respectively. Major maintenance on the Freon systems is performed by Trillo Companies, a licensed refrigerant company. No sources of air emissions that require air permits appear to be present on the subject property.

No RECs were identified relating to air emissions.

Polychlorinated Biphenyls

Electric power and natural gas are supplied by Pacific Gas & Electric. There are eight PG & E large transformers currently present on the subject property and there are numerous small step-down dry type transformers within leased spaces in the Mall property. There is a PG & E transformer on the south side of the former Sears/fitness center building. In 2003, Ceres Associates, who prepared a Phase I ESA for the site reported that, according to PG&E, PCBs were removed from the transformers between the 1970s and early 1980s. No leaks or stains were observed.

Based on observations conducted during the Phase I ESA, Addendum and Update for the Mall property, it is unlikely that there are any PCBs at the subject property from present or past use.

Asbestos

The buildings on the Mall property were constructed in 1970-1979, when asbestos-containing material (ACM) was used in building materials. The Occupational Safety and Health Administration (OSHA) requires facilities to presume that any surfacing material and thermal system insulation in buildings constructed before December 31, 1980, contain asbestos, unless testing or other information demonstrates otherwise. Additionally, any vinyl flooring installed before December 31, 1980 must be presumed to contain asbestos unless testing or other information demonstrates otherwise.

The application of molded and wet-applied asbestos building materials, used in many decorative applications, was banned in 1975. In 1976, ACM used for mechanical system insulation was prohibited.

All acoustical and decorative applications containing asbestos were banned in 1978. In 1989 the U.S. Environmental Protection Agency (EPA) instituted a ban of many types of non-friable ACM that was to occur in phases through 1997; however, in 1991, the phased ban was overturned by the Fifth Circuit Court of Appeals. Subsequently, only flooring felt; rollboard; and corrugated, commercial and specialty paper were banned in the United States. Therefore, many types of non-friable building materials may still contain asbestos. These products include, but are not limited to, roofing felt, vinyl asbestos floor tile, ceiling tiles, transite flat sheet, transite shingles, roofing coatings, and transite pipe.

In 2003, Ceres Associates noted suspected Asbestos Containing Materials (ACM) at the subject property, including drywall and texture materials, spray-on acoustic ceiling materials, acoustical ceiling tiles, exterior stucco materials, one-foot by one-foot resilient floor tiles, roofing materials and the ice rink's cooling tower fill. At the time of the report, the suspected ACMs appeared to be in good condition and non-friable. According to the Mall property General Manager, removal of much of the ACM noted by Ceres was conducted in 2005-6 by LVI as part of the addition of the AMC movie theater.

An asbestos survey was reportedly performed in the former Sears retail/fitness center building and the former Automotive Center in 2004 and asbestos containing materials (ACM) were identified in several areas. In September 2011, as a result of a water intrusion incident, a focused and limited asbestos survey was performed and removal of ACM in the area of the water intrusion was conducted. WSP observed suspect ACM (pipe insulation, floor tiles, wallboard, etc.) in the former Sears's retail building and notices were posted in several areas of the retail building as to the presence of AC fibers.

The Mall property General Manager indicated that an ACM Operations and Maintenance (O & M) manual was prepared to address any remaining suspect ACM that may be encountered during repair or maintenance activities within the Mall property. Before conducting any renovation or demolition activities that might disturb potential asbestos, the property owner should ensure that it complies with all applicable requirements within the Operations and Maintenance plan for managing the identification and management of asbestos-containing materials.

Lead-Based Paint

In 1978, the U.S. Consumer Product Safety Commission lowered the permissible levels of lead contained in paints and prohibited application of lead-based paint to housing constructed or rehabilitated with federal assistance. Paint manufacturers complied by lowering or eliminating lead content from paint products sold for residential use. Based on the age of the buildings (constructed from 1974 to 1979), lead-based paint may be present. However, many of the interiors of the retail spaces have been refurbished and painted several times. The presence of lead-based paint can only be confirmed through testing of the painted surface/layers. Before conducting any renovation or demolition activities that might disturb painted surfaces, the Mall property should ensure that it complies with all applicable requirements concerning the identification and management of potential lead-based paint.

11.3.2 Adjoining Properties

Present Uses

The Mall property is bordered to the north by paved asphalt parking areas and Highway 280; to the south by retail and commercial buildings and Stevens Creek Boulevard, and a retail strip center; to the east by current JC Penney location and a paved asphalt parking lot; and to the west by residential neighborhoods. According to a review of the EDR database, none of the adjacent properties are currently conducting any environmentally significant activities. Additionally, none of the adjacent properties appear to have been impacted by onsite activities.

No RECs that may affect the subject property were identified at adjoining properties.

Past Uses

Based on a review of historical aerial photographs, the area surrounding the subject property was developed with orchards, agricultural land, and farmhouses before construction of the initial Mall buildings in 1974–1979.

No other past uses of surrounding properties were identified from the historical sources reviewed.

There is no evidence in the information reviewed to indicate an existing release or a material threat of a release of any hazardous substances or petroleum products onto the ground, groundwater or surface water of the subject property from historical use of adjoining properties.

11.3.3 Environmental Records Review

The Mall Property

The Phase I ESA, Addendum and Update for the Mall property included the electronic database service Environmental Data Resources, Inc. (EDR) to complete the environmental records review. Numerous regulatory databases were searched during the Phase I ESA, Addendum and Update for the Mall property.

The Mall property is not listed on any of the federal or state environmental regulatory databases searched by EDR.

Federal and state databases also were searched to determine the potential for the Mall property to be affected by releases from neighboring properties. The sites that have the greatest potential to have caused environmental contamination are those that have had releases or spills of hazardous substances or petroleum products located upgradient or in close proximity to the Mall property. The direction of localized groundwater flow at the Mall property is presumed to be to the northeast. Therefore, the sites that are of the greatest potential concern are those that have had releases or spills of hazardous substances or petroleum products and are southwest (upgradient) or in close proximity to the Mall property.

The database search contains 11 listings involving the Mall property. Although the property is listed in the environmental database search as being a RCRA small quantity generator of hazardous waste, no hazardous wastes are routinely generated on the property. The listing likely resulted from former tenants also listed in the database search (Expressly Portraits, Fox Photo, Inc., Kits Camera, and The Picture People, Inc.) that were engaged in photo developing activities that generated hazardous waste.

There were two listings (Jacobs Group in 2001 and the Mall in 2005) for the removal and disposal of asbestos containing materials. The former Sears and the current JC Penney were listed on the LUST database as closed cases with no further action required. The Ice Center was listed for the generation of oily waste and Bath & Body Works was listed for the recycling of solvent wastes; no releases of these materials were noted. There was also a listing for a spill of mineral oil in August 1999 from a PG&E truck accident. The spill was cleaned up and no residual effects were noted. None of these 11 listings for the subject property pose an environmental concern to the subject property. The LUST cases for the former Sears and the current JC Penney are historical RECs, but are closed cases and no further action or investigation is required.

The updated Phase I ESA prepared by Ceres Associates in 2006 indicated that the Mall property location was listed on the ERNS database for a silver spill in 1996. According to the database, the spill was released into a secondary containment tank, and occurred due to a malfunctioning tank overflow sensor. No residual effects were noted from the release and this previous listing does not pose an environmental concern to the Mall property.

There are 16 sites listed within a one-mile radius of the Mall property. Eight of the 16 listings are for sites with no releases of petroleum or hazardous materials. Six of the remaining sites are LUST sites listed as case closed and no further action is required. One of the remaining sites is a Federal Superfund site (Intersil located at 10900 N. Tantau Ave.) and under a voluntary cleanup program. This facility is located downgradient (north) of the Mall property and does not pose an environmental concern to the Mall property. The remaining site, Tosco #11220 at 19550 Stevens Creek Boulevard, is located south and up-gradient of the Mall property and is an active LUST case. There is continuing monitoring of groundwater being performed at the site and the monitoring indicates that the site does not impact groundwater beneath the Mall property. Thus, none of the noted 16 sites listed in the database search pose an environmental concern to the Mall property.

Eleven facilities within a one-mile radius of the Mall property were identified as “orphan sites” in the EDR database report. These sites are identified as unmappable sites due to imprecise or limited address information (e.g., an incomplete street address or a P.O. Box). None of the 11 sites are listed as having spills or releases of petroleum products or hazardous materials, and thus are unlikely to pose an environmental concern to the Mall property.

The Lehigh Southwest Cement and Quarry facility (located at 24001 Stevens Creek Blvd.) is located outside of the standard search radii under ASTM 1527-13. This facility is approximately 3.4 miles to the west of the Plan Area and therefore not an environmental concern for the Mall property.

Federal and State Records Review for Parcels within the Specific Plan Not Covered by the 2014 Phase I ESA, Addendum and 2016 Update.

Kimley-Horn and Associates, Inc. reviewed information from Department of Toxic Substances Control (DTSC)'s Envirostor website (<http://www.envirostor.dtsc.ca.gov/public/>) and the State Water Resources Control Board's Geotracker website (<http://geotracker.waterboards.ca.gov/>) to obtain an understanding of any releases of regulated substances or petroleum products that occurred on or near the Block 13 and Block 14 properties, which are within the Plan Area but not covered by the 2014 Phase I ESA, Addendum and 2016 Update. The searches identified two records within the Plan Area and four records in close proximity to the Plan Area.¹ The facilities

¹ -California, State of, State Water Resources Control Board. Available at: <http://geotracker.waterboards.ca.gov/> Accessed: January 21, 2016.

-California, State of, Department of Toxic Substances Control, DTSC's Envirostor Tool. Available at: <http://www.envirostor.dtsc.ca.gov/public/> Accessed: January 21, 2016.

documented in the database searches were the same facilities documented in the database search conducted for the 2014 Phase I ESA and Addendum and the 2016 Update, and they do not constitute RECs.

11.3.4 Environmental Cleanup Liens/Activity and Use Limitations

A search for the existence of environmental cleanup liens against the Mall property was conducted through EDR. No environmental cleanup liens have been filed against the Mall property or its present or previous owners.

A search of engineering and institutional controls on the use of the Mall property, including deed restrictions, was included in the regulatory database search conducted by EDR. The results of the search indicated that no current engineering or institutional controls exist for the Mall property.

11.3.5 Review of Local Records

SCCFD was contacted for information on any aboveground or underground storage tanks, hazardous waste storage, inspections, and plans associated with the Mall property. According to the SCCFD, no records were found.

Santa Clara Valley Water District (SCVWD) was contacted for information on underground storage tanks and solvent and toxic releases affecting groundwater. The SCVWD is no longer the lead agency for solvent releases or underground storage contamination and they referred WSP to the Geotracker and Envirostor websites for this information.

The State Water Resources Control Board Geotracker online system, which identifies pollution sites in the vicinity of the Plan Area was reviewed. Other than the closed cases for the former Sears and the current JC Penney LUSTs described above, no pollution sites were identified for the Plan Area.

The DTSC Envirostor online system, which identifies sites that have known contamination of sites for which there may be reasons to investigate further and sites that are authorized to treat, store, dispose, or transfer hazardous waste was reviewed. No contaminated sites were identified for the Plan Area.

Santa Clara County Department of Environmental Health (DEH) website was reviewed to determine whether any hazardous substances incidents have been reported for the Plan Area. According to the website, no incidents have been reported.

The Cupertino Planning Division was contacted for information on records of environmental permits, above or underground storage tanks, complaints, violations, or incidents. A response from the City was not received.

The Cupertino Building Division was contacted for information on records of environmental permits, above or underground storage tanks, complaints, violations, or incidents. According to the Cupertino Building Department, Public Works received on citizen complaint on February 8,

2012 regarding a sanitary spill or leak discharge from a leaking corroded pipe at the ice rink on the Mall property. The leak was stopped February 9, 2012 and the plumbing was repaired by February 13, 2012.

The Bay Area Air Quality Management District (BAAQMD) was contacted for information on air emissions. According to the BAAQMD, no records were found.

No “commonly known” information was identified during the local records review.

11.4 Applicable Regulations, Plans, and Standards

The management of hazardous materials is regulated by various Federal, State, and local agencies. Federal and State agencies include the EPA, US Department of Transportation (DOT), California Environmental Protection Agency (Cal EPA), DTSC, California State Water Resources Control Board (SWRCB), RWQCB, and the California Highway Patrol. Local agencies include the Santa Clara County DEH Hazardous Materials Compliance Division (HMCD), which regulates hazardous materials use, storage, and disposal within the City.

At the Federal level, the U.S. EPA is the principal regulatory agency, while at the State level, DTSC is the primary agency governing the storage, transportation, and disposal of hazardous wastes. The San Francisco RWQCB has jurisdiction over discharges into waters of the State. The Federal Occupational Safety and Health Administration (OSHA) and the State Cal-OSHA regulate many aspects of worker safety.

The Santa Clara County DEH HMCD was approved by the State as the State Certified Unified Program Agency (CUPA) for Santa Clara County. The HMCD is tasked with implementation and enforcement of hazardous material regulations under the Unified Program. The purpose of the Unified Program is to consolidate, coordinate, and make consistent the administrative requirements, permitting, inspection activities, enforcement activities, and fees for hazardous waste and hazardous materials programs in each jurisdiction. The HMCD also enforces additional hazardous material storage requirements in accordance with the Santa Clara County Hazardous Materials Storage, Toxic Gas and Unified Program Ordinances.²

The Local Oversight Program (LOP) to oversee the investigation and remediation of leaking underground storage tanks in Santa Clara County is implemented by DEH.

HMCD reviews and approves Hazardous Materials Business Plans (HMBPs), which are required of businesses storing hazardous materials over certain threshold quantities. A HMBP must include an inventory of the business’ hazardous materials, emergency response and evacuation plans and procedures, emergency contacts, procedures for mitigation of a release, and employee training.³

² Santa Clara County Ordinance Code, Division B11, Chapters XIII – XV.

³ California Health and Safety Code, Division 20, Chapter 6.95, §25500-25519.

Santa Clara County operates a Household Hazardous Waste Program for Conditionally Exempt Small Quantity Generators (CESQG), which are businesses that generate less than 220 pounds or 27 gallons of hazardous waste per month, or less than 2.2 pounds of Extremely Hazardous Waste per month.

11.4.1 California Department of Forestry and Fire Protection (CAL FIRE)

The California Department of Forestry and Fire Protection (CAL FIRE) has mapped fire threat potential throughout California⁴. CAL FIRE ranks fire threats based on the availability of fuel and the likelihood of an area burning (based on topography, fire history, and climate). The rankings include no fire threat, moderate, high, and very high fire threats.

11.4.2 California Fire Code

California Code of Regulations, Title 24, also known as the California Building Standards Code, contains the California Fire Code (CFC), included as Title 24, Part 9. The CFC includes provisions and standards for emergency planning and preparedness, fire service features, fire protection systems, hazardous materials, fire flow requirements, and fire hydrant locations and distribution.

11.4.3 Local

City of Cupertino General Plan

The City of Cupertino's General Plan, *Community Vision 2015-2040* (General Plan), as amended, includes policies and strategies that address the potential risks associated with both natural and human-caused disasters and hazards in the Health and Safety Element. A list of the relevant General Plan polices and strategies are provided below. A General Plan Land Use Consistency Analysis for the Specific Plan is provided in [Chapter 13, Land Use and Planning, Table 13-1](#).

Goal HS-3: Protect the Community from Hazards Associated with Wildland and Urban Fires

Policy HS-3.1: Regional Coordination

Coordinate wildland fire prevention efforts with adjacent jurisdictions. Encourage the County and the Midpeninsula Open Space District to implement measures to reduce fire hazards, including putting into effect the fire reduction policies of the County Public Safety Element, continuing efforts in fuel management, and considering the use of "green" fire break uses for open space lands.

Policy HS – 3.2: Early Project Review

Involve the Fire Department in the early design stage of all projects requiring public review to assure Fire Department input and modifications as needed.

⁴ CAL FIRE, http://www.fire.ca.gov/fire_prevention/fire_prevention_wildland_zones_development.php, accessed on January 20, 2016.

Policy HS – 3.4: Private Residential Electronic Security Gates

Discourage the use of private residential electronic security gates that act as a barrier to emergency personnel.

Goal HS – 4: Ensure High Level of Community Safety with Police Services that Meet the Community's Needs*Policy HS – 4.2: Crime Prevention through Building and Site Design*

Consider appropriate design techniques to reduce crime and vandalism when designing public spaces and reviewing development proposals.

Goal HS – 6: Protect People and Property from the Risks Associated with Hazardous Materials and Exposure to Electromagnetic Fields*Policy HS – 6.1: Hazardous Materials Storage and Disposal*

Require the proper storage and disposal of hazardous materials to prevent leakage, potential explosions, fire or the release of harmful fumes. Maintain information channels to the residential and business communities about the illegality and danger of dumping hazardous material and waste in the storm drain system or in creeks.

Policy HS – 6.2: Proximity of Residents to Hazardous Materials

Assess future residents' exposure to hazardous materials when new residential development or childcare facilities are proposed in existing industrial and manufacturing areas. Do not allow residential development or childcare facilities if such hazardous conditions cannot be mitigated to an acceptable level of risk.

Policy HS – 6.3: Electromagnetic Fields (EMF)

Ensure that projects meet Federal and State standards for EMF emissions through development review.

Policy HS-6.4: Educational Programs

Continue to encourage residents and businesses to use non- and less-hazardous products, especially less toxic pest control products, to slow the generation of new reduce hazardous waste requiring disposal through the county-wide program.

Policy HS – 6.5: Hazardous Waste Disposals

Continue to support and facilitate for residences and businesses a convenient opportunity to properly dispose of hazardous waste.

Goal HS – 7: Protect People and Property from Risks Associated with Floods

Policy HS – 7.3: Existing Non-Residential Uses in the Flood Plain

Allow commercial and recreational uses that are now exclusively within the flood plain to remain in their present use or to be used for agriculture, provided it doesn't conflict with Federal, State and regional requirements.

Policy HS – 7.4: Construction in Flood Plains

Continue to implement land use, zoning and building code regulations limiting new construction in the already urbanized flood hazard areas recognized by the Federal Flood Insurance Administrator.

City of Cupertino Municipal Code

The City of Cupertino's Municipal Code addresses a variety of hazards and related topics, including hazardous materials and waste. The California Fire Code is adopted as Chapter 16.40 of the Municipal Code. Section 9.12.040 of the Municipal Code requires the preparation of a Hazardous Materials Management Plan (HMMP) for facilities that are regulated under Section 9.12.020.

11.5 Impacts and Environmental Design Features

11.5.1 Significance Criteria

The following significance criteria for hazards and hazardous materials were derived from the Environmental Checklist in the State CEQA Guidelines Appendix G. These significance criteria have been amended or supplemented, as appropriate, to address the City of Cupertino requirements and the full range of potential impacts related to implementation of the Specific Plan.

An impact of the Specific Plan would be considered significant and would require mitigation if it met one of the following criteria.

- a) Create a significant hazard to the public or the environment through the routine transport, use or disposal of hazardous materials?
- b) Create a significant hazard to the public or the environment through reasonable foreseeable upset and accident conditions involving the release of hazardous materials into the environment?
- c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?
- d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?

- e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?
- f) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?
- g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?
- h) Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?

11.5.2 Impacts of the Proposed Specific Plan

As previously discussed, the following analysis focuses on the Town Center/Community Park development within the Specific Plan. The proposed hotel on the Block 13 property was approved by the City of Cupertino for the development of a hotel. A separate Phase I Environmental Site Assessment (ESA) was prepared for this parcel and included in the environmental review during the entitlement process for the now-approved hotel. No RECs were identified for that site. Further, no development on the Block 14 property has been proposed, although a hotel with supporting commercial uses consistent with the existing General Plan designations could be developed in the future. Any future development on Block 14 would require site-specific analysis, including analysis of hazards and hazardous materials, prior to development approval. As such, the analysis of this section is centered on the potential hazards and hazardous material impacts associated with implementation of the Town Center/Community Park development.

Impact HAZ-1: Would implementation of the Specific Plan create a significant hazard to the public or the environment through the routine transport, use or disposal of hazardous materials?

The types of uses and facilities allowed in within the Specific Plan may generate, store, use, distribute or dispose of hazardous materials such as petroleum products, oils, solvents, paints, household chemicals and pesticides. **Table 11-1: Hazardous Material Usage within the Plan Area**, summarizes typical hazardous material types by Specific Plan Land Use category. The Project would not create a significant impact through the transport, use or disposal of hazardous materials since all uses and facilities are required to comply with all applicable federal, state and regional regulations which are intended to avoid impacts to the public or environment. If during the individual development review process, the City determines that a prospective user may generate inordinate quantities or unusual hazardous waste material, the proposed development may be subject to further review prior to approval.

Table 11-1 Hazardous Material Usage within the Plan Area

Land Use Designation	Operations/Activities	Hazardous Materials
Residential/Hotel	Multiple-family dwellings and hotel	Heavy metals, household chemicals, paints, pesticides, petroleum, oil, lubricants, thinners, fertilizers and solvents.
Office	Commercial office building accommodating professional and/or administrative services.	Heavy metals, household chemicals, and pesticides.
Retail/Commercial	Retail and service oriented land uses.	Aerosols, cleaners, corrosives, fuels, heating oils, household chemicals, ignitable, paints, pesticides, petroleum, oil, lubricants, thinners and solvents.
Community Park and Nature Area	Uses include public trails, recreational areas, open space, vineyards, and orchards.	Aerosols, cleaners, fuels, heating oils, household chemicals, paints, pesticides, petroleum, oil, lubricants, thinners and solvents.

The Specific Plan includes EDF 37, which would require facilities that exceed the threshold specified by Health & Safety Code, if any, to prepare and implement an HMBP. With implementation of EDF 37 and compliance with all applicable federal, state and regional regulations, potential impacts would be reduced to less-than-significant.

Environmental Design Features for Impact HAZ-1

EDF 37 Hazardous Materials Business Plan

In accordance with State Code, facilities that store, handle or use regulated substances as defined in the California Health and Safety Code Section 25534(b) in excess of threshold quantities shall prepare and implement, as necessary, Hazardous Materials Business Plans (HMBP) for determination of risks to the community. The HMBP will be reviewed and approved by the Santa Clara County Department of Environmental Health Hazardous Materials Compliance Division through the Certified Unified Program Agencies (CUPA) process.

Impact HAZ-2: Would implementation of the Specific Plan create a significant hazard to the public or the environment through reasonable foreseeable upset and accident conditions involving the release of hazardous materials into the environment?

The 2014 Phase I ESA, Addendum and the 2016 Update included a review of local, State, and Federal environmental record sources, standard historical sources, aerial photographs, fire insurance maps and physical setting sources, a reconnaissance of the Mall property to review use and current conditions and to check for the storage, use, production or disposal of hazardous or potentially hazardous materials and interviews with persons and agencies knowledgeable about current and past site use.

A review of regulatory databases maintained by County, State, and Federal agencies found no information regarding current environmental concerns for the Specific Plan. However, the former Sears Automotive Center and the current JC Penney locations were listed on the LUST database as closed cases with no further action required. The LUST cases for these two facilities are considered historical RECs, but do not pose any immediate environmental concern to the Plan Area and no further investigation or corrective action is required.

In addition, the former Sears Automotive Center includes several below ground hydraulic lifts located in the service area of the Center. Because of the former presence of the underground storage tanks, the hydraulic lifts currently in use, and the possibility of underground installations, any future disturbance or investigation (removal of the building and/or excavation) should be performed with care and an awareness of the potential for petroleum or chemical releases in these areas.

The customary and legal application of herbicides, pesticides, and fertilizers, in conjunction with the previous agricultural land use (orchards), may have contributed to the potential degradation of the soil quality on the property. However, agricultural use of the property was not recent; the Mall property has been developed since at least 1979, so it is unlikely that soil contamination from past use of herbicides, pesticides, and fertilizers is an environmental concern.

The 2014 Phase I ESA, Addendum and 2016 Update make recommendations for future subsurface disturbance in the area of the former Sears Automotive Center and the current JC Penney and disturbance of existing buildings with respect to asbestos and lead-based paint. With implementation of Specific Plan EDFs 38 and 39, potential impacts associated with an accidental release of hazardous materials to the environment would be reduced to less-than-significant levels.

Environmental Design Features for Impact HAZ-2

EDF 38 Renovation or Demolition of Existing Structures

Before conducting renovation or demolition activities that might disturb potential asbestos, light fixtures, or painted surfaces, the Town Center/Community Park applicant shall ensure that it complies with the Operations and Maintenance Plan for management and abatement of asbestos-containing materials, proper handling and disposal of fluorescent and mercury

vapor light fixtures, and with all applicable requirements regarding lead-based paint.

EDF 39 Soil Management Plan

A Soil Management Plan for all redevelopment activities shall be prepared by applicant(s) for future development to ensure that excavated soils are sampled and properly handled/disposed, and that imported fill materials are screened/analyzed before their use on the property.

Impact HAZ-3: Would implementation of the Specific Plan emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?

The closest existing school site to the Plan Area is Collins Elementary, which is located approximately 1,700 feet to the west of the Plan Area. The Specific Plan does not propose any industrial uses, which could potentially generate hazardous materials in significant quantities that would have an impact to surrounding schools. As such, there would be no significant impact.

Impact HAZ-4: Is the Specific Plan located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?

The Plan Area does not include any sites identified on a hazardous sites list compiled pursuant to California Government Code Section 65962.5.⁵ In addition, a Phase I ESA and Addendum were prepared for the Mall property by WSP in January 2014 and updated in January 2016. According to those reports, there were no RECs (as defined by ASTM Practice E 1527-13) identified in association with the site that required corrective action. No significant adverse impacts relative to hazardous materials sites would result with implementation of the Specific Plan.

Impact HAZ-5: For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?

San Jose International Airport is located approximately five miles northeast of the Plan Area. Since the Specific Plan is not located within two miles of a private or public airport, no impacts would occur with regard to airports.

⁵ California, State of, Department of Toxic Substances Control, DTSC's Hazardous Waste and Substances Site List - Site Cleanup (Cortese List). Available at: http://www.dtsc.ca.gov/SiteCleanup/Cortese_List.cfm. Accessed: January 20, 2016.

Impact HAZ-6: For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?

The Plan Area is not located within the vicinity of a private airstrip and would not result in a safety hazard for people residing or working in the Plan Area.

Impact HAZ-7: Would implementation of the Specific Plan impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?

Implementation of the Specific Plan would not impair or physically interfere with an adopted emergency response or evacuation plan. According to the General Plan Health and Safety Element, Policy HS-4.2 and related Strategy HS-4.2.2 direct the City to coordinate with the County Sheriff for review and comment on development applications for security and public safety measures. In addition, the Santa Clara County Operational Area Emergency Operations Plan (EOP) was prepared by the County describing the Operational Area's emergency management structure and how emergency management is implemented in the County. The EOP outlines the different phases of emergency preparedness and response. It includes standard operating procedures, emergency contact lists, the roles and responsibilities of the various committees and agencies during an emergency; and the activation and execution procedures of the emergency response system.

Compliance with General Plan Health and Safety Element Policy HS-4.2 and related Strategy HS-4.2.2 and the EOP, would ensure that implementation of the Specific Plan would result in a less-than-significant impact with respect to interference with an adopted emergency response plan or emergency evacuation plan.

Impact HAZ-8: Would implementation of the Specific Plan expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?

Implementation of the Specific Plan would not expose people or structures to a risk of loss, injury or death involving wildland fires. The Plan Area is in a developed urban area and it is not adjacent to any wildland areas. Figure HS-1 of the General Plan shows that the Plan Area is not within the area designated as Urban Wildland interface; the Wildland Urban Interface Fire Area map in Cupertino Municipal Code Section 16.74.010 is consistent. Therefore, no impact would occur in regard to wildland fires.

11.5.3 Cumulative Impact Analysis

Impact HAZ-9: Would implementation of the Specific Plan, in combination with past, present, and reasonably foreseeable projects, result in significant cumulative impacts with respect to hazards and hazardous materials?

The incremental effects of implementation of the Specific Plan related to hazards and hazardous materials, if any, are anticipated to be minimal, and any effects would be specific to

the Plan Area. Therefore, the implementation of the Specific Plan would not result in incremental effects to hazards or hazardous materials that could be compounded or increased when considered together with similar effects from other past, present, and reasonably foreseeable probable future projects. Implementation of the Specific Plan would not result in cumulatively considerable impacts to or from hazards or hazardous materials.

11.6 References

LSA. 2013. *Apple Campus 2 Project Public Review Draft Environmental Impact Report*. State Clearinghouse No. 2011082055

U.S Geological Survey. 1997. Cupertino, California, Quadrangle, 7.5 Minute Series (Topographic) Scale 1:24,000.

12 Hydrology and Water Quality

12.1 Introduction

This section describes the existing setting of the Plan Area as it relates to the hydrology and water quality; identifies associated regulatory requirements; and evaluates potential effects on hydrology and water quality upon implementation of the Specific Plan.

Information used to prepare this section came from the following sources:

- City of Cupertino General Plan, Community Vision 2015-2040, 2015, as amended.
- PlaceWorks, 2014. General Plan Amendment, Housing Element Update, and associated Rezoning Project Draft Environmental Impact Report. State Clearinghouse No. 2014032007. Final EIR certified December 4, 2014

12.2 Environmental Setting

This section presents information on hydrology and water quality conditions in the Plan Area. The Regional Setting provides information on the baseline conditions in the region. The Plan Area Setting describes baseline conditions for hydrology and water quality conditions within the Plan Area.

12.2.1 Surface Water

The Plan Area is located in the Calabazas Creek Watershed of the West Valley Watershed planning area. Calabazas Creek, located to the southeast of the Plan Area, originates at 2,000 feet above sea level in the foothills of the Santa Cruz Mountains and flows northeasterly to Sunnyvale and ultimately to the Guadalupe Slough. As the principal drainage for the watershed, Calabazas Creek is approximately 13 miles long and drains about 14 square miles. According to the San Francisco Bay Regional Water Quality Control Board (RWQCB) Water Quality Control Plan (Basin Plan), beneficial uses of Calabazas Creek water include agricultural, groundwater recharge, aquatic habitat, wildlife, and recreational uses.¹

12.2.2 Groundwater

According to the RWQCB Basin Plan (Basin Plan), the Plan Area is located within the Santa Clara Valley groundwater basin and the Santa Clara groundwater sub-basin. The Preliminary Geotechnical Interpretive Report prepared for the Plan Area identified groundwater at depths

¹ San Francisco Bay Regional Water Quality Control Board, 1995. *Water Quality Control Plan*. Website: www.waterboards.ca.gov/sanfranciscobay/basin_planning.shtml. Appended through 2010.

of approximately 68 feet below the ground surface (bgs).² Depths to groundwater may vary due to seasonal precipitation and infiltration rates.

According to the Basin Plan, beneficial uses of the Santa Clara groundwater sub-basin include municipal and domestic, industrial process, industrial service, and agricultural water supply.³ Based on groundwater quality data collected in 2010 by the Santa Clara Valley Water District (SCVWD) and various local water suppliers, groundwater within the Santa Clara sub-basin is of good quality, and generally meets drinking water thresholds (i.e., it does not exceed maximum contaminant level thresholds).⁴

12.2.3 Stormwater Runoff and Drainage

The Plan Area currently contains buildings, parking lots, and other impervious surfaces, and stormwater runoff discharges into drain inlets that convey the runoff via the City storm drainage system into Calabazas Creek, and ultimately into San Francisco Bay. Over 90 percent of the Plan Area is currently covered by impervious surfaces.

12.2.4 Flooding, Dam Inundation, and Coastal Hazards

Calabazas Creek has a history of flooding, having experienced major flood events in the vicinity of the Plan Area in 1955, 1980, 1983, 1998, and 2002. It is estimated that a major flooding event on Calabazas Creek would result in an average of \$11 million (2008 dollars) in damages. The \$3.5 million Calabazas Creek Improvement Project was designed to address flooding issues along a 4.5-mile segment of Calabazas Creek from Guadalupe Slough to Miller Avenue. The project, which was completed in 2011, included the replacement of a Union Pacific Railroad bridge in the City of Saratoga, erosion repairs at ten locations, creation of a flood detention area south of Saratoga-Sunnyvale Road, and the replacement of the culvert underneath Saratoga-Sunnyvale Road.

The improvements were designed to provide 1-percent flood protection (e.g., protect against flooding during the 100-year flood event) along the creek between San Francisco Bay and Miller Avenue, obtain a Letter of Map Revision (LOMR) from the Federal Emergency Management Agency (FEMA) memorializing that protection, and stabilize the channel between Lawrence Expressway and Miller Avenue. Once the LOMR is obtained, the Calabazas Creek Improvement Project will remove 2,250 parcels in Santa Clara, San Jose, and Cupertino from the existing 100-year floodplain, including the southwestern most portion of the Plan Area adjacent to Calabazas Creek.⁵

² TRC, 2015, Preliminary Geotechnical Report, Town Center/Community Park. November.

³ San Francisco Bay Regional Water Quality Control Board, 1995, op. cit.

⁴ Santa Clara Valley Water District, 2011. Groundwater Monitoring and Analysis Unit. 2010 Groundwater Quality Report. June.

⁵ Santa Clara Valley Water District, 2011. Calabazas Creek Flood Protection Project newsletter. Website:

Although a large portion of the City of Cupertino could be inundated by failure of the Stevens Creek Dam, located approximately 3.75 miles southwest of the Plan Area, the Plan Area is not located in the dam failure inundation area. The City of Cupertino's current General Plan, *Community Vision 2015–2040* (General Plan) notes that Stevens Creek Dam meets applicable dam safety standards and the probability of its failure is minimal.⁶

The location of the Plan Area, over 6 miles south of San Francisco Bay, and the elevation of the site (approximately 185 feet above mean sea level) eliminates the potential for coastal hazards, such as sea level rise, seiche, tsunami, or extreme high tides.

12.3 Applicable Regulations, Plans, and Standards

12.3.1 Federal

Clean Water Act

Under the Clean Water Act (CWA) of 1977, the United States Environmental Protection Agency (U.S. EPA) seeks to restore and maintain the chemical, physical, and biological integrity of the nation's waters. The statute employs a variety of regulatory and non-regulatory tools to reduce direct pollutant discharges into waterways, finance municipal wastewater treatment facilities, and manage polluted runoff. The CWA authorizes the U.S. EPA to implement water quality regulations. The National Pollutant Discharge Elimination System (NPDES) permit program under Section 402(p) of the CWA controls water pollution by regulating storm water discharges into the waters of the United States (US). California has an approved state NPDES program. The U.S. EPA has delegated authority for water permitting to the State Water Resources Control Board (SWRCB), which has divided the state into nine regional basins, each under the jurisdiction of a Regional Water Quality Control Board (RWQCB).

Section 303(d) of the CWA requires that each State identify water bodies or segments of water bodies that are "impaired" (i.e. not meeting one or more of the water quality standards established by the State). These waters are identified in the Section 303(d) list as waters that are polluted and need further attention to support their beneficial uses. Once the water body or segment is listed, the state is required to establish Total Maximum Daily Load (TMDL) for the pollutant causing the conditions of impairment. TMDL is the maximum amount of a pollutant that a water body can receive and still meet water quality standards. Typically, TMDL is the sum of the allowable loads of a single pollutant from all contributing point and nonpoint sources (NPS). The intent of the Section 303(d) list is to identify water bodies that require future development of a TMDL to maintain water quality. In accordance with Section 303(d), the RWQCB has identified impaired water bodies within its jurisdiction, and the pollutant or stressor responsible for impairing the water quality.

<http://www.valleywater.org/newsletter/nov2011/calabazas.aspx> (accessed January 20, 2016).

⁶ Santa Clara County Fire Department, 2012. Joint Stevens Creek Dam Failure Plan. October.

Federal Emergency Management Agency

The Federal Emergency Management Agency (FEMA) administers the National Flood Insurance Program (NFIP), which provides subsidized flood insurance to communities that comply with FEMA regulations, which limit development in flood plains. FEMA also issues Flood Insurance Rate Maps (FIRMs) that identify which land areas are subject to flooding. These maps provide flood information and identify flood hazard zones in the community. The design standard for flood protection is established by FEMA, with the minimum level of flood protection for new development set as the 100-year flood event, also described as a flood that has a 1-in-100 chance of occurring in any given year.

National Pollutant Discharge Elimination System

As previously discussed, the NPDES permit program was established by the CWA to regulate municipal and industrial discharges to surface waters of the United States from their municipal separate storm sewer systems (MS4s). Under the NPDES Program, all facilities which discharge pollutants from any point source into waters of the US are required to obtain an NPDES permit. Point source discharges include discharges from publicly owned treatment works (POTWs), discharges from industrial facilities, and discharges associated with urban runoff, such as storm water. The NPDES permit programs in California are administered by the SWRCB and the nine RWQCBs.

The Plan Area lies within the jurisdiction of the San Francisco Bay RWQCB (Region 2) and is subject to the Waste Discharge Requirements (WDR) of the MS4 Permit (Order Number R2-2009-0074) and NPDES Permit Number CAS612008, as amended by Order Number R2-2011-0083. The City of Cupertino, in addition to the cities of Campbell, Los Altos, Monte Sereno, Mountain View, Palo Alto, San Jose, Santa Clara, Saratoga, and Sunnyvale, the towns of Los Altos Hills and Los Gatos, and the Santa Clara Valley Water District, and Santa Clara County form the Santa Clara permittees under the MS4 permit. Provision C.3 of the Municipal Regional Permit (MRP) for New Development and Redevelopment allows the permittees to use their planning authorities to include appropriate source control, site design, and storm water treatment measures in new development and redevelopment projects to address both soluble and insoluble storm water runoff pollutant discharges and prevent increases in runoff flows from new development and redevelopment projects. The goal is to be accomplished primarily through the implementation of low impact development (LID) techniques.

12.3.2 State

Porter-Cologne Water Quality Control Act

The Porter-Cologne Water Quality Act (Water Code Sections 13000 et seq.) is the basic water quality control law for California. This Act established the SWRCB and divided the state into nine regional basins, each under the jurisdiction of a RWQCB. The Porter-Cologne Act also authorizes the SWRCB and RWQCBs to issue and enforce WDRs, NPDES permits, Section 401 water quality certifications, or other approvals.

Other State agencies with jurisdiction over water quality regulation in California include the California Department of Health Services (DHS) (for drinking water regulations), the California Department of Pesticide Regulation, and the Office of Environmental Health and Hazard Assessment.

State Water Resources Control Board

The SWRCB is the primary State agency responsible for the protection of California's water quality and groundwater supplies. The SWRCB is responsible for developing statewide water quality policy and exercises the powers delegated to the State by the federal government under the CWA. Construction activities that disturb one or more acres of land that could impact hydrologic resources must comply with the requirements of the SWRCB Construction General Permit (2009-0009-DWQ) as amended by 2010-0014-DWQ. Under the terms of the permit, applicants must file Permit Registration Documents (PRDs) with the SWRCB prior to the start of construction. The PRDs include a Notice of Intent (NOI), risk assessment, site map, Storm Water Pollution Prevention Plan (SWPPP), annual fee, and a signed certification statement. The PRDs are now submitted electronically to the SWRCB via the Storm Water Multiple Application and Report Tracking System (SMARTS) website.

Applicants must also demonstrate conformance with applicable best management practices (BMPs) and prepare a SWPPP, containing a site map that shows the construction site perimeter, existing and proposed buildings, lots, roadways, storm water collection and discharge points, general topography both before and after construction, and drainage patterns across the project locations prior to the start of construction. The SWPPP must list BMPs that would be implemented to prevent soil erosion and discharge of other construction-related pollutants that could contaminate nearby water resources. Additionally, the SWPPP must contain a visual monitoring program, a chemical monitoring program for nonvisible pollutants if there is a failure of the BMPs, and a sediment-monitoring plan if the site discharges directly to a water body listed on the 303(d) list for sediment. Some sites also require implementation of a Rain Event Action Plan (REAP). The updated Construction General Permit (2010-0014-DWQ), effective September 2, 2012, also requires applicants to comply with post-construction runoff reduction requirements.

Emergency Services Act

The Emergency Services Act, under California Government Code Section 8589.5(b), calls for public safety agencies whose jurisdiction contains populated areas below dams, to adopt emergency procedures for the evacuation and control of these areas in the event of a partial or total failure of the dam. The Governor's Office of Emergency Services (OES), formerly the California Emergency Management Agency (CalEMA), is responsible for the coordination of overall state agency response to major disasters and assisting local governments in their emergency preparedness, response, recovery, and hazard mitigation efforts. In addition, the Cal OES Dam Safety Program provides assistance and guidance to local jurisdictions on emergency planning for dam failure events and is also the designated repository of dam failure inundation maps.

Division of Safety of Dams

Since 1929, the State of California has supervised all non-federal dams in California through the Dam Safety Program under the jurisdiction of the Department of Water Resources, Division of Safety of Dams (DSOD). The DOSD came into existence as a direct result of the failure of St. Francis Dam in southern California in 1928, causing the deaths of more than 450 people.

The DSOD engineers and engineering geologists review and approve plans and specifications for the design of dams and oversee their construction to ensure compliance with the approved plans and specifications. Reviews include site geology, seismic setting, site investigations, construction material evaluation, dam stability, hydrology, hydraulics, and structural review of appurtenant structures. In addition, the DSOD engineers inspect over 1200 dams on a yearly schedule to ensure they are performing and being maintained in a safe manner.

12.3.3 Local

City of Cupertino General Plan

The City of Cupertino's General Plan, *Community Vision 2015–2040* (General Plan), as amended, includes policies related to hydrology and water quality in its Health and Safety Element. A list of the relevant General Plan polices and strategies are provided below. A General Plan Land Use Consistency Analysis for the Specific Plan is provided in [Chapter 13, Land Use and Planning, Table 13-1](#).

Policy ES-7.1: Natural Water Bodies and Drainage Systems

In public and private development, use Low Impact Development (LID) principles to manage stormwater by mimicking natural hydrology, minimizing grading, and protecting or restoring natural drainage systems.

Strategy ES-7.1.1: Public and Private Development Plans

Continue to require topographical information; identification of creeks, streams and drainage areas; and grading plans with development proposals.

Policy ES-7.2: Reduction of Impervious Surfaces

Minimize stormwater runoff and erosion impacts resulting from development and use Low Impact Development (LID) designs to treat stormwater or recharge groundwater.

Strategy ES-7.2.1: Lot Coverage

Consider updating lot coverage requirements to include paved surfaces such as driveways and on-grade impervious patios to incentivize the construction of pervious surfaces.

Strategy ES-7.2.2: Pervious Walkways and Driveways

Encourage the use of pervious materials for walkways and driveways. If used on public or quasi-public property, mobility and access for the disabled should take precedence.

Strategy ES-7.2.3: Maximize Infiltration

Minimize impervious surface areas, and maximize on-site filtration and the use of on-site retention facilities.

Policy ES-7.3: Pollution and Flow Impacts

Ensure that surface and groundwater quality impacts are reduced through development review and voluntary efforts.

Strategy ES-7.3.1: Development Review

Require LID designs such as vegetated stormwater treatment systems and green infrastructure to mitigate pollutant loads and flows.

Policy HS-7.2: Emergency Response to Dam Failure

Ensure that Cupertino is prepared to respond to a potential dam failure.

Strategy HS-7.2.1: Emergency and Evacuation Plan

Maintain and update a Stevens Creek Dam Failure Plan, including alert, warning and notification systems and appropriate signage.

Strategy HS-7.2.2: Inter-agency Cooperation

Continue to coordinate dam-related evacuation plans and alert/notification systems with the City of Sunnyvale and the County to ensure that traffic management between the agencies facilitates life safety. Also work with other neighboring cities to enhance communication and coordination during a dam related emergency.

Policy HS-7.4: Construction in Flood Plains

Continue to implement land use, zoning and building code regulations limiting new construction in the already urbanized flood hazard areas recognized by the Federal Flood Insurance Administrator.

No conflicts or inconsistencies with the General Plan polices and strategies have been identified.

Municipal Regional Storm Water NPDES Permit

As stated above, pursuant to Section 402 of the CWA and the Porter-Cologne Water Quality Control Act, municipal storm water discharges in the City of Cupertino is subject to the WDRs of the MS4 Permit (Order Number R2-2009-0074) and NPDES Permit Number CAS612008, as amended by Order Number R2-2011-0083.

Provision C.3 of the MRP addresses post-construction storm water management requirements for new development and redevelopment projects that add and/or replace 5,000 square feet or more of impervious area. Provision C.3 of the MRP also mandates that Cupertino require the incorporation of site design, source control, and storm water treatment measures into development projects, minimize the discharge of pollutants in storm water runoff and non-storm water discharge, and prevent increases in runoff flows. LID methods are the mechanisms for implementing such controls.

Provision C.3 of the MRP requires that storm water treatment BMPs be designed using the following hydraulic sizing criteria:

- Volume Hydraulic Design Basis: Treatment systems whose primary mode of action depends on volume capacity shall be designed to treat storm water runoff equal to: (a) The maximized storm water capture volume for the area, on the basis of historical rainfall records, determined using the formula and volume capture coefficients set forth in Urban Runoff Quality Management, Water Environment Federation Manual of Practice Number 23/American Society of Civil Engineers Manual of Practice Number 87, (1998), pages 175-178 (e.g. approximately the 85th percentile 24-hour storm runoff event); or (b) The volume of annual runoff required to achieve 80 percent or more capture, determined in accordance with the methodology set forth in Section 5 of the California Storm Water Quality Association (CASQA)'s Storm Water Best Management Practice Handbook, New Development and Redevelopment (2003) using local rainfall data;
- Flow Hydraulic Design Basis: Treatment systems whose primary mode of action depends on flow capacity shall be sized to treat: (a) 10 percent of the 50-year peak flow rate; (b) the flow of runoff produced by a rain event equal to at least two times the 85th percentile hourly rainfall intensity for the applicable area, based on historical records of hourly rainfall depths; or (c) the flow of runoff resulting from a rain event equal to an intensity of at least 0.2 inches per hour; and
- Combination Flow and Volume Design Basis: Treatment systems that use a combination of flow and volume capacity shall be sized to treat at least 80 percent of the total runoff over the life of the project, using local rainfall data.

Development projects must treat 100 percent of the calculated runoff (based on the sizing criteria described above) with LID treatment measures that include harvesting and reuse, infiltration, evapotranspiration, or biotreatment (biotreatment may only be used if the other options are infeasible). In addition, projects that create and/or replace 5,000 square feet or more of impervious surface for auto service facilities, retail gasoline outlets, restaurants, and/or surface parking lots are required to provide LID treatment of storm water runoff.

In order to comply with Provision C.3 of the MRP, project sponsors are required to submit a Storm Water Management Plan (SWMP) with building plans, to be reviewed and approved by the City of Cupertino Public Works Department, Environmental Programs Division. The SWMP must be prepared under the direction of a licensed and qualified professional.

City of Cupertino Municipal Code

Besides the General Plan, the City of Cupertino Municipal Code is the primary tool that guides development in the City. The City's Municipal Code identifies land use categories, site development regulations, and other general provisions that ensure consistency between the General Plan and proposed development projects. The Municipal Code contains all ordinances for the city. The Municipal Code is organized by Title, Chapter, and Section. The following chapters of the City of Cupertino's Municipal Code contain directives pertaining to hydrology and water quality issues:

- Chapter 3.36, Storm Drainage Service Charge, outlines the requirements for the payment of fees to conserve and protect the City's storm drainage system from the burden placed on it by the increasing flow of nonpoint source runoff and to otherwise meet the requirements developed by the Santa Clara Valley Non-Point Source Control and Storm Water Management Program established to comply with the CWA, California Environmental Protection Agency (CalEPA) regulations and the City's NPDES permits. The specific purpose of the storm drainage service charges is to derive revenue for the acquisition, construction, reconstruction, maintenance, and operation of the storm drainage system of the City to repay principal and interest on any bonds which may hereafter be issued for said purposes, to repay loans or advances which may hereafter be made for said purposes and for other related purposes. However, said revenue shall not be used for the acquisition or construction of new local street storm sewers or storm laterals as distinguished from main trunk, interceptor, and outfall storm sewers.
- Chapter 9.18, Storm Water Pollution Prevention and Watershed Protection, provides regulations and gives legal effect to the MRP issued to the City of Cupertino and ensures ongoing compliance with the most recent version of the City of Cupertino's NPDES permit regarding municipal storm water and urban runoff requirements. This chapter applies to all water entering the storm drain system generated on any private, public, developed, and undeveloped lands lying within the City. The code contains permit requirements for construction projects and new development or redevelopment projects to minimize the discharge of storm water runoff.
- Chapter 9.19, Water Resources Protection, requires property owners to obtain permits for any modifications to properties adjacent to a stream except when: 1) less than 3 cubic yards of earthwork is planned provided it does not damage, weaken, erode or reduce the effectiveness of the stream to withhold storm and flood waters; 2) a fence 6 feet or less in height; 3) an accessory structure 120 square feet or less in size; 4) interior or exterior modification within the existing footprint; or 5) landscaping on existing single-family lots.
- Chapter 14.15, Landscape Ordinance, implements the California Water Conservation in Landscaping Act of 2006 by establishing new water-efficient landscaping and irrigation requirements. In general, any building or landscape projects that involve more than 2,500 square feet of landscape area are required to submit a Landscape Project

Submittal to the Director of Community Development for approval. Existing and established landscapes over 1 acre, including cemeteries, are required to submit water budget calculations and audits of established landscapes.

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

Joint Stevens Creek Dam Failure Plan

The Joint Stevens Creek Dam Failure Plan was prepared by the Santa Clara County Fire Department for the City of Cupertino and passed and adopted by the City of Cupertino under Resolution Number 12-124 on October 16, 2012. The Joint Stevens Creek Dam Failure Plan was created pursuant to the Emergency Services Act. In accordance with the intent of the Emergency Services Act, future reviews and/or updates of this plan are to be undertaken every two years or as needed. The Santa Clara County Sheriff's Office, Santa Clara County Fire Department, as well as the Cupertino Disaster Council will review and update the Joint Stevens Creek Dam Failure Plan.

The Stevens Creek Dam and Reservoir is owned by the SCVWD, which is regulated by the DSOD. The SCVWD is required by the Emergency Services Act, Section 8589.5(b) and California Water Code, Division 3, Part 1, Chapter 2, Section 6002 to take all necessary actions to protect life and property in inundation areas and to provide inundation maps to OES.

The Joint Stevens Creek Dam Failure Plan addresses the potential failures (full or partial) of the Stevens Creek Dam and Reservoir that could impact the cities of Cupertino, Sunnyvale, Mountain View and Los Altos. The plan is designed to:

- Provide guidelines to the cities of Cupertino, Sunnyvale, Los Altos and Mountain View, affected public and private agencies, special districts, non-governmental organizations, and mutual aid emergency organizations in the event of a potential or imminent/actual failure of the dam;
- Assign planning and functional responsibilities;
- Outline public notification and information strategies;
- Identify resources to ensure a swift, coordinated response; and
- Outline recovery strategies for psychological and physical health effects, repairing infrastructure, debris removal, and rebuilding.

12.4 Impacts and Environmental Design Features

12.4.1 Significance Criteria

The following significance criteria for land use planning were derived from the Environmental Checklist in the State CEQA Guidelines Appendix G. These significance criteria have been amended or supplemented, as appropriate, to address the City of Cupertino requirements and the full range of potential impacts related to implementation of the Specific Plan.

An impact of the Specific Plan would be considered significant and would require mitigation if it met one of the following criteria.

- Violate any water quality standards or waste discharge requirements;
- Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level;
- Result in substantial erosion or sedimentation on or off-site that would affect the quality of the receiving water;
- Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner, which would result in flooding on- or off-site;
- Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems and/or increase upstream or downstream flooding and require or result in the construction of new stormwater drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects;
- Otherwise substantially degrade water quality;
- Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map;
- Place within a 100-year flood hazard area structures which would impede or redirect flood flows;
- Expose people or structures to a significant risk of loss, injury or death involving flooding; including flooding as a result of the failure of a levee or dam; or
- Be subject to inundation by seiche, tsunami, extreme high tides, and/or sea level rise.

Based on the Specific Plan characteristics and the water resources in the Plan Area, no impacts are anticipated with respect to the following topics:

- Placement of Housing within a 100-year Flood Hazard Area or place structures which would impede or redirect flood flows within a 100-year flood hazard area. The Plan Area

is not located within a flood zone subject to the 100-year flood. Therefore, there is no impact related to placement of housing with a 100-year flood hazard area.

- Inundation by Seiche, Tsunami, High Tides and/or Sea Level Rise. The Plan Area is located approximately six miles south of the San Francisco Bay shoreline. The Plan Area is not mapped within the Santa Clara County Tsunami Inundation Map. Therefore, there would be no risk associated with tsunamis, which are large sea waves. Seiches are standing waves caused by large-scale, short-duration phenomena (e.g., wind or atmospheric variations or seismic activity) that result from the oscillation of confined bodies of water (such as reservoirs and lakes) that may damage low-lying adjacent areas as a result of changes in the surface water elevation. The Plan Area would not be subject to a seiche, because there are no reservoirs or lakes near the Plan Area. In summary, there would be no impact related to exposure of people or structures to significant risk of loss, injury, or death involving seiche, or tsunami. The Plan Area is relatively flat, with elevation ranging from approximately 195 feet to 170 feet. Given the gentle slope of the Plan Area, there are no risks associated with landslide-induced mudflows.

12.4.2 Methodology

The effect of implementation of the Specific Plan related to water quality degradation, alteration of drainage patterns, and stormwater drainage during construction and post-construction are evaluated. Potential effects on groundwater depletion and interference with groundwater recharge are also addressed.

12.4.3 Impacts of the Proposed Specific Plan

Impact HWQ-1: Would implementation of the Specific Plan violate any water quality standards or waste discharge requirements or otherwise substantially degrade water quality?

Construction. Implementation of the Specific Plan would include demolition of the existing buildings and replacement with new commercial, hotel, and residential buildings, a Community Park and Nature Area, public spaces, surface parking and parking structures as well as associated drainage improvements and infrastructure. Excavation and stockpiling of soil during construction may be required as well as placement of imported fills. Without proper controls, these construction activities could induce erosion, and related sedimentation, resulting in degradation of water quality in the existing storm drain system or the nearby Calabazas Creek channel. Construction activities may also require the discharge of groundwater produced during excavation dewatering and the use of hazardous materials, each of which could degrade water quality.

Future development under the Specific Plan would be required to obtain grading permits and improvement plans from the City of Cupertino, and comply with the Construction General Stormwater Permit described above, because more than one acre of land would be disturbed. In accordance with the City's grading permit requirements, future development under the guidance of the Specific Plan would require the preparation of a site plan and grading plan as

well as an erosion and sediment control plan. Erosion control measures could include methods such as silt fences, fiber rolls, erosion control blankets, seeding, filter berms, check dams, and retention basins. The City would not issue a grading permit until the site plan, grading plan, and final erosion and sediment control plans are approved.

As to the preparation of the SWPPP, the sediment risk for the Plan Area would depend on the expected intensity of rainfall during the construction period, soil erodibility, and slope of the construction site which cannot be determined at this time. Therefore, the construction site would be considered a Level 1 risk site if the sediment risk is low and a Level 2 risk site if the sediment risk is medium or high based on the definitions provided in the SWRCB General Permit. Accordingly:

- A SWPPP would be implemented and include at least minimum BMPs related to: housekeeping (storage of construction materials, waste management, vehicle storage and maintenance, landscape materials, pollutant control); non-stormwater management; erosion control; sediment control; and run-on - run-off control. Additional requirements apply to Risk Level 2 sites, including the preparation of a Rain Event Action Plan prior to any likely precipitation event to identify construction activities and trades underway at the time, suggested actions for each phase, and appropriate contact information for the Trade Contractor, Site Stormwater Manager, Erosion and Sediment Control provider, and Storm Water Sampling Agent. At sites where traditional erosion and sediment controls do not effectively control accelerated erosion, and stormwater discharges may contribute to an exceedance of a water quality standard, it may be necessary to use an Active Treatment System to avoid impacts to water quality.
- The SWPPP would include BMPs for excavation dewatering discharges, including ways to impound the water, as necessary, to settle out solids before discharging.
- Stormwater discharges and authorized non-stormwater discharges associated with all risk levels cannot contain hazardous substances above reportable quantities unless a separate NPDES permit has been issued for those discharges. Dischargers are required to minimize or prevent pollutants in stormwater discharges and authorized non-stormwater discharges through the use of controls, structures, and implementation of BMPs. Risk Level 2 dischargers are also subject to a pH Numeric Action Level (NAL) of 6.5 to 8.5 and a turbidity NAL of 250 NTU.
- The discharger must implement a construction site monitoring program as part of the SWPPP to demonstrate compliance with the discharge prohibitions of the Construction Stormwater General Permit; demonstrate whether non-visible pollutants are present and could contribute to an exceedance of water quality objectives; identify the need for correction actions, additional BMPs, or SWPPP revisions; and evaluate the effectiveness of the existing BMPs. For all risk levels, visual inspection requirements include a baseline inspection of the stormwater BMPs before a rain event, daily inspections during a rain event, and post-storm inspection as well as a quarterly inspection. If the daily inspection

identifies a condition that could result in a discharge of pollutants, a sample must be collected and analyzed for non-visible pollutant parameters identified in the SWPPP. Risk level 2 and 3 sites would also be required to collect grab samples of any stormwater discharges to determine compliance with NALs of 6.5 to 8.5 for pH and 250 NTU for turbidity. Dischargers would immediately implement additional BMPs and revise the SWPPP if NALs are exceeded.

The Construction General Stormwater Permit is implemented and enforced by the San Francisco Bay RWQCB, which administers the stormwater permitting program for the program area. Dischargers would be required to submit a notice of intent (NOI) and permit registration documents (PRDs) in order to obtain coverage under this Construction General Stormwater Permit. Dischargers would be responsible for notifying the relevant RWQCB of violations or incidents of non-compliance, as well as for submitting annual reports identifying deficiencies of the BMPs and how the deficiencies were corrected.

Compliance with the City's grading permit and Construction General Stormwater Permit would: (1) restrict non-stormwater discharges from the construction site; (2) require use of BMPs to restrict soil erosion and sedimentation as well as releases of hazardous materials; and (3) require implementation of a construction site monitoring program to demonstrate compliance with permit requirements. Compliance with these requirements would ensure that construction activities do not result in a violation of water quality standards or waste discharge requirements, or otherwise result in water quality degradation. Therefore, this potential impact would be less than significant during construction.

Operation. Implementation of the Specific Plan would not violate any water quality standards or otherwise result in water quality degradation during operation because stormwater runoff from the Plan Area would be managed consistent with the provisions of the San Francisco Bay Municipal Regional Stormwater NPDES permit described above. Storm water requirements mandate treating 100% of the storm water runoff with low impact development (LID) measures. These measures include rainwater harvesting, re-use, infiltration, and biotreatment.

The provisions of this permit require new development projects to incorporate LID measures to reduce the amount of pollutants washing off the site and to maintain pre-development surface water runoff rates. The Specific Plan proposes to replace the existing approximately 58 acres of primarily impervious surface with an approximately 30-acre Community Park and Nature Area.

Rainwater falling on the Community Park and Nature Area would be cleansed through LID water measures including infiltration into soil, biofiltration swales, and water collection cisterns, and collected and used on site for irrigation to reduce the domestic water dependency. By collecting storm water in this manner, development under the Specific Plan will exceed statutory stormwater requirements and LEED requirements. These measures will substantially reduce the stormwater runoff over existing conditions.

Rain that falls on the ground level would be treated and reused to the fullest extent possible, and would depend upon the irrigation demand requirements. A combination of flow-through planters, bioretention planters and rainwater cisterns would treat the water from these areas. Bio-treatment would be used as a pretreatment for some of the rainwater and for areas where harvesting is technically infeasible. **Figure 12-1: Stormwater Management Plan** shows how rainwater would be treated within the Town Center/Community Park area.

Block 14 currently serves as a surface parking lot almost entirely paved with the exception of the some trees planted within the parking areas and along the perimeter. Future development of Block 14 would be required to comply with the same RWQCB General Permit during construction and implement LID measures for rainwater harvesting, re-use, infiltration, and biotreatment as other development with the Plan Area. As such, although no development has yet been proposed, compliance with these stormwater requirements for development on Block 14 are likely to reduce potential impacts on water quality to less than significant.

Development of Block 13 has been previously approved for development of a hotel and pre- and post-construction water quality control measures have been required as conditions of approval. These conditions include the preparation of a SWPPP and post construction stormwater management control plan to capture and treat stormwater runoff. Potential impacts on water quality as result of development on this site are considered less than significant.

Impact HWQ-2: Would implementation of the Specific Plan substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level?

Implementation of the Specific Plan would not result in pumping of groundwater on site for water supply. The California Water Service Company (Cal Water) is the municipal water utilities provider for the Los Altos Suburban (LAS) District of the City Cupertino where the Plan Area is located. Water supply for the LAS District is a combination of groundwater from wells in the District and treated water purchased from the Santa Clara Valley Water District (SCVWD). Approximately 32 percent of supply comes from groundwater production and 68 percent from SCVWD. The project is consistent with the City's Urban Water Management Plan. An evaluation of water supply is discussed in Chapter 18.

Although groundwater dewatering could be required during construction from grading and excavation activities, these activities would only result in a temporary effect on the local uppermost water-bearing zones in proximity to near surface excavations. Further, the reduction in impervious surfaces within the Plan Area would be expected to increase infiltration of precipitation, producing a net benefit to groundwater recharge. Therefore, potential impacts to groundwater supplies would be less than significant.

Impact HWQ-3: Would implementation of the Specific Plan result in substantial erosion or sedimentation on or off-site that would affect the quality of the receiving water?

Currently, surface water runoff onsite is either conveyed to the existing storm drain system or infiltrates into the ground where pervious surfaces exist. Replacement of impervious surfaces could increase the rate, duration, and quantity of stormwater runoff, potentially causing erosion and related water quality effects or flooding in the receiving water. Under current conditions the Mall has approximately four acres of pervious area and 48 acres of impervious areas. Implementation of the Specific Plan would result in a net reduction of approximately 30 acres or 57% of impervious surfaces within the existing shopping mall (the Mall). Specifically, the Specific Plan's proposed Community Park and Nature Area and landscaped areas would total approximately 34 acres of green roof and pervious area to collect and treat stormwater runoff.⁷ Stormwater runoff from the approximately 18 acres of impervious surfaces (driveways, parking areas, building rooftops not covered by the Community Park and Nature Area) would be infiltrated to the groundwater through various bioretention areas, or collected in rainwater cisterns for harvesting and reuse (watering landscaped areas).

With the approximately 30-acre reduction in impervious surfaces, post-construction runoff volumes would be substantially less than under existing conditions. While this would alter drainage patterns from existing conditions, it would result in an improvement over existing conditions. This is due to the reduction in stormwater runoff as a result of an increase in onsite stormwater capture and infiltration. This would result in a decrease in associated offsite erosion, sedimentation, or potential flooding. Therefore, implementation of the Specific Plan would result in a beneficial impact related to surface water quality and the receiving waters (Calabazas Creek and Gualdalupe Slough).

Future development on Block 14 would be required to implement similar stormwater control measures that would reduce existing impervious surfaces, and capture and treat stormwater runoff. This parcel is currently a paved parking lot almost entirely covered in impervious surface area. Future development of the site would require an increase in the amount of pervious surface area through landscaping that may include landscaping treatments such as biofiltration planters and cisterns to control and treat stormwater runoff similar to the other areas of the Specific Plan. As such, development of Block 14 would not substantially increase impervious surface area, alter the existing drainage pattern, or result in downstream erosion, sedimentation, or flooding that would adversely affect receiving water bodies. Potential impacts are considered less than significant.

As previously discussed, development of Block 13 has been previously approved for development of a hotel and pre- and post-construction water quality control measures have been required as conditions of approval. These conditions include the preparation of a SWPPP

⁷ For purposes of clarity, the green roof contains elements of both pervious and impervious surfaces. Consistent with the *Stormwater Runoff Calculations* report prepared for the Town Center/Community Park area, the green roof is not considered an impervious surface. However, it is analyzed as having the same runoff coefficient as a pervious landscaped area, because the landscaping on the green roof will capture and infiltrate some water.

and post construction stormwater management control plan to capture and treat stormwater runoff. In addition, the hotel development would be required to implement all applicable and mandatory BMPs during construction and operation in accordance with the City of Cupertino C.3 requirements. Potential impacts to downstream erosion, sedimentation, or flooding on receiving water bodies as result of development on this site are considered less than significant.

Furthermore, the Plan Area does not include any existing streams or water courses that could be altered or diverted. Therefore, there would be no impact related to alteration of drainage patterns by altering the course of a stream.

Impact HWQ-4: Would implementation of the Specific Plan create or contribute runoff water that would exceed the capacity of existing or planned stormwater drainage systems and/or increase upstream or downstream flooding and require or result in the construction of new stormwater drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects.

Currently there are approximately 48 acres of impervious surfaces within the Mall of the Specific Plan. As noted above, implementation of the Specific Plan's Community Park and Nature Area and landscaped areas would total approximately 34 acres of green roof and pervious area to collect and treat nearly 100% of future stormwater runoff within the Town Center/Community Park. The reduction of impervious surfaces would result in a reduction of stormwater runoff from the Plan Area. With the reduction of impervious surface and new infiltration areas, discharges to the storm drain system would be significantly reduced and therefore stormwater discharges would not exceed the capacity of an existing or planned stormwater drainage system and would not result in flooding upstream or downstream of the Plan Area.

Implementation of the Specific Plan would minimize impervious surfaces and associated stormwater runoff by covering the majority of the Plan Area with the Community Park and Nature Area which would be designed to retain and self-treat stormwater runoff and harvest rain water for future use. Where practical areas not included under the Community Park and Nature Area would have stormwater collected in biofiltration swales where water would percolate into the ground. Stormwater would also be collected in underground cisterns where the water would be treated and harvested for future irrigation needs within the Plan Area.

Furthermore, implementation of the Specific Plan would be required to use sustainable landscape practices and design to minimize runoff and the use of pesticides and fertilizers in compliance with the City's BMPs. With the reduction in impervious surfaces and implementation of LID stormwater treatment features in accordance with Provision C.3 of the Municipal Regional Stormwater Permit, potential impacts related to exceeding the capacity of an existing or planned storm drain system or providing an additional source of polluted stormwater runoff would be less than significant.

The environmental documentation for the approved hotel development on Block 13 determined that impacts would be less than significant because the proposed hotel development would reduce the amount of impervious surface (the property is currently a paved parking lot) and would also include a bio-retention basin to collect stormwater runoff for infiltration and treatment prior to discharge to the storm drain system. Future development on Block 13 would result in less stormwater entering the storm drain system compared to existing conditions.

Similar to Block 13, the approximately 5.2 acre Block 14 property is also a parking lot that is almost entirely a paved surface with some interspersed pervious areas located around the trees planted on the parking lot. While no development is currently proposed on this property, any future development on this property would be required to implement LID surface water treatments to ensure that the amount of surface water runoff does not exceed current conditions in accordance with City of Cupertino C.3 requirements. Therefore, potential impacts are considered less than significant.

Impact HWQ-5: Would implementation of the Specific Plan expose people or structures to a significant risk of loss, injury, or death involving flooding, including flooding as a result of the failure of a levee or dam?

The Plan Area is located outside of the Stevens Creek dam inundation zone. Based on the inundation maps of the Joint Stevens Creek Dam Failure Plan, the Plan Area is located to the south of the nearest inundation area which stops along the north side of Interstate 280 and west of Wolfe Road. The depth of inundation in this area is anticipated to be less than six inches. As such, implementation of the Specific Plan would not expose people or structures to a significant risk of loss, injury, or death from flooding as a result of a failure of a levee or dam because the Plan Area is at a base elevation that is higher than the inundation zone. Potential impacts are considered less than significant.

With regard to transportation impacts such as car or bicycle use during wet conditions, future roads, bike lanes, and bike paths would be developed to meet the design requirements of the California Department of Transportation (Caltrans) Highway Design Manual or the American Association of State Highway and Transportation Officials (AASHTO) design guidelines. These design guidelines recommend the appropriate cross-slope (typically 2% to meet Americans with Disability Act (ADA) requirements) for streets and bike paths as well as recommendations for the best surface materials to minimize slick surfaces.⁸ Future bike paths constructed as development under the Specific Plan is constructed would be subject to City review and approval prior to construction. Therefore, potential impacts to roadways and bike paths are result of flooding or wet surfaces is considered less than significant.

⁸ Santa Clara Valley Transportation Agency, 2012. Bicycle Technical Guidelines, Revision 2. December

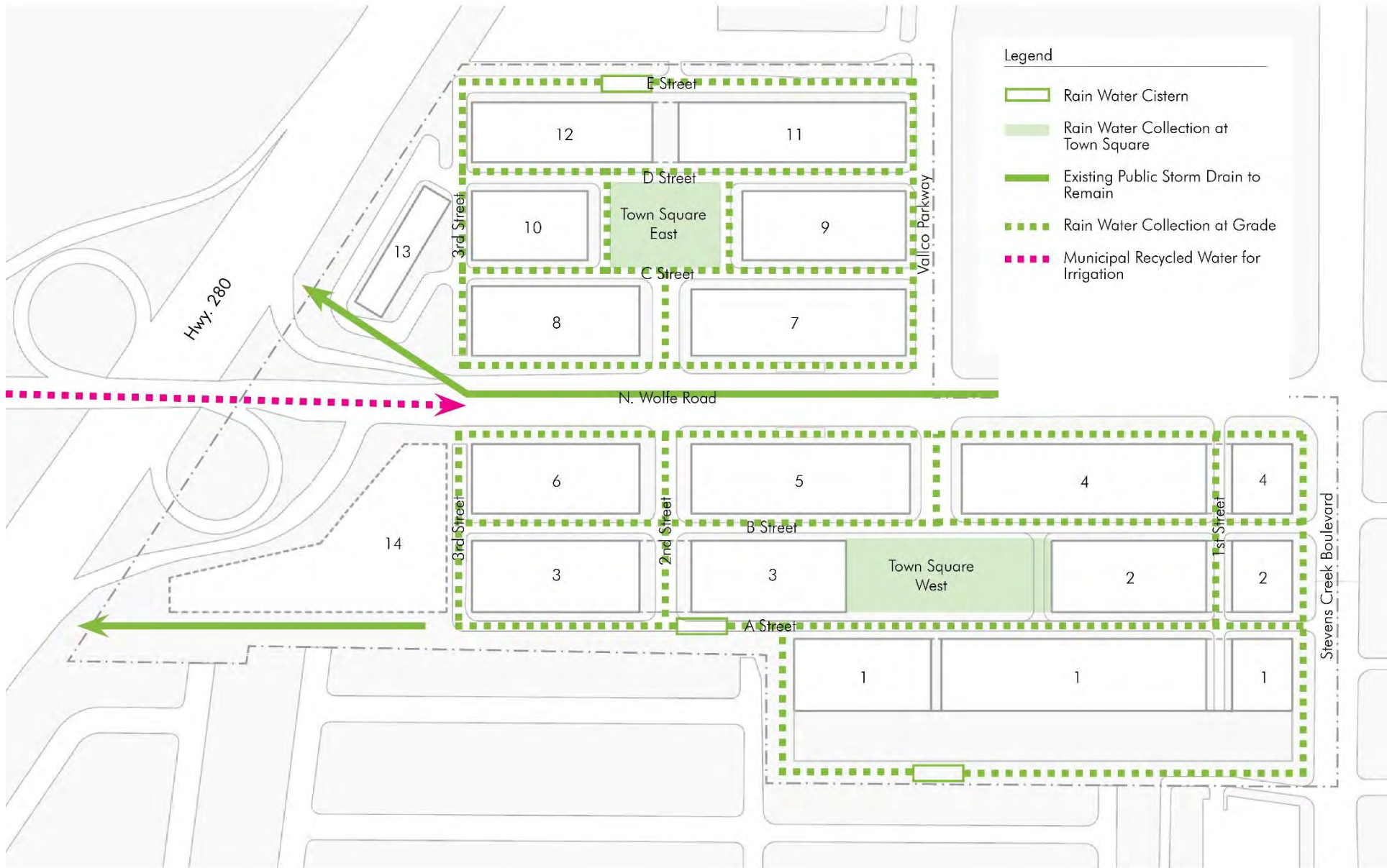
12.4.4 Cumulative Impact Analysis

Impact HWQ-6: Would implementation of the Specific Plan, in combination with past, present, and reasonably foreseeable projects, result in significant cumulative impacts with respect to hydrology and water quality?

Construction of uses pursuant to implementation of the Specific Plan, in combination with construction of other development projects in the 14-square-mile Calabazas Creek watershed, could increase erosion and sedimentation and degrade storm water runoff quality during the construction period (i.e., when grading and excavations occur during the wet season). Implementation of existing regulatory requirements, including preparation and implementation of Stormwater Pollution Prevention Plans would be incorporated into Specific Plan approvals and are required under current NPDES regulations. These measures would reduce potential construction-period cumulative impacts to a less than cumulative considerable level. Implementation of the Specific Plan would substantially reduce impervious surfaces within an area that currently contains little pervious surfaces. The provision of additional pervious surfaces within the Specific Plan would result in a beneficial impact to stormwater runoff quality and quantity with development under the Specific Plan. In addition, uses constructed pursuant to implementation of the Specific Plan would be required to implement operational BMPs to further improve the quality of runoff associated with future development. Therefore, implementation of the Specific Plan would have a cumulatively beneficial impact on hydrology and water quality, and would not make a significant contribution to adverse hydrology and water quality impacts.

12.5 References

- California Emergency Management Agency. 2009. *Tsunami Inundation Map for Emergency Planning*. July.
- Sandis. 2016. *Stormwater Runoff Calculations for Town Center/Community Park*. January.
- Santa Clara County Fire Department. 2012. *Joint Stevens Creek Dam Failure Plan*. October.



Source: RVA, 2016

Figure 12-1: Conceptual Stormwater Management Plan

Vallco Town Center Specific Plan
 Environmental Assessment



Not to scale

Kimley»Horn

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13 Land Use and Planning

13.1 Introduction

This chapter describes the existing setting of the Plan Area as it relates to land use and planning; identifies applicable regulatory requirements; and evaluates potential impacts related to land use and planning upon implementation of the Specific Plan.

Information used to prepare this chapter came from the following resources:

- City of Cupertino General Plan, *Community Vision 2015–2040*, 2015, as amended.
- PlaceWorks. 2014. *General Plan Amendment, Housing Element Update, and associated Rezoning Project Draft Environmental Impact Report*. State Clearinghouse No. 2014032007. Final EIR certified December 4, 2014.
- PlaceWorks. 2014. Hyatt House Hotel at Vallco Park Project Initial Study. State Clearinghouse No. 2014082055.
- Kimley-Horn and Associates. 2016. *Vallco Town Center Specific Plan*.

13.2 Environmental Setting

The following is a description of existing land uses within the Plan Area, and land uses in the surrounding area.

13.2.1 Environmental Setting

Existing Land Uses

Land uses within and surrounding the Plan Area are shown on the aerial photograph presented in [Chapter 1, Project Description](#) (see [Figure 3-1: Specific Plan Location](#)). The approximately 58-acre Plan Area is located in the northeastern portion of the City of Cupertino, south of Interstate 280 (I-280). The Plan Area includes three properties under separate ownership: the existing shopping mall (the Mall) (approximately 51 acres), Block 13 (approximately 2 acres), and Block 14 (approximately 5 acres).

The Mall property (proposed for redevelopment) is developed with an existing 1,207,774-square-foot (sf) shopping mall structure, various related satellite buildings, and surface and structured parking. The site is bisected by Wolfe Road. The eastern portion of the property is generally bound on the north and east by Perimeter Road (Perimeter Road is within the boundaries of the Plan Area); to the south by Vallco Parkway; and to the west by Wolfe Road. It is developed with an ice skating rink, bowling alley, and one major retail anchor store, mall retail shops, a food court, a satellite restaurant building, a parking structure, and surface parking lots. An existing pedestrian bridge connects the shopping mall buildings on the east and west sides of Wolfe Road. The bridge is enclosed and includes retail shops on either side of a pedestrian walkway.

West of Wolfe Road, the Mall property is bound on the north and west by Perimeter Road; to the south by Stevens Creek Boulevard; and to the east by Wolfe Road. It is developed with several buildings: a primary mall building which connects two former anchor stores, a fitness gym (a satellite building that was formerly an auto center), a satellite restaurant building, three parking structures, and surface parking lots.

The approximately 5-acre Block 14 property is a paved surface parking lot located west of Wolfe Road, generally between the I-280/Wolfe Road interchange to the north and Perimeter Road and the Mall property to the south.

The approximately 2-acre Block 13 property is also an existing parking lot that has been approved by the City of Cupertino for the development of a 148-room business class hotel. The triangular-shaped property is located east of Wolfe Road and is generally bound by I-280 to the north and west; the on-ramp to I-280 to the west; and Perimeter Road and the Mall property to the south.

13.2.2 Surrounding Land Uses

As previously noted, the Plan Area is in the northeast portion of the City of Cupertino generally between I-280 to the north and State Route 85 (SR-85) to the west. The area east of SR-85 can be characterized by smaller-lot residential buildings, schools and junior college campus, commercial and industrial centers, and major high-tech and corporate facilities. While most of the City is dominated by single-family development, multi-story, mixed-use developments are more prominent along the City's major arterials and near highways. In particular, the more urban, higher-density development in the City is located near the Steven Creek Boulevard/De Anza Boulevard and Stevens Creek Boulevard/Wolfe Road intersections.

The following summarizes land uses in the vicinity of the Plan Area. The Mall site is generally bound by the land uses east and west of Wolfe Road listed below.

East of Wolfe Road

- **To the North:** Perimeter Road; Block 13; I-280
- **To the East:** Perimeter Road; Apple corporate offices
- **To the South:** Multi-story apartment complex; office buildings and retail uses south of the apartments
- **To the West:** Wolfe Road; the Mall

West of Wolfe Road

- **To the North:** Perimeter Road; Block 14; I-280
- **To the East:** Wolfe Road; the Mall
- **To the South:** Stevens Creek Boulevard; neighbor shopping centers
- **To the West:** Perimeter Road; single-family residences

13.3 Applicable Regulations, Plans, and Standards

Local

Cupertino General Plan: Community Vision 2015–2040

The City of Cupertino’s General Plan, *Community Vision 2015-2040* (General Plan) was adopted on December 4, 2014. On May 19, 2015, the City Council adopted an updated Housing Element, and the City Council adopted minor amendments to the language of the General Plan on October 20, 2015, including a change in the name of the document to “*General Plan: Community Vision 2015–2040*”. The Land Use and Community Design Element of the General Plan includes goals, policies, and strategies that provide direction on land use and design principles to shape future change in the City. Each of the other General Plan Elements support the land use and design assumptions in the Land Use and Community Design Element.

The General Plan organizes the City into 21 distinct “Planning Areas”, inclusive of nine “Special Areas” and twelve “Neighborhoods.” Special Areas are those areas expected to transition over the life of the General Plan and Neighborhoods are where future changes are expected to be minimal. The boundary of the Plan Area is conterminous with the boundary of the Vallco Shopping District Special Area. The adopted General Plan goals, policies, and strategies include those specific to the Vallco Shopping District Special Area. The City’s General Plan calls for a complete revitalization of the Mall site into a “vibrant mixed-use town center” that would be a focal point for regional visitors and the community. The Vallco Shopping District Special Area would become a destination for shopping, dining, and entertainment in the City.

The Plan Area, inclusive of the three properties, has a General Plan land use designation of *Commercial/Office/Residential* (see [Figure 3-3: General Plan Land Use Map](#), in [Chapter 3: Project Description](#)). This designation applies to mixed-use areas that are predominantly commercial and office uses. Supporting residential uses may be allowed to offset job growth, better balance the citywide jobs to housing ratio and when they are compatible with the primarily non-residential character of the area. Development, both residential and non-residential, is subject to the numerical caps and other policies in the City’s General Plan.

Land Use Strategy LU-19.1.4 states that Figure LU-1 outlines the residential densities and criteria for the Vallco Shopping District Special Area; Figure LU-1 identifies a residential density of 35 dwelling units per acre. Table LU-1 of the Land Use and Community Design Element provides a buildout development allocation for the Vallco Shopping District Special Area: 1,207,774 sf of commercial uses (with a minimum of 600,000 sf of retail uses, of which a maximum of 30 percent may be entertainment uses); 2.0 million sf office uses, 339 hotel rooms; and 389 residential dwelling units, provided that a specific plan for the Vallco Shopping District Special Area is adopted by May 31, 2018. With respect to commercial uses, the 1.2 million sf would be a zero net increase because the Mall is currently developed with 1.2 million sf of commercial uses.

The existing General Plan also designates the Plan Area as a Priority Housing Site (Site A2). The Housing Element allows 389 housing units “by right” with up to 35 dwelling units per acre in the

Plan Area. Pursuant to General Plan Strategy LU-1.2.1, development allocations may be transferred between General Plan Planning Areas, provided no significant environmental impacts are identified beyond those already analyzed in the Cupertino General Plan 2040 EIR (SCH# 2014032007).¹ The Cupertino General Plan 2040 EIR analyzed the development of up to 800 residential dwelling units in the Plan Area. The General Plan identifies a citywide available allocation of 1,882 dwelling units. General Plan Strategy LU-1.4.1 provides that a Conditional Use Permit is required for mixed-use sites identified in the Housing Element that propose residential units above the allocation in the Housing Element, and on non-Housing Element mixed-use sites.

If approved by the Cupertino voters, the Vallco Town Center Specific Plan Initiative includes the following amendments to the General Plan to:

- Require that the Plan Area contain a mixture of uses, including residential, office, retail, civic and education;
- Require that the Town Center provide transportation and transit infrastructure, a publicly accessible green roof, and extend recycled water infrastructure to the Plan Area;
- Clarify existing policies to allow additional parcelization within the Plan Area if there are protective measures that provide incentives and guidelines for cooperation among owners; and
- Adopt a Land Use Map to re-designate the Plan Area from Commercial/Office/Residential to Vallco Town Center Specific Plan (as shown in Specific Plan [Figure 3-3b: General Plan Land Use Map as Amended by Initiative](#)), and add a definition to the General Plan for this new land use category.

City of Cupertino Municipal Code

The City of Cupertino Municipal Code contains all ordinances for the City. The Municipal Code is organized by Title, Chapter, and Section. Title 19, Zoning, of the Municipal Code, establishes the comprehensive zoning regulations for the City which includes the zoning map and the regulations governing the use of land. It is intended, among other purposes, to assure the orderly and beneficial development of the City, attain a desirable balance of residential and employment opportunities, and promote efficient urban design and arrangement.

The Plan Area is currently zoned “P (*Regional Shopping*) – *Planned Development Regional Shopping* north of Vallco Parkway, and P(*CG*) – *Planned Development General Commercial* south of Vallco Parkway (west of Wolfe Road) (see [Figure 3-3: Zoning](#), in [Chapter 3, Project Description](#)). Municipal Code, Chapter 19.80.010, Purpose, states that the Planned Development (P) zoning district is intended to provide a means of guiding land development or redevelopment of the City that is uniquely suited for planned coordination of land uses and to

¹ Cupertino’s General Plan 2040 Environmental Impact Report analyzed the development of up to 1.2 million square feet of commercial uses, 2.0 million square feet of office uses, 339 hotel rooms, and 800 residential dwelling units within the Vallco Shopping District Special Area.

provide for a greater flexibility of land use intensity and design because of accessibility, ownership patterns, topographical considerations, and community design objectives. This zoning district is specifically intended to encourage variety in the development pattern of the community; to promote a more desirable living environment; to encourage creative approaches in land development; to provide a means of reducing the amount of improvements required in development through better design and land planning, to conserve natural features, to facilitate a more aesthetic and efficient use of open spaces, and to encourage the creation of public or private common open space.

The current General Plan contemplates that the Plan Area would be rezoned to implement the mixed-use vision of the General Plan. (General Plan, HE Policy 1.3, Strategy 1.)

If approved by the Cupertino voters, the Vallco Town Center Specific Plan Initiative includes amendments to the Municipal Code and Zoning Map to: (1) change the text to reflect the new zoning district of Vallco Town Center Specific Plan; (2) clarify the conditional use permit approval process when increasing residential units within the Vallco Town Center Specific Plan; (3) exclude the Plan Area from the Code's broader specific plan planned zoning district designation; and (4) amend the Zoning Map to show the Plan Area as zoned (Vallco Town Center Specific Plan, as shown in [Figure 3-4b: Zoning as Amended by Initiative](#)), and add a definition to the General Plan for this new land use category.

13.4 Impacts and Environmental Design Features

Significance Criteria

The following significance criteria for land use planning were derived from the Environmental Checklist in the State CEQA Guidelines Appendix G. These significance criteria have been amended or supplemented, as appropriate, to address the City of Cupertino requirements and the full range of potential impacts related to implementation of the Specific Plan. An impact of the Specific Plan would be considered significant and would require compliance with the Environmental Design Features (EDFs) if it met one of the following criteria.

- a) Physically divide an established community.
- b) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the General Plan, Specific Plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect.
- c) Conflict with any applicable habitat conservation plan or natural community conservation plan.

Summary of Impact Assessment

Divide an Established Community (Threshold a)

The Specific Plan would not physically divide an established community. Please refer to the following analysis. One of the objectives of the Specific Plan is to create an innovative, active, and connected gathering place with vitality in design that integrates and encourages walking and cycling and that is compatible with, and complementary to, recent well-designed districts proximate to the Plan Area.

Land Use Plans and Policies (Threshold b)

The Specific Plan is consistent with applicable goals, policies, and strategies of the City of Cupertino General Plan. Please refer to the analysis provided in [Table 13-1: City of Cupertino General Plan Consistency Analysis](#), at the end of this chapter of the Environmental Assessment (EA).

Habitat Conservation Plans (Threshold c)

The City of Cupertino General Plan identifies that the entirety of the City is located adjacent to, but outside of, the boundaries of the Santa Clara Valley Habitat Conservation Plan/Natural Community Conservation Plan (HCP/NCCP) (Conservation Plan). Therefore, the Plan Area is not covered by the Conservation Plan. No impact would occur and no further discussion of this topic is provided in this chapter. Please refer to [Chapter 6, Air Quality](#), and [Chapter 7, Biological Resources](#), which address the Conservation Plan's Nitrogen Deposition Fee. Although the Plan Area is not included in the Conservation Plan area and the Specific Plan would not result in a significant nitrogen oxide impact, the Town Center/Community Park applicant(s) is voluntarily paying the fee.

Impacts of the Proposed Specific Plan

Impact LU-1: Would implementation of the Specific Plan physically divide an established community?

The Specific Plan could have a significant environmental impact if it were sufficiently large or otherwise configured in such a way as to create a physical barrier or other physical division within an established community. For example, the construction of a highway through an existing community could constrain travel from one side of the community to another, as well as the cohesiveness of that community.

The approximately 58-acre Plan Area is currently developed or planned for development. The approximately 51-acre Mall property is currently developed with retail and entertainment uses and dining establishments. The approximately 5-acre Block 14 property is currently a paved surface parking lot and has been identified as a possible location for a future parking lot or hotel, or as right-of-way for a direct southbound ramp connection from I-280 into the Plan Area. However, no project applications have been submitted and no development is proposed for this property at this time. The approximately 2-acre Block 13 property has been approved

by the City of Cupertino for the development of a 5-story, 148-room hotel. No significant land uses impacts were identified in the Initial Study/ Mitigated Negative Declaration (IS/MND) prepared for the hotel development (PlaceWorks, 2014).

The Plan Area is bordered by roads and I-280 on all sides and is bisected north-to-south by Wolfe Road. The reuse of the property as a mixed-use development with commercial, office, residential, entertainment, hotel, public/civic, and parks and open space uses would not divide the community. No physical barriers would be created. The Plan Area is contiguous to existing land uses, and roads through the site would continue to provide connections to existing land uses in the vicinity. One of the features of the Specific Plan is the establishment of a small block, grid street network aligned with the adjacent roadways and connections to area-wide bikeways. Smaller blocks foster a pedestrian-oriented scale of development. No impacts would occur.

Impact LU-2: Would implementation of the Specific Plan conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the Specific Plan (including, but not limited to the general plan, specific plan, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?

The Specific Plan has been proposed to implement the City's vision for the Vallco Shopping District Special Area. Chapter 2, Planning Areas, of the General Plan states:

The City envisions this area as a new mixed-use "town center" and gateway for Cupertino. It will include an interconnected street grid network of bicycle and pedestrian-friendly streets, more pedestrian-oriented buildings with active uses lining Stevens Creek Boulevard and Wolfe Road, and publicly-accessible parks and plazas that support the pedestrian-oriented feel of the revitalized area.

The Specific Plan is a regulatory document that establishes the zoning, land use designations, development regulations, and design guidelines for the entire Plan Area. The Specific Plan will implement the City's General Plan. Subsequent development plans would be required to be in substantial compliance with the Specific Plan.

Land uses proposed for development within the Plan Area are consistent with the intent of the General Plan for the Vallco Shopping District Special Area. The Specific Plan land uses would include residential, office, retail (including entertainment uses which are defined in the Zoning Code as commercial recreation), hotel, community benefit uses, utilities, parking, open space/plaza areas, and support uses for both office and residential. These land uses are all either specifically or indirectly identified in the General Plan as allowable uses within the Vallco Shopping District Special Area. Land Use Strategy LU-19.1.4 specifically identifies land uses assumed to be included in a specific plan for the Plan Area. These uses include hotel, a minimum of 600,000 sf of retail (including no more than 30% entertainment uses), residential, office and plazas/green space. More specifically:

- The General Plan definition of Office (General Plan Appendix A) includes all uses within the Administrative and Professional Office zoning districts of the Cupertino Municipal Code, which allows all of the primary and ancillary office-related uses proposed by the Specific Plan, including parking and utilities;
- The General Plan Retail land use category is inclusive of the *P (CG) – Planned Development General Commercial* zoning category which is the City’s broad commercial category and includes those commercial uses proposed in the Specific Plan;
- Vallco Strategy LU-19.1.5 calls for “public space, high quality public realm”;
- Strategy LU-19.1.6: calls for walkable urban blocks for buildings and open space;
- Strategy LU-19.1.8: Open Space calls for “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”; and
- Land Use Goal LU-3 defines the Public Realm as including open space and parks.

There are a number of General Plan goals, policies, and strategies that are relevant to the Plan Area. With respect to Block 13, the IS/MND prepared for the hotel project noted that property is designated *Commercial/Office/Residential* on the General Plan Land Use Map. The number of hotel rooms approved by the City for the Block 13 hotel project is within the remaining development allocation for hotel rooms in the Vallco Park South area and is consistent with the land use designations for the property. The hotel project was found consistent with applicable goals, policies, and strategies of the General Plan.

With respect to Block 14, there are no current development plans for the property although it has been identified for a future parking lot or hotel, or as right-of-way for a direct southbound ramp connection from I-280 into the Plan Area. The property is included in the Plan Area and future development would be required to be consistent with the intent of the Specific Plan land uses.

With respect to the Mall, an evaluation of the Specific Plan in relation to applicable General Plan goals, policies and strategies is provided in [Table 13-1: City of Cupertino General Plan Consistency Analysis](#), at the end of this chapter of the EA. The consistency analysis focuses on those General Plan goals, policies and strategies that relate to avoiding or mitigating environmental impacts, and an assessment of whether any inconsistency with these standards creates a significant physical impact on the environment. The analysis found that the Specific Plan is consistent with these goals, policies, and strategies or would be with implementation of the EDFs identified in the Specific Plan, as amended by the Vallco Town Center Specific Plan Initiative (Initiative).

To ensure overall consistency, the Specific Plan is accompanied by conforming amendments to the General Plan (*Community Vision 2015–2040*) and the Cupertino Municipal Code. The Initiative, described in **Chapter 3** of this EA, identifies the following General Plan Amendments; the text changes associated with these amendments are provided in **Table 13-1**.

- An amendment to change the Plan Area’s land use designation on the General Plan Land Use Map from *Commercial/Office/Residential* to *Vallco Town Center Specific Plan*. The new land use designation reads as follows:
 - Vallco Town Center Specific Plan. The Vallco Town Center Specific Plan designation applies to the Vallco Shopping District Special Area, and allows a mix of uses, including retail, restaurant, entertainment, residential, office, hotel, public (including civic), quasi-public, educational, parks, open space, and amenities. Projects developed under this designation must be consistent with the Vallco Town Center Specific Plan.
- An amendment to General Plan Policy LU-19.1 to change the specific plan name from *Vallco Shopping District Specific Plan* to *Vallco Town Center Specific Plan*.
- An amendment to General Plan Strategy LU-19.1.2 regarding parcelization to acknowledge the allowance for future parcels where adequate protective measures provide for incentives and guidelines for cooperation among property owners.
- An amendment to General Plan Strategy LU-19.1.4 to require that the Plan Area contain a mix of uses including retail, hotel, residential, office, and public, quasi-public, open space and park uses; and to allow amenity uses such as, but not limited to, cafeterias, lobbies, community halls, and meeting spaces.
- An amendment to General Plan Strategy LU-19.1.6 requiring funding for transportation and transit infrastructure and improvements.
- An amendment to add a new General Plan strategy. Strategy LU-19.1.15 requires a publicly accessible of at least 30 acres with a minimum of 3.8 miles of publicly accessible trails, and the extension of future recycled water service to the Plan Area by the applicant(s).

An amendment to add a new General Plan strategy. Strategy INF 2.5.4 requires any project that fully redevelops the existing mall within the Plan Area to extend recycled water service to the Plan Area and maximize the use of recycled water.

The Initiative also includes the following amendments to the City’s Municipal Code and Zoning Map to:

- Amend the City of Cupertino Zoning Map to rezone the Plan Area from *P (Regional Shopping) – Planned Development Regional Shopping* and *P (CG) – Planned*

Development General Commercial (south of Vallco Parkway) to reflect a new zoning classification called Vallco Town Center Specific Plan District.

- Clarify the Conditional Use Permit approval process to increase residential units within the *Vallco Town Center Specific Plan* above the number of units specified in the Housing Element for the Vallco Shopping District Special Area subject to findings in Municipal Code Section 19.156.040. As it applies to the Vallco Town Center Specific Plan, the increase in residential units on a Housing Element site shall be deemed not to be detrimental to the public health, safety, general welfare, or convenience if there are no new significant and unavoidable impacts beyond those identified for the proposed project analyzed in the Environmental Impact Report prepared for the *General Plan: Community Vision 2015–2040*.
- Amend the Zoning Map to show the Plan Area as zoned.
- Add a new chapter to Title 19 of the City of Cupertino Municipal Code, for the *Vallco Town Center Specific Plan Area District* as follows:

As envisioned by the General Plan, a zoning district entitled the “Vallco Town Center Specific Plan” district (VTCSP) is established as shown on the official zoning district map of City of Cupertino. The VTCSP zoning district implements the Vallco Town Center Specific Plan, incorporated by reference, a copy of which shall be on file in the office of the city clerk. The Vallco Town Center Specific Plan includes architectural and design guidelines, site development standards, public facility improvement plans, environmental design features and other development standards that satisfy zoning code requirements. The standards, guidelines and improvement plans contained in the Vallco Town Center Specific Plan shall govern the VTCSP zoning district. When the Vallco Town Center Specific Plan does not provide specific standards and/or procedures for review, approval and/or administration of development projects, the standards and procedures in this code shall apply, provided, however, that in no event shall application of the standards or procedures in this code frustrate or inhibit development of the Vallco Town Center Specific Plan.

- Exclude the Plan Area from the Municipal Code’s broader specific plan planned development (P) zoning district designation. The development within the Plan Area would be subject to the Cupertino Municipal Code, Title 19, Zoning, as amended by the Vallco Town Center Specific Plan Initiative (excluding Block 13 and any portion of Block 14 not processed as part of the Town Center/Community Park), and such compliance would be in accordance with the Specific Plan. Any issues not addressed in the Specific Plan would be subject to the Cupertino Municipal Code, unless a strict application of the Municipal Code would frustrate the intent of the Specific Plan. To the extent any standard or other provision in the Municipal Code conflicts with the Specific Plan, the standard or other provision of the Specific Plan would take precedence. Therefore,

Specific Plan land uses would be consistent with the proposed zoning regulations set forth in the Specific Plan.

Cumulative Impact Analysis

Impact LU-3: Would implementation of the Specific Plan, in combination with past, present, and reasonably foreseeable projects, result in significant cumulative impacts with respect to land use and planning policy?

Land use impacts would be cumulatively significant if the Specific Plan, in conjunction with other existing or reasonably foreseeable projects, would either preclude a permitted land use or create a disturbance that would diminish the function of a particular land use.

Implementation of future projects requiring a change in a General Plan land use designation would require discretionary approvals. It is reasonably assumed that these projects would be designed or otherwise conditioned to maximize consistency with adopted land use plans and ordinances or amended with appropriate mitigation measures and conditions of approval. As described above, the Specific Plan would be consistent with applicable land use goals, policies, and strategies of the General Plan. Environmental Design Features to address environmental impacts of the Specific Plan would be implemented as set forth in this Environmental Assessment. Given the Specific Plan's consistency, as well as the potential for other projects in the cumulative impact scenario to be generally consistent with the land use policy framework, overall cumulative land use consistency impacts would be less than significant.

13.5 References

City of Cupertino General Plan, *Community Vision 2015–2040*, 2015, as amended.

PlaceWorks. 2014. *General Plan Amendment, Housing Element Update, and associated Rezoning Project Draft Environmental Impact Report*. State Clearinghouse No. 2014032007. Final EIR certified December 4, 2014.

PlaceWorks. 2014. Hyatt House Hotel at Vallco Park Project Initial Study. State Clearinghouse No. 2014082055.

Kimley-Horn and Associates. 2016. *Vallco Town Center Specific Plan*.

The Vallco Town Center Specific Plan (Specific Plan) was prepared in conformance with the goals and policies of the City of Cupertino General Plan: Community Vision 2015-2040, as amended by the Vallco Town Center Specific Plan Initiative (Initiative). In the General Plan Text column, new language inserted by the Initiative is shown as underlined text and language deleted by the Initiative is shown in strikethrough text; language shown in regular or bold type reflects the existing General Plan. As illustrated in the table below, the Specific Plan is consistent with the General Plan, as amended by the Initiative. References to the City of Cupertino General Plan or General Plan in the table below are to the General Plan, as amended. This table has been prepared for informational purposes only. In the event that any text in the Consistency column conflicts with the General Plan (as amended by the Initiative), the Specific Plan, the Municipal Code (as amended by the Initiative), or the Initiative, those authorities control.

Table 13-1: City of Cupertino General Plan Consistency Analysis

Table 13-1: City of Cupertino General Plan Consistency Analysis

**VALLCO TOWN CENTER SPECIFIC PLAN CONSISTENCY WITH
THE CITY OF CUPERTINO GENERAL PLAN: COMMUNITY VISION 2015-2040**

The Vallco Town Center Specific Plan (Specific Plan) was prepared in conformance with the goals and policies of the City of Cupertino General Plan: Community Vision 2015-2040, as amended by the Vallco Town Center Specific Plan Initiative (Initiative). In the General Plan Text column, new language inserted by the Initiative is shown as underlined text and language deleted by the Initiative is shown in ~~struckthrough text~~; language shown in regular or bold type reflects the existing General Plan. As illustrated in the table below, the Specific Plan is consistent with the General Plan, as amended by the Initiative. References to the City of Cupertino General Plan or General Plan in the table below are to the General Plan, as amended. This table has been prepared for informational purposes only. In the event that any text in the Consistency column conflicts with the General Plan (as amended by the Initiative), the Specific Plan, the Municipal Code (as amended by the Initiative), or the Initiative, those authorities control.

General Plan Text	Consistency	Consistent?
Land Use and Community Design Element		
<p>GOAL LU-1: Create a balanced community with a mix of land uses that supports thriving businesses, all modes of transportation, complete neighborhoods and a healthy community</p>	<p>The Specific Plan is consistent with this goal because it fully implements the mixed-use town center vision described in the City of Cupertino General Plan by providing a mix of uses that are both horizontally and vertically integrated. The focus of the Specific Plan is planning for the redevelopment of the Vallco Mall property, which includes Blocks 1 through 12 (together, Town Center or Town Center/Community Park), and the potential future development of Block 14, to remain as parking or parking structure, or possibly as a second hotel and supporting commercial uses. Land uses will include commercial (retail, entertainment, and fitness), residential, office, hotel, public/civic, and parks and open space arranged around Town Squares; concentrating uses in this way encourages pedestrian activity. Community amenity facilities, including a community hub building, an outdoor amphitheater, an event hall, and children’s playground will enhance the town center character of and give a unique Cupertino identity to the Plan Area.</p> <p>The Specific Plan envisions a traditional small block, grid neighborhood layout connecting the community (internally and externally) to walkable, pedestrian and bike-friendly streets through paths, promenades, squares/plazas and other public spaces. Two Town Squares, around which</p>	<p>Consistent</p>

General Plan Text	Consistency	Consistent?
	<p>active uses will be centered, will create centers of activity in the Plan Area.</p> <p>To help facilitate alternative transportation and connectivity with other areas of the City, a multi-modal Mobility Hub would accommodate local transit and future Bus Rapid Transit (BRT) line to facilitate and encourage alternative transportation services such as car sharing and bike sharing.</p>	
<p>Policy LU-1.1: Land Use and Transportation. Focus higher land use intensities and densities within a half-mile of public transit service, and along major corridors.</p>	<p>The Vallco Town Center Specific Plan Area (Plan Area) is located in a Transit Priority Area. There are existing bus stops adjacent to the property on Stevens Creek Boulevard and N. Wolfe Road, and additional stops proposed along Stevens Creek Boulevard, N. Wolfe Road, and Vallco Parkway.</p> <p>These higher intensity and density uses are appropriate for a Transit Priority Area. The Specific Plan includes 640,000 square feet of commercial uses; 389 dwelling units including the greater of 80 units, or 20% of the total units, as senior apartments (in compliance with State and federal law); 2 million square feet of office space; a publicly accessible Community Park and Nature Area; a multi-modal Mobility Hub, and a High School science and engineering Innovation Center. The General Plan allows 389 units “by right.” Additional units may be permitted upon issuance of a Conditional Use Permit. Additional uses within the Plan Area include an approved hotel in Block 13. Block 14 is currently a parking lot and has been identified as a location for a future parking lot or hotel, or as right-of-way for a direct southbound ramp connection from I-280 into the Plan Area.</p>	Consistent
<p>Policy LU-1.2: Development Allocation. Maintain and update the development allocation table (Table LU-1) to ensure that the allocations for various land uses adequately meet city goals.</p>	<p>The Specific Plan includes 389 dwelling units “by right”. The Specific Plan requires a Conditional Use Permit for residential units above the 389 number, which is specified in the Housing Element for the Vallco Shopping District Special Area.</p>	Consistent
<p><i>Strategy LU-1.2.1: Planning Area Allocations.</i> Development allocations are assigned for various Planning Areas. However, some flexibility may be allowed for transferring allocations among</p>	<p>The Specific Plan is consistent with this strategy. The Specific Plan identifies 389 dwelling units “by right”. The Specific Plan requires a Conditional Use Permit for residential units above the 389 number</p>	Consistent

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Planning Areas provided no significant environmental impacts are identified beyond those already studied in the Environmental Impact Report (EIR) for Community Vision 2040.	specified in the Housing Element for the Vallco Shopping District Special Area.	
<i>Strategy LU-1.2.2: Major Employers.</i> Reserve a development allocation for major companies with sales office and corporate headquarters in Cupertino. Prioritize expansion of office space for existing major companies. New office development must demonstrate that the development positively contributes to the fiscal well-being of the city.	The Specific Plan is consistent with this strategy. The Plan Area, inclusive of the three properties, will have a General Plan land use designation of <i>Vallco Town Center Specific Plan</i> . Table LU-1 of the General Plan Land Use and Community Design Element provides a buildout development allocation for the Vallco Shopping District Special Area: 1.2 million square feet of commercial uses (with a minimum of 600,000 square feet of retail uses, of which a maximum of 30 percent may be entertainment uses); 2 million square feet office uses, 339 hotel rooms; and 389 residential dwelling units, provided that a specific plan for the Vallco Shopping District Special Area is adopted by May 31, 2018. Consistent with the General Plan, the Specific Plan includes 2 million square feet of office uses.	Consistent
<i>Strategy LU-1.2.3: Unused Development Allocation.</i> Unused development allocations may be re-assigned to the citywide allocation table per Planning Area, when development agreements and development permits expire.	The Specific Plan is consistent with this strategy and the development assumptions for the Vallco Shopping District Special Area. The Specific Plan will require a Conditional Use Permit for residential units above the 389 number specified in the Housing Element for the Vallco Shopping District Special Area.	Consistent
<i>Strategy LU-1.2.4: Neighborhood Allocation.</i> Allocate residential units in neighborhoods through the building permit process unless subdivision or development applications are required.	The Specific Plan is consistent with this strategy; development projects will be reviewed by the City for substantial conformance with the Specific Plan. The Specific Plan will require a Conditional Use Permit for residential units above the 389 number specified in the Housing Element for the Vallco Shopping District Special Area.	Consistent
Policy LU-1.4: Land Use in all Citywide Mixed-Use Districts. Encourage land uses that support the activity and character of mixed-use districts and economic goals.	The Specific Plan is consistent with this policy because the Plan Area is identified by the General Plan as a mixed-use district. The General Plan states that <i>“The City envisions a complete redevelopment of the existing Vallco Fashion Mall into a vibrant mixed-use ‘town center’ that is a focal point for regional visitors and the community. This new Vallco Shopping District will become a destination for shopping, dining and entertainment</i>	Consistent

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	<p><i>in the Santa Clara Valley.</i>” Further, Goal LU-19 provides: “Create a distinct and memorable mixed-use “town center” that is a regional destination and focal point for the community.” In addition to shopping, dining, hotel and entertainment uses, the Plan Area includes residential, office, educational, and recreational uses. One of the objectives of the Specific Plan is to “Create a new development that provides positive economic and fiscal benefits to the City of Cupertino, local school districts, Santa Clara County, and the region as a whole.”</p> <p>As noted in the Specific Plan, the Town Center and Community Park and Nature Area (Town Center/Community Park) represents a nearly \$3 billion investment in the Cupertino community and the Silicon Valley region. It is intended to produce substantial net positive economic and fiscal benefits in the form of development fees, property taxes and retail sales taxes over the next several decades.</p>	
<p><i>Strategy LU-1.4.1: Commercial and Residential Uses.</i> Review the placement of commercial and residential uses based on the following criteria:</p> <ol style="list-style-type: none"> 1. All mixed-use areas with commercial zoning will require retail as a substantial component. The North De Anza Special Area is an exception. 2. All mixed-use residential projects should be designed on the “mixed-use village” concept discussed earlier in this Element. 3. On sites with a mixed-use residential designation, residential is a permitted use only on Housing Element sites and in the Monta Vista Village Special Area. 4. Conditional use permits will be required on mixed-use Housing Element sites that propose units above the allocation in the 	<p>The Specific Plan is consistent with this strategy. The Specific Plan would be an active space, broken into retail, entertainment, office, and residential districts in a mixed-use setting. Elements of an active setting strongly focus on the ground floor to provide pedestrian interaction. The Specific Plan would allow for 640,000 square feet of commercial uses; 389 dwelling units; 2 million square feet of office space; a publicly accessible Community Park and Nature Area; a multi-modal Mobility Hub, and a High School science and engineering Innovation Center. The Plan Area is a Housing Element site. The Specific Plan will require a Conditional Use Permit for residential units above the 389 number, which is specified in the Housing Element for the Vallco Shopping District Special Area.</p>	Consistent

General Plan Text	Consistency	Consistent?
<p>Housing Element, and on non-Housing Element mixed-use sites.</p>		
<p><i>Strategy LU-1.4.2: Public and Quasi-Public Uses.</i> Review the placement of public and quasi-public activities in limited areas in mixed-use commercial and office zones when the following criteria are met:</p> <ol style="list-style-type: none"> 1. The proposed use is generally in keeping with the goals for the Planning Area, has similar patterns of traffic, population or circulation of uses with the area and does not disrupt the operations of existing uses. 2. The building form is similar to buildings in the area (commercial or office forms). In commercial areas, the building should maintain a commercial interface by providing retail activity, storefront appearance or other design considerations in keeping with the goals of the Planning Area. 	<p>The Specific Plan includes publicly accessible open space uses including the Town Squares and the 30-acre Community Park and Nature Area. Community activities in the park may include a large play space and garden for children, indoor and outdoor community meeting spaces, amenities such as a cafe and wine bar, and outdoor amphitheater and performance spaces. The High School science and engineering Innovation Center will be a flexible, multi-use space used by district high school students to build projects together while collaborating with members of the greater community.</p> <p>These uses are in keeping with the goals of the Plan Area, and will be compatible with the patterns of traffic, population, and circulation that will be created through the Specific Plan’s implementation of a mixed-use town center vision.</p> <p>The Plan Area would also provide active spaces, broken into retail, entertainment, office, and residential districts in a mixed-use setting. Elements of an active setting strongly focus on the ground floor to provide pedestrian interaction, and will help to maintain a commercial interface with retail activity. For example, variations in the ground level facades (e.g., recessed entries, the use of arcades) support a more pedestrian-scaled environment by creating the appearance of several smaller buildings rather than a single large building.</p> <p>Additionally, Architectural and Site Review approvals would be required for the Town Center/Community Park and any portions of Block 14 processed as part of the Town Center/Community Park, including design review for consistency with the Town Center Design Guidelines, which will ensure that the building form will be similar to buildings in the area, as well as ensure continuity in storefront appearance and other design considerations.</p>	<p>Consistent</p>

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<p>Policy LU-1.5: Parcel Assembly. Encourage parcel assembly and discourage parcelization to ensure that infill development meets City standards and provides adequate buffers to neighborhoods.</p>	<p>The Specific Plan is a regulatory document that establishes the zoning, land use designations, development regulations, and design guidelines for the Plan Area. The Specific Plan is consistent with this policy because future development plans or agreements, tract or parcel maps, site plans, or any other approvals relative to the Specific Plan must be consistent with the Specific Plan Chapter 2: Land Use & Development Standards. Future project applicant(s) will develop the Plan Area according to the Specific Plan under single ownership to the extent possible.</p> <p>Additionally, Architectural and Site Review would be required for the Town Center/Community Park and any portions of Block 14 processed as part of the Town Center/Community Park to ensure that infill development in the Plan Area meets City standards and provides adequate buffers to neighborhoods.</p>	<p>Consistent</p>
<p>Policy LU-1.6: Community Health through Land Use. Promote community health through land use and design.</p>	<p>The Specific Plan, inclusive of the Town Center/Community Park, is consistent with policy because it will create a balanced community with a mix of land uses including both housing and employment opportunities supported by a multi-modal transportation system including multi-use bike and pedestrian pathways and connections to the City's transit system to encourage an active, healthy lifestyle. The 30-acre Community Park and Nature Area provides uses including public trails, active and passive recreational areas, and open space that can be used for recreation and exercise. Additional recreational amenities would be available to residents within the Plan Area.</p>	<p>Consistent</p>
<p>Policy LU-1.X: Jobs/Housing Balance. Strive for a more balanced ratio of jobs and housing units.</p>	<p>The Specific Plan is consistent with this policy because it would provide both employment opportunities and residential development within the boundaries of the Plan Area. The Town Center/Community Park would provide a range of housing types. The mix of land uses would provide opportunities for residents and people in neighboring areas to meet their daily needs proximate to where they live and work.</p>	<p>Consistent</p>
<p>GOAL LU-2: Ensure that buildings, sidewalks, streets and public spaces are coordinated to enhance community identity and character</p>	<p>The Specific Plan is consistent with this goal because it contemplates a coordinated plan for buildings, sidewalks, streets, and public spaces specifically designed to create a sense of place within the Plan Area,</p>	<p>Consistent</p>

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	<p>enhancing community identity and character. This vision is carried out in various parts of the Specific Plan: Chapter 2: Land Use & Development Standards; Chapter 7: Landscaping & the Public Realm; and Chapter 8: Town Center Design Guidelines. These chapters of the Specific Plan provide land use, design, and architectural standards to establish a cohesive design while creating a unique Cupertino identity. For example, the Specific Plan recommends that all exterior walls of a building be articulated with a consistent style and use of materials. Chapter 9: Administration, Implementation & Financing identifies that Architectural and Site Review requests for the Town Center/Community Park and any portions of Block 14 processed as part of the Town Center/Community Park would be reviewed for substantial conformance with the Specific Plan and approved administratively by the City's Director of Community Development or designee, and may be appealed directly to the City Council.</p>	
<p>Policy LU-2.1: Gateways. Implement a gateway plan for the city's entry points (Figure LU-2) and identify locations and design guidelines for gateway features. Look for opportunities to reflect the gateway concept when properties adjacent to defined gateways are redeveloped.</p>	<p>The Specific Plan is consistent with this policy. Although the Plan Area is not depicted on Figure LU-2, General Plan Strategy LU-19.1.10 applies to the Vallco Shopping District Special Area which addresses gateway character and states "High-quality buildings with architecture and materials befitting the gateway character of the site. The project should provide gateway signage and treatment." As a part of the Master Sign Program for the Specific Plan, monument signs can be located at gateway entrances into the Plan Area. Another example is that as a part of the Town Center/Community Park, an oak grove area will be planted with large canopy trees to create an iconic gateway space.</p>	<p>Consistent</p>
<p>Policy LU-2.2: Pedestrian-Oriented Public Spaces. 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.</p>	<p>The Specific Plan is consistent with this policy because the Plan Area would be an active space, broken into retail, entertainment, office, and residential districts in a mixed-use setting. Elements of an active setting strongly focus on the ground floor to provide pedestrian interaction. One example is that there would be variations in the ground level facades (e.g., recessed entries, the use of arcades) which support a more pedestrian-scale environment by creating the appearance of several smaller buildings rather than a single large building. Office entrances and</p>	<p>Consistent</p>

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	<p>lobbies would be located at ground level to enhance the active use of the adjacent streets and Town Squares.</p> <p>The Plan Area includes all of the suggested elements noted in the policy, including the Town Squares, parks, outdoor dining, and public art. With respect to public art, several locations are considered including the two Town Squares, along the Stevens Creek Boulevard frontage, and on the Community Park and Nature Area.</p>	
<p>GOAL LU-3: Ensure that project site planning and building design enhance the public realm through a high sense of identity and connectivity.</p>	<p>Please see the discussion under Goal LU-2, which discusses how the Specific Plan involves a cohesive design with physical elements designed to enhance community identity and character.</p> <p>The Specific Plan achieves connectivity through a variety of features, including multi-use pathways crossing the Plan Area and improvements to the existing sidewalk along the northern, eastern, and western perimeters of the Plan Area to create a shared use (bicycle and pedestrian) off-street path. The Specific Plan provides that pedestrian and bicycle improvements will connect to existing and future planned facilities, and provides for a funding contribution for a future planned trail along the south side of I-280 between De Anza Boulevard and N. Wolfe Road.</p> <p>The Plan Area’s unique identity will be created through the rolling hills silhouette of the landscaped roof of the 30-acre Community Park and Nature Area. The Community Park and Nature Area will meet existing grade along the southwestern edge of the site along Stevens Creek Boulevard, respecting the residential scale and privacy of the Portal neighborhood. It will rise at the center of the site, west of N. Wolfe Road, and then decrease in height east of N. Wolfe Road to unify the 30-acre Community Park and Nature Area at roof level.</p> <p>Accordingly, the Specific Plan identifies maximum roof heights and maximum building heights by zone, and building heights will generally be higher on the east side of N. Wolfe Road in the Mixed-Use Office/Commercial District (typically between four and six stories up to 95 feet), while most buildings on the west side of N. Wolfe road will be lower</p>	<p>Consistent</p>

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	<p>rise mixed-use commercial and residential buildings, comprised of four-story and some six-story buildings up to 82 feet. These design features represent high-quality architectural design that will help to unify the 30-acre Community Park and Nature Area and ensure a human-scaled neighborhood.</p> <p>Proposed setbacks, street level landscape, and varying building heights will also help to create an interesting landscape and reduce the visual impact on the adjacent neighborhoods and public streets.</p>	
<p>Policy LU-3.1: Site Planning. 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.</p>	<p>The Specific Plan is consistent with this policy. The Specific Plan provides that pedestrian and bicycle improvements will connect to existing and future planned facilities, and it provides for a funding contribution for a future planned trail along the south side of I-280 between De Anza Boulevard and N. Wolfe Road. The existing bicycle network on N. Wolfe Road, Vallco Parkway, and Stevens Creek Boulevard will continue onto the site with additional bike lanes within the new street network. The other internal roads will be shared bike/vehicle lanes. All roadway access points off of the public roadways will include safe pedestrian and bicycle crossings, and will connect to the Plan Area’s internal street grid.</p> <p>With respect to streetscape character, the Plan Area is intended to be a walkable community and as such there is an emphasis on ground level architecture, walkways, places for interaction, etc. In addition to the examples provided for Policy LU-2.2, the Town Squares, outdoor dining, and retail kiosk/carts would further enhance the streetscape. Sidewalks will be continuous, accessible, and tree-lined with signalized crosswalks connecting the street grid, which will support an aesthetically-pleasing streetscape area, as well as be safe and comfortable for users.</p>	Consistent
<p>Policy LU-3.2: Building Heights and Setback Ratios. Maximum heights and setback ratios are specified in the Community Form Diagram (Figure LU-1). As indicated in the figure, taller heights are focused on major corridors, gateways and nodes. Setback ratios are established to ensure that the</p>	<p>The Specific Plan is consistent with this policy. Within the Plan Area, height is not parcel-specific; the Specific Plan identifies maximum roof heights and maximum building heights by zone. Generally, building heights will be higher on the east side of N. Wolfe Road in the Mixed-Use Office/Commercial District which is consistent with the policy of focusing taller structures near major corridors. Typically, buildings will be between</p>	Consistent

General Plan Text	Consistency	Consistent?
<p>desired relationship of buildings to the street is achieved.</p>	<p>four and six stories up to 95 feet. Most buildings on the west side of the smaller N. Wolfe Road will be lower rise mixed-use commercial and residential buildings of four-stories with some six-story buildings up to 82 feet. Proposed setbacks, street level landscape, and varying building heights will also help to create an interesting landscape and reduce the visual impact on the adjacent neighborhoods and public streets.</p> <p>Setbacks along the frontage of mixed-use buildings incorporating ground floor retail uses provide wider sidewalks to accommodate greater pedestrian activity, the display of goods, and to accommodate outdoor seating for food and beverage establishments. These features help to ensure that a desirable relationship of buildings to street is achieved.</p>	
<p>Policy LU-3.3: Building Design. Ensure that building layouts and design are compatible with the surrounding environment and enhance the streetscape and pedestrian activity.</p>	<p>The Specific Plan is consistent with this policy because, as previously noted, the Town Center/Community Park would have a traditional neighborhood layout that physically connects the community (internally and externally) to walkable, pedestrian and bike-friendly streets through a variety of paths, promenades, squares/plazas and other public spaces.</p> <p>The Specific Plan also identifies that architecture within the Plan Area should be consistent and compatible with the context of the existing community and surrounding neighborhood. The Plan Area’s unique identity will be created through the rolling hills silhouette of the 30-acre Community Park and Nature Area. Proposed setbacks, street level landscape, and varying building heights will also help to create an interesting landscape and reduce the visual impact on the adjacent neighborhoods and public streets.</p>	Consistent
<p><i>Strategy LU-3.3.1: Attractive Design.</i> 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.</p>	<p>The Specific Plan is consistent with this strategy through the incorporation of Town Center Design Guidelines and Landscaping Guidelines in the Specific Plan. All of the issues noted in the strategy are addressed.</p>	Consistent
<p><i>Strategy LU-3.3.2: Mass and Scale.</i> Ensure that the scale and interrelationships of new and old</p>	<p>The Specific Plan is consistent with this strategy because it includes land use, design, and landscape guidelines which were created with</p>	Consistent

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<p>development complement each other. Buildings should be grouped to create a feeling of spatial unity.</p>	<p>consideration given to the relationship and scale of development within the Plan Area to existing development in adjacent areas. The Town Center/Community Park also contemplates grouping certain buildings together, such as mixed-use Retail/Residential buildings, with the goal of creating spatial unity throughout the Plan Area.</p>	
<p><i>Strategy LU-3.3.3: Transitions.</i> 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.</p>	<p>The Specific Plan is consistent with this strategy, as it includes land use, design, and landscape guidelines, which were created with consideration given to avoiding abrupt transitions with existing development.</p> <p>The Specific Plan notes that abrupt changes in building scale should be avoided. A gradual transition related to height and bulk is incorporated into the design standards between new and existing buildings. For example, the Community Park and Nature Area will meet the existing grade along the southwestern edge of the Plan area along Stevens Creek Boulevard, respecting the residential scale and privacy of existing off-site residences.</p> <p>Mixed-use commercial and residential buildings would be located on the west side of N. Wolfe Road. Mixed-use office, commercial, and civic uses would be located on the east side of N. Wolfe Road. This land use configuration, as well as landscaping, will help to reduce any visual and privacy impacts of the Plan Area development on residential and/or low-intensity uses.</p>	Consistent
<p><i>Strategy LU-3.3.4: Compatibility.</i> Ensure that the floor area ratios of multi-family residential developments are compatible with buildings in the surrounding area. Include a mix of unit types and avoid excessively large units.</p>	<p>The Specific Plan is consistent with this strategy because it implements the mixed-use town center vision described in the General Plan by providing a mix of uses that are both horizontally and vertically integrated. Land uses will include commercial/retail, residential, office, entertainment, and parks and open space arranged around Town Squares. The General Plan permits up to 35 dwelling units per acre in the Plan Area. The Specific Plan envisions a traditional small block, grid neighborhood layout, with residential buildings of four to six stories, connecting the community (internally and externally) to walkable, pedestrian and bike-friendly streets through paths, promenades, squares/plazas and other public spaces.</p>	Consistent

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<p><i>Strategy LU-3.3.5: Building Location.</i> Encourage building location and entries closer to the street while meeting appropriate landscaping and setback requirements.</p>	<p>The Specific Plan is consistent with this strategy. For example, the Specific Plan recommends that ground-floor commercial uses face the street with one or more public entrances directly from the public sidewalk. Storefronts should be at the same grade as the sidewalk and building zone. Building setbacks along the frontage of mixed-use buildings incorporating ground floor retail uses would have wider sidewalks to accommodate greater pedestrian activity, the display of goods, and to accommodate street furniture (e.g., benches, bike racks, and trash receptacles) and outdoor dining. The Specific Plan also notes that office entrances and lobbies would be located at ground level to enhance the active use of the adjacent streets and Town Squares.</p>	<p>Consistent</p>
<p><i>Strategy LU-3.3.6: Architecture and Articulation.</i> Promote high-quality architecture, appropriate building articulation and use of special materials and architectural detailing to enhance visual interest.</p>	<p>The Specific Plan is consistent with this strategy because it encourages variation and creative articulation of building facades to create diversity. This could include changes in roof heights and vertical planes, as well as changes in building materials. Building facades should include modulation or articulation to the streetwall. This may be achieved with one or more material, texture or fenestration pattern change, recessed building entries, recessed balconies, enclosed building area, projections, minor setbacks, or other features.</p>	<p>Consistent</p>
<p><i>Strategy LU-3.3.7: Street Interface.</i> 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.</p>	<p>The Specific Plan is consistent with this strategy because it prioritizes streetscape design to increase walkability and biking. Commercial/retail, residential, office, entertainment and parks and open space would be located around Town Squares; concentrating uses in this way encourages pedestrian activity. The mixed-use building types with residential and/or office uses would generally include ground floor retail. The Specific Plan also notes that office entrances and lobbies would be located at ground level to enhance the active use of the adjacent streets and Town Squares. As previously noted, the first level or building base should have façade treatments that are scaled to human activity on the street. Lower levels of the building should include changes in materials or changes in fenestration scaled to create a comfortable pedestrian zone. Setbacks along the frontage of mixed-use buildings incorporating ground floor retail uses would provide wider sidewalks to accommodate greater</p>	<p>Consistent</p>

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	pedestrian activity, the display of goods, and to accommodate outdoor dining. The Specific Plan further notes that recessed doorways, awnings, transparencies, changes in color or materials are encouraged to identify and enhance residential entrances.	
<p><i>Strategy LU-3.3.8: Drive-up Services.</i> Allow drive-up service facilities only when adequate circulation, parking, noise control, architectural features and landscaping are compatible with the expectations of the Planning Area, and when residential areas are visually buffered. Prohibit drive up services in areas where pedestrian-oriented activity and design are highly encouraged, such as Heart of the City, North De Anza Boulevard, Monta Vista Village and neighborhood centers.</p>	<p>The Specific Plan is consistent with strategy. Drive-up services are not identified as permitted or conditionally permitted land uses in the Specific Plan.</p>	<p>Consistent</p>
<p><i>Strategy LU-3.3.9: Specific and Conceptual Plans.</i> Maintain and update Specific/Conceptual plans and design guidelines for Special Areas such as Heart of the City, Crossroads, Homestead Corridor, Vallco Shopping District, North and South De Anza corridors and Monta Vista Village.</p>	<p>The Specific Plan is consistent with this strategy because it serves as a specific plan and design guidelines for the Special Area identified as the Vallco Shopping District Special Area.</p>	<p>Consistent</p>
<p><i>Strategy LU-3.3.10: Entrances.</i> In multi-family projects where residential uses may front on streets, require pedestrian-scaled elements such as entries, stoops and porches along the street.</p>	<p>The Specific Plan is consistent with this strategy because recessed doorways, awnings, transparencies, changes in color or materials are encouraged to identify and enhance residential entrances, and make them more pedestrian scaled.</p>	<p>Consistent</p>
<p>Policy LU-3.4: Parking. 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</p>	<p>The Specific Plan is consistent with this strategy. It minimizes surface parking by using subsurface parking structures where feasible. Limited above-grade structures will not be visible as they will be covered and screened by the Community Park and Nature Area or encapsulated within buildings. Above-grade structures will not be located along major street frontages and, where they are located along internal street frontages, they will feature retail, entries, and other active uses on the ground floor.</p>	<p>Consistent</p>

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<p>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.</p>	<p>To the extent feasible, parking structures would be located away from prominent pedestrian areas with entries and stairwells located adjacent to streets or plaza access points. Structures will be designed to be compatible with the architectural character of adjacent buildings, including considerations of style and color, and will support the development of the Plan Area into a high-quality mixed-use town center.</p> <p>Where structures are not feasible, surface parking lots are to be located behind buildings or to the side of buildings, landscaped with trees and other landscaping features to provide screening.</p>	
<p><i>Strategy LU-3.3.X: Multiple-Story Buildings and Residential Districts.</i> 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.</p>	<p>The Specific Plan is consistent with this strategy because its land use, design, and landscape guidelines will ensure that the Plan Area's multiple-story buildings will not suffer from privacy intrusion or be overwhelmed by the scale of the buildings. Further, the Specific Plan notes that abrupt changes in building scale should be avoided, a gradual transition related to height and bulk should be achieved between new and existing buildings.</p> <p>The design of the Plan Area as a whole also supports this strategy by locating the lower rise mixed-use commercial and residential buildings on the west side of N. Wolfe Road. Mixed-use office, commercial, and civic uses would be located on the east side of N. Wolfe Road. This design ensures a gradual transition across the Plan Area, as well as from the Plan Area into neighboring residential neighborhoods.</p>	Consistent
<p>GOAL LU-4: Promote the unique character of Planning Areas and the goals for community character, connectivity and complete streets in streetscape design</p>	<p>The Specific Plan is consistent with this goal because it prioritizes streetscape design to increase walkability and biking, which creates connectivity throughout the Plan Area and supports the creation of community character. The first level or building base should have façade treatments that are scaled to human activity on the street. Lower levels of the building should include changes in materials or changes in fenestration scaled to create a comfortable pedestrian zone. Setbacks along the frontage of mixed-use buildings incorporating ground floor retail uses would provide wider sidewalks to accommodate greater pedestrian activity, the display of goods, and to accommodate outdoor</p>	Consistent

General Plan Text	Consistency	Consistent?
	dining. Sidewalks will be continuous, accessible, and tree-lined with signalized crosswalks connecting the street grid, which will support an aesthetically pleasing streetscape area, as well as be safe and comfortable for users.	
<p>Policy LU-4.1: Street and Sidewalks. 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.</p>	<p>The Specific Plan is consistent with this policy and the City's Complete Streets policies identified in the General Plan because the Plan Area will have a street network hierarchy for public and private streets: Retail and Entertainment Streets; Office Streets; Capillary Streets; Perimeter Streets; and Municipal Streets. The classification relates to the location and to the function of the street system and all accommodate vehicular traffic, pedestrian sidewalks, and bike routes. This will provide a newly configured complete street grid hierarchy of streets, boulevards and alleys that is pedestrian-oriented, connects to existing streets, and creates walkable blocks for buildings and open space.</p>	Consistent
<p>Policy LU-4.2: Street Trees and Landscaping. 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):</p> <ol style="list-style-type: none"> 1. Maximize street tree planting along arterial street frontages between buildings and/or parking lots. 2. Provide enhanced landscaping at the corners of all arterial intersections. 3. Enhance major arterials and connectors with landscaped medians to enhance their visual character and serve as traffic calming devices. 4. Develop uniform tree planting plans for arterials, connectors and neighborhood streets consistent with the vision for the Planning Area. 5. Landscape urban areas with formal planting arrangements. 	<p>The Specific Plan is consistent with this policy. The Town Center/Community Park will retain the majority of the existing healthy trees located along I-280, N. Wolfe Road, Stevens Creek Boulevard, and the Perimeter Road neighborhood landscaped buffer. Additional trees will be planted. The Landscape Plan for the Plan Area includes streetscape plans that differentiate areas of the project based on type of land use and its adjacent uses. Plans are provided for residential, commercial, and perimeter streetscapes and for the open space edge inclusive of plant materials, hardscape, furniture, and lighting.</p>	Consistent

General Plan Text	Consistency	Consistent?
6. Provide a transition to rural and semi-rural areas in the city, generally west of Highway 85, with informal planting.		
GOAL LU-5: Ensure that employment centers and neighborhoods have access to local retail and services within walking or bicycling distance	The Plan Area is located in a Transit Priority Area and includes walkable connections to existing and planned transit opportunities. Pedestrian and bicycle pathways would be located throughout the area and would connect to external existing and planned connections to the Plan Area. Within the Plan Area, employment, commercial/retail, entertainment, hotel, and recreational uses would be provided. This placement of uses and design of connections will encourage walking and biking throughout the Plan Area, as well as in its vicinity. In particular, the employees in the Plan Area and the neighborhoods around it will have walkable access to the Plan Area's retail and service offerings.	Consistent
Policy LU-5.1: Neighborhood Centers. Retain and enhance local neighborhood shopping centers and improve pedestrian and bicycle access to neighborhoods to improve access to goods and services.	The Specific Plan is consistent because the Plan Area would allow for Community Retail uses targeted to local residents and employees. Uses could include specialty food stores, neighborhood retail, personal and professional services, retail stores, and department stores. These uses would be within walking and/or biking distance of patrons.	Consistent
Policy LU-5.2: Mixed-Use Villages. 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.	The Specific Plan is consistent with this policy because development would include a mix of uses that are both horizontally and vertically integrated. The Specific Plan would allow for 640,000 square feet of commercial uses; 389 dwelling units; 2 million square feet of office space; a publicly accessible Community Park and Nature Area; a multi-modal Mobility Hub, and a High School science and engineering Innovation Center. The Specific Plan will require a Conditional Use Permit for residential units above the 389 number, which is specified in the Housing Element for the Vallco Shopping District Special Area. Commercial/retail, residential, office, entertainment, and parks and open space would be located around Town Squares; concentrating uses in this way encourages pedestrian activity. The mixed-use building types with residential and/or office uses would generally include ground floor retail.	Consistent

General Plan Text	Consistency	Consistent?
	<p>The Plan Area includes walkable connections to existing and planned transit opportunities. Pedestrian and bicycle pathways would be located throughout the area and would connect to existing and planned connections external to the Plan Area to encourage interaction with neighboring businesses and residences. This mix of active uses, arranged around Town Squares and connected to the rest of the Plan Area and the surrounding neighborhoods, will help to create an inviting pedestrian environment.</p>	
<p>Policy LU-5.3: Enhance Connections. Look for opportunities to enhance publicly-accessible pedestrian and bicycle connections with new development or redevelopment.</p>	<p>The Specific Plan is consistent with this policy. As noted in the discussion for Policy LU 4.1, pedestrian and bicycle improvements in the Plan Area will be constructed to connect to external existing and future planned facilities. These improvements include a trailhead connection on N. Wolfe Road; intersections and intersection improvements to accommodate pedestrian and bike traffic without vehicular conflicts; and continuous sidewalks. Within the Plan Area, bicycle striping, green bike lanes, and bike boxes will highlight the presence of a multi-modal street network.</p>	Consistent
<p>GOAL LU-6: Preserve and protect the city's historic and cultural resources</p>	<p>The Specific Plan is consistent with this goal. The Plan Area does not contain historic or cultural resources listed or qualified for listing under the California Register of Historic Resources (CRHC) or the National Register of Historic Places (NRHP). However, the Vallco Shopping District is identified in the General Plan as a Community Landmark. Additionally, the City's Municipal Code designates the Vallco Freeway-Oriented Sign as a Landmark Sign. The Specific Plan will comply with Policy LU-6.3 regarding Community Landmarks and the provisions of Municipal Code regarding landmark signs.</p> <p>There are no known archaeological or paleontological resources in the Plan Area. The Specific Plan requires archaeological and paleontological monitors during ground-disturbing activities.</p>	Consistent
<p>Policy LU-6.3: Historic Sites, Commemorative Sites and Community Landmarks. Projects on Historic Sites, Commemorative Sites and Community Landmarks shall provide a plaque,</p>	<p>The Specific Plan is consistent with this policy because Town Center/Community Park would include a plaque, reader board and/or other educational tools to provide information regarding the Vallco Shopping District Special Area.</p>	Consistent

General Plan Text	Consistency	Consistent?
<p>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.</p>	<p>The Vallco Freeway-oriented Sign is designated as a Landmark Sign in the Municipal Code. The Specific Plan includes a Signage Program that is in compliance with the Municipal Code.</p>	
<p>Policy LU-6.4: Public Access. Coordinate with property owners of public and quasi-public sites to allow public access of Historic and Commemorative Sites to foster public awareness and education. Private property owners will be highly encouraged, but not required, to provide public access to Historic and Commemorative Sites.</p>	<p>While the Vallco Shopping District is a Community Landmark, it is not a Historic or Commemorative Site, and this policy is inapplicable. Nonetheless, the Specific Plan provides for the installation of a plaque, reader board, and/or other educational tools to provide information regarding the history of the Vallco Shopping District Area for public education and enjoyment.</p>	Consistent
<p>Policy LU-6.7: Heritage Trees. Protect and maintain the city's heritage trees in a healthy state.</p>	<p>The Specific Plan is consistent with this policy. There are no heritage trees within the Plan Area.</p>	Consistent
<p><i>Strategy LU-6.7.1: Heritage Tree List.</i> Establish and periodically revise a heritage tree list that includes trees of importance to the community.</p>	<p>The Specific Plan is consistent with this strategy. As it applies to the Specific Plan, there are no heritage trees within the Plan Area.</p>	Consistent
<p>Policy LU-6.8: Cultural Resources. Promote education related to the City's history through public art in public and private developments.</p>	<p>The Specific Plan is consistent with this policy because it will provide locations for temporary and permanent art installations that will be accessible to the public. The plaque and/or other educational components to be included for education regarding the Vallco Shopping District will be designed to be aesthetically pleasing and contribute to the Plan Area as a public art component.</p>	Consistent
<p>GOAL LU-7: Promote a civic environment where the arts express an innovative spirit, cultural diversity and inspire community participation</p>	<p>The Specific Plan is consistent with this goal in two ways. First, it will provide permanent and temporary public art throughout the Plan Area. Public art may include sculptures, painting/murals, mosaics, or functional artwork and may be located in the Town Squares, the Stevens Creek Boulevard frontage, and within the Community Park. Consistent with the</p>	Consistent

General Plan Text	Consistency	Consistent?
	Municipal Code, all artwork will be reviewed by the City of Cupertino Fine Arts Commission as part of Architectural and Site Review for the Town Center/Community Park and any portions of Block 14 processed as part of the Town Center/Community Park. Second, the High School science and engineering Innovation Center will provide a flexible, multi-use space used by district high school students to build projects together while collaborating with members of the greater community.	
Policy LU-7.1: Public Art. Stimulate opportunities for the arts through development and cooperation with agencies and the business community.	The Specific Plan is consistent with this policy as it will provide venues for the arts. For example, the Community Park and Nature Area would provide public spaces that could be uses for public performances and cultural festivals.	Consistent
<i>Strategy LU-7.1.3: Artist Workspace.</i> Encourage the development of artist workspace, such as live/work units, in appropriate location in the city.	The Specific Plan is consistent with this strategy. The Specific Plan notes that live-work opportunities in the Plan Area is a sustainability benefit.	Consistent
GOAL LU-8: Maintain a fiscally sustainable city government that preserves and enhances the quality of life for its residents, workers and visitors	The Specific Plan is consistent with this goal as it provides for the redevelopment of an aging, underperforming shopping mall with significant vacancies. In particular, the Town Center/Community Park represents a nearly \$3 billion investment in the Cupertino community and the Silicon Valley region. It is intended to produce substantial net positive economic and fiscal benefits in the form of development fees, property taxes and retail sales taxes over the next several decades.	Consistent
Policy LU-8.1: Fiscal Health. Maintain and improve the City's long-term fiscal health.	The Specific Plan is consistent with this policy because it represents an investment in the community intended to produce substantial net positive economic and fiscal benefits in the form of development fees, property taxes and retail sales taxes over the next several decades. Community amenity facilities within the Community Park and Nature Area include but are not limited to a community hub building, a banquet/event hall, an outdoor amphitheater, a children's playground, and a minimum of 3.8 miles of pedestrian trails with associated fitness stations.	Consistent

General Plan Text	Consistency	Consistent?
Policy LU-8.2: Land Use. Encourage land uses that generate City revenue.	The Specific Plan is consistent with this policy as the Specific Plan encourages a mix of land uses that would provide the City with development fees, property taxes and retail sales taxes.	Consistent
<i>Strategy LU-8.2.1: Fiscal Impacts.</i> Evaluate fiscal impacts of converting office/commercial uses to residential use, while ensuring that the city meets regional housing requirements.	The Specific Plan is consistent with this policy because as a mixed-use development, office, commercial, and residential uses are permitted. The Plan Area is identified as a Priority Housing Element Site (Site A2) in the City's General Plan Housing Element. The Specific Plan will require a Conditional Use Permit for residential units above the 389 number specified in the Housing Element for the Vallco Shopping District Special Area.	
<i>Strategy LU-8.3.1: Mixed-use.</i> 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.	The Specific Plan is consistent with this strategy because it would implement the City's vision for the Vallco Shopping District Special Area. Chapter 2, Planning Areas, of the General Plan states "The City envisions this area as a new mixed-use 'town center' and gateway for Cupertino." The mix of retail, dining, entertainment, recreation, offices, housing, hotel, education, civic, open space, and public amenities will represent a major investment in the area and will yield tax revenues for the City.	Consistent
<i>Strategy LU-8.3.2: Shared or Reduced Parking.</i> Consider shared or reduced parking, where appropriate as incentives to construct new commercial and mixed-use development, while increasing opportunities for other modes of transportation.	The Specific Plan is consistent with this strategy, as it will comply with the City of Cupertino Municipal Code that includes accommodation for shared parking. Additional Specific Plan parking reduction strategies including traffic demand management strategies and provisions are described in Chapter 4: Mobility & Connectivity of the Specific Plan and include shared parking reduced parking combined with the provision of increased walkability and bicycle travel.	Consistent
<i>Strategy LU-8.3.3: Infrastructure and Streetscape Improvements.</i> 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.	The Specific Plan is consistent with this strategy. Both infrastructure upgrades and streetscape improvements are required and provided for in the Specific Plan. Through its concentration of uses around Town Squares, connectivity network, and other design features, the Specific Plan provides for the development of the Plan Area into a pedestrian-oriented community.	Consistent
<i>Strategy LU-8.3.4: High Sales-Tax Producing Retail Uses.</i> Consider locations for high sales-tax	The Specific Plan is consistent with this strategy. The General Plan goals, policies, and strategies include those specific to the Vallco Shopping	Consistent

General Plan Text	Consistency	Consistent?
<p>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.</p>	<p>District Special Area. The City's General Plan calls for a complete revitalization of the Plan Area into a "vibrant mixed-use town center" that would be a focal point for regional visitors and the community. The Plan Area would become a destination for shopping, dining, and entertainment in the City. The Plan Area will have a General Plan land use designation of <i>Vallco Town Center Specific Plan</i>. The Specific Plan includes a mix of land uses including but not limited to high sales tax-producing commercial/retail uses, as well as residential, office, and entertainment uses.</p>	
<p>Policy LU-8.5: Efficient Operations. Plan land use and design projects to allow the City to maintain efficient operations in the delivery of services including, community centers, parks, roads, and storm drainage, and other infrastructure.</p>	<p>The Specific Plan is consistent with this policy because its implementation requires future project applicant(s) to assure that all on-site and off-site infrastructure, facilities, and services (improvements) required by the Specific Plan are installed, constructed, and completed prior to or concurrent with need.</p>	Consistent
<p>GOAL LU-9: Promote a strong local economy that attracts and retains a variety of businesses</p>	<p>The Specific Plan is consistent with this goal because it will implement the City's vision for the revitalization of the Vallco Shopping District Special Area into a mixed-use town center that will attract a variety of businesses in the form of retail, office, and commercial uses.</p>	Consistent
<p>Policy LU-9.1: Collaboration with Business Community. Collaborate with the business community to facilitate growth, development and infrastructure improvements that benefit residents and businesses.</p>	<p>The Specific Plan is consistent with this policy. The Specific Plan implements the City's General Plan vision for complete revitalization of the Plan Area into a "vibrant mixed-use town center" that would be a focal point for regional visitors and the community.</p>	Consistent
<p><i>Strategy LU-9.1.2: Partnerships.</i> Create partnerships between the City and other public, private and non-profit organizations to provide improvements and services that benefit the community.</p>	<p>The Specific Plan is consistent with this strategy by providing public benefits and improvements including but not limited to the High School science and engineering Innovation Center, space dedicated to the local adult education program, and space dedicated to local non-profit and civic organizations. Other community benefit uses would include amenities included in the Community Park and Nature Area including playgrounds, a minimum of 3.8 miles of pedestrian trails, and a playground.</p>	Consistent

General Plan Text	Consistency	Consistent?
<p><i>Strategy LU-9.1.3: Economic Development and Business Retention.</i> Encourage new businesses and retain existing businesses that provide local shopping and services, add to municipal revenues, contribute to economic vitality and enhance the City's physical environment.</p>	<p>The Specific Plan is consistent with this strategy because it encourages new businesses in the form of new retail, commercial, and office uses. As noted in the Specific Plan, the Town Center/Community Park represents a nearly \$3 billion investment in the Cupertino community and the Silicon Valley region. It is intended to produce substantial net positive economic and fiscal benefits in the form of development fees, property taxes and retail sales taxes over the next several decades.</p>	<p>Consistent</p>
<p><i>Strategy LU-9.1.5: Incubator Work Space.</i> Encourage the development of flexible and affordable incubator work space for start-ups and new and emerging technologies.</p>	<p>The Specific Plan is consistent with this strategy because a minimum of 100,000 square feet will be set aside for incubator, co-work space and/or multi-tenant spaces for start-ups, mid-sized companies and/or new and emerging technologies, with a preference for local companies. Additionally, the High School science and engineering Innovation Center will serve as an incubator for student inventions, plans, and ideas.</p>	<p>Consistent</p>
<p>Policy LU-9.2: Work Environment. Encourage the design of projects to take into account the well-being and health of employees and the fast-changing work environment.</p>	<p>The Specific Plan is consistent with this policy as it will provide up to 2 million square feet of office space that can serve incubator, startup, emerging, and established companies. Within the Plan Area, Specific Plan land uses include a mix of uses including retail, dining, entertainment, recreation, offices, housing, hotel, education, civic, open space, and public amenities, which will encourage well-being by promoting walkability and a sense of community.</p>	<p>Consistent</p>
<p><i>Strategy LU-9.2.1: Local Amenities.</i> Encourage office development to locate in areas where workers can walk or bike to services such as shopping and restaurants, and to provide walking and bicycling connections to services.</p>	<p>The Specific Plan is consistent with this strategy. The Specific Plan envisions a traditional neighborhood layout connecting the community (internally and externally) to walkable, pedestrian- and bike-friendly streets through paths, promenades, squares/plazas and other public spaces. The Specific Plan provides a mix of uses that are both horizontally and vertically integrated. Land uses will include commercial/retail, residential, office, entertainment, and parks and open space arranged around Town Squares. This placement of uses and design of connections will enable and encourage employees to walk and bike to retail and services throughout the Plan Area, as well as in its vicinity. The Specific Plan also notes that office entrances and lobbies would be located at ground level to enhance the active use of the adjacent streets and Town Squares.</p>	<p>Consistent</p>

General Plan Text	Consistency	Consistent?
<p><i>Strategy LU-9.2.2: Workplace Policies.</i> Encourage public and private employers to provide workplace policies that enhance and improve the health and well-being of their employees.</p>	<p>The Specific Plan is consistent with strategy because it provides facilities and amenities within the Plan Area available and walkable to employees and employees.</p>	<p>Consistent</p>
<p>GOAL LU-11: Maintain and enhance community access to library and school services provided by other agencies</p>	<p>The Specific Plan is consistent with this goal. For example, the City, VTA, property owners and/or corporate employers in the Plan Area will partner to fund a free community shuttle for Cupertino residents and employees to connect destinations within the community, such as the Cupertino Library, Civic Center, Memorial Park, the local community college, one or more high schools, the adjacent tech campuses, and more.</p> <p>As a part of the Specific Plan, a High School science and engineering Innovation Center would be constructed in the Plan Area.</p>	<p>Consistent</p>
<p>Policy LU-11.1: Connectivity. 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.</p>	<p>The Specific Plan is consistent with this policy as it will incorporate a multi-modal transportation system including multi-use bike and pedestrian pathways within the Plan Area and connections to the City's transit system, which will encourage an active, healthy lifestyle. Additionally, the Plan Area will include a minimum of 3.8 miles of pedestrian trails through the Community Park and Nature Area.</p> <p>The free community shuttle for residents and employees could connect community destinations including the Cupertino Library, Civic Center, Memorial Park, local community college, and one or more high schools.</p>	<p>Consistent</p>
<p>Policy LU-12.4: Hillside Views. The Montebello foothills at the south and west boundary of the valley floor provide a scenic backdrop, adding to the City's scale and variety. While it is not possible to guarantee an unobstructed view of the hills from every vantage point, an attempt should be made to preserve views of the foothills.</p>	<p>The Specific Plan is consistent with this policy. The Plan Area is located in a developed area approximately 8 miles south of San Francisco Bay in the Santa Clara Valley on nearly flat valley floor alluvial deposits. The existing ground surfaces slopes generally in a northerly direction, with elevations ranging from approximately 169 feet above mean sea level (msl) to 199 feet above msl. In the vicinity of the Plan Area, views of the Santa Cruz Mountains are limited to along Stevens Creek Boulevard; land uses within the Plan Area would not block these views. Implementation of the Specific Plan would provide views of the Santa Cruz Mountains from the Community Park and Nature Area.</p>	<p>Consistent</p>

General Plan Text	Consistency	Consistent?
<p>Vallco Shopping District Special Area GOAL LU-19: Create a distinct and memorable mixed-use “town center” that is a regional destination and a focal point for the community.</p>	<p>As previously addressed, the Specific Plan is consistent with this goal because it fully implements the mixed-use town center vision identified in this goal by providing a mix of uses that are both horizontally and vertically integrated, creating a focal point for the community. Land uses will include commercial/retail, residential, office, entertainment, and parks and open space arranged around Town Squares; concentrating uses in this way encourages pedestrian activity. Community facility uses are a part of the Specific Plan to enhance the town center character of and give a unique Cupertino identity to the Plan Area.</p> <p>The Specific Plan envisions a traditional neighborhood layout connecting the community (internally and externally) to walkable, pedestrian and bike-friendly streets through paths, promenades, squares/plazas and other public spaces.</p> <p>Additionally, the 30-acre Community Park and Nature Area will be a distinctive architectural and sustainable feature that will not only provide benefits to the community but will also help to make the Plan Area a regional destination.</p>	<p>Consistent</p>
<p>Policy LU-19.1: Specific Plan. Create a Vallco Shopping District Town Center Specific Plan prior to any development on the site that lays out the land uses, design standards and guidelines, and infrastructure improvements required. The Specific Plan will be based on the following strategies:</p>	<p>The Specific Plan has been prepared and addresses all of the mandates set forth in this policy. The Initiative changes the name of the Specific Plan.</p>	<p>Consistent</p>
<p><i>Strategy LU-19.1.1: Master Developer.</i> Redevelopment will require a master developer in order remove the obstacles to the development of a cohesive district with the highest levels of urban design.</p>	<p>The Specific Plan is consistent with this strategy. Future project applicant(s) will develop the Plan Area according to the Specific Plan’s vision under unified ownership to the extent possible.</p>	<p>Consistent</p>
<p><i>Strategy LU-19.1.2: Parcel Assembly.</i> Parcel assembly and a plan for complete redevelopment of the site is required prior to adding residential</p>	<p>The Specific Plan is consistent with this strategy, as amended by the Initiative, because future project applicant(s) will develop the Plan Area</p>	<p>Consistent</p>

General Plan Text	Consistency	Consistent?
<p>and office uses. Parcelization is highly discouraged in order to preserve the site for redevelopment in the future, <u>unless parcelization includes adequate protective measures to provide incentives and guidelines for cooperation among owners.</u></p>	<p>according to the Specific Plan under single ownership to the extent possible.</p>	
<p><i>Strategy LU-19.1.3: Complete Redevelopment.</i> The “town center” plan should be based on complete redevelopment of the site in order to ensure that the site can be planned to carry out the community vision.</p>	<p>The Specific Plan is consistent with this strategy because it is a comprehensive regulatory document that establishes the zoning, land use designations, development regulations, and design guidelines for the Plan Area. Future development plans or agreements, tract or parcel maps, site plans, or any other approvals relative to the Specific Plan must be consistent with the Specific Plan Town Center Design Guidelines.</p>	Consistent
<p><i>Strategy LU-19.1.4: Land use. To carry out the City’s vision for a vibrant mixed-use “town center,” the Vallco Town Center Specific Plan shall require a mix of the following uses on the site. The following uses are allowed on the site (see Figure LU-1 for residential densities and criteria):</i></p> <ol style="list-style-type: none"> 1. 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. 2. Hotel: Encourage <u>Maintain</u> a business class hotel with conference center and active uses including main entrances, lobbies, retail and restaurants on the ground floor. 3. Residential: Allow <u>Maintain</u> residential on upper floors with retail and active uses on the ground floor. Encourage a mix of units for young professionals, couples and active seniors who like 	<p>The Specific Plan is consistent with this strategy, as amended by the Initiative, because it will allow for the development of 640,000 square feet of commercial uses (inclusive of 600,000 square feet of retail and 40,000 square feet of fitness uses); 389 dwelling units; 2 million square feet of office space; the 30-acre Community Park and Nature Area; a multi-modal Mobility Hub, and a High School science and engineering Innovation Center. The Specific Plan will require a Conditional Use Permit for residential units above the 389 number specified in the Housing Element for the Vallco Shopping District Special Area. The Specific Plan envisions a traditional neighborhood layout connecting the community (internally and externally) to walkable, pedestrian- and bike-friendly streets through paths, promenades, squares/plazas and other public spaces. Office entrances and lobbies would be located at ground level to enhance the active use of the adjacent streets and Town Squares.</p> <p>The contiguous Block 13 property has been approved by the City for development with a hotel. Block 14 has been identified as a possible location for future development with a hotel; however, no project applications have been submitted and no development is proposed for this property at this time.</p>	Consistent

General Plan Text	Consistency	Consistent?
<p>to live in an active “town center” environment. <u>The residential component of the project shall dedicate the greater of 80 units, or 20% of the total units, as senior housing (in compliance with state and federal law).</u></p> <p>4. Office: Encourage <u>Maintain</u> 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. <u>A minimum of 100,000 square feet shall be set aside for incubator, co-work space and/or multi-tenant spaces for start-ups, mid-sized companies and/or new and emerging technologies, with preference for local companies.</u></p> <p>5. Public, Quasi-Public, Open Space and Parks: <u>Require property owner(s) to provide generous amounts of parks and open space, educational facilities, community gathering spaces, civic uses, public art, and community event spaces.</u> <u>In addition, the following uses are allowed on the site, although not required:</u> <u>Amenities: Amenities that are complementary or ancillary to any of the permitted uses, such as, but not limited to, cafeterias, lobbies, community halls or meeting spaces are also permitted.</u></p>		
<p><i>Strategy LU-19.1.5: “Town Center” layout.</i> 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.</p>	<p>The Specific Plan is consistent with this strategy because the project has been designed to implement the mixed-use town center vision as described in Goal LU-19. The Specific Plan provides for a traditional neighborhood layout that connects the community both within and outside of the Plan Area to walkable, pedestrian- and bike-friendly streets through a variety of paths, promenades, squares/plazas and other public spaces, arranged in accordance with the principles of transect planning.</p>	<p>Consistent</p>

General Plan Text	Consistency	Consistent?
	<p>Two Town Squares, around which active uses will be centered, will create centers of activity in the Plan Area. The grid street network will implement the best practices of a vibrant pedestrian core with land uses appropriate to the street and building typology while providing the density and overlapping programming that is commonly found in successful town center projects.</p>	
<p><i>Strategy LU-19.1.6: Connectivity.</i> Provide a newly configured complete street grid hierarchy of streets, boulevards and alleys that is pedestrian-oriented, connects to existing streets, and creates walkable urban blocks for buildings and open space. It should also incorporate transit facilities, provide connections to other transit nodes and coordinate with the potential expansion of Wolfe Road bridge over Interstate 280 to continue the walkable, bikeable boulevard concept along Wolfe Road. The project should <u>shall</u> also contribute towards a study and improvements to a potential Interstate 280 trail along the drainage channel south of the freeway and provide pedestrian and bicycle connections from the project sites to the trail. <u>Any project that fully redevelops the existing mall in the Vallco Shopping District shall also fund transportation and transit infrastructure that provides effective traffic solutions, including providing approximately \$30 million toward planned transportation improvements at the I-280 and Wolfe Road interchange and other I-280 segments, partnering with local employers and transit agencies to provide a free community shuttle, providing an on-site transit</u></p>	<p>The Specific Plan is consistent with this strategy, as amended by the Initiative. The Plan Area is located within a Transit Priority Area. To help facilitate alternative transportation and connectivity with other areas of the City, a multi-modal Mobility Hub would accommodate local transit and future BRT.</p> <p>The Plan Area will have a street network hierarchy for public and private streets: Retail and Entertainment Streets; Office Streets; Capillary Streets; Perimeter Streets; and Municipal Streets. The classification relates to the location and to the function of the street system and all accommodate vehicular traffic, pedestrian sidewalks, and bike routes. This will provide a newly configured complete street grid hierarchy of streets, boulevards and alleys that is pedestrian- and bicycle-oriented, connects to existing streets, and creates walkable blocks for buildings and open space.</p> <p>It will provide multi-modal pathways to provide pedestrian and bicycle access within the Plan Area and connections to existing and planned pathways in vicinity. In addition to the multi-use pathways crossing the Plan Area, other examples of connectivity include improvements to the existing sidewalk along the northern, eastern, and western perimeters of the Plan Area to create a shared use (bicycle and pedestrian) off-street path.</p>	<p>Consistent</p>

General Plan Text	Consistency	Consistent?
<p><u>center and/or mobility hub, and implementing a transportation demand management plan with an overall target of reducing office-generated weekday peak hour trips by 30 percent below applicable Institute of Transportation Engineers Office Use trip generation rates. This transportation and transit funding obligation shall not apply to any hotel project.</u></p>		
<p><i>Strategy LU-19.1.7: Existing streets.</i> Improve Stevens Creek Boulevard and Wolfe Road to become more bike and pedestrian-friendly with bike lanes, wide sidewalks, street trees, improved pedestrian intersections to accommodate the connections to Rosebowl and Main Street.</p>	<p>The Specific Plan is consistent with this strategy because intersections will be designed to accommodate vehicle, pedestrian, and bike traffic at key locations. For example, a new intersection at N. Wolfe Road and 2nd Street will provide an east-west bidirectional bike lanes along the south edge that allows bicyclists and pedestrians to cross without conflicts with southbound vehicles turning left from N. Wolfe Road to 2nd Street and westbound vehicles turning right from 2nd Street to N. Wolfe Road. Crossings will be clearly marked to connect the shared path with the internal street grid. The majority of existing healthy trees along N. Wolfe Road would be retained.</p> <p>As a part of the Specific Plan, the north side of Stevens Creek Boulevard would have a new pedestrian pathway; the majority of existing healthy trees would be retained. The existing road alignment would not change.</p> <p>Rosebowl refers to an existing multi-family residential development at the southeast corner of the intersection of N. Wolfe Road at Vallco Parkway. There are existing bikeways on both N. Wolfe Road and Vallco Parkway.</p>	Consistent
<p><i>Strategy LU-19.1.8: Open space.</i> 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.</p>	<p>The Specific Plan is consistent with this strategy because there will be two publicly accessible Town Squares, located on each side of N. Wolfe Road. Town Square West will be a plaza serving as a the focal point for community events and a gathering space in support of the surrounding retail, entertainment, and residential uses. Town Square East will be a passive park serving as an amenity for the adjacent office and commercial uses. The Plan Area will contain numerous other open spaces, including the 30-acre Community Park and Nature Area.</p>	Consistent

General Plan Text	Consistency	Consistent?
<p><i>Strategy LU-19.1.9: Building form.</i> Buildings should have high-quality architecture, and an emphasis on aesthetics, human scale, and create a sense of place. Taller buildings should provide appropriate transitions to fit into the surrounding area.</p>	<p>The Specific Plan is consistent with this strategy. The Plan Area’s unique identity will be created through the rolling hills silhouette of the 30-acre Community Park and Nature Area. The Community Park and Nature Area will be a distinctive architectural and sustainable feature that will not only provide benefits to the community, but will also help to make the Plan Area a regional destination.</p> <p>Proposed setbacks, street level landscape, and varying building heights will also help to create an interesting landscape and reduce the visual impact on the adjacent neighborhoods and public streets.</p> <p>The Specific Plan identifies maximum roof heights and maximum building heights by zone, and building heights will generally be higher on the east side of N. Wolfe Road in the Mixed-Use Office/Commercial District (typically between four and six stories up to 95 feet), while most buildings on the west side of N. Wolfe road will be lower rise mixed use commercial buildings, comprised of four-story and some six-story buildings (up to 82 feet at the highest point). These design features represent high-quality architectural design that will help to unify the 30-acre Community Park and Nature Area and ensure a human-scaled neighborhood without abrupt transitions into the surrounding areas.</p> <p>Proposed setbacks, street level landscape, and varying building heights will also help to create an interesting landscape and reduce the visual impact on the adjacent neighborhoods and public streets.</p>	<p>Consistent</p>
<p><i>Strategy LU-19.1.10: Gateway character.</i> High-quality buildings with architecture and materials befitting the gateway character of the site. The project should provide gateway signage and treatment.</p>	<p>The Specific Plan is consistent with this strategy because it will provide high-quality architecture and construction that will support the gateway character of the Plan Area. For example, as a part of the Town Center/Community Park, an oak grove area will be planted with large canopy trees to create an iconic gateway space and to serve as visual buffer to the adjacent private residential neighborhood. The 30-acre Community Park and Nature Area will also be a unique example of high-quality architecture.</p>	<p>Consistent</p>

General Plan Text	Consistency	Consistent?
	<p>Freestanding identity signs will be located at the entries to the Town Center/Community Park facing the arterial streets that front the property. These signs may be the Town Center/Community Park identity signs or may include major tenant names, which will create a cohesive sense of place appropriate to the gateway character of the site.</p>	
<p><i>Strategy LU-19.1.11: Phasing plan.</i> A phasing plan that lays out the timing of infrastructure, open space and land use improvements that ensures that elements desired by the community are included in early phases.</p>	<p>The Specific Plan is consistent with this strategy because it includes a sequencing plan that provides for the early construction of community-desired elements including retail and entertainment uses. Although the Specific Plan will be implemented over several years, the sequencing plan stipulates that undeveloped areas for future development would be landscaped to include other attractive low maintenance improvements, and to be secured and maintained.</p> <p>The Specific Plan also identifies the on-site and off-site improvements, the timing for these improvements, and a description of the allowable financing mechanisms.</p>	Consistent
<p><i>Strategy LU-19.1.12: Parking.</i> 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.</p>	<p>The Specific Plan is consistent with this strategy. It minimizes surface parking by using subsurface parking structures where feasible. Limited above-grade structures will not be visible as they will be covered and screened by the Community Park and Nature Area or encapsulated within buildings. Above-grade structures will not be located along major street frontages and, where they are located along internal street frontages, they will feature retail, entries, and other active uses on the ground floor. To the extent feasible, parking structures would be located away from prominent pedestrian areas with entries and stairwells located adjacent to streets or plaza access points. Structures will be designed to be compatible with the architectural character of adjacent buildings, including considerations of style and color, and will support the development of the Plan Area into a high-quality mixed-use town center.</p> <p>Where structures are not feasible, surface parking lots are to be located primarily behind buildings or to the side of buildings, and landscaped with trees to provide screening.</p>	Consistent

General Plan Text	Consistency	Consistent?
<p><i>Strategy LU-19.1.13: Trees.</i> Retain trees along the Interstate 280, Wolfe Road and Stevens Creek Boulevard to the extent feasible, when new development are proposed.</p>	<p>The Specific Plan is consistent with this strategy because of the approximately 895 trees associated with The Mall property, the majority of the healthy trees will be retained as discussed in Chapter 2: Land Use & Development Standards and Chapter 7: Landscaping & the Public Realm of the Specific Plan. In particular, retention of the existing mature trees is a priority and a significant component of the landscape screening between the Town Center/Community Park and the adjacent residential neighborhood. As a part of the Specific Plan, additional trees would be planted resulting in a net increase of trees. The Specific Plan identifies the existing and conceptually proposed locations for trees including along street frontages and in medians.</p>	<p>Consistent</p>
<p><i>Strategy LU-19.1.14: Neighborhood buffers.</i> Consider buffers such as setbacks, landscaping and/or building transitions to buffer abutting single-family residential areas from visual and noise impacts.</p>	<p>The Specific Plan is consistent with this strategy. For example, existing healthy trees along Perimeter Road that serve as a neighborhood landscaped buffer would be retained. Additional trees will be planted. The oak grove area will be planted with large canopy trees to create an iconic gateway space and to serve as visual buffer to the adjacent private residential neighborhood. Further, as discussed above, the rolling hills silhouette of the 30-acre Community Park and Nature Area will help to create appropriate transitions to surrounding neighborhoods. The Specific Plan’s proposed setbacks, street level landscape, and varying building heights will also help to create an interesting landscape and reduce the visual impact on the adjacent neighborhoods and public streets.</p>	<p>Consistent</p>
<p><i>Strategy LU-19.1.15: Green Roof and Recycled Water.</i> <u>To further enhance and complement the open space requirements set forth in Strategy LU-19.1.8 and to provide an exceptional community benefit, a publicly accessible green roof is required for the portion of a project that fully redevelops the existing mall within the Vallco Shopping District. The green roof shall be at least 30 acres in size with a minimum of 3.8 miles of publicly accessible trails. To minimize the water demand associated with a green roof, the</u></p>	<p>The Initiative provides for this strategy, which supplements other General Plan strategies for water conservation. The Specific Plan is consistent with this strategy because it provides for the 30-acre Community Park and Nature Area, will utilize recycled water and drought-tolerant and native landscaping, and provides for the extension of recycled water service to the Plan Area.</p>	<p>Consistent</p>

General Plan Text	Consistency	Consistent?
<p><u>use of recycled water and drought tolerant and native landscaping that thrives on little to no irrigated water will be utilized. To meet this obligation, future recycled water service shall be extended to the Vallco Shopping District by the developer. These requirements shall not apply to any hotel project.</u></p>		
Housing Element		
<p>GOAL HE-1: An adequate supply of residential units for all economic segments</p>	<p>The Specific Plan is consistent with this goal through the provision of 389 residential units “by right”. Of the 389 units, the greater of 80 units, or 20% of the total units, will be senior market-rate apartments (in compliance with State and federal law). The residential apartments will comply with the City of Cupertino’s Below Market Rate (BMR) Housing Program. The Town Center/Community Park is strongly encouraged to comply with the City’s Housing Mitigation Program by provided affordable housing on site. The Specific Plan will require a Conditional Use Permit for residential units above the 389 number specified in the Housing Element for the Vallco Shopping District Special Area.</p>	<p>Consistent</p>
<p>Policy HE-1.1: Provision of Adequate Capacity for New Construction Need. Designate sufficient land at appropriate densities to accommodate Cupertino’s Regional Housing Needs Allocation of 1,064 units for the 2014-2022 projection period.</p>	<p>The Specific Plan is consistent with this policy because the Plan Area is identified as a Priority Housing Element Site (Site A2) in the City’s General Plan Housing Element which allocates 389 units to the Plan Area “by right”. The Specific Plan requires a Conditional Use Permit for residential units above the 389 number specified in the Housing Element for the Vallco Shopping District Special Area.</p>	<p>Consistent</p>
<p>Policy HE-1.2: Housing Densities. Provide a full range of densities for ownership and rental housing.</p>	<p>The Specific Plan is consistent with this policy because it allows for a range of densities up to 35 dwelling units per acre.</p>	<p>Consistent</p>
<p>Policy HE-1.3: Mixed Use Development. Encourage mixed-use development near transportation facilities and employment centers.</p>	<p>The Specific Plan is consistent with this policy because residential, employment, retail/commercial, recreational, and entertainment uses are provided within the Plan Area. The Plan Area is located within a Transit Priority Area. To help facilitate alternative transportation such as car sharing and bike sharing and connectivity with other areas of the City, a</p>	<p>Consistent</p>

General Plan Text	Consistency	Consistent?
	multi-modal Mobility Hub would accommodate local transit and future BRT.	
<p><i>Strategy 1: Land Use Policy and Zoning Provisions.</i> To accommodate the Regional Housing Needs Allocation (RHNA), the City will continue to:</p> <ul style="list-style-type: none"> ▪ Provide adequate capacity through the Land Use Element and Zoning Ordinance to accommodate the RHNA of 1,064 units while maintaining a balanced land use plan that offers opportunities for employment growth, commercial/retail activities, services, and amenities. ▪ Monitor development standards to ensure they are adequate and appropriate to facilitate a range of housing in the community ▪ Monitor the sites inventory and make it available on the City website. ▪ Monitor development activity on the Housing Opportunity Sites to ensure that the City maintains sufficient land to accommodate the RHNA during the planning period. In the event a housing site listed in the Housing Element sites inventory is redeveloped with a non-residential use or at a lower density than shown in the Housing Element sites inventory, ensure that the City has adequate capacity to meet the RHNA by making the findings required by Government Code Section 65863 and identifying alternative site(s) within the City if needed. ▪ Priority Housing Sites: As part of the Housing Element update, the City has identified five 	<p>The Specific Plan is consistent with this strategy. As previously noted, the Plan Area is identified as a Priority Housing Element Site (Site A2) in the City's General Plan Housing Element which allocates 389 units to the Plan Area "by right". The Specific Plan requires a Conditional Use Permit for residential units above the 389 number specified in the Housing Element for the Vallco Shopping District Special Area.</p>	<p>Consistent</p>

General Plan Text	Consistency	Consistent?
<p>priority sites under Scenario A (see Table HE-5) for residential development over the next eight years. The General Plan and zoning designations allow the densities shown in Table HE-5 for all sites except the Vallco Shopping District site (Site A2). The redevelopment of Vallco Shopping District will involve significant planning and community input. A specific plan will be required to implement a comprehensive strategy for a retail/office/residential mixed use development. The project applicant would be required to work closely with the community and the City to bring forth a specific plan that meets the community's needs, with the anticipated adoption and rezoning to occur within three years of the adoption of the 2014-2022 Housing Element (by May 31, 2018). The specific plan would permit 389 units by right at a minimum density of 20 units per acre.</p> <p>If the specific plan and rezoning are not adopted within three years of Housing Element adoption (by May 31, 2018), the City will schedule hearings consistent with Government Code Section 65863 to consider removing Vallco as a priority housing site under Scenario A, to be replaced by sites identified in Scenario B (see detailed discussion and sites listing of "Scenario B" in Appendix B Housing Element Technical Appendix). As part of the adoption of Scenario B, the City intends to add two additional sites to the inventory: Glenbrook</p>		

General Plan Text	Consistency	Consistent?
<p>Apartments and Homestead Lanes, along with increased number of permitted units on The Hamptons and The Oaks sites. Applicable zoning is in place for Glenbrook Apartments; however the Homestead Lanes site would need to be rezoned at that time to permit residential uses. Any rezoning required will allow residential uses by right at a minimum density of 20 units per acre.</p>		
<p><i>Strategy 2: Second Dwelling Units.</i> The City will continue to implement the Second Dwelling Unit Ordinance and encourage the production of second units.</p>	<p>The Specific Plan would not impede the City from implementing this strategy.</p>	<p>Consistent</p>
<p><i>Strategy 3: Lot Consolidation.</i> To facilitate residential and mixed use developments, the City will continue to:</p> <ul style="list-style-type: none"> ▪ Encourage lot consolidation when contiguous smaller, underutilized parcels are to be redeveloped ▪ Encourage master plans for such sites with coordinated access and circulation ▪ Provide technical assistance to property owners of adjacent parcels to facilitate coordinated redevelopment where appropriate ▪ Encourage intra- and inter-agency cooperation in working with applicants at no cost prior to application submittal for assistance with preliminary plan review. 	<p>Future project applicant(s) will develop the Plan Area according to the Specific Plan’s vision under unified ownership to the extent possible.</p>	<p>Consistent</p>
<p><i>Strategy 4: Flexible Development Standards.</i> The City recognizes the need to encourage a range of housing options in the community. The City will continue to:</p>	<p>The Specific Plan establishes the development standards for the Plan Area. The Town Center/Community Park would allow for 389 dwelling units (“by right”), including greater of 80 units, or 20% of the total units, as senior apartments (in compliance with State and federal law). The</p>	<p>Consistent</p>

General Plan Text	Consistency	Consistent?
<ul style="list-style-type: none"> ▪ Offer flexible residential development standards in planned residential zoning districts, such as smaller lot sizes, lot widths, floor area ratios and setbacks, particularly for higher density and attached housing developments ▪ Consider granting reductions in off-street parking on a case-by-case basis for senior housing. 	<p>Specific Plan will require a Conditional Use Permit for residential units above the 389 number, which is specified in the Housing Element for the Vallco Shopping District Special Area.</p>	
<p>GOAL HE-2: Housing that is affordable for a diversity of Cupertino households</p>	<p>The Specific Plan is consistent with this goal because future projects must comply with the City’s BMR Housing Program. The Town Center/Community Park is strongly encouraged to comply with the City’s Housing Mitigation Program by provided affordable housing on site.</p>	<p>Consistent</p>
<p>Policy HE-4: Housing Mitigation. Ensure that all new developments—including market-rate residential developments—help mitigate project-related impact on affordable housing needs.</p>	<p>As noted for Goal HE-2, the Specific Plan is consistent with this policy because future project must comply with the City’s BMR Housing Program. The Town Center/Community Park is strongly encouraged to comply with the City’s Housing Mitigation Program by provided affordable housing on site.</p>	<p>Consistent</p>
<p>Policy HE-5: Range of Housing Types. Encourage the development of diverse housing stock that provides a range of housing types (including smaller, moderate cost housing) and affordability levels. Emphasize the provision of housing for lower- and moderate-income households including wage earners who provide essential public services (e.g., school district employees, municipal and public safety employees, etc.)</p>	<p>The Specific Plan is consistent with this policy because the Specific Plan includes 389 residential units “by right”, including the greater of 80 units, or 20% of the total units, as senior apartments (in compliance with State and federal law). The Specific Plan will require a Conditional Use Permit for residential units above the 389 number specified in the Housing Element for the Vallco Shopping District Special Area. Future project applicant(s) will comply with the City’s BMR Housing Program. The Town Center/Community Park is strongly encouraged to comply with the City’s Housing Mitigation Program by provided affordable housing on site.</p>	<p>Consistent</p>
<p>Policy HE-6: Development of affordable housing and housing for persons with special needs. Maintain and/or adopt appropriate land use regulations and other development tools to encourage the development of affordable</p>	<p>The Specific Plan is consistent with this policy because future projects must comply with the City’s BMR Housing Program. The Town Center/Community Park is strongly encouraged to comply with the City’s Housing Mitigation Program by provided affordable housing on site.</p>	<p>Consistent</p>

General Plan Text	Consistency	Consistent?
<p>housing. Make every reasonable effort to disperse units throughout the community but not at the expense of undermining the fundamental goal of providing affordable units.</p>		
<p><i>Strategy 6: Office and Industrial Housing Mitigation Program.</i> The City will continue to implement the Office and Industrial Housing Mitigation Program. This program requires that developers of office, commercial, and industrial space pay a mitigation fee, which will then be used to support affordable housing in the City of Cupertino. These mitigation fees are collected and deposited in the City's Below Market-Rate Affordable Housing Fund (BMR AHF).</p>	<p>The Specific Plan is consistent with this policy because future projects must comply with the City's BMR Housing Program, which may involve the provision of affordable units within the Plan Area.</p>	<p>Consistent</p>
<p><i>Strategy 7: Residential Housing Mitigation Program.</i> The City will continue to implement the Residential Housing Mitigation Program to mitigate the need for affordable housing created by new market-rate residential development. This program applies to new residential development. Mitigation includes either the payment of the "Housing Mitigation" fee or the provision of a Below Market-Rate (BMR) unit or units. Projects of seven or more for-sale units must provide on-site BMR units. Projects of six units or fewer for-sale units can either build one BMR unit or pay the Housing Mitigation fee. Developers of market-rate rental units, where the units cannot be sold individually, must pay the Housing Mitigation fee to the BMR AHF. The BMR program specifies the following: a. Priority. To the extent permitted by law, priority for occupancy is given to Cupertino</p>	<p>The Specific Plan is consistent with this strategy because future projects must comply with the City's BMR Housing Program. The Town Center/Community Park is strongly encouraged to comply with the City's Housing Mitigation Program by provided affordable housing on site. The final calculation of these fees would be determined for individual development projects constructed pursuant to the Specific Plan.</p>	<p>Consistent</p>

General Plan Text	Consistency	Consistent?
<p>residents, Cupertino full-time employees and Cupertino public service employees as defined in Cupertino's Residential Housing Mitigation Manual.</p> <p>b. For-Sale Residential Developments. Require 15% for-sale BMR units in all residential developments where the units can be sold individually (including single-family homes, common interest developments, and condominium conversions or allow rental BMR units as allowed in (d) below).</p> <p>c. Rental Residential Developments: To the extent permitted by law, require 15% rental very low and low-income BMR units in all rental residential developments. If the City is not permitted by law to require BMR units in rental residential developments, require payment of the Housing Mitigation Fee:</p> <p>d. Rental Alternative. Allow rental BMR units in for-sale residential developments, and allow developers of market-rate rental developments to provide on-site rental BMR units, if the developer: 1) enters into an agreement limiting rents in exchange for a financial contribution or a type of assistance specified in density bonus law (which includes a variety of regulatory relief); and 2) provides very low-income and low-income BMR rental units.</p> <p>e. Affordable Prices and Rents. Establish guidelines for affordable sales prices and affordable rents for new affordable housing and update the guidelines each year as new income guidelines are received;</p>		

General Plan Text	Consistency	Consistent?
<p>f. Development of BMR Units Off Site. Allow developers to meet all or a portion of their BMR or Housing Mitigation fee requirement by making land available for the City or a nonprofit housing developer to construct affordable housing, or allow developers to construct the required BMR units off site, in partnership with a nonprofit. The criteria for land donation or off-site BMR units (or combination of the two options) will be identified in the Residential Housing Mitigation Manual.</p> <p>g. BMR Term. Require BMR units to remain affordable for a minimum of 99 years; and enforce the City's first right of refusal for BMR units and other means to ensure that BMR units remain affordable.</p>		
<p><i>Strategy 8: Below Market-Rate (BMR) Affordable Housing Fund (AHF).</i> The City's BMR AHF will continue to support affordable housing projects, strategies and services, including but not limited to:</p> <ul style="list-style-type: none"> ▪ BMR Program Administration ▪ Substantial rehabilitation ▪ Land acquisition ▪ Acquisition of buildings for permanent affordability, with or without rehabilitation ▪ New construction ▪ Preserving "at-risk" BMR units ▪ Rental operating subsidies ▪ Down payment assistance ▪ Land write-downs ▪ Direct gap financing ▪ Fair housing 	<p>The Specific Plan is consistent with this strategy because future projects must comply with the City's BMR Housing Program. The Town Center/Community Park is strongly encouraged to comply with the City's Housing Mitigation Program by provided affordable housing on site. Fees for individual development projects constructed pursuant to the Specific Plan can be used by the City to continue to support and implement affordable housing.</p>	<p>Consistent</p>

General Plan Text	Consistency	Consistent?
<p>The City will target a portion of the BMR AHF to benefit extremely low-income households and persons with special needs (such as the elderly, victims of domestic violence, and the disabled, including persons with developmental disabilities), to the extent that these target populations are found to be consistent with the needs identified in the nexus study the City prepares to identify the connection, or “nexus” between new developments and the need for affordable housing.</p> <p>To ensure the mitigation fees continue to be adequate to mitigate the impacts of new development on affordable housing needs, the City will update its Nexus Study for the Housing Mitigation Plan by the end of 2015.</p>		
<p><i>Strategy 10: Surplus Properties for Housing.</i> The City will explore opportunities on surplus properties as follows:</p> <ul style="list-style-type: none"> ▪ Work with local public agencies, school districts and churches, to identify surplus properties or underutilized properties that have the potential for residential development. ▪ Encourage long-term land leases of properties from churches, school districts, and corporations for construction of affordable units. ▪ Evaluate the feasibility of developing special housing for teachers or other employee groups on the surplus properties. 	<p>The Specific Plan is consistent with this strategy because future projects must comply with the City’s BMR Housing Program. The Town Center/Community Park is strongly encouraged to comply with the City’s Housing Mitigation Program by provided affordable housing on site. Fees for individual development projects constructed pursuant to the Specific Plan can be used by the City to continue to support and implement affordable housing.</p>	<p>Consistent</p>

General Plan Text	Consistency	Consistent?
<ul style="list-style-type: none"> ▪ Research other jurisdictions' housing programs for teachers for their potential applicability in Cupertino. 		
<p><i>Strategy 11: Incentives for Affordable Housing Development.</i> The City will continue to offer a range of incentives to facilitate the development of affordable housing. These include:</p> <ul style="list-style-type: none"> ▪ Financial assistance through the City's Below Market-Rate Affordable Housing Fund (BMR AHF) and CDBG funds ▪ Partner with CDBG and/or support the funding application of qualified affordable housing developers for regional, state, and federal affordable housing funds, including HOME funds, Low Income Housing Tax Credits (LIHTC), and mortgage revenue bonds ▪ Density bonus incentives (see Strategy 12) ▪ Flexible development standards ▪ Technical assistance ▪ Waiver of park dedication fees and construction tax ▪ Parking ordinance waivers ▪ Expedited permit processing <p>The City joined the Santa Clara County HOME Consortium so that HOME funds for eligible affordable housing projects within the City of Cupertino are available beginning federal fiscal year 2015.</p>	<p>The Specific Plan is consistent with this strategy because future projects must comply with the City's BMR Housing Program. The Town Center/Community Park is strongly encouraged to comply with the City's Housing Mitigation Program by provided affordable housing on site. Fees for individual development projects constructed pursuant to the Specific Plan can be used by the City to continue to support and implement affordable housing.</p>	<p>Consistent</p>
<p><i>Strategy 12: Density Bonus Ordinance.</i> The City will encourage use of density bonuses and incentives, as applicable, for housing developments which include one of the following:</p>	<p>The Specific Plan includes the dedication of at least 80 units, or 20% of the total units, as senior apartments (in compliance with State and federal law); additional units may be proposed at below market rates in</p>	<p>Consistent</p>

General Plan Text	Consistency	Consistent?
<ul style="list-style-type: none"> ▪ At least 5 percent of the housing units are restricted to very low income residents. ▪ At least 10 percent of the housing units are restricted to lower income residents ▪ At least 10 percent of the housing units in a for-sale common interest development are restricted to moderate income residents. ▪ The project donates at least one acre of land to the city or county large enough for 40 very low income units; the land has the appropriate general plan designation, zoning, permits, approvals, and access to public facilities needed for such housing; funding has been identified; and other requirements are met. <p>A density bonus of up to 20 percent must be granted to projects that contain one of the following:</p> <ul style="list-style-type: none"> ▪ The project is a senior citizen housing development (no affordable units required) ▪ The project is a mobile home park age restricted to senior citizens (no affordable units required) <p>For projects that contain on-site affordable housing, developers may request one to three regulatory concessions, which must result in identifiable cost reductions and be needed to make the housing affordable.</p> <p>The City will update the density bonus ordinance as necessary to respond to future changes in State law.</p>	<p>compliance with the City’s BMR Program. Development under the Specific Plan would not conflict with the City’s Density Bonus Ordinance.</p>	
<p><i>Strategy 13: Extremely Low-Income Housing and Housing for Persons with Special Needs.</i> The City</p>	<p>The Specific Plan is consistent with this strategy because future projects must comply with the City’s BMR Housing Program. The Town</p>	<p>Consistent</p>

General Plan Text	Consistency	Consistent?
<p>will continue to encourage the development of adequate housing to meet the needs of extremely low-income households and persons with special needs (such as the elderly, victims of domestic violence, and the disabled, including persons with developmental disabilities). Specifically, the City will consider the following incentives:</p> <ul style="list-style-type: none"> ▪ Provide financing assistance using the Below Market-Rate Affordable Housing Fund (BMR AHF) and Community Development Block Grant funds (CDBG). ▪ Allow residential developments to exceed planned density maximums if they provide special needs housing and the increase in density will not overburden neighborhood streets or hurt neighborhood character. ▪ Grant reductions in off-street parking on a case-by-case basis. ▪ Partner with and/or support the funding application of qualified affordable housing developers for regional, state, and federal affordable housing funds, including HOME funds, Low Income Housing Tax Credits (LIHTC), and mortgage revenue bond. 	<p>Center/Community Park is strongly encouraged to comply with the City's Housing Mitigation Program by provided affordable housing on site. Fees for individual development projects constructed pursuant to the Specific Plan can be used by the City to continue to support and implement affordable housing.</p>	
<p>GOAL HE-4: Energy and water conservation</p>	<p>The Specific Plan is consistent with this goal through the provision of energy, water, and waste reduction measures and mechanisms (see Policy HE-10 below).</p>	<p>Consistent</p>
<p>Policy HE-10: Energy and Water Conservation. Encourage energy and water conservation in all existing and new residential development.</p>	<p>The Specific Plan is consistent with this policy. Energy efficiency and water conservation will be achieved through factors including the Community Park and Nature Area which improve the energy efficiency of buildings through natural ventilation and daylighting; use of alternative energy from photovoltaics, fuel cells, and other technologies; the provision of</p>	<p>Consistent</p>

General Plan Text	Consistency	Consistent?
	thermal heating and cooling through a centralized system that leverages coincident heating and cooling and centralized boilers, chillers and/or cooling towers; and building design (e.g., sun control to shade windows; use of natural lighting; and energy-efficient lighting). Specific Plan features to reduce the use of potable water include use of municipal recycled water and on-site treated grey water for irrigation, including the Community Park and Nature Area; storm water and rainfall collection and reuse; and use of drought-tolerant and native landscape materials.	
<p><i>Strategy 21: Sustainable Practices.</i> The City will continue to implement the Landscape Ordinance for water conservation and the Green Building Ordinance (adopted in 2013) that applies primarily to new residential and nonresidential development, additions, renovations, and tenant improvements of ten or more units.</p> <p>To further the objectives of the Green Building Ordinance, the City will evaluate the potential to provide incentives, such as waiving or reducing fees, for energy conservation improvements at affordable housing projects (existing or new) with fewer than ten units to exceed the minimum requirements of the California Green Building Code. This City will also implement the policies in its climate action plan to achieve residential-focused greenhouse gas emission reductions and further these community energy and water conservation goals</p>	The Specific Plan is consistent with this strategy because it includes sustainability strategies and infrastructure design guidelines with the intent of maximizing energy and water conservation. The sustainability design goal is to achieve the highest level of certification from a globally recognized environmental sustainability certification program, such as LEED Platinum certification or its equivalency, which will include a requirement for recycled water for such purposes as irrigation, toilet flushing, and heating and cooling systems, among others. Examples of some of the conservation measures included in the Specific Plan include but are not limited to the Community Park and Nature Area; use of recycled water for irrigation, the central plant cooling towers, and toilet flushing; collect and minimally treat rainwater to offset water consumption; reuse greywater when possible; reduce water consumption through building energy efficiency; use drought-tolerant and native landscape materials; and preserve existing healthy trees where feasible.	Consistent
GOAL HE-7: Coordination with regional organizations and local school districts	The Specific Plan is consistent with this goal. In addition to paying the maximum State-required school fees, the Specific Plan provides for exceptional educational benefits to the local schools including Fremont Union High School District ("FUHSD") and Cupertino Union School District ("CUSD"). While the precise nature of benefits must be determined in	Consistent

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	<p>coordination and cooperation with the school districts, the Specific Plan provides that the community benefits for local schools include substantial annual funding to the Fremont Union High School District. In addition to paying the maximum state-mandated school fees, the Initiative would require development within the Specific Plan to provide additional benefits to schools of approximately \$40 million to enhance the quality of instruction and student learning in Cupertino’s excellent schools. If the school districts agree to these benefits, the Specific Plan strongly encourages benefits including the construction of a High School science and engineering Innovation Center within the Plan Area, which would be a flexible, multi-use space used by local public high school students to build projects together while collaborating with members of the greater community.</p>	
<p>Policy HE-13: Coordination with Local School Districts. The Cupertino community places a high value on the excellent quality of education provided by the three public school districts which serve residents. To ensure the long-term sustainability of the schools in tandem with the preservation and development of vibrant residential areas, the City will continue to coordinate with the Cupertino Union School District (CUSD), Fremont Union High School District (FUHSD), and Santa Clara Unified School District (SCUSD).</p>	<p>The Specific Plan is consistent with this policy as noted in the response for Goal HE-7. The Plan Area is not served by the Santa Clara Unified School District.</p>	<p>Consistent</p>
<p>Policy HE-15: Public-Private Partnerships. Promote public-private partnerships to address housing needs in the community, especially housing for the workforce.</p>	<p>The Specific Plan is consistent with this policy because it includes 389 residential units “by right”. The Specific Plan will require a Conditional Use Permit for residential units above the 389 number specified in the Housing Element for the Vallco Shopping District Special Area. The implementation of the Specific Plan will involve the private development of these units.</p>	<p>Consistent</p>
<p>Mobility Element</p>		

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<p>Policy M-1.2: Transportation Impact Analysis. Participate in the development of new multi-modal analysis methods and impact thresholds as required by Senate Bill 743. However, until such impact thresholds are developed, continue to optimize mobility for all modes of transportation while striving to maintain the following intersection Levels of Service (LOS) at a.m. and p.m. peak traffic hours:</p> <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+ ▪ De Anza Boulevard and Bollinger Road – LOS E+. 	<p>The Mobility Element (Figure M-2) identifies all or a portion of the following roads as Major Collectors: Foothill Blvd., Bubbl Rd., Stelling Rd., Bollinger Rd., Miller Ave., and Tantau Ave. (Foothill Blvd. and Buff Rd. are outside the traffic study area). Intersections at Miller Ave. within the traffic study area would not be impacted by the Specific Plan.</p> <p>The Specific Plan includes Environmental Design Features that will address traffic generated by implementation of the Specific Plan at the following locations:</p> <ul style="list-style-type: none"> ▪ De Anza Blvd at Homestead Rd. ▪ De Anza Blvd. at Stevens Creek. ▪ De Anza Blvd. at McClellan Rd. ▪ De Anza Blvd. at Bollinger Rd. ▪ Wolfe Rd. at Stevens Creek Blvd. ▪ Stevens Creek Blvd./Calvert Dr./I-280 Ramps ▪ Lawrence Expressway at Saratoga Ave. ▪ Lawrence Expressway at Homestead Rd. ▪ Lawrence Expressway at Pruneridge Ave. ▪ Lawrence Expressway at Prospect Rd. 	Consistent
<p>Policy M-1.3: Regional Trail Development. Continue to plan and provide for a comprehensive system of trails and pathways consistent with regional systems, including the Bay Trail, Stevens Creek Corridor and Ridge Trail.</p>	<p>The Specific Plan is consistent with this policy. The Town Center/Community Park would fund transportation and transit infrastructure, including contribution towards a study and improvements to a potential I-280 trail along the drainage channel south of the freeway, and provision of pedestrian and bicycle connections from the Plan Area to the trail.</p>	Consistent
<p>GOAL M-2: Promote improvements to city streets that safely accommodate all transportation modes and persons of all abilities</p>	<p>The Specific Plan is consistent with this goal because streets in the Plan Area will allow for vehicular, bicycle, and transit service. The VTA accommodates the special needs of its riders. The implementation of the Specific Plan will be in compliance with all relevant disability and accessibility laws.</p>	Consistent
<p>Policy M-2.1: Street Design. Adopt and maintain street design standards to optimize mobility for</p>	<p>The Specific Plan is consistent with this policy through its street network hierarchy for public and private streets: Retail and Entertainment Streets; Office Streets; Capillary Streets; Perimeter Streets; and Municipal Streets.</p>	Consistent

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all transportation modes including automobiles, walking, bicycling and transit.	The classification relates to the location and to the function of the street system and all accommodate vehicles and transit traffic, pedestrian sidewalks, and bike routes.	
Policy M-2.2: Adjacent Land Use. Design roadway alignments, lane widths, medians, parking and bicycle lanes, crosswalks and sidewalks to complement adjacent land uses in keeping with the vision of the Planning Area. Strive to minimize the adverse impacts and expand alternative transportation options for all Planning Areas (Special Areas and Neighborhoods). Improvement standards shall also consider the urban, suburban and rural environments found within the city.	The Specific Plan is consistent with this policy because the Plan establishes a street hierarchy and provides cross sections that identify the characteristics for type of street that is appropriate for the adjacent land uses. The Specific Plan envisions a traditional neighborhood layout connecting the community (internally and externally) to walkable, pedestrian and bike-friendly streets through paths, promenades, squares/plazas and other public spaces, arranged in accordance with the principles of transect planning. The two Town Squares will be centers of activity in the Plan Area.	Consistent
<i>Strategy M-2.2.3: Urban Road Improvement Standards.</i> Develop urban improvement standards for arterials such as Stevens Creek and De Anza Boulevards. In these areas, standards may include wide sidewalks, tree wells, seating, bike racks and appropriate street furniture.	The Specific Plan is consistent with this strategy. As it applies to the Plan Area, Stevens Creek Boulevard and N. Wolfe Road are arterials. As a part of the Specific Plan, the north side of Stevens Creek Boulevard would have a new pedestrian pathway; the majority of existing healthy trees would be retained. The existing road alignment would not change. Within the Plan Area, N. Wolfe Road would be realigned to accommodate a dedicated bike lane and parallel parking on each side of the road. Sidewalks would be located on both sides of N. Wolfe Road; the widths would vary to minimize the displacement of existing healthy trees.	Consistent
Policy M-2.3: Connectivity. Promote pedestrian and bicycle improvements that improve connectivity between planning areas, neighborhoods and services, and foster a sense of community.	The Specific Plan is consistent with this policy. Examples of connectivity include multi-use pathways crossing the Plan Area with connections to external existing and planned pathways; improvements to the existing sidewalk along the northern, eastern, and western perimeters of the Plan Area to create a shared use (bicycle and pedestrian) off-street path. The Specific Plan provides that pedestrian and bicycle improvements will connect to existing and future planned facilities, and it provides for a funding contribution for a future planned trail along the south side of I-280 between De Anza Boulevard and N. Wolfe Road. Sidewalks will be continuous, accessible, and tree-lined with signalized crosswalks	Consistent

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	connecting the street grid, which will support an aesthetically pleasing streetscape area, as well as be safe and comfortable for users.	
Policy M-2.4: Community Impacts. Reduce traffic impacts and support alternative modes of transportation 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.	The Specific Plan is consistent with this policy. The Plan Area is a Special Area located in a Transit Priority Area and incorporates alternative modes of transportation within and connections to off-site transit and pedestrian/bicycle pathways. To help facilitate alternative transportation, such as car sharing and bike sharing, and connectivity with other areas of the City, a multi-modal Mobility Hub would accommodate local transit and future BRT. No street closures are planned.	Consistent
Policy M-2.5: Public Accessibility. Ensure all new public and private streets are publicly accessible to improve walkability and reduce impacts on existing streets.	The Specific Plan is consistent with this policy because all public and private streets within the Plan Area would be publicly accessible.	Consistent
GOAL M-3: Support a safe pedestrian and bicycle street network for people of all ages and abilities	The Specific Plan is consistent with this goal because it provides for both pedestrian and bicycle access throughout the Plan Area as well as existing and planned connections external to the Plan Area. The implementation of the Specific Plan will be in compliance with all relevant disability and accessibility laws.	Consistent
Policy M-3.2: Development. 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.	As previously addressed, the Specific Plan is consistent with this policy because it will provide pedestrian pathways throughout the Plan Area and provide existing and planned connections external to the Plan Area. For example, the City, VTA, property owners and/or corporate employers in the Plan Area will partner to fund a free community shuttle for Cupertino residents and employees to connect destinations within the community, such as the Cupertino Library, Civic Center, Memorial Park, the local community college, one or more high schools, the adjacent tech campuses, and more.	Consistent
Policy M-3.3: Pedestrian and Bicycle Crossings. Enhance pedestrian and bicycle crossings and pathways at key locations across physical barriers such as creeks, highways and road barriers.	The Specific Plan is consistent with this policy because intersections will be designed to accommodate vehicle, pedestrian, and bike traffic at key locations. For example, a new intersection at N. Wolfe Road and 2 nd Street will provide an east-west bi-directional bike lanes to allow bicyclists	Consistent

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	and pedestrians to cross without vehicular conflicts. Along Perimeter Road, crossings will be clearly marked to connect the shared path with the internal street grid.	
Policy M-3.4: Street Widths. Preserve and enhance citywide pedestrian and bike connectivity by limiting street widening purely for automobiles as a means of improving traffic flow.	The Specific Plan is consistent with this policy because the Plan Area's internal street network is designed to accommodate vehicular, transit, pedestrian, and bicycle movement. Implementation of the Specific Plan will not involve any street widening purely for automobiles.	Consistent
Policy M-3.6: Safe Spaces for Pedestrians. Require parking lots to include clearly defined paths for pedestrians to provide a safe path to building entrances.	The Specific Plan is consistent with this policy because entries and stairwells for parking structures would be located adjacent to streets or plaza access points. Parking structure entries should be designed to be visually open, and promote a sense of security. Both garage and surface parking areas will have clearly identified entry points with wayfinding signage as a part of the Master Sign Program. The Specific Plan also identifies that lighting in the Plan Area is intended to help to create a safe environment for pedestrians and cars (e.g., street lighting, surface and garage parking lighting).	Consistent
Policy M-3.8: Bicycle Parking. Require new development and redevelopment to provide public and private bicycle parking.	The Specific Plan is consistent with this policy through the provision of publicly accessible and private bicycle parking. The multi-modal Mobility Hub could also include a bike shop and storage.	Consistent
Policy M-4.3: Connecting Special Areas. Identify and implement new or enhanced transit services to connect all Special Areas as identified in Figure PA-1 (Chapter 2: Planning Areas).	The Specific Plan is consistent with this policy. The Plan Area is a Special Area located in a Transit Priority Area and incorporates alternative modes of transportation within and connections to off-site transit and pedestrian/bicycle pathways. To help facilitate alternative transportation, such as car sharing and bike sharing, and connectivity with other areas of the City (e.g., Special Areas), a multi-modal Mobility Hub would accommodate local transit and future BRT. No street closures are planned.	Consistent
Policy M-4.4: Transit Facilities with New Development. Work with VTA and/or major developments to ensure all new development projects include amenities to support public transit including bus stop shelters, space for	The Specific Plan is consistent with the policy because it would provide transit service and amenities. For example, within the Plan Area, the multi-modal Mobility Hub would cater to bicyclists, transit users, and those wishing to use alternative forms of transportation. It would serve as an information kiosk and waiting area for buses, or a place to	Consistent

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transit vehicles as appropriate and attractive amenities such as trash receptacles, signage, seating, and lighting.	reserve/pick-up a shared vehicle. For example, the City, VTA, property owners and/or corporate employers in the Plan Area will partner to fund a free community shuttle for Cupertino residents and employees to connect destinations within the community, such as the Cupertino Library, Civic Center, Memorial Park, the local community college, one or more high schools, the adjacent tech campuses, and more.	
Policy M-4.5: Access to Transit Services. Support right-of-way design and amenities consistent with local transit goals to improve transit as a viable alternative to driving.	The Plan Area is located in a Transit Priority Area and includes walkable connections to existing and planned transit opportunities. Pedestrian and bicycle pathways would be located throughout the area and would connect to existing and planned connections external to the Plan Area.	Consistent
Policy M-4.6: Bus and Shuttle Programs. 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.	The Specific Plan is consistent with this policy because the City, VTA, property owners and/or corporate employers in the Plan Area will partner to fund a free community shuttle for Cupertino residents and employees to connect destinations within the community, such as the Cupertino Library, Civic Center, Memorial Park, the local community college, one or more high schools, the adjacent tech campuses, and more.	Consistent
GOAL M-5: Ensure safe and efficient pedestrian and bicycle access to schools while working to reduce school-related congestion.	The Specific Plan is consistent with this goal. As previously addressed, the City, VTA, property owners and/or corporate employers in the Plan Area will partner to fund a free community shuttle for Cupertino residents and employees to connect destinations within the community, such as the Cupertino Library, Civic Center, Memorial Park, the local community college, one or more high schools, the adjacent tech campuses, and more. The Plan Area is located in a Transit Priority Area and includes walkable connections to existing and planned transit opportunities. Pedestrian and bicycle pathways would be located throughout the area and would connect to existing and planned connections external to the Plan Area.	Consistent
Policy M-5.1: Safe Routes to Schools. Promote Safe Routes to Schools programs for all schools serving the city.	The Specific Plan is consistent with this strategy through the provision of a free community shuttle, and pedestrian and bicycle pathways.	Consistent
<i>Strategy M-5.1.1. Coordination with School Districts.</i> Coordinate with the School Districts to develop plans and programs that encourage	The Specific Plan is consistent with this strategy. The Specific Plan includes a free community shuttle, and pedestrian and bicycle pathways	Consistent

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car/van-pooling, stagger hours of adjacent schools, establish drop-off locations, and encourage walking and bicycling to school.	within the Plan Area and connections to existing and planned off-site pathways, including schools.	
Policy M-5.2: Prioritizing Projects. Ensure that bicycle and pedestrian safety improvements include projects to enhance safe accessibility to schools.	The Specific Plan is consistent with this policy. The Plan Area will include protected Class I bike paths, Class II bike lanes, and Class III bikeways (shared bike/vehicle lane).	Consistent
Policy M-5.3: Connections to Trails. Connect schools to the citywide trail system.	The Specific Plan is consistent with this policy because the pathways within the Plan Area will connect to existing and planned off-site pathways.	Consistent
GOAL M-6: Promote innovative strategies to provide efficient and adequate vehicle parking	The Specific Plan is consistent with this goal. One of the objectives of the Specific Plan is to provide adequate parking and vehicular access, compatible with a high-quality "town center" environment, that meet the needs of future visitors, employees, and residents, while encouraging the use of transit, bicycle, and other alternative modes of transportation. Transit, bicycle and pedestrian pathways, and a free community shuttle are a part of the Specific Plan.	Consistent
Policy M-6.2: Off-Street Parking. Ensure new off-street parking is properly designed and efficiently used.	The Specific Plan is consistent with this policy. The Plan Area will include below grade, above grade, and street level parking. The majority of the parking spaces in the Plan Area will be located in underground parking structures. The Town Center/Community Park establishes a street hierarchy that directs vehicles to the parking garages efficiently, reducing conflicts with pedestrians and bicyclists on the at-grade street network. This includes accommodating traffic from I-280 with direct access to parking garages from N. Wolfe Road, if the improvement is approved by the California Department of Transportation (Caltrans). The Specific Plan addresses the provision of signed wayfinding for access to and within the parking garages.	Consistent
GOAL M-7: Promote policies to help achieve State, regional and local air quality and greenhouse gas emission reduction targets	The Specific Plan is consistent with this goal. The Specific Plan is consistent with the Cupertino Climate Action Plan (CAP). The Specific Plan includes strategies and directives to reduce energy and water use; to reduce the disposal of waste in landfills; and to incorporate green building	Consistent

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	<p>components. For example, the Specific Plan encourages the reduction in vehicle miles traveled (VMT) through the provision of a free community shuttle, bicycle and pedestrian pathways, and transit within a horizontally- and vertically-integrated mixed-use development which reduce air quality and GHG emissions.</p>	
<p>Policy M-7.1: Multi-Modal Transportation Impact Analysis. Follow guidelines set by the VTA related to transportation impact analyses, while conforming to State goals for multimodal performance targets.</p>	<p>The Specific Plan is consistent with this strategy. The traffic and transportation analysis was prepared according to the requirements of the City of Cupertino and the Santa Clara VTA.</p>	<p>Consistent</p>
<p>Policy M-8.1: Greenhouse Gas Emissions. Promote transportation policies that help to reduce greenhouse gas emissions.</p>	<p>The Specific Plan is consistent with this policy because the Specific Plan is envisioned as a walkable and bikeable mixed-use community and provides for alternatives to vehicular travel.</p>	<p>Consistent</p>
<p>Policy M-8.2: Land Use. Support development and transportation improvements that help reduce greenhouse gas emissions by reducing per capita Vehicle Miles Traveled (VMT), reducing impacts on the City’s transportation network and maintaining the desired levels of service for all modes of transportation.</p>	<p>The Specific Plan is consistent with this policy because compact infill development, such as that contemplated in the Specific Plan, can reduce energy use compared to low-density, greenfield development (source: U.S. Department of Housing and Urban Development [HUD]). Therefore, the multi-family residential buildings constructed pursuant to the Specific Plan would consume less energy than the same number of units constructed in detached housing. In addition, the Specific Plan targets energy efficiency measures that reduce energy demand, increase energy efficiency, and generate on-site renewable energy. The sustainability design goal is to achieve the highest level of certification from a globally recognized environmental sustainability certification program, such as LEED Platinum certification or its equivalency, which will include a requirement for recycled water for such purposes as irrigation, toilet flushing, and heating and cooling systems, among others. Chapter 5: Sustainability & Smart City Strategies of the Specific Plan defines and categorizes these strategies into five groups: Green Space, Resource Efficiency, Town Center Design, Community, and Technology.</p> <p>Additionally, as previously addressed the Specific Plan encourages the reduction in (VMT) through the provision of a free community shuttle,</p>	<p>Consistent</p>

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	bicycle and pedestrian pathways, and transit within a horizontally- and vertically-integrated mixed-use development which reduce air quality and GHG emissions.	
<p>Policy M-8.3: Transportation System Management (TSM) Programs. Employ TSM strategies to improve efficiency of the transportation infrastructure including strategic right-of-way improvements, intelligent transportation systems and optimization of signal timing to coordinate traffic flow.</p>	<p>The Specific Plan is consistent with this policy because it includes TSM strategies including signal timing improvements.</p>	<p>Consistent</p>
<p>Policy M-8.4: Transportation Demand Management (TDM) Programs. Require large employers, including colleges and schools, to develop and maintain TDM programs to reduce vehicle trips generated by their employees and students and develop a tracking method to monitor results.</p>	<p>The Specific Plan includes multiple TDM features and strategies. The TDM Plan will have an overall target of reducing Specific Plan office-generated weekday peak hour trips by 30 percent below the applicable Institute of Transportation Engineers (ITE) trip generation rates. Transportation strategies that may be implemented include:</p> <p>Transportation strategies that would be implemented as a part of the Town Center/Community Park are:</p> <ul style="list-style-type: none"> ▪ Valet bicycle parking ▪ Bike supply vending machines (lights, batteries, locks, tubes, patches, small tools, etc.) ▪ On-site bicycle mechanic ▪ Bike share pods / community bike program ▪ Towel and laundry service for on-site showers ▪ Giveaway programs (bicycle, helmet, lock, light, etc.) ▪ Bike to School encouragement and incentive program ▪ Advanced carshare and rideshare matching services, such as real-time matching ▪ Financial incentives for carpoolers, e.g., gas cards ▪ Subsidized vanpools ▪ Subsidies for on-demand shared ride services ▪ Private shuttles for medium- or long-distance commutes ▪ Guaranteed ride home services 	<p>Consistent</p>

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<p>Policy M-8.5: Design of New Developments. Encourage new commercial developments to provide shared office facilities, cafeterias, daycare facilities, lunchrooms, showers, bicycle parking, home offices, shuttle buses to transit facilities and other amenities that encourage the use of transit, bicycling or walking as commute modes to work. Provide pedestrian pathways and orient buildings to the street to encourage pedestrian activity.</p>	<p>The Specific Plan is consistent with this policy because of all the noted items in this policy are either a part of the Specific Plan or are permitted by the Specific Plan. For example, based on their location in the Plan Area daycare facilities are permitted or conditionally permitted land uses. The horizontally- and vertically-integrated the Town Center/Community Park includes a mix of uses including retail, dining, entertainment, recreation, offices, housing, hotel, education, civic, open space, and public amenities located with a community setting with pedestrian and bicycle pathways and a free community shuttle.</p>	<p>Consistent</p>
<p>Policy M-8.6: Alternative Fuel Charging Stations. Develop a city-wide strategy to encourage the construction of a network of public and private alternative fuel vehicle charging/fueling stations.</p>	<p>The Specific Plan is consistent with this policy because the Plan Area will accommodate electric vehicle charging.</p>	<p>Consistent</p>
<p>GOAL M-9: Promote effective and efficient use of the City's transportation network and services.</p>	<p>The Specific Plan is consistent with this goal because it incorporates a multi-modal transportation program inclusive of roadway improvements; transit; and pedestrian and bicycle pathways through the Plan Area and off-site connections to existing and planned pathways.</p>	<p>Consistent</p>
<p>Policy M-9.1: Efficient Automobile Infrastructure. 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.</p>	<p>The Specific Plan is consistent with this policy because it would implement the City's vision for the Plan Area to create a mixed-use town center. Within the Plan Area and based on the street classification, roadways will accommodate vehicles, transit, and bike lanes. All streets would have sidewalks.</p>	<p>Consistent</p>
<p>Policy M-9.2: Reduced Travel Demand. Promote effective TDM programs for existing and new development.</p>	<p>The Specific Plan is consistent with this policy because it includes a TDM Plan that identifies multiple TDM strategies. See response to Policy M-8.4</p>	<p>Consistent</p>
<p>Policy M-9.3: Street Width. 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.</p>	<p>The Specific Plan is consistent with this policy. A traffic analysis has been prepared and the Specific Plan identifies that streets will vary in width and configuration based on localized circulation requirements.</p>	<p>Consistent</p>

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<p><i>Strategy M-9.3.1. Wolfe Road Overcrossing.</i> Consider alternate designs for the Wolfe Road/I-280 Interchange (e.g., from partial cloverleaf design to diamond design) when evaluating the need to widen the freeway overcrossing.</p>	<p>The Specific Plan is consistent with this strategy because the Town Center/Community Park property owner will take the lead in working with the relevant agencies to study, design, and identify funding for the widening of the N. Wolfe Road/I-280 interchange and other I-280 segments. These improvements would widen the overpass, reconfigure the on-ramps and off-ramps, and improve pedestrian and bicycle connections.</p> <p>As part of the interchange improvements, a future project applicant(s) may construct dedicated off-ramps and/or on-ramps from I-280 into and out of the Plan Area through Block 13 (and potentially Block 14). The intent would be to alleviate new project-generated traffic from intruding onto the City's street network. Additional freeway ramps would be subject to Caltrans and other jurisdiction approvals.</p>	<p>Consistent</p>
<p><i>Strategy M-9.3.2. Streetscape Design.</i> When reviewing the widening of an existing street, consider aesthetically pleasing enhancements and amenities to improve the safe movement of pedestrians and bicyclists in keeping with the vision of the Planning Area.</p>	<p>The Specific Plan is consistent with this strategy. With respect to streetscape character, the Plan Area is intended to be a walkable community and as such there is an emphasis on bikeways and walkways. Pedestrian and bicycle improvements will connect to existing and future planned facilities. Sidewalks will be continuous, accessible, and tree-lined with signalized crosswalks connecting the street grid. The existing bicycle network on N. Wolfe Road, Vallco Parkway, and Stevens Creek Boulevard will continue onto the site with additional bike lanes on the interior street network. The other internal roads will be shared bike/vehicle lanes. All roadway access points off of the public roadways will include safe pedestrian and bicycle crossings, and will connect to the Plan Area's internal street grid.</p>	<p>Consistent</p>
<p>GOAL M-10: Ensure that the City's transportation infrastructure is well-maintained for all modes of transportation and that projects are prioritized on their ability to meet the city's mobility goals</p>	<p>The Specific Plan is consistent with this goal by providing both on-site and off-site improvements to the City's transportation infrastructure. Improvements include the implementation of a complete street roadway system through the Plan area; the N. Wolfe Road/I-280 Interchange, subject to approval by Caltrans; N. Wolfe Road including a new intersection; Vallco Parkway; and Stevens Creek Boulevard.</p>	<p>Consistent</p>

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<p>Policy M-10.2: Transportation Impact Fee. Ensure sustainable funding levels for the Transportation Improvement Plan by enacting a transportation impact fee for new development.</p>	<p>The Specific Plan is consistent with this policy. Future projects within the Specific Plan will be required to pay a transportation impact fee to the City of Cupertino.</p>	<p>Consistent</p>
<p>Policy M-10.3: Multi-Modal Improvements. Integrate the financing, design and construction of pedestrian and bicycle facilities with street projects. Build a pedestrian and bicycle improvements at the same time as improvements for vehicular circulation to enable travelers to transition from one mode of transportation to another, e.g. bicycle to bus.</p>	<p>The Specific Plan is consistent with this policy through the integration of a multi-modal on-street and off-street plan to concurrently accommodate vehicular, transit, bicycle, and pedestrian movement.</p>	<p>Consistent</p>
<p>Policy M-2.X: Traffic Calming. Consider the implementation of best practices on streets to reduce speeds and make them user-friendly for alternative modes of transportation, including pedestrians and bicyclists.</p>	<p>The Specific Plan is consistent with this policy. The Town Center/Community Park Project Applicant(s) is required to fund neighborhood traffic monitoring studies and provide fees to implement potential traffic calming improvements to minimize neighborhood traffic if needed. Prior to the issuance of any occupancy permits, the Town Center/Community Park Project Applicant(s) must provide up to \$300,000 for the City of Cupertino for potential neighborhood traffic improvements.</p>	<p>Consistent</p>
<p>Policy M-4.X: Vallco Shopping District Transfer Station. Work with VTA and/or other transportation service organizations to study and develop a transit transfer station that incorporates a hub for alternative transportation services such as, car sharing, bike sharing and/or other services.</p>	<p>As previously addressed, the Specific Plan proposes a multi-modal Mobility Hub to facilitate and encourage alternative transportation services such as car sharing and bike sharing.</p>	<p>Consistent</p>
Environmental Resources and Sustainability Element		
<p>GOAL ES-1 Ensure a sustainable future for the City of Cupertino</p>	<p>The Specific Plan is consistent with this goal because it incorporates sustainable design and technologies. Examples are addressed below in response to applicable policies.</p>	<p>Consistent</p>
<p>Policy ES-1.1: Principles of Sustainability. Incorporate the principles of sustainability into</p>	<p>The Specific Plan is consistent with this goal because it incorporates sustainable design and technologies. For example, the Specific Plan notes</p>	<p>Consistent</p>

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<p>Cupertino’s planning, infrastructure and development process in order to improve the environment, reduce greenhouse gas emissions and meet the needs of the community without compromising the needs of future generations.</p>	<p>that buildings should have horizontal and vertical sun controls to shade windows, areas of glass that are generous and floor depths that are relatively shallow to allow for the penetration of natural light into the buildings, and thermal comfort controls. These features will help to decrease the use of power.</p> <p>As noted in the analysis of Policy HE-10, the Specific Plan would incorporate energy efficiency elements including but not limited to the use of alternative energy; thermal heating and cooling and building design. Specific Plan features to reduce the use of potable water include irrigation, including the Community Park and Nature Area, with municipal recycled water, on-site treated grey water, storm water and rainfall collection and reuse; and use of drought-tolerant and native landscape materials.</p>	
<p><i>Strategy ES-1.1.1: Climate Action Plan (CAP).</i> Adopt, implement and maintain a Climate Action Plan to attain greenhouse gas emission targets consistent with state law and regional requirements. This qualified greenhouse gas emissions reduction plan, by BAAQMD’s definition, will allow for future project CEQA streamlining and will identify measures to:</p> <ul style="list-style-type: none"> ▪ Reduce energy use through conservation and efficiency; ▪ Reduce fossil fuel use through multi-modal and alternative transportation; ▪ Maximize use of and, where feasible, install renewable energy resources; ▪ Increase citywide water conservation and recycled water use; ▪ Accelerate Resource Recovery through expanded recycling, composting, extended 	<p>The Specific Plan is consistent with this strategy because it is consistent with the City’s CAP. As noted, the Specific Plan includes provisions for non-vehicular transportation, water reuse, recycling, and energy reduction.</p>	<p>Consistent</p>

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<p>producer responsibility and procurement practices; and</p> <ul style="list-style-type: none"> ▪ Promote and incentivize each of those efforts to maximize community participation and impacts; ▪ Integrate multiple benefits of green infrastructure with climate resiliency and adaptation. 		
<p>Policy ES-2.1: Conservation and Efficient Use of Energy Resources. 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.</p>	<p>The Specific Plan is consistent with the policy through the implementation of energy efficiency practices and design. Compact infill development, such as redevelopment under the Specific Plan, can reduce energy use compared to low-density, greenfield development. The multi-family residential buildings constructed in the Plan Area would consume less energy than the same number of units constructed in detached housing. Similarly, reuse of all parcels within the Plan Area, as well as reuse of the parcel for the proposed school to be constructed as part of a separate agreement, would reduce overall energy use compared to a similar development in a greenfield area.</p> <p>In addition, the Specific Plan broadly targets energy efficiency measures that reduce energy demand, increase energy efficiency, and generate on-site renewable energy. The sustainability design goal is to achieve the highest level of certification from a globally recognized environmental sustainability certification program, such as LEED Platinum certification or its equivalency, which will include a requirement for recycled water for such purposes as irrigation, toilet flushing, and heating and cooling systems, among others. Chapter 5: Sustainability & Smart City Strategies of the Specific Plan defines these strategies.</p>	Consistent
<p><i>Strategy ES-2.1.4: Incentive Program.</i> Consider incentive programs for projects that exceed mandatory requirements and promote incentives from state, county and federal governments for</p>	<p>The Specific Plan is consistent with this strategy. As previously noted, the Specific Plan broadly targets energy efficiency measures that reduce energy demand, increase energy efficiency, and generate on-site renewable energy. The sustainability design goal is to achieve the highest level of certification from a globally recognized environmental</p>	Consistent

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improving energy efficiency and expanding renewable energy installations.	sustainability certification program, such as LEED Platinum certification or its equivalency, which will include a requirement for recycled water for such purposes as irrigation, toilet flushing, and heating and cooling systems, among others. Chapter 5: Sustainability & Smart City Strategies of the Specific Plan defines these strategies. Potential strategies include but are not limited to the use of photovoltaics, fuel cells, or other technologies; use of natural ventilation in buildings; and providing thermal heating and cooling through a central system.	
<i>Strategy ES-2.1.5. Urban Forest.</i> Encourage the inclusion of additional shade trees, vegetated stormwater treatment and landscaping to reduce the “heat island effect” in development projects.	The Specific Plan is consistent with this strategy. As previously addressed, the Town Center/Community Park includes the 30-acre Community Park and Nature Area. Energy efficiency and water conservation will be achieved through factors including the Community Park and Nature Area over the buildings which would improve the energy efficient of buildings. Specific Plan features to reduce the use of potable water include irrigation, including the Community Park and Nature Area, with municipal recycled water, on-site treated grey water, storm water and rainfall collection and reuse; and use of drought-tolerant and native landscape materials. Implementation of the Town Center/Community Park would result in a net increase in the number of trees on the property, including new trees that would be planted to provide cover and landscape for the Community Park and Nature Area.	Consistent
<i>Strategy ES-2.1.6: Alternate Energy Sources.</i> Promote and increase the use of alternate and renewable energy resources for the entire community through effective policies, programs and incentives.	The Specific Plan is consistent with this strategy. As noted, the Specific Plan identifies energy efficiency measures that reduce energy demand, increase energy efficiency, and generate on-site renewable energy. Potential strategies include but are not limited to the use of photovoltaics, fuel cells, or other technologies; use of natural ventilation in buildings; and providing thermal heating and cooling through a central system. The sustainability design goal is to achieve the highest level of certification from a globally recognized environmental sustainability certification program, such as LEED Platinum certification or its equivalency, which will include a requirement for recycled water for such purposes as irrigation, toilet flushing, and heating and cooling systems, among others.	Consistent

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<p><i>Strategy ES-2.1.7: Energy Cogeneration Systems.</i> Encourage the use of energy cogeneration systems through the provision of an awareness program targeting the larger commercial and industrial users and public facilities.</p>	<p>The Specific Plan is consistent with this strategy. A central plant will be constructed within the Plan Area providing centralized heating and cooling for most of the buildings. Each block will also contain mechanical support spaces in the spaces between the buildings and the Community Park and Nature Area above.</p>	<p>Consistent</p>
<p><i>Strategy ES-2.1.9: Energy Efficient Transportation Modes.</i> Continue to encourage fuel-efficient transportation modes such as alternative fuel vehicles, driverless vehicles, public transit, car and van-pooling, community and regional shuttle systems, car and bike sharing programs, safe routes to schools, commuter benefits, and pedestrian and bicycle paths through infrastructure investment, development incentives, and community education.</p>	<p>The Specific Plan is consistent with this strategy. The Specific Plan proposes a multi-modal Mobility Hub to include a free community shuttle, VTA local and express buses, future BRT, corporate shuttles, and sharing economy transportation services to facilitate and encourage alternative transportation services such as car sharing and bike sharing. Bikeways and pedestrian pathways would be located throughout the Plan Area and connect to existing and planned off-site pathways.</p>	<p>Consistent</p>
<p>GOAL ES-3: Improve building efficiency and energy conservation</p>	<p>The Specific Plan is consistent with this goal through the integration of energy efficiency and conservation principles in building design and practices.</p>	<p>Consistent</p>
<p>Policy ES-3.1: Green Building Design. Set standards for the design and construction of energy and resource conserving/efficient building.</p>	<p>The Specific Plan is consistent with this policy because it broadly targets energy efficiency measures that reduce energy demand, increase energy efficiency, and generate on-site renewable energy. The sustainability design goal is to achieve the highest level of certification from a globally recognized environmental sustainability certification program, such as LEED Platinum certification or its equivalency, which will include a requirement for recycled water for such purposes as irrigation, toilet flushing, and heating and cooling systems, among others. Chapter 5: Sustainability & Smart City Strategies of the Specific Plan defines these strategies.</p>	<p>Consistent</p>
<p>GOAL ES-4: Maintain healthy air quality levels</p>	<p>The Specific Plan is consistent with this goal. The Bay Area Air Quality Management District's (BAAQMD) 2010 Clean Air Plan includes control measure to reduce air pollution in the Bay Area. In addition to stationary source measures (which are addressed through BAAQMD permitting), the</p>	<p>Consistent</p>

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	<p>measures are grouped by Mobile Source, Transportation, Land Use and Local Impact, and Energy and Climate measures. The Specific Plan is consistent with applicable Mobile Source measures because it calls for provision of charging stations for electric vehicles and encourages transit use. The Specific Plan is consistent with applicable Transportation Control Measures because of the density and mix of land uses, as well as its provisions of bicycle and pedestrian facilities and a multi-modal Mobility Hub to facilitate and encourage alternative transportation services such as car sharing and bike sharing. Land Use and Local Impacts measures are designed to promote mixed-use, compact development to reduce VMT and associated emissions, as well as protecting people from stationary and mobile sources of emissions; the Specific Plan does not conflict with these measures. Energy and Climate measures are designed to reduce ambient concentrations of criteria air pollutants through promotion of energy conservation, renewable energy, reduced “urban heat island” effect, and plantings of trees. Measures to address energy efficiency have been previously identified.</p>	
<p>Policy ES-4.1: New Development. Minimize the air quality impacts of new development projects and air quality impacts that affect new development.</p>	<p>The Specific Plan is consistent with this policy. The Specific Plan includes measures to reduce construction-related and operational air quality impacts associated with the Town Center/Community Park that would also be applicable to future development within the Plan Area.</p>	<p>Consistent</p>
<p><i>Strategy ES-4.1.1: Toxic Air Contaminants.</i> Continue to review projects for potential generation of toxic air contaminants at the time of approval and confer with Bay Area Air Quality Management District on controls needed if impacts are uncertain.</p>	<p>The Specific Plan is consistent with this strategy. With the implementation of Environmental Design Features, both construction and operational health risk impacts would be less than significant.</p>	<p>Consistent</p>
<p><i>Strategy ES-4.1.2: Dust Control.</i> Continue to require water application to non-polluting dust control measures during demolition and the duration of the construction period.</p>	<p>The Specific Plan is consistent with this strategy. The Town Center/Community Park includes Environmental Design Features for fugitive dust control consistent with the BAAQMD, includes an Emissions Reduction Plan, and requires the payment of emission offset fees.</p>	<p>Consistent</p>

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<i>Strategy ES-4.1.3: Planning.</i> Ensure that land use and transportation plans support air quality goals.	The Specific Plan is consistent with this strategy because it would allow for a horizontally- and vertically-integrated mixed use Plan Area that includes multi-modal transportation features.	Consistent
<i>Strategy ES-4.2.3: Tree Planting in Private Development.</i> Review and enhance the City's tree planting and landscaping program and requirements for private development to reduce air pollution levels (Pg. ES-21)	The Specific Plan is consistent with this strategy. Of the approximately 895 trees associated with The Mall property and street trees, the Specific Plan provides for the retention of the majority of the trees as demonstrated in Chapter 2: Land Use & Development Standards and Chapter 7: Landscaping & the Public Realm of the Specific Plan. Retention of the existing mature trees is a priority and a significant component of the landscape screening between the Town Center/Community Park and the adjacent residential neighborhood. As a part of the Specific Plan, additional trees would be planted resulting in a net increase of trees. The Specific Plan identifies the existing and conceptually proposed locations for trees including along street frontages and in medians.	Consistent
Policy ES-4.3: Use of Open Fires and Fireplaces. Discourage high pollution fireplace use.	The Specific Plan is consistent with this policy by discouraging high pollution open fire pits and fireplaces.	Consistent
<i>Strategy ES-4.3.2: Fireplaces.</i> Continue to prohibit new wood-burning fireplaces, except EPA certified wood stoves as allowed by the Building Code.	The Specific Plan is consistent with this strategy; wood-burning fireplaces would be prohibited in the Plan Area.	Consistent
GOAL ES-5: Protect the City's Urban and Rural Ecosystems	The Specific Plan is consistent with this policy because it incorporates the 30-acre Community Park and Nature Area into the Plan Area, and for the reasons described below.	Consistent
Policy ES-5.1: Urban Ecosystem. Manage the public and private development to ensure the protection and enhancement of its urban ecosystem.	The Specific Plan is consistent with this policy. One example is the creation of the 30-acre Community Park and Nature Area.	Consistent
<i>Strategy ES-5.1.1: Landscaping.</i> Ensure that the City's tree planting, landscaping and open space policies enhance the urban ecosystem by encouraging medians, pedestrian-crossing curb-extensions planting that is native, drought-	The Specific Plan is consistent with this goal. As previously addressed, Specific Plan features to reduce the use of potable water include irrigation, including the Community Park and Nature Area, with municipal recycled water, on-site treated grey water, storm water and rainfall collection and reuse; and use of drought-tolerant and native landscape	Consistent

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<p>tolerant, treats stormwater and enhances urban plant, aquatic and animal resources in both, private and public development.</p>	<p>materials. Implementation of the Specific Plan would result in the replacement of primarily impervious surface with the 30-acre Community Park and Nature Area and other landscape areas. Rain water will be cleaned, and to the fullest extent possible, collected and reused within the Plan Area for irrigation. Rainfall on the podium area and Perimeter Road will be treated and reused through flow-through planters, bioretention planters and rainwater harvesting where feasible.</p>	
<p><i>Strategy ES-5.1.2: Built Environment.</i> Ensure that sustainable landscaping design is incorporated in the development of City facilities, parks and private projects with the inclusion of measures such as tree protection, stormwater treatment and planting of native, drought tolerant landscaping that is beneficial to the environment.</p>	<p>The Specific Plan is consistent with this strategy. Of the approximately 895 trees associated with The Mall property and street trees, the Specific Plan provides for the retention of the majority of the trees as demonstrated in Chapter 2: Land Use & Development Standards and Chapter 7: Landscaping & the Public Realm of the Specific Plan. Retention of the existing mature trees is a priority and a significant component of the landscape screening between the Town Center/ Community Park and the adjacent residential neighborhood. Implementation of the Town Center/Community Park would result in a net increase in the number of trees on the property, including new trees that would be planted to provide cover and landscape for the Community Park and Nature Area.</p>	<p>Consistent</p>
<p>GOAL ES-7: Ensure protection and efficient use of all water resources</p>	<p>The Specific Plan is consistent with this goal. As previously addressed, Specific Plan features to reduce the use of potable water include irrigation, including the Community Park and Nature Area, with municipal recycled water, on-site treated grey water, storm water and rainfall collection and reuse; and use of drought-tolerant and native landscape materials.</p>	<p>Consistent</p>
<p>Policy ES-7.1: Natural Water Bodies and Drainage Systems. In public and private development, use Low Impact Development (LID) principles to manage stormwater by mimicking natural hydrology, minimizing grading and protecting or restoring natural drainage systems.</p>	<p>The Specific Plan is consistent with this policy. The San Francisco Bay Municipal Regional Stormwater NPDES permit mandates treating 100% of the storm water runoff with LID measures (e.g., rainwater harvesting, re-use, infiltration, and biotreatment). Implementation of the Specific Plan would result in the replacement of primarily impervious surface with the 30-acre Community Park and Nature Area and other landscaped areas. Rain water will be cleaned, and to the fullest extent possible, collected and reused within the Plan Area for irrigation. Rainfall on the podium area</p>	<p>Consistent</p>

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	and Perimeter Road will be treated and reused through flow-through planters, bioretention planters and rainwater harvesting where feasible.	
Policy ES-7.2: Reduction of Impervious Surfaces. Minimize storm water runoff and erosion impacts resulting from development and use low impact development (LID) designs to treat stormwater or recharge groundwater	The Specific Plan is consistent with this policy because the Town Center/Community Park would increase pervious surfaces associated with the Community Park and Nature Area. Implementation of the Specific Plan would result in the replacement of primarily impervious surface with the 30-acre Community Park and Nature Area and other landscape areas.	Consistent
<i>Strategy ES-7.2.1: Lot Coverage.</i> Consider updating lot coverage requirements to include paved surfaces such as driveways and on-grade impervious patios to incentivize the construction of pervious surfaces.	The Specific Plan is consistent with this strategy; see response to Policy ES-7.2.	Consistent
<i>Strategy ES-7.2.2: Pervious Walkways and Driveways.</i> Encourage the use of pervious materials for walkways and driveways. If used on public or quasi-public property, mobility and access for the disabled should take precedence.	The Specific Plan is consistent with this strategy because it considers the use of porous pavers, pervious paving techniques, or other viable Low Impact Development (LID) techniques for storm water infiltration tools.	Consistent
<i>Strategy ES-7.2.3: Maximize Infiltration.</i> Minimize impervious surface areas, and maximize on-site infiltration and the use of on-site retention facilities.	The Specific Plan is consistent with this strategy. On-site storm drainage will be directed to retention basins for filtering and reuse as irrigation water for the Plan Area. These vaults will be sized per the San Francisco Bay Regional Water Quality Control Board requirements. Areas that cannot be diverted to these retention vaults will be treated prior to discharge using bio-retention, or other LID methods.	Consistent
Policy ES-7.3: Pollution and Flow Impacts. Ensure that surface and groundwater quality impacts are reduced through development review and voluntary efforts.	The Specific Plan is consistent with this policy. The Specific Plan includes features to reduce surface flows and water quality impacts.	Consistent
<i>Strategy ES-7.3.1: Development Review.</i> Require LID designs such as vegetated stormwater treatment systems and green infrastructure to mitigate pollutant loads and flows.	The Specific Plan is consistent with this strategy because the Town Center/Community Park includes LID design, and LID design would be required for development within Blocks 13 and 14. With respect to the Town Center/Community Park, rainfall would be cleansed through LID water measures including infiltration into soil, biofiltration swales, and	Consistent

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	water collection cisterns, and, to the fullest extent possible, collected and reused on site for irrigation and other recycled water uses to reduce the domestic water dependency of the project. Other areas would include flow-through planters, bioretention planters, and rainwater cisterns.	
<i>Strategy ES-7.4.3: Development.</i> Review development plans to ensure that projects are examined in the context of impacts on the entire watershed.	The Specific Plan is consistent with this strategy because all development within the Plan Area will be subject to review and compliance with mandated regulations.	Consistent
Policy ES-7.6: Other Water Sources. Encourage the research of other water sources, including water reclamation.	The Specific Plan is consistent with this policy because it incorporates the use of municipal recycled water, on-site treated grey water, storm water and rainfall collection and reuse; and use of drought-tolerant and native landscape materials.	Consistent
<i>Strategy ES-7.9.1: Water Conservation Measures.</i> Implement the mandatory water conservation measures and encourage the implementation of voluntary water conservation measures from the City's water retailers and SCVWD, in times of drought.	The Specific Plan is consistent with this strategy. Specific Plan features to reduce the use of potable water include irrigation, including the Community Park and Nature Area, with municipal recycled water, on-site treated grey water, storm water and rainfall collection and reuse; and use of drought-tolerant and native landscape materials.	Consistent
<i>Strategy ES-7.11.3: Recycled Water System.</i> Continue to work with water retailers to promote and expand the availability of recycled water in the City for public and private use.	The Specific Plan is consistent with this strategy. Water conservation efforts will include the extension of the future recycled water service to the Plan Area by the Project Applicant(s). This requirement does not apply to any hotel project.	Consistent
<i>Strategy ES-7.11.4: Recycled Water in Projects.</i> Encourage and promote the use of recycled water in public and private buildings, open space and streetscape planting.	The Specific Plan is consistent with this strategy. As previously noted, water conservation efforts will include but not be limited to the extension of the recycled water service line to the Plan Area by the Project Applicant(s), as well as on-site storm water capture and reuse for irrigation of the Community Park and Nature Area.	Consistent
<i>Strategy ES-7.11.5: On-site Recycled Water.</i> Encourage on-site water recycling including rainwater harvesting and gray water use.	The Specific Plan is consistent with this strategy because the Specific Plan incorporates the use of municipal recycled water, on-site treated grey water, storm water and rainfall collection and reuse; and use of drought-tolerant and native landscape materials.	Consistent

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<p><i>Strategy ES-7.11.7: Green Business Certification and Water Conservation.</i> Continue to support the City's Green Business Certification goals of long-term water conservation within City facilities, vegetated stormwater infiltration systems, parks and medians, including installation of low-flow toilets and showers, parks, installation of automatic shut-off valves in lavatories and sinks and water efficient outdoor irrigation.</p>	<p>The Specific Plan is consistent with this strategy because it includes sustainability strategies and infrastructure design guidelines with the intent of maximizing energy and water conservation. The sustainability design goal is to achieve the highest level of certification from a globally recognized environmental sustainability certification program, such as LEED Platinum certification or its equivalency, which will include a requirement for recycled water for such purposes as irrigation, toilet flushing, and heating and cooling systems, among others. Examples of some of the conservation measures included in the Specific Plan include but are not limited to the Community Park and Nature Area; use of recycled water for irrigation, the central plant cooling towers, and toilet flushing; collect and minimally treat rainwater to offset water consumption; reuse greywater when possible; reduce water consumption through building energy efficiency; use drought-tolerant and native landscape materials; and preserve existing healthy trees where feasible.</p>	<p>Consistent</p>
Health and Safety Element		
<p>GOAL HS-3: Protect the community from hazards associated with wildland and urban fires</p>	<p>The Specific Plan is consistent with this goal. All building fire water, including public hydrants along Perimeter Road and private hydrants in internal roads, will be served off the domestic water mains in Perimeter Road and meet Fire Code requirements. The Plan Area is in a developed area and is not adjacent to any wildland areas. The Plan Area is not within the area designated as Urban Wildland interface; the Wildland Urban Interface Fire Area map in Cupertino Municipal Code is consistent.</p>	<p>Consistent</p>
<p>Policy HS-3.4: Private Residential Electronic Security Gates. Discourage the use of private residential electronic security gates that act as a barrier to emergency personnel.</p>	<p>The Specific Plan is consistent with this policy because private residential security gates would not be permitted.</p>	<p>Consistent</p>
<p>Policy HS-3.7: Multi-Story Buildings. Ensure that adequate fire protection is built into the design of multi-story buildings and require on-site fire suppression materials and equipment.</p>	<p>The Specific Plan is consistent with this policy because all buildings, including multi-story buildings, would comply with the City of Cupertino's fire protection requirements which require the use of on-site fire suppression materials and equipment.</p>	<p>Consistent</p>

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GOAL HS-4 Ensure high level of community safety with police services that meet the community's needs	The Specific Plan is consistent with this goal. Although no additional police facilities are required, the Town Center/Community Park includes a fire/police substation to facilitate operations of these agencies during high attendance times within the Plan Area.	Consistent
Policy HS-4.2: Crime Prevention through Building and Site Design. Consider appropriate design techniques to reduce crime and vandalism when designing public spaces and reviewing development proposals.	The Specific Plan is consistent with this policy. The Town Center/Community Park and any portions of Block 14 processed as part of the Town Center/Community Park will require Architectural and Site Review. Architectural and Site Review provides a process to review the architectural and site designs of buildings, structures, signs, lighting, and landscaping. Additional security and public safety measures can be considered during this review.	
<i>Strategy HS-4.2.1: Perimeter Roads for Parks.</i> Encircle neighborhood parks with a public road to provide visual accessibility whenever possible.	The design of the Community Park and Nature Area is different than most parks because of its location on the roof. The Community Park and Nature Area is adjacent to Perimeter Road on the west side of the park and will be accessible from Perimeter Road. Visual accessibility throughout the park will be provided from the public access trails that traverse the entire park area.	Consistent
<i>Strategy HS-4.2.2: Development Review.</i> Continue to request County Sheriff review and comment on development applications for security and public safety measures.	The Specific Plan is consistent with this strategy. As noted in the response to Policy HS-4.2, the Town Center/Community Park and any portions of Block 14 processed as part of the Town Center/Community Park will require Architectural and Site Review. Additional security and public safety measures can be considered during this review.	Consistent
Policy HS-4.3: Fiscal Impacts. Recognize fiscal impacts to the County Sheriff and City of Cupertino when approving various land use mixes.	The Specific Plan is consistent with this policy. The Specific Plan identifies allowable funding mechanisms related to police protection.	Consistent
GOAL HS-5: Reduce risks associated with geologic and seismic hazards	The Specific Plan is consistent with this goal because all future development within the Plan Area would be designed to comply with the California Building Code (CBC) as adopted by the City in its Municipal Code, and the American Society of Civil Engineers (ASCE) 7-10 Minimum Design Loads for Buildings and Other Structures. These standards have been developed to reduce risks associated with geologic and seismic	Consistent

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	hazards. Development would be subject to inspection by the City. The Plan Area is not underlain by any known active or potentially active faults.	
<i>Strategy HS-5.1.1: Geotechnical and Structural Analysis.</i> Require any site with a slope exceeding 10 percent to reference the Landslide Hazard Potential Zone maps of the State of California for all required geotechnical and structural analysis.	The Specific Plan is consistent with this policy because the topography of the Plan Area is generally flat and is not located within a Seismic Hazard Zone for landslides.	Consistent
<i>Strategy HS-5.1.3: Geologic Review.</i> Continue to implement and update geologic review procedures for Geologic Reports required by the Municipal Code through the development review process.	The Specific Plan is consistent with this policy. The Specific Plan will comply with the Municipal Code, including geologic review provisions, to the extent it is not in conflict with the Specific Plan.	Consistent
GOAL HS-6 Protect people and property from the risks associated with hazardous materials and exposure to electromagnetic Fields	The Specific Plan is consistent with this goal because development projects are required to comply with all applicable federal, State and regional regulations regarding hazardous materials and electromagnetic fields. The City will review all individual development projects. If the City determines that a prospective user may generate an inordinate quantity or unusual hazardous waste material, then the proposed development may be subject to further review prior to approval.	Consistent
Policy HS-6.1: Hazardous Materials Storage and Disposal. 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.	The Specific Plan is consistent with this policy because facilities that store, handle or use regulated substances as defined in the California Health and Safety Code in excess of threshold quantities must prepare and implement, as necessary, a Hazardous Materials Business Plan (HMBP) for the determination of risks to the community. The HMBP will be reviewed and approved by the Santa Clara County Department of Environmental Health Hazardous Materials Compliance Division through the Certified Unified Program Agencies process. Additionally, all hazardous materials such as asbestos, lead based paint, fluorescent and mercury vapor light fixtures are required to be disposed of properly in accordance with applicable regulations. In addition, a Soil Management Plan for all development activities that occur on the Plan Area would be required to ensure that excavated soils are sampled and	Consistent

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	properly handled/disposed and imported fill materials are screened/analyzed before their use on the property or disposed of off of the Plan Area.	
<p>Policy HS-6.2: Proximity of Residents to Hazardous Materials. 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.</p>	The Specific Plan is consistent with this policy because the Plan Area is not located in an existing industrial or manufacturing area.	Consistent
<p>Policy HS-6.3: Electromagnetic Fields (EMF). Ensure that projects meet Federal and State standards for EMF emissions through development review.</p>	This Specific Plan is consistent with this policy because development projects are required to comply with all applicable federal, State and regional regulations regarding electromagnetic fields. The City will review all individual development projects to ensure that a prospective user complies with all applicable regulations.	Consistent
<p>Policy HS-6.4: Educational Programs. Continue to encourage residents and businesses to use non- and less-hazardous products, especially less toxic pest control products, to slow the generation of new reduce hazardous waste requiring disposal through the county-wide program.</p>	The Specific Plan is consistent with this policy. The City offers green business programs focused on conserving resources and reducing waste. Residents and businesses within the Plan Area would have access to these programs within the City.	Consistent
<p>Policy HS-6.5: Hazardous Waste Disposals. Continue to support and facilitate for residences and businesses a convenient opportunity to properly dispose of hazardous waste.</p>	The Specific Plan is consistent with this policy. The City offers a variety of household and business waste recycling and disposal programs. Residents and businesses within the Plan Area would have access to these programs within the City.	Consistent
<p>GOAL HS-7: Protect people and property from risks associated with floods.</p>	The Specific Plan is consistent with this goal because implementation would increase the amount of pervious surfaces in the Plan Area such that post-construction runoff volumes would be less than currently exists. Implementation of the Specific Plan would result in the replacement of primarily impervious surface with the 30-acre Community Park and	Consistent

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	Nature Area and other landscaped areas. Storm water runoff from the approximately 18 acres of impervious surfaces (driveways, parking areas, building rooftops not covered by the Community Park and Nature Area) would be infiltrated to the groundwater through various bioretention areas, or collected in rainwater cisterns for harvesting (watering landscaped areas).	
<p>Policy HS-7.4: Construction in Flood Plains. Continue to implement land use, zoning and building code regulations limiting new construction in the already urbanized flood hazard areas recognized by the Federal Flood Insurance Administrator.</p>	The Specific Plan is consistent with this policy because the Plan Area is outside of the 100-year floodplain and is outside of the flood inundation area associated with failure of the Stevens Creek Reservoir.	Consistent
<p>GOAL HS-8: Minimize noise impacts on the community and maintain a compatible noise environment for existing and future land uses.</p>	As part of the implementation of Goal HS-8 and of the above policies, in particular Policy HS-8.1, <i>Land Use Decision Evaluation</i> , the City of Cupertino has identified compatible noise levels for various types of land uses. Properties adjacent to N. Wolfe Road and Stevens Creek Boulevard fall within the 70 dBA CNEL contour, identified in the General Plan, as do properties proximate to I-280. Approximately half of the Plan Area is within a 70 dBA or 65 dBA CNEL contour. The southwestern portion of the Plan Area is within a 60 dBA CNEL contour. Cupertino has adopted the State of California Guidelines for Land Use Compatibility for Community Noise Environments. With the implementation of Environmental Design Features, impacts would be less than significant. The Specific Plan provides for development that will be compatible with these standards.	Consistent
<p>Policy HS-8.1: Land Use Decision Evaluation. Use the Land Use Compatibility for Community Noise Environments chart, the Future Noise Contour Map (see Figure D-1 in Appendix D) and the City Municipal Code to evaluate land use decisions.</p>	As noted above, the Specific Plan would be consistent with this policy.	Consistent
<p>Policy HS-8.2: Building and Site Design. Minimize noise impacts through appropriate building and site design.</p>	The Specific Plan is consistent with this policy. Pursuant to EDF N-4, project-specific noise studies would be required to demonstrate how dwelling design within the Town Center/Community Park would meet an	Consistent

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	interior residential standard of 45 dBA CNEL. In addition, new office spaces located within all blocks that would be near existing major roadways, including N. Wolfe Road, Vallco Parkway, and I-280 would be required to ensure interior noise is within levels that are considered suitable for new Specific Plan uses.	
<i>Strategy HS-8.2.1: Commercial Delivery Areas.</i> Locate delivery areas for new commercial and industrial developments away from existing or planned homes.	The Specific Plan is consistent with this strategy because to the degree feasible delivery areas will be cited to minimize noise to existing and planned residences. For example, design considerations addressed in the Specific Plan include concealing service entrances, loading docks, and trash collection areas from view within the building mass or by locating them underground. Some short-term retail loading may be located on the street.	Consistent
<i>Strategy HS-8.2.2: Noise Control Techniques.</i> Require analysis and implementation of techniques to control the effects of noise from industrial equipment and processes for projects near low-intensity residential uses.	The Specific Plan is consistent with this strategy because no industrial uses would be permitted within the Plan Area.	Consistent
<i>Strategy HS-8.2.3: Sound Wall Requirements.</i> 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.	The Specific Plan is consistent with this strategy because no new sound walls are needed within the Plan Area.	Consistent
Policy HS-8.3: Construction and Maintenance Activities. 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	The Specific Plan is consistent with this policy. In addition to compliance with the City's Municipal Code which restricts the hours and days of construction, the Environmental Design Features place further restrictions on the types and siting of construction equipment.	Consistent

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<p>construction equipment such as pile drivers, jack hammers, and vibratory rollers.</p>		
<p>Policy HS-8.4: Freeway Design and Neighborhood Noise. Ensure that roads and development along Highway 85 and Interstate 280 are designed and improved in a way that minimizes neighborhood noise.</p>	<p>The Specific Plan is consistent with this policy. As previously noted, properties proximate to I-280 are within the 70 dBA CNEL contour. Pursuant to the Environmental Design Features, project-specific noise studies would be required to demonstrate how dwelling design within the Town Center/Community Park would meet an interior residential standard of 45 dBA CNEL. In addition, new office spaces located within all blocks that would be near existing major roadways, including N. Wolfe Road, Vallco Parkway, and I-280 would be required to ensure interior noise is within levels that are considered suitable for new Specific Plan uses.</p>	<p>Consistent</p>
<p>Policy HS-8.5: Neighborhoods. Review residents' needs for convenience and safety and prioritize them over the convenient movement of commute or through traffic where practical.</p>	<p>The Specific Plan is consistent with this policy. The Specific Plan would not eliminate or redirect existing roadways through the Plan Area, nor does the Specific Plan redirect vehicular traffic through existing residential neighborhoods.</p>	<p>Consistent</p>
<p>Policy HS-8.6: Traffic Calming Solutions to Street Noise. Evaluate solutions to discourage through traffic in neighborhoods through enhanced paving and modified street design.</p>	<p>The Specific Plan is consistent with this policy. The Town Center/Community Park Project Applicant(s) is required to fund neighborhood traffic monitoring studies and provide fees to implement potential traffic calming improvements to minimize neighborhood traffic if needed. Prior to the issuance of any occupancy permits, the Town Center/Community Park Project Applicant(s) must provide up to \$300,000 for the City of Cupertino for potential neighborhood traffic improvements.</p>	<p>Consistent</p>
<p><i>Strategy HS-8.6.1: Local Improvement.</i> Modify street design to minimize noise impact to neighbors.</p>	<p>The Specific Plan is consistent with this strategy through the integration of a multi-modal transportation system that emphasizes the walkability and bikeability of the Plan Area. Additional factors associated with the Town Center/Community Park include underground parking in locations that encourage "one stop" parking (ability to walk to multiple destinations from one parking location). Other factors to minimize noise can include signal synchronization and the use of rubberized roadway materials.</p>	<p>Consistent</p>

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Infrastructure Element		
<p>Policy INF-1.1: Infrastructure Planning. Upgrade and enhance the City's infrastructure through the City's Capital Improvement Program (CIP) and requirements for development.</p>	<p>The Specific Plan is consistent with this policy. Implementation of the Specific Plan requires future project applicant(s) to assure that all on-site and off-site infrastructure, facilities, and services (improvements) required by the Specific Plan are installed, constructed, and completed.</p>	<p>Consistent</p>
<p><i>Strategy INF-1.1.2: Design Capacity.</i> Ensure that public infrastructure is designed to meet planned needs and to avoid the need for future upsizing. Maintain a balance between meeting future growth needs and over-sizing of infrastructure to avoid fiscal impacts or impacts to other goals.</p>	<p>The Specific Plan is consistent with this strategy because the wastewater treatment demand would not exceed the development allocations for the Plan Area set forth in the General Plan. The Specific Plan assumes a new public sanitary sewer main and upgrades to the existing sanitary sewer mains would be required and provided as a part of the Specific Plan. With respect to potable water, the Los Altos Suburban (LAS) District of the City of Cupertino has adequate water supplies for the reporting period of 2015 to 2040 to serve the Specific Plan and all existing and anticipated future customers for normal, single dry year, and multiple dry year conditions. As previously addressed, it is the intent of the Specific Plan to reduce the use of potable water by various means including recycling of water and use of grey water. New public water main lines would be required within the Plan Area. The Plan Area would have a dual plumbing system to accommodate recycle water when it becomes available.</p>	<p>Consistent</p>
<p><i>Strategy INF-1.1.3: Private Development.</i> Require new development to pay its fair share of, or to extend or construct, improvements to the City's infrastructure to accommodate growth without impacting service levels.</p>	<p>The Specific Plan is consistent with this strategy. The Specific Plan identifies the allowable mechanisms to finance on-site and off-site improvements including infrastructure improvements.</p>	<p>Consistent</p>
<p><i>Strategy INF-1.1.4: Coordination.</i> Require coordination of construction activity between various providers, particularly in City facilities and rights-of-way, to ensure that the community is not unnecessarily inconvenienced. Require that providers maintain adequate space for all utilities when planning and constructing their infrastructure.</p>	<p>The Specific Plan is consistent with this strategy because infrastructure improvements would be coordinated.</p>	<p>Consistent</p>

General Plan Text	Consistency	Consistent?
Policy INF-1.4: Funding. Explore various strategies and opportunities to fund existing and future infrastructure needs	The Specific Plan is consistent with this strategy. The Specific Plan identifies the allowable mechanisms to finance on-site and off-site improvements including infrastructure improvements.	Consistent
<i>Strategy INF-1.4.1: Existing Infrastructure.</i> Require developers to expand or upgrade existing infrastructure to increase capacity, or pay their fair share, as appropriate.	As previously addressed, the Specific Plan is consistent with this strategy.	Consistent
<i>Strategy INF-1.4.2: Future Infrastructure Needs.</i> For new infrastructure, require new development to pay its fair share of, or to extend or construct, improvements to accommodate growth without impacting service levels.	As previously addressed, the Specific Plan is consistent with this strategy.	Consistent
GOAL INF-2: Ensure that city rights-of-way are protected from incompatible uses and enhanced with sustainable features when possible	The Specific Plan is consistent with this goal. The Specific Plan land uses are consistent with the City’s General Plan land uses and designations for the Plan Area. Therefore, rights of way within the Plan Area would also be compatible. Sustainable features for the Plan Area are addressed in Chapter 5: Sustainability & Smart City Strategies of the Specific Plan.	Consistent
Policy INF-2.2: Multimodal Systems. Ensure that City rights-of-way are planned for a variety of transportation alternatives including pedestrian, bicycle, automobile, as well as new technologies such as driverless cars, etc.	The Specific Plan is consistent with this policy. Public streets within the Plan Area are planned to provide for vehicular, transit, and bicycle traffic as well as pedestrian pathways. Future adaptation of these public streets for new technologies can be evaluated as necessary in the future in accordance with the Specific Plan and City laws and regulations.	Consistent
Policy INF-2.3: Green Streets. Explore the development of a “green streets” program to minimize stormwater runoff in City rights-of-way.	The Specific Plan is consistent with this policy. Implementation of the Specific Plan would result in the replacement of f primarily impervious surface with the 30-acre Community Park and Nature Area and other landscaped areas. Storm water runoff from the approximately 18 acres of impervious surfaces (driveways, parking areas, building rooftops not covered by the Community Park and Nature Area) would be infiltrated to the groundwater through various bioretention areas, or collected in rainwater cisterns for harvesting (watering landscaped areas).	Consistent

General Plan Text	Consistency	Consistent?
Policy INF-2.4: Undergrounding Utilities. Explore undergrounding of utilities through providers, public projects, private development and agency funding programs and grants.	The Specific Plan is consistent with this policy because utilities would be placed underground to the extent feasible.	Consistent
<i>Strategy INF-2.4.2: Development.</i> Require undergrounding of all utility lines in new developments and highly encourage undergrounding in remodels or redevelopment of major projects.	The Specific Plan is consistent with this strategy because utilities would be placed underground to the extent feasible.	Consistent
Policy INF-2.5: Recycled Water Infrastructure. Plan for citywide access to recycled water and encourage its use.	The Specific Plan is consistent with this policy because water lines for both potable and recycle water will be provided within the Plan Area in order that recycled water can be used once service is available.	Consistent
<i>Strategy INF-2.5.1: Availability.</i> Expand the availability of a recycled water system through public infrastructure projects and development review.	The Specific Plan is consistent with this strategy. As previously noted, water conservation efforts will include the extension of the recycled water service to the Plan Area by the Project Applicant(s), as well as on-site storm water capture and reuse for irrigation of the Community Park and Nature Area.	Consistent
<i>Strategy INF-2.5.2: Use.</i> Encourage private and public projects to incorporate the use of recycled water for landscaping and other uses.	The Specific Plan is consistent with this strategy. As previously addressed, Specific Plan features to reduce the use of potable water include irrigation, including the Community Park and Nature Area, with municipal recycled water, on-site treated grey water, storm water and rainfall collection and reuse; and use of drought-tolerant and native landscape materials.	Consistent
<i>Strategy INF-2.5.4: Vallco Town Center Specific Plan.</i> <u>Require that a mixed use project carried out pursuant to the Vallco Town Center Specific Plan extend the recycled water line to the area covered by the Vallco Town Center Specific Plan and maximize use of recycled water. This requirement shall not apply to any hotel project within the Vallco Town Center Specific Plan area.</u>	The Specific Plan is consistent with this strategy. As previously noted, water conservation efforts will include but not be limited to the extension of the recycled water service, by the Project Applicant(s), as well as on-site storm water capture and reuse for irrigation of the Community Park and Nature Area.	Consistent

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GOAL INF-4: Implement best practices in stormwater management to reduce demand on the stormwater network, reduce soil erosion, and reduce pollution into reservoirs and the Bay	The Specific Plan is consistent with this goal because it will result in the replacement of primarily impervious surface with the 30-acre Community Park and Nature Area and other landscape areas. Rain water will be cleaned, and to the fullest extent possible, collected and reused within the Plan Area for irrigation. Rainfall on the podium area and Perimeter Road will be treated and reused through flow-through planters, bioretention planters and rainwater harvesting where feasible.	Consistent
<i>Strategy INF-4.1.1: Management.</i> Reduce the demand on storm drain capacity through implementation of programs that meet and even exceed on-site drainage requirements.	The Specific Plan is consistent with this policy. The San Francisco Bay Municipal Regional Stormwater NPDES permit mandates treating 100% of the storm water runoff with LID measures (e.g., rainwater harvesting, re-use, infiltration, and biotreatment). The Specific Plan would result in the replacement of primarily impervious surface with the 30-acre Community Park and Nature Area. Rain water will be cleaned, and to the fullest extent possible, collected and reused within the Plan Area for irrigation. Rainfall on the podium area and Perimeter Road will be treated and reused through flow-through planters, bioretention planters and rainwater harvesting where feasible.	Consistent
<i>Strategy INF-4.1.3: Maintenance.</i> Ensure that City's storm drain infrastructure is appropriately maintained to reduce flood hazards through implementation of best practices.	The Specific Plan is consistent with this strategy. The Specific Plan identifies the on-site and off-site improvements, the timing for these improvements, and a description of the allowable financing mechanisms for the implementation and maintenance of improvements.	Consistent
GOAL INF-5: Ensure that the city's wastewater system continues to meet current and future needs	The Specific Plan is consistent with this goal because the Specific Plan provides for additional infrastructure and upgrades to existing infrastructure and upgrades to existing infrastructure to accommodate the Plan Area's flows.	Consistent
Policy INF-5.1: Infrastructure. Ensure that the infrastructure plans for Cupertino's waste water system providers continue to meet the City's current and future needs.	The Specific Plan is consistent with this policy; see response to Goal INF-5.	Consistent
<i>Strategy INF-5.1.2: Development.</i> Require developers to pay their fair share of costs for, or	The Specific Plan is consistent with this strategy; see response to Goal INF-5.	Consistent

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in some cases construct, infrastructure upgrades to ensure that service levels are met.		
Policy INF-5.2: Demand. Look for ways to reduce demand on the City's wastewater system through implementation of water conservation measures.	The Specific Plan is consistent with this policy. Features to reduce the use of potable water include irrigation, including the Community Park and Nature Area, with municipal recycled water, on-site treated grey water, storm water and rainfall collection and reuse; and use of drought-tolerant and native landscape materials.	Consistent
GOAL INF-6: Encourage innovative technologies and communication systems that provide excellent services to businesses and residents	The Specific Plan is consistent with this goal. Existing public communication lines run underground on the east side of N. Wolfe Road from north to south. There are no proposed changes to these lines. Internal to the Plan Area, communication lines would be extended from N. Wolfe Road to serve future development within the Plan Area off of Perimeter Road. Communication lines, including wireless communications, serving future development within the Plan Area would be sized appropriately to serve new users at speeds and capacities that meet current standards set by a competitive marketplace among communications providers.	Consistent
<i>Strategy INF-6.2.4: Agency and Private Facilities.</i> Encourage the installation of communications infrastructure in facilities owned by other public agencies and private development.	Existing public communication lines run underground on the east side of N. Wolfe Road from north to south. There are no proposed changes to these lines. The Town Center/Community Park will extend communication lines from N. Wolfe Road to serve development off of Perimeter Road.	Consistent
GOAL INF-7: Ensure that the city meets and exceeds regulatory waste diversion goals by working with providers, businesses and residents	<p>The Specific Plan is consistent with this goal. As required by AB 939, a minimum of 50 percent of the City's solid waste must be diverted from landfills. Per the Municipal Code, the construction contractor would be required to salvage or recycle at least 60 percent of the debris from construction to meet City requirements.</p> <p>One of the objectives of the Specific Plan is to minimize the consumption of energy and water, and to maximize the amount of waste diverted from landfills. Proposed Specific Plan strategies include recycling or salvaging of non-hazardous construction and demolition waste; maximizing the use of recycled materials in the infrastructure; using concrete containing fly ash,</p>	Consistent

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	slag, or other recycled fill; providing bins for recyclables and compostables in all public areas; and partnering to ensure all collected compostables are diverted from landfills.	
Policy INF-7.2: Facilities. Ensure that public and private developments build new and on-site facilities and/or retrofit existing on-site facilities to meet the City's waste diversion requirements.	The Specific Plan is consistent with this policy. See response to Goal INF-7.	Consistent
Policy INF-7.3: Operations. Encourage public agencies and private property owners to design their operations to meet, and even, exceed regulatory waste diversion requirements.	The Specific Plan is consistent with this policy. See response to Goal INF-7.	Consistent
GOAL INF-8: Develop and enhance programs that reduce, reuse and recycle waste	The Specific Plan is consistent with this goal. One of the focus areas of the Specific Plan is demolition waste and dust control, use of recycled construction materials and solid waste separation and land fill avoidance. Proposed Specific Plan strategies include recycling or salvaging the majority of non-hazardous construction and demolition waste; maximizing the use of recycled materials in the infrastructure and buildings; using concrete containing fly ash, slag, or other recycled fill; providing bins for recyclables and compostables in all public areas; and partnering to ensure all collected compostables are diverted from landfills.	Consistent
Policy INF-8.1: Reducing Waste. Meet or exceed Federal, State and regional requirements for solid waste diversion through implementation of programs.	The Specific Plan is consistent with this policy because it identifies strategies and requirements to reduce the division of solid waste to landfills during construction and operation.	Consistent
<i>Strategy INF-8.1.1: Outreach.</i> Conduct and enhance programs that promote waste reduction through partnerships with schools, institutions, businesses and homes.	The Specific Plan is consistent with this policy because it identifies strategies and requirements to reduce the division of solid waste to landfills during construction and operation.	Consistent
<i>Strategy INF-8.1.2: Hazardous Waste.</i> Work with providers and businesses to provide convenient	The Specific Plan is consistent with this strategy. The City offers a variety of household and business waste recycling and disposal programs.	Consistent

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hazardous and e-waste facilities for the community.	Residents and businesses within the Plan Area would have access to these programs within the City.	
<i>Strategy INF-8.1.5: Collaboration.</i> Collaborate with agencies and large businesses or projects to enhance opportunities for community-wide recycling, reuse and reduction programs.	The Specific Plan is consistent with this strategy; see response to Goal INF-8.	Consistent
<i>Strategy INF-8.1.X: Construction Waste.</i> Continue to require recycling and encourage the reuse of building materials during demolition and construction of City, agency and private projects.	The Specific Plan is consistent with this strategy. Waste would be diverted through recycling, reuse at future construction sites within the Plan Area, or reuse at off-site locations. A waste diversion plan prepared by future project applicant(s) within the Plan Area would identify, source, and reuse/recycle materials by category. Concrete, steel, and wood would be sorted separately for reuse and recycling. Drywall, carpet and other finish materials would be evaluated for appropriate diversion streams. Delivery packaging and crating would be planned for intended reuse and diversion, and integrated into the Plan Area-wide waste diversion program.	Consistent
<i>Strategy INF-8.1.X: Recycled Materials.</i> Encourage the use of recycled materials and sustainably harvested materials in City, agency and private projects.	The Specific Plan is consistent with this strategy as noted in the response to Strategy INF-7.3.2.	Consistent
Recreation, Parks, and Community Services Element		
GOAL RPC-1: Create a full range of park and recreational resources and preserve natural resources	The Specific Plan is consistent with this goal because it provides for multiple park and recreational facilities. The Town Center/Community Park's 30-acre Community Park and Nature Area would include public trails, playgrounds, passive and active recreational areas, open space, vineyards, orchards, and organic gardens, and an outdoor amphitheater.	Consistent
Policy RPC-1.2: Parkland Standards. Continue to implement a parkland acquisition and implementation program that provides a minimum of three acres per 1,000 residents.	The Specific Plan exceeds the City's park standards. Based on the City's average household size, the Specific Plan would generate the need for 6.79 acres of parkland. The Specific Plan includes two Town Squares and the 30-acre Community Park and Nature Area for a total of approximately 33 acres of accessible park and open space areas.	Consistent
<i>Strategy RPC-1.2.1: Park Size.</i> Require target for parks based on function and activity supported as	The City's General Plan park standard is 3 acres of park per 1,000 people. Based on the City's average household size (2.87 persons per household),	Consistent

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<p>part of the Parks and Recreation Master Plan. While the preferred size for most neighborhood parks is about 3.5 acres for flexibility of use, smaller size parks may be considered based on opportunities and circumstances.</p>	<p>the Town Center/Community Park would generate the need for approximately 6.79 acres of parkland. The Specific Plan includes two Town Squares and a 30-acre Community Park and Nature Area for a total of approximately 33 acres of accessible park and open space areas. The Community Park and Nature Area would include a playground and trails which are features often found in neighborhood parks.</p>	
<p><i>Strategy RPC-1.2.2: Amend Parkland Standard.</i> Explore increasing the parkland standard to five acres per 1,000 residents as part of the citywide Parks and Recreation Master Plan.</p>	<p>The Specific Plan would exceed the 5 acres of parkland per 1,000 residents standard proposed in this strategy. Under this revised standard, the Specific Plan would be required to provide approximately 11.5 acres of parkland; approximately 33 acres of accessible park and open space areas are being provided.</p>	Consistent
<p>GOAL RPC-2: Distribute parks and open space throughout the community and provide services, and safe and easy access, to all residents and workers</p>	<p>The Specific Plan is consistent with this goal because it provides park and open space areas within the Plan Area that would be open to the public and accessible because of multi-modal transportation options internal and external to the Plan Area.</p>	Consistent
<p>Policy RPC-2.1: Parkland Acquisition. The City's parkland acquisition strategy should be based upon three broad objectives:</p> <ul style="list-style-type: none"> ▪ Distributing parks equitably throughout the City; ▪ Connecting and providing access by providing paths, improved pedestrian and bike connectivity and signage; and ▪ Retaining and restoring creeks and other natural open space areas. 	<p>The Specific Plan is consistent with this policy; see response to Goal RPC-2. The Community Park and Nature Area would be accessible to pedestrians and bicyclists through pathways through the Plan Area that connect to off-site existing and planned City pathways.</p>	Consistent
<p><i>Strategy RPC-2.1.1: Dedication of Parkland.</i> New developments, in areas where parkland deficiencies have been identified, should be required to dedicate parkland rather than paying in-lieu fees.</p>	<p>The Specific Plan is consistent with this strategy because 33 acres of parks and open space will be provided within the Plan Area.</p>	Consistent

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<p>Policy RPC-2.2: Private Open Space and Recreation Facilities. Encourage the continued existence and profitability of private open space and recreation facilities through incentives and development controls.</p>	<p>The Specific Plan is consistent with this policy through the provision of two publicly accessible Town Squares and the 30-acre Community Park and Nature Area.</p>	<p>Consistent</p>
<p><i>Strategy RPC-2.2.2: New Facilities.</i> Require major developments to incorporate private open space and recreational facilities, and seek their cooperation in making the spaces publicly-accessible.</p> <ul style="list-style-type: none"> ▪ Where feasible, ensure park space is publicly-accessible (as opposed to private space). ▪ Encourage active areas to serve community needs. However, a combination of active and passive areas can be provided based on the setting. ▪ Integrate park facilities into the surroundings. ▪ If public parkland is not dedicated, require park fees based on a formula that considers the extent to which the publicly-accessible facilities meet community need. 	<p>The Specific Plan is consistent with this strategy. As previously noted, the Town Squares and Community Park and Nature Area will be accessible to the public. The Community Park and Nature Area will include both passive and active recreational areas.</p>	<p>Consistent</p>
<p>Policy RPC-2.3: Parkland Distribution. Strive for an equitable distribution of parks and recreational facilities throughout the city. Park acquisition should be based on the following priority list. Accessibility to parks should be a component of the acquisition plan.</p> <ul style="list-style-type: none"> ▪ High Priority: Parks in neighborhoods or areas that have few or no park and recreational areas. 	<p>The Specific Plan is consistent with this policy. The 30-acre Community Park and Nature Area is a feature of the Town Center/Community Park. As previously noted, both portions of the Community Park and Nature Area and the Town Squares will be publicly accessible.</p>	<p>Consistent</p>

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<ul style="list-style-type: none"> ▪ Medium Priority: Parks in neighborhoods that have other agency facilities such as school fields and district facilities, but no City parks. ▪ Low Priority: Neighborhoods and areas that have park and recreational areas which may be slightly less than the adopted City's parkland standard. ▪ Private Development: Consider pocket parks in new and renovated projects to provide opportunities for publicly-accessible park areas. 		
<p>Policy RPC-2.4: Connectivity and Access. Ensure that each home is within a half-mile walk of a neighborhood park or community park with neighborhood facilities; ensure that walking and biking routes are reasonably free of physical barriers, including streets with heavy traffic; provide pedestrian links between parks, wherever possible; and provide adequate directional and site signage to identify public parks.</p>	<p>The Specific Plan is consistent with this policy through the provision of pedestrian and bicycle pathways throughout the Plan Area. All residents of the Plan Area would be less than ½-mile from the Community Park and Nature Area, which will be identified with wayfinding signage.</p>	<p>Consistent</p>
<p><i>Strategy RPC-2.4.1: Pedestrian and Bike Planning.</i> Implement recommendations in the Bicycle and Pedestrian Plans to link employment and special areas, and neighborhood to services including parks, schools and neighborhood shopping.</p>	<p>The Specific Plan is consistent with this strategy. The Plan Area is located in a Transit Priority Area and therefore includes walkable connections to existing and planned transit opportunities. Pedestrian and bicycle pathways would be located throughout the area and would connect to existing and planned connections external to the Plan Area. Within the Plan Area, employment, commercial/retail, entertainment, hotel, and recreational uses would be provided. Sidewalks will be continuous, accessible, and tree-lined with signalized crosswalks connecting the street grid. The existing bicycle network on N. Wolfe Road, Vallco Parkway, and Stevens Creek Boulevard will continue onto the site with additional bike lanes on the interior street network. The other internal roads will be</p>	<p>Consistent</p>

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	shared bike/vehicle lanes. All roadway access points off of the public roadways will include safe pedestrian and bicycle crossings, and will connect to the Plan Area's internal street grid.	
<i>Strategy RPC-2.4.2: Signage.</i> Adopt and maintain a master signage plan for all public parks to ensure adequate and consistent signage is provided to identify public recreational areas.	As it applies to the Specific Plan, the Specific Plan will have a Master Sign Program for the Plan Area. Wayfinding is a term used to describe how pedestrians, bicyclists, and motorists navigate throughout the Plan Area. The intent of the wayfinding signage plan is to provide a consistent set of identifiable signs to enable users to navigate effectively throughout the Plan Area, including movement through the Community Park and Nature Area.	Consistent
Policy RPC-2.5: Range of Park Amenities. Provide parks and recreational facilities for a variety of recreational activities.	The Specific Plan is consistent with this policy because a range of amenities will be provided in the Community Park and Nature Area. Community activities will be located in the center of the park and provide uses including a large play space and garden for children, indoor and outdoor community meeting spaces, dining opportunities, an outdoor amphitheater and performance spaces, vineyards, orchards, and organic gardens.	Consistent
<i>Strategy RPC-2.5.1: Special Needs.</i> Extend recreational opportunities for special needs groups (seniors, disabled, visually-challenged, etc.) by making improvements to existing facilities and trails.	The Specific Plan is consistent with this strategy. The Community Park and Nature Area will include a minimum of 3.8 miles of pedestrian trails. An ADA accessible promenade path loop constructed of flexible stabilized permeable materials will be provided on the Community Park and Nature Area.	Consistent
<i>Strategy RPC-2.5.3: Community Gardens.</i> Encourage community gardens, which provide a more livable environment by controlling physical factors such as temperature, noise, and pollution.	The Specific Plan is consistent with this strategy. The Community Park and Nature Area will include vineyards, orchards, and organic gardens.	Consistent
GOAL RPC-4: Integrate parks and public facilities within neighborhoods and areas	The Specific Plan is consistent with this goal because the Plan Area will include a 30-acre Community Park and Nature Area.	Consistent
Policy RPC-4.1: Recreational Intensity. Design parks appropriately to address the facility and recreational programming required by each	The Specific Plan is consistent with this goal because the 30-acre Community Park and Nature Area exceeds the City's requirements for the provision of parkland and is a unique feature of the Town Center/Community Park.	Consistent

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special area and neighborhood based on current and future plans for the areas.		
Policy RPC-4.2: Park Safety. Design parks to enhance public safety by providing visibility to the street and access for public safety responders.	The Specific Plan is consistent with this policy. Safety within the Community Park and Nature Area will be addressed by an integrative strategy of design, programming, maintenance and community involvement. Parks users will be safely protected by various design strategies that will prohibit access to the roof edge.	Consistent
GOAL RPC-5: Create an interconnected system of multi-use trails and provide safe pedestrian and bicycle access through the City and connections to local nodes and destinations	The Specific Plan is consistent with this goal. The Plan Area is located in Transit Priority Area and therefore includes walkable connections to existing and planned transit opportunities. As previously addressed, pedestrian and bicycle improvements will be constructed to connect to existing and future planned facilities. These improvements include a trailhead connection on N. Wolfe Road; intersections and intersection improvements to accommodate pedestrian and bike traffic without vehicular conflicts; and continuous sidewalks. Within the Plan Area, bicycle striping, green bike lanes, and bike boxes will highlight the presence of a multi-modal street network.	Consistent
<i>Strategy RPC-5.1.1: Pedestrian and Bike Planning.</i> Implement recommendations in the Bicycle and Pedestrian Plan that link trails and open space to neighborhoods and special areas.	The Specific Plan is consistent with this strategy; see response to Goal RPC-5.	Consistent
<i>Strategy RPC-5.1.2: Trail Projects.</i> Implement trail projects described in this Element; evaluate any safety, security and privacy impacts and mitigations associated with trail development; and work with affected neighbors in locating trails to ensure that their concerns are appropriately addressed.	The Specific Plan is consistent with this strategy. As noted, pedestrian and bicycle improvements will be constructed to connect to existing and future planned facilities. The Specific Plan provides that pedestrian and bicycle improvements will connect to existing and future planned facilities, and it provides for a funding contribution for a future planned trail along the south side of I-280 between De Anza Boulevard and N. Wolfe Road. The Town Center/Community Park will also fund transportation and transit infrastructure.	Consistent
<i>Strategy RPC-5.1.3: Dedicated Trail Easements.</i> Require dedication or easements for trails, as	The Specific Plan is consistent with this strategy because trails will be provided as a part of the Specific Plan.	Consistent

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well as their implementation, as part of the development review process, where appropriate.		
Policy RPC-5.2: Pedestrian and Bicycle Paths. Develop a citywide network of pedestrian and bicycle pathways to connect employment centers, shopping areas and neighborhoods to services including parks, schools, libraries and neighborhood centers.	The Specific Plan is consistent with this policy because it provides pedestrian and bicycle pathways within the Plan Area and connections to off-site existing and planned pathways.	Consistent
GOAL RPC-6: Create and maintain a broad range of recreation programs and services that meet the needs of a diverse population.	The Specific Plan is consistent with this goal. Both the Town Squares and the Community Park and Nature Area provide opportunities for a variety of programs.	Consistent
Policy RPC-6.2: Partnerships. Enhance the city's recreational programs and library service through partnerships with other agencies and non-profit organizations. If higher level of library service is desired, cooperation with the County of Santa Clara to expand service and/or facilities may be required.	The Specific Plan is consistent with this policy because the 30-acre Community Park and Nature Area and the High School science and engineering Innovation Center will improve the City's recreational and educational opportunities.	Consistent
Policy RPC-6.3: Art and Culture. Utilize parks as locations of art and culture and to educate the community about the city's history, and explore the potential to use art in facilities and utilities when located in parks.	The Specific Plan is consistent with this policy because permanent and temporary public art will be provided in the Plan Area. Public art may include sculptures, painting/murals, mosaics, or functional artwork and may be located in the Town Squares, the Stevens Creek Boulevard frontage, and within the Community Park and Nature Area.	Consistent
GOAL RPC-7: Provide high-quality, flexible and well-maintained community facilities that meet the changing needs of the community and area a source of community identity	The Specific Plan is consistent with this goal because a range of amenities will be provided in the Community Park and Nature Area. Community activities will be located in the center of the park and provide uses including a large play space and garden for children, indoor and outdoor community meeting spaces, dining opportunities, an outdoor amphitheater and performance spaces, vineyards, orchards, and organic gardens.	Consistent
Policy RPC-7.2: Flexibility. Design facilities to be flexible to address changing community needs.	The Specific Plan is consistent with this policy. The Community Park and Nature Area will include areas for community gatherings such as	Consistent

General Plan Text	Consistency	Consistent?
	weddings, fundraisers, cultural events and festivals that creates an open and flexible community space for multiple programming opportunities.	
Policy RPC-7.3: Maintenance. Design facilities to reduce maintenance, and ensure that facilities are maintained and upgraded adequately.	The Specific Plan is consistent with this policy because facilities within the Plan Area will be subject to ongoing maintenance, and upgrades as needed.	Consistent
GOAL RPC-8: Cooperate with school districts to share facilities and meet community needs	The Specific Plan is consistent with this goal. The Specific Plan provides for a High School science and engineering Innovation Center that would be a flexible, multi-use space used by district high school students to build projects together while collaborating with members of the greater community.	Consistent
<i>Strategy RPC-8.1.1: Shared Facilities.</i> Maintain and enhance arrangements with schools for the use of sports fields, theaters, meeting spaces and other facilities through maintenance agreements and other partnerships.	The Specific Plan is consistent with this strategy. See response to Goal RPC-8.	Consistent
<i>Strategy RPC-8.1.3: School Facility Needs.</i> Collaborate with schools on their facility needs through sharing of development information and partnerships through major development projects.	The Specific Plan is consistent with this strategy. See response to Goal RPC-8.	Consistent

14 Noise and Vibration

14.1 Introduction

This chapter describes the existing setting of the Plan Area as it relates to ambient noise levels; identifies applicable regulatory requirements; evaluates potential impacts on noise and vibration; and references Specific Plan Environmental Design Features (EDFs) to reduce or avoid potential impacts.

Information used to prepare this chapter came from the following sources:

- City of Cupertino General Plan, *Community Vision 2015–2040*, 2015
- Ramboll Environ, 2016. *The Vallco Town Center Specific Plan Noise Assessment Technical Report*. February. (see [Appendix N](#))

14.2 Environmental Setting

14.2.1 General Information on Noise

Noise is sometimes defined as unwanted sound. This section makes no such distinction, and the terms noise and sound are used more or less synonymously.

The human ear responds to a very wide range of sound intensities. The decibel scale (dB) used to describe sound is a logarithmic rating system which accounts for the large differences in audible sound intensities. This scale accounts for the human perception of a doubling of loudness as an increase of 10 dB. Therefore, a 70-dB sound level will sound about twice as loud as a 60-dB sound level. People generally cannot detect differences of 1 dB. In ideal laboratory situations, differences of 2 or 3 dB can be detected by people, but such a change probably would not be noticed in a typical outdoor environment. A 5-dB change would probably be clearly perceived by most people under normal listening conditions.

On the logarithmic decibel scale used to describe noise, a doubling of sound-generating activity (i.e., a doubling of the sound energy) causes a 3-dB increase in average sound produced by that source, not a doubling of the loudness of the sound (which requires a 10-dB increase). For example, if traffic along a road is causing a 60 dB sound level at some nearby location, twice as much traffic on this same road would cause the sound level at this same location to increase to 63 dB. Such an increase might not be discernible in a complex acoustical environment.

When addressing the effects of noise on people, it is useful to consider the frequency response of the human ear. Sound-measuring instruments are therefore often programmed to “weight” measured sounds based on the way people hear. The frequency-weighting most often used is A-weighting because it approximates the frequency response of human hearing and is highly correlated to the effects of noise on people. Measurements from instruments using this system are reported in “A weighted decibels” or dBA. All sound levels in this evaluation are reported in A-weighted decibels.

Relatively long, multi-source “line” sources, such as roads with continuous traffic, emit cylindrical sound waves. Due to the cylindrical spreading of these sound waves, sound levels from such sources decrease with each doubling of distance from the source at a rate of about 3 dBA. Sound waves from discrete events or stationary “point” sources, such as a car horn, spread as a sphere, and sound levels from such sources decrease 6 dBA per doubling of the distance from the source. Conversely, moving half the distance closer to a source increases sound levels by 3 dBA and 6 dBA for line and point sources, respectively.

In addition to distance from the source, the frequency of the sound, the absorbency of the intervening ground, the presence or absence of intervening obstructions, and the duration of the noise-producing event all affect the transmission and perception of noise. The degree of the effect on perception also depends on who is listening (individual physiological and psychological factors) and on existing sound levels (background noise). Typical sound levels of some familiar noise sources and activities are presented in [Table 14-1: Sound Levels Produced by Common Noise Sources](#).

When assessing potential community response to noise, it is helpful to have a metric that averages varying noise exposure over time and quantifies the result in terms of a single number descriptor. Several such metrics have been developed that address community noise levels. Those applicable to this analysis are the Equivalent Noise Level (Leq), the Day-Night Noise Level (Ldn), and the Community Noise Equivalent Level (CNEL). The Leq is the level of a constant sound that has the same sound energy as the actual fluctuating sound. As such, it can be considered an energy-average sound level for a given period of time (e.g., 15 minutes, 1 hour, 24 hours, etc.).

The Ldn is a 24-hour Leq with a 10-decibel penalty added to sound levels that occur between 10:00 p.m. and 7:00 a.m. in consideration of potential for sleep disturbance.

The CNEL is similar to the Ldn but includes an additional 5-decibel penalty to sound levels that occur between 7:00 p.m. and 10:00 p.m. As a result, this metric is slightly more stringent than the Ldn. The CNEL is used by City of Cupertino Health and Safety Element of the City of Cupertino General Plan, *Community Vision 2015–2040* (General Plan) when assessing the compatibility of land uses relative to exiting sound levels.

14.2.2 General Information on Vibration

In addition to generating noise, heavy construction equipment can generate groundborne vibration. Equipment that result in blows or impacts on the ground surface produces vibrational waves that radiate along the surface of the earth and downward into the earth, potentially resulting in effects that range from annoyance to structural damage. As vibrations travel outward from the source, they excite the particles of rock and soil through which they pass and cause them to oscillate by a few ten-thousandths to a few thousandths of an inch. Differences in subsurface geologic conditions and distance from the source of vibration will result in different vibration levels characterized by different frequencies and intensities. In all cases, vibration amplitudes will decrease with increasing distance. The maximum rate or velocity of particle movement is the commonly accepted descriptor of the vibration “strength.” This is referred to as the peak particle velocity (ppv) and is typically measured in inches per second.

Table 14-1: Sound Levels Produced by Common Noise Sources

Thresholds / Noise Sources	Sound Level	Subjective Evaluations	Possible Effects on Humans	
Human Threshold of Pain	140	Deafening	Continuous Exposure Can Cause Hearing Loss	
Carrier jet takeoff (50 ft)	130			
Siren (100 ft)	120			
Chain saw Noisy snowmobile	110	Very Loud		
Lawn mower (3 ft) Noisy motorcycle (50 ft)	100			
Heavy truck (50 ft)	90			
Pneumatic drill (50 ft) Busy urban street, daytime	80	Loud		Speech Interference
Normal automobile at 50 mph Vacuum cleaner (3 ft)	70			
Large air conditioning unit (20 ft) Conversation (3 ft)	60	Moderate		
Quiet residential area Light auto traffic (100 ft)	50			
Library Quiet home	40	Faint	Sleep Interference	
Soft whisper (15 ft)	30			
Slight Rustling of Leaves	20			
Broadcasting Studio	10	Very Faint		
Threshold of Human Hearing	0			

Source: Ramboll Environ, 2016

Vibration energy spreads out as it travels through the ground, causing the vibration level to diminish with distance away from the source. High frequency vibrations reduce much more rapidly than low frequencies, so that low frequencies tend to dominate the spectrum at large distances from the source. Discontinuities in the soil strata can also cause diffractions or channelling effects that affect the propagation of vibration over long distances. When vibration encounters a building, a ground-to-foundation coupling loss will usually reduce the overall

vibration level, however, under certain circumstances, the ground-to-foundation coupling may also amplify the vibration level due to structural resonances of the floors and walls.

Human response to vibration is difficult to quantify. Vibration can be felt or heard well below the levels that produce any damage to structures. Typical background levels in residential areas is about 50 VdB, and most people generally cannot detect levels below about 65 VdB, and generally do not consider levels below 70 VdB to be of significance (FTA 2006). However note that the duration of a vibration event has an effect on human response, as does frequency. Generally, as the duration and vibration frequency increase, the potential for adverse human response increases. While people have varying sensitivities to vibrations at different frequencies, in general they are most sensitive to low-frequency vibration. Vibration in buildings caused by construction activities may be perceived as motion of building surfaces or rattling of windows, items on shelves, and pictures hanging on walls. Vibration of building components can also take the form of an audible low-frequency rumbling noise, which is referred to as groundborne noise. Groundborne noise is usually only a problem when the originating vibration spectrum is dominated by frequencies in the upper end of the range (60 to 200 Hz), or when the structure and the construction activity are connected by foundations or utilities, such as sewer and water pipes. **Table 14-2: Vibration Source Levels for Construction Equipment** provides a summary of vibration levels from typical construction equipment. **Table 14-3: Effects of Construction Vibration** summarizes the average human response to vibration that may be anticipated when a person is at rest in quiet surroundings. If the person is engaged in any type of physical activity, vibration tolerance increases considerably.

14.2.3 Regional Setting

Interstate 280 (I-280) and State Route 85 (SR 85) are the largest contributors to noise in Cupertino. Other major roadways contribute noise, as well. These include Homestead Road, Stevens Creek Boulevard, McClellan Road, Bollinger Road, Rainbow Drive, Prospect Road, Foothill Boulevard, Bubb Road, Stelling Road, De Anza Boulevard, Blaney Avenue, and Wolfe Road. Noise along all of these roadways is generated by private cars, trucks, buses, and other types of vehicles. Activities associated with industrial, commercial, and residential uses also contribute substantially to the noise environment of Cupertino. For all of these uses, stationary equipment, such as heating, ventilation, and air conditioning (HVAC) systems, represents a substantial source of noise. Deliveries and refuse collection also contribute to the noise generated by land uses in Cupertino.

14.2.4 Specific Plan Area Setting

According to the City of Cupertino's General Plan noise levels at the northeast corner of the intersection of Wolfe Road and Stevens Creek Boulevard are 68 dB Ldn (69 dB CNEL) (City of Cupertino, 2015).

Long-term (i.e., multiple day) and short-term (i.e., less than an hour) sound level measurements were taken at multiple locations throughout the Plan Area to quantify the acoustic environment and provide qualitative descriptions of the dominant and minor sources of noise at each

location. The existing acoustic environment is varied, but generally noise from traffic sources are considered dominant throughout. At residential areas located west of the northern portion of the Plan Area, traffic noise from I-280 was observed as the dominant source, and also noted to be continuous over day and night periods, with a small drop in levels during night-time hours. At these and also at other locations, noise from local roadways, including Stevens Creek Boulevard and others, were received as acoustically dominant sources.

Table 14-2: Vibration Source Levels for Construction Equipment

Equipment		PPV at 25 ft (in/sec)	Approx. VdB at 25 ft
Pile Driver (impact)	Upper range	1.518	112
	Typical	0.644	104
Pile Drive (sonic)	Upper range	0.734	105
	Typical	0.170	93
Clam shovel drop (slurry wall)		0.202	94
Hydromill (slurry wall)	In soil	0.008	66
	In rock	0.017	75
Vibratory Roller		0.210	94
Hoe Ram		0.089	87
Large bulldozer		0.089	87
Caisson drilling		0.089	87
Loaded trucks		0.076	86
Jackhammer		0.035	79
Small bulldozer		0.003	58

Note: RMS velocity in decibels (VdB) re 1 micro-inch/second; Source: Ramboll Environ, 2016.

Table 14-3: Effects of Construction Vibration

Peak Particle Velocity (in/sec)	Effect on Humans	Effect on Buildings
<0.005	Imperceptible	No effect on buildings
0.005 to 0.015	Barely perceptible	No effect on buildings
0.02 to 0.1	Barely to distinctly perceptible	No effect on buildings
0.1 to 0.5	Distinctly perceptible to strongly perceptible; Vibrations considered unacceptable for people exposed to continuous or long term vibration	Minimal potential for damage to weak or sensitive structures
0.5 to 1.0	Strongly perceptible to mildly unpleasant; Vibrations considered bothersome by most people, however tolerable if short-term in length	Threshold at which there is a risk of architectural damage to buildings with plastered ceilings and walls. Some risk to ancient monuments and ruins.
1.0 to 2.0	Mildly unpleasant to distinctly unpleasant; Vibrations considered unpleasant by most people	Blasting vibration in this range will not harm most buildings. Most construction vibration limits are in this range.
>2.0	Distinctly unpleasant to intolerable	Potential for architectural damage and possible minor structural damage.

Source: Ramboll Environ, 2016

The Plan Area is typical of an urban mixed-use area within close proximity of major transportation corridors. Noise from I-280 represents a continuous noise presence throughout the community, with little to no shielding from large existing buildings or changes in topography. Typical traffic activity includes mostly cars and motorcycles, but also buses and trucks including haul trucks from the quarries located at the west end of the Cupertino. Residential activity noises are typical of most residential areas including miscellaneous lawn maintenance noises, noise from children playing, and other sources.

14.2.5 Sensitive Receptors

Human response to noise varies considerably from one individual to another. Effects of noise at various levels can include interference with sleep, concentration, and communication; physiological and psychological stress; and hearing loss. Given these effects, some land uses are considered more sensitive to ambient noise levels than others. Land uses are considered noise “sensitive receivers” where low noise levels are necessary for these uses in order to preserve their intended goals such as relaxation, recreation, education, health, and general state of well-being. Residential uses are considered most sensitive to noise because people spend extended periods of time and sleep at home. Other noise sensitive receivers typically include hotels/motels, churches, schools, libraries, and hospitals. Sensitive receptors are located in the homes west of the Specific Plan area (along Norwich Avenue, Amherst Drive, Denison Avenue, and Wheaton Drive) and southeast of the Specific Plan area (in the condominium building at 19800 Wolfe Road, south of Vallco Parkway). Development of Block 13, which has already been approved, would introduce sensitive receptors in hotel rooms.

Implementation of the Specific Plan would introduce new sensitive receptors in the residential and open space components of the Town Center/Community Park, as well as in the hotel rooms and supporting commercial uses on the Block 14 property. In addition, although not considered to be as sensitive as residential or park uses, commercial and retail spaces introduced by the Specific Plan are afforded a level of protection in the Cupertino General Plan to ensure that such facilities can operated +under commonly accepted acoustical standards.

14.3 Applicable Regulations, Plans, and Standards

14.3.1 Federal

U.S. Department of Transportation Federal Transit Administration

The U.S. Department of Transportation Federal Transit Administration (FTA) has recommended noise criteria related to traffic-generated noise. Recommendations contained in the May 2006 Transit Noise and Vibration Impact Assessment prepared by FTA can be used as guidance to determine whether or not a change in traffic would result in a substantial permanent increase in noise. Under the FTA standards, the allowable noise exposure increase is reduced with increasing ambient existing noise exposure, such that higher ambient noise levels have a lower allowable noise exposure increase. **Table 14-4: Significance of Changes in Operational Roadway Noise Exposure** shows the significance thresholds for increases in traffic-related noise levels. These standards are applicable to impacts on existing sensitive receptors.

Table 14-4: Significance of Changes in Operational Roadway Noise Exposure

Existing Noise Exposure (dBA L _{dn} or L _{eq})	Allowable Noise Exposure Increase (dBA L _{dn} or L _{eq})
45–50	7
50–55	5
55–60	3
60–65	2
65–74	1
75+	0

Source: FTA, 2006.

The FTA also recommends vibration impact thresholds to determine whether groundborne vibration would be “excessive.” According to FTA, groundborne vibration impact criteria for residential receptors are 72 vibration decibels (Vdb) for frequent events, 75 Vdb for occasional events, and 80 Vdb for infrequent events (FTA, 2006). FTA recommends an 80 Vdb threshold for infrequent events at residences and buildings where people normally sleep and 83 Vdb threshold at institutional buildings with primarily daytime uses. In terms of groundborne vibration impacts on structures, FTA states that groundborne vibration levels in excess of 100 Vdb would damage fragile buildings and levels in excess of 95 Vdb would damage extremely fragile historic buildings. The threshold for implementation of the Specific Plan is 80 Vdb for

infrequent events at residences and buildings where people normally sleep (e.g. the existing residences south of Vallco Parkway and west of the Plan Area).

Occupational Safety and Health Act

Under the Occupational Safety and Health Act of 1970 (29 U.S.C. §651 et seq.), the United States Department of Labor, Occupational Safety and Health Administration (OSHA) adopted regulations (29 CFR §1910.95) designed to protect workers against the effects of occupational noise exposure. These regulations list limits on noise exposure levels as a function of the amount of time during which the worker is exposed. The regulations further specify requirements for a hearing conservation program (§1910.95(c)), a monitoring program (§1910.95(d)), an audiometric testing program (§1910.95(g)), and hearing protection (§1910.95(i)). There are no federal laws governing community noise that are applicable to the Specific Plan.

14.3.2 State

California Government Code § 65302 encourages each local government entity to implement a noise element as part of its general plan. In addition, the California Governor's Office of Planning and Research has developed guidelines for preparing noise elements, which include recommendations for evaluating the compatibility of various land uses as a function of community noise exposure. The recommendations established by the Office of Planning and Research are shown in [Figure 14-1: Noise Compatibility Matrix](#).

14.3.3 Local

City of Cupertino General Plan

The City of Cupertino's General Plan, as amended, Health and Safety Element includes policies related to noise. A list of the relevant General Plan polices and strategies are provided below. A General Plan Land Use Consistency Analysis for the Specific Plan is provided in [Chapter 13, Land Use and Planning, Table 13-1](#).

Goal HS-8: Minimize noise impacts on the community and maintain a compatible noise environment for existing and future land uses.

Policy HS-8.1: Land Use Decision Evaluation

Use the Land Use Compatibility for Community Noise Environments chart, the Future Noise Contour Map (see Figure D-2 in Appendix D) and the City Municipal Code to evaluate land use decisions.

Policy HS-8.2: Building and Site Design

Minimize noise impacts through appropriate building and site design.

Strategy HS-8.2.1: Commercial Delivery Areas

Locate delivery areas for new commercial and industrial developments away from existing or planned homes.

Strategy HS-8.2.2: Noise Control Techniques

Require analysis and implementation of techniques to control the effects of noise from industrial equipment and processes for projects near low-intensity residential uses.

Strategy HS-8.2.3: Sound Wall Requirements

Exercise discretion in requiring sound walls to be sure that all other measures of noise control have been explored and that the sound wall blends with the neighborhood. Sound walls should be designed and landscaped to fit into the environment.

Policy HS-8.3: Construction and Maintenance Activities

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.

Policy HS-8.4: Freeway Design and Neighborhood Noise

Ensure that roads and development along Highway 85 and Interstate 280 are designed and improved in a way that minimizes neighborhood noise.

Policy HS-8.5: Neighborhoods

Review residents' needs for convenience and safety and prioritize them over the convenient movement of commute or through traffic where practical.

Policy HS-8.6: Traffic Calming Solutions to Street Noise

Evaluate solutions to discourage through traffic in neighborhoods through enhanced paving and modified street design.

Strategy HS-8.6.1: Local Improvement

Modify street design to minimize noise impact to neighbors.

Policy HS-8.7: Reduction of Noise from Trucking Operations

Work to carry out noise mitigation measures to diminish noise along Foothill and Stevens Creek Boulevards from the quarry and cement plant trucking operations. These measures include regulation of truck speed, the volume of truck activity, and trucking activity hours to avoid late evening and early morning. Alternatives to truck transport, specifically rail, are strongly encouraged when feasible.

Strategy HS-8.7.1: Restrictions in the County's Use Permit

Coordinate with the County to restrict the number of trucks, their speed and noise levels along Foothill and Stevens Creek Boulevards, to the extent allowed in the Use Permit. Ensure that restrictions are monitored and enforced by the County.

Strategy HS-8.7.2: Road Improvements to Reduce Truck Impacts

Consider road improvements such as medians, landscaping, noise attenuating asphalt, and other methods to reduce quarry truck impacts.

As part of the implementation of Goal HS-8 and of the above policies, in particular Policy HS-8.1, *Land Use Decision Evaluation*, the City of Cupertino has identified compatible noise levels for various types of land uses. See [Figure 14-2](#) of this EA. Properties adjacent to Wolfe Road and Stevens Creek Boulevard fall within the 70 dBA CNEL contour, as do properties in proximity to I-280. Approximately half of the Plan Area is within a 70 dBA or 65 dBA CNEL contour. The southwestern portion of the Plan Area is within a 60 dBA CNEL contour. Cupertino has adopted the State of California Guidelines for Land Use Compatibility for Community Noise Environments, which are shown in [Figure 14-1: Noise Compatibility Matrix](#).

City of Cupertino Municipal Code

Maximum Noise Level Limits

The City of Cupertino Municipal Code contains all ordinances for the City. The Municipal Code is organized by Title, Chapter, and Section. Chapter 10.48, Community Noise Control, establishes acceptable daytime and nighttime noise levels. As summarized in Section 10.48.040, the maximum permissible noise level (as measured at receiving sensitive land uses) that may be generated by sources on a nonresidential land use is 55 dBA during nighttime hours and 65 dBA during daytime hours. The maximum permissible noise level that may be generated by sources on a residential land use is 50 dBA during nighttime hours and 60 dBA during daytime hours. Daytime hours are defined to be the period from 7:00 a.m. to 8:00 p.m. on weekdays, and from 9:00 a.m. to 6:00 p.m. on weekends. Nighttime hours are defined as non-daytime hours, or the period from 8:00 p.m. to midnight and from midnight to 7:00 a.m. on weekdays, and from 6:00 p.m. to midnight and from midnight to 9:00 a.m. on weekends.

Pursuant to Section 10.48.050, during the daytime period only, brief noise incidents exceeding established limits are permitted, providing that the sum of the noise duration in minutes plus the excess noise level does not exceed twenty in a 2-hour period. [Table 14-5: City of Cupertino Maximum Permissible Noise Levels](#) shows example combinations of allowable noise level exceedances.

Table 14-5: City of Cupertino Maximum Permissible Noise Levels

Noise Increment Above Normal Standard	Noise Duration in 2-Hour Period
5 dBA	15 minutes
10 dBA	10 minutes
15 dBA	5 minutes
19 dBA	1 minute

Source: City of Cupertino, 2016 (Municipal Code Section 10.48.050)

Landscaping and Outdoor Public Events

Pursuant to Section 10.48.051 of the Cupertino Municipal Code, and applicable to the Specific Plan, the use of motorized equipment for landscape maintenance activities is limited to the hours of 8:00 a.m. to 8:00 p.m. on weekdays, and 9:00 a.m. to 6:00 p.m. on weekends and holidays. During these hours, noise from the use of motorized equipment for landscape maintenance activities is allowed to exceed the maximum permissible noise limits of Section 10.48.040 of the Municipal Code, provided that the equipment is outfitted with appropriate mufflers and is operated over the minimal period necessary.

Pursuant to Section 10.48.052, outdoor events that would generate higher levels of noise than would normally occur, including (but not limited to) PA systems, musical instruments, etc., and that have been permitted by the City are subject to the following restrictions:

- Event shall not exceed 70 dBA at receiving residential properties for more than 3 hours during daytime hours;
- Event shall not exceed 60 dBA at receiving residential properties between 8 p.m. and 11 p.m., and shall not exceed 55 dBA during any other nighttime period; and
- Continuous or repeated peak noise shall not exceed 95 dBA at any location where persons may be continuously exposed.

The City may impose additional noise restrictions when issuing a permit.

Construction

Pursuant to Section 10.48.053 of the Municipal Code, noise from grading, construction, and demolition activities is also allowed to exceed the maximum permissible noise limits described above, provided that the equipment utilized is outfitted with high-quality mufflers and abatement devices and is in good condition. In addition, noise-producing construction activities must meet one of the following criteria:

- No individual device produces a noise level of more than 87 dBA as measured at a distance of 25 feet; or

- The operation of such equipment does not produce noise levels that exceed 80 dBA as measured at any nearby property.

Except for emergency work, construction activities including grading, street construction, demolition, or underground utility work are not permitted within 750 feet of a residential area on Saturdays, Sundays, and holidays, and during the nighttime period. Construction activities, other than street construction, are prohibited on holidays. In addition, construction activities, other than street construction, are prohibited during nighttime periods unless they meet the City's nighttime maximum permissible noise level standards.

The City's land use activity and site development regulations in Section 19.60.060 of the Municipal Code address noise standards for new commercial construction that adjoins a residential district. The construction of new buildings on properties adjoining a residential district must include the following noise attenuation features:

- Exterior walls must be designed to attenuate all noise emanating from interior retail space.
- Loading docks and doors must be located away from residential districts. Required fire doors are excluded.
- Air conditioning, exhaust fans, and other mechanical equipment must be acoustically isolated to comply with the noise ordinance.
- A minimum 8-foot-high masonry sound wall must be installed on or adjacent to the common property line, and
- An acoustical engineer must certify that the sound attenuation measures comply with the intent of the regulation and the City's community noise ordinance.

14.4 Impacts and Environmental Design Features

14.4.1 Significance Criteria

The following significance criteria for noise were derived from the Environmental Checklist in the State CEQA Guidelines Appendix G. These significance criteria have been amended or supplemented, as appropriate, to address the City of Cupertino requirements and the full range of potential impacts related to implementation of the Specific Plan.

An impact would be considered significant and would require mitigation if it would meet one of the following criteria.

- Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies.
- Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels.

- A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project.
- A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project.
- For a project located within an airport land use plan or, where such a plan has not been adopted, within 2 miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?
- For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?

Approach to Analysis

The analysis below summarizes the findings of *The Vallco Town Center Specific Plan Noise Assessment Technical Report*, included in **Appendix N** (Ramboll Environ, 2016). For the purposes of this assessment, a *substantial permanent* increase in ambient noise is defined as increase of 3 dBA or more, and a *substantial temporary increase* in ambient noise is defined as increase of 5 dBA or more. Note that a 3 dBA or more increase in ambient noise is considered to be perceptible to most people with normal hearing in a quiet and calm environment, and therefore a 3-dBA increase would be considered substantial if it were permanent. A 5-dBA or greater increase in ambient noise would be readily perceptible to most people with normal hearing in a typical (i.e., noisy) environment and is, therefore, considered substantial even if temporary.

14.4.2 Summary of No and/or Beneficial Impacts

Proximity to a Public or Private Airport

The Plan Area is not located within any airport noise impact contours and would therefore not expose residents or workers to excessive noise levels from airport or private air strip operations, and therefore there would be no impact as to this criterion.

Reduced Ambient Noise Levels at Some locations in the Specific Plan Area

At residential areas located west of the Plan Area, specifically along Denison Avenue and along Norwich Avenue, as well as most residences within one or two housing rows west of these streets, ambient noise levels with implementation of the Specific Plan may decrease because the Town Center/Community Park would act as a buffer between homes within this residential community and traffic noise from I-280. Development on Block 14 also would act as a buffer that would reduce ambient noise levels in those residential areas nearest Block 14. And because there are no other known significant noise sources impacting these homes, it is estimated that ambient sound levels could be reduced by as much as 3 dBA or more when I-280 is not the dominant traffic noise source (i.e., when traffic noise from I-280 is shielded). Wolfe Road or Stevens Creek Boulevard would remain dominant traffic noise sources at homes nearest those roadways.

Therefore, relative to ambient conditions at some noise-sensitive receivers, operation of land uses within the Plan Area could result in an improvement (i.e., lowering) of ambient noise levels at these locations.

14.4.3 Impacts of the Specific Plan

Impact N-1: Would construction of uses pursuant to implementation of the Specific Plan result in temporary exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?

Noise from construction-related activities would result in substantial temporary or periodic increases in ambient noise levels resulting in a significant noise impact per the State CEQA Guidelines, Appendix G. The Cupertino Municipal Code requires that overall construction noise levels do not exceed 80 dBA or that individual equipment not exceed 87 dBA; overall construction noise levels may exceed one of these two construction noise limits, but not both, as permitted. Construction noise would not violate related policies established in the Cupertino General Plan.

Construction Equipment Noise

Hourly noise levels for all construction equipment were estimated at a distance of 25 feet, as shown in **Table 14-6: Construction Equipment Sound Levels at Property Line**. Also included in this table is an estimate of whether individual equipment would comply with CMC 10.48.053(A)(1), limiting noise emissions to 87 dBA at 25 feet.

Table 14-6: Construction Equipment Sound Levels at Property Line

Construction Equipment	Leq dBA at Property Line (25 feet from Equipment)	Complies with Municipal Code? ¹
Concrete Saw	89	No
Excavator	83	Yes
Dozer	84	Yes
Pickup Truck	77	Yes
Tractor	86	Yes
Backhoe	80	Yes
Front End Loader	81	Yes
Pickup Truck	77	Yes
Grader	87	Yes
Scraper	86	Yes

Construction Equipment	Leq dBA at Property Line (25 feet from Equipment)	Complies with Municipal Code? ¹
Crane	79	Yes
Front End Loader	81	Yes
All Other Equipment > 5HP	88	No
Welder / Torch	76	Yes
Paver	80	Yes
Paving Dump Truck	78	Yes
Roller	79	Yes
Compressor (air)	80	Yes
Concrete Mixer Truck	81	Yes
Dump Truck	78	Yes

Notes:

(1) Municipal 10.48.053(A)(1) states that construction activities may exceed otherwise applicable noise limits if either (1) no individual device shall produce a noise level more than 87 dBA at a distance of 25 ft or (2) the noise level on any nearby property does not exceed 80 dBA. Source: FHWA Roadway Construction Noise Model, assembled by Ramboll Environ

To evaluate the potential for impacts relative to the Municipal Code standards (i.e., absolute construction noise sound level limit of 80 dBA at the property line or equipment specific sound level limit of 87 dBA at a distance of 25 feet), estimates of the loudest construction activity type were evaluated under absolute worst-case conditions, when equipment operating within each activity type could be nearest the property line. Because estimates for each activity type include a range of equipment, it was assumed that the reasonable nearest center of equipment/activities, under worst-case conditions, would be 25 feet from the property line. For residential receivers west of the Town Center/Community Park and Block 14 components of the Plan, construction noise was estimated 10 feet from the property line (i.e., a total distance of 35 feet) and accounted for the approximately 8-foot tall concrete wall that would shield existing homes from construction-related noise. At other locations, including 19800 Wolfe Road (residences) and Block 13 (hotel), there are no existing walls that would shield construction noise. **Table 14-7: Construction Noise Levels at Noise-Sensitive Locations** summarizes expected worst-case construction noise levels.

As illustrated in **Table 14-7: Construction Noise Levels at Noise-Sensitive Locations**, the highest levels of construction noise are expected at 19800 Wolfe Road and Block 13, exceeding the Municipal Code 80-dBA construction noise limit. Along the western perimeter of the Town Center/Community Park and Block 14, the existing wall would provide a high level of noise mitigation from construction noise, especially at those homes nearest the wall (i.e., the wall is less effective for homes located farther away). However, even with the existing wall, construction noise may exceed the 80-dBA limit under at least two (2) construction scenarios (grading and building construction), resulting in a significant noise impact. Note that this is a

worst-case estimate because construction noise levels may be slightly lower immediately adjacent to the wall (where shielding provided by the wall would be greatest) and also farther than 10-feet away. Note also that the existing wall height is varied and in many areas may be taller than 8 feet, and the actual levels of reduction achieved by the wall may be higher.

Table 14-7: Construction Noise Levels at Noise-Sensitive Locations

Receiver Location	Sound Level (dBA)						Municipal Code Construction Noise Limit ³
	Demo.	Site Prep.	Grading	Building Const.	Paving	Architect. Coating	
At 25 ft ¹	93	94	95	94	87	80	80 dBA
At 35 ft, Behind 8-ft Barrier ²	79	80	82	81	74	66	

Source: Calculations by Ramboll Environ

Note: **Bold** denotes sound levels that exceed Municipal Code construction noise limit of 80 dBA at property line.

(1) Noise levels 25' from the construction activity, includes 19800 Wolfe Road and Block 13.

(2) Noise levels along western property boundary, assumes the receivers are 10' behind the existing 8-ft tall barrier for a total distance of 35' from construction activity.

(3) The 80dBA noise limit may be exceeded if no individual piece of equipment in operation produces a noise level of more than 87 dBA at a distance of 25 feet.

The sound level estimates provided in **Table 14-7: Construction Noise Levels at Noise-Sensitive Locations**, although potentially exceeding the Municipal Code 80-dBA construction noise limit, would be considered in compliance with the Municipal Code provided individual construction equipment operate at less than 87 dBA at a distance of 25 feet.

As further explained in *The Vallco Town Center Specific Plan Noise Assessment Technical Report*, included in **Appendix N**, and as summarized in **Table 14-8: Cumulative Construction Noise Levels**, construction noise during grading operations could be 26–46 dBA higher than the lowest existing daytime hourly sound levels (i.e., between the hours of 7:00 a.m. and 8:00 p.m. on weekdays and 9:00 a.m. and 6:00 p.m. on weekends) at nearby noise sensitive properties. This range of increase is considered a substantial temporary or periodic increase in ambient noise levels per significance criteria (i.e., greater than 5 dBA over existing ambient conditions) and would be considered a significant noise impact. Note that the highest levels of increase over existing conditions would be at residences located at 19800 Wolfe Road because existing ambient levels are relatively low and there are no existing noise barriers to shield from construction noise.

Table 14-8: Cumulative Construction Noise Levels

Existing Noise Receiving Location	Background Sound Level ¹	Noise Level from Grading Activity at 25'	Increase over Background (dBA)
West of Town Center/Community Park and Block 14 ²	50 – 54	81 – 82	27 – 32
19800 Wolfe Road ³	49	95	46
Block 13 ⁴	69	95	26

Source: Calculations by Ramboll Environ

Note: **Bold** denotes sound levels that are considered a substantial temporary increase

(1) Lowest daytime hourly sound level, based on review of sound level measurement data by Illingworth & Rodkin, Inc.

(2) Residential locations 10 feet behind a noise barrier on the western property line (a total of 35' from the grading noise emissions).

(3) Residences located on Wolfe Road and along Vallco Parkway. Existing sound levels based on measurements at location of similar existing acoustic conditions.

(4) Residences located on south side of Block 13, adjacent to Vallco Parkway. Existing sound levels are estimate only based on measurements at location of expected similar acoustic conditions

The Specific Plan includes **EDF 40: On-Site Construction Noise** to reduce this impact. This EDF is included at the end of the discussion of **Impact N-1**, beginning on page 14-18. West of the Town Center/Community Park and Block 14, it is expected that these measures would reduce construction noise impacts to less-than-significant. At 19800 Wolfe Road and Block 13, measures contained within **EDF 40: On-Site Construction Noise** also would be applicable and likely effective at reducing overall construction noise received at these properties. However, temporary increases in sound levels due to construction may at times be considered a significant impact at 19800 Wolfe Road and Block 13.

Relative to the Municipal Code, **EDF 40: On-Site Construction Noise** is expected to result in overall construction activity noise levels that are within 80 dBA west of the Town Center/Community Park and Block 14, and/or individual equipment would not exceed 87 dBA at 25 feet. At noise-sensitive properties at 19800 Wolfe Road and Block 13, overall construction noise levels may at times exceed 80 dBA, however individual equipment would be limited to 87 dBA at 25 feet, and therefore in compliance with the Municipal Code.

Haul Traffic Noise

Substantial and temporary traffic noise impacts would result from construction-related haul traffic noise received at off-site locations.

A large number of haul trucks are anticipated at the Town Center/Community Park during all staging sequences of construction to remove debris and dirt, provide construction materials and concrete, and to mobilize heavy equipment. The precise haul routes have not yet been determined, but it is assumed that haul traffic would arrive from the north end, along Wolfe Road, and arrive and leave via I-280, traveling either southbound or northbound. Therefore, as assessment of haul truck traffic was completed to evaluate these two haul options. Results of the haul truck assessment are provided below in **Table 14-9: Off-Site Haul Traffic Noise**. Sound levels provided in this table represent the worst-case haul route sound levels for each receptor

location (i.e., northbound or southbound route on I-280). Results are provided as 1-hour Leq during daytime hours. Background sound levels represent the quietest sound levels measured during daytime hours. Sound levels at nearby hotels and the apartment homes north of I-280, as well as at 19800 Wolfe Road, were based on sound level measurement data taken at locations that acoustically similar to these receivers.

Table 14-9: Off-Site Haul Traffic Noise

Location	Background Sound Level	Offsite Truck Noise Only	Offsite Truck plus Background	Increase Over Background
Hotel north of I-280	68.7	56.7	69.0	0.3
Apartment Homes north of I-280	53.9	56.9	58.6	4.8
19800 Wolfe Road	49.4	61.4	61.7	12.2
Merritt Dr east of Norwich Ave	53.9	52.1	56.1	2.2

Source: Calculations by Ramboll Environ

Note: **Bold** denotes sound levels that are considered a significant impact

Results of the haul route assessment indicate that at 19800 Wolfe Road, an increase of up 12.2 dBA during daytime hours would exceed the temporary impact threshold by 7.2 dBA. Noise increases at other locations would be less than significant. The Specific Plan includes **EDF 41: Haul Traffic Noise** to reduce this impact to the extent feasible. However, note that even with these environmental design features, it is likely that haul traffic noise emissions would exceed existing levels by more than 5 dBA at 19800 Wolfe Road. Therefore this temporary noise impact would remain significant.

Environmental Design Features for Impact N-1

EDF 40: On-Site Construction Noise

The Town Center/Community Park applicant and other project applicants for future development shall be required to adhere to the construction noise limits of the Cupertino Municipal Code.

The following items would further reduce the potential for high levels of noise from construction equipment or activities, and ensure that noise complaints are addressed promptly and if necessary, corrective action is taken:

- Along the western boundary of the Town Center/Community Park and Block 14, near the existing residential district, prepare and implement a 24-hour construction noise monitoring program to be installed and operated remotely. The noise monitoring program would continuously monitor construction noise levels at select perimeter locations and alert a designated person(s) when noise levels exceed allowable limits. If noise levels are found to exceed allowable limits, additional noise attenuation measures (i.e., sound walls) will be undertaken.

- Require that all equipment be fitted with properly sized mufflers, and if necessary, engine intake silencers.
- Require that all equipment be in good working order.
- Use quieter construction equipment models if available, and whenever possible, use pneumatic tools rather than using diesel or gas-powered tools.
- Place portable stationary equipment as far as possible from existing residential areas, and if necessary, place temporary barriers around stationary equipment.
- Whenever possible, require that construction contractors lift heavy equipment rather than drag.
- For mobile equipment that routinely operates near residential area (i.e., within approximately 200 feet), consider placement of typical fixed pure-tone backup alarms with ambient-sensing and/or broadband backup alarms.
- Assign a noise control officer to ensure that the above requirements are being implemented.
- Implement a noise complaint hotline and post the hotline phone number on nearby visible signs and online. Require that either the noise control officer or a designated person be available at all times to answer hotline calls and ensure that follow-up and/or corrective action is taken, if necessary.

EDF 41: Haul Traffic Noise

To reduce haul traffic noise, contractors for developments pursuant to the Specific Plan shall require that haul trucks travel at low speeds (e.g., 10 mph) when operating on or adjacent to the Plan Area. The Town Center/Community Park applicant and other project applicants for future development shall ensure that this requirement is included in the construction specifications. In addition, the construction contractor shall ensure that haul trucks be fitted with properly sized and functioning exhaust mufflers.

Impact N-2: Would construction of uses pursuant to implementation of Specific Plan expose persons to or generate excessive groundborne vibration or groundborne noise levels?

Vibration would be generated by a range of construction equipment activities. Typical construction activity would involve use of equipment that generates levels between approximately 0.003 PPV and 0.21 PPV, when measured at 25 feet. Note that pile driving is not proposed or anticipated as part of the construction program within the Specific Plan.

Construction activities could operate within close proximity to existing residential units located along the western perimeter of the Plan Area. Homes within this area are located as close as 25 feet from the Specific Plan boundary. Heavy equipment, such as vibratory rollers, could operate as close of 10 feet from the property line and would result in vibration levels of up to 0.150 PPV, with other typical equipment such as bulldozers and loaders resulting in vibration levels of 0.064 PPV. These levels are below the 0.2 PPV threshold for non-engineered timber and masonry buildings, of which most single family homes in this area are constructed. Therefore, vibration impacts would not occur at these nearest residences during construction.

The hotel at Block 13 and 19800 Wolfe Road would be located between 75 and 100 feet or more from heavy construction activities. Therefore, vibration levels at these sensitive receptors would be lower than at residences along the western perimeter of the Plan Area. Nearby hotels farther from the Plan Area would experience even lower vibration levels. Vibration impacts would be less than significant.

Impact N-3: Would implementation of the Specific Plan result in the generation of permanent increases in noise levels?

Operational Noise from Stationary Sources

The Specific Plan is subject to both the land use compatibility standards established in Cupertino General Plan, and the sound level limits established in Cupertino Municipal Code. The compatibility standards establish thresholds above which certain land uses may be discouraged or not recommended, and are based on the 24-hour CNEL. The Municipal Code criteria are based on sound level limits for sounds received at residential property, and generated by either residential or non-residential sources. These limits are based on whether the noise is received during daytime hours or night-time hours (daytime is defined as 7 a.m. to 8 p.m., weekdays, 9 a.m. to 6 p.m. weekends).

Implementation of the Specific Plan would include a number of land use types, including residential, office, retail, amenities, entertainment, and recreational. In addition, there would be supporting equipment and services such as emergency generators, ventilation systems, and a Mobility Hub. The residential, office, retail, and recreational uses would generate noise levels typical of such uses. They would not generate substantial noise at sensitive receptors. The following summarizes the expected stationary noises that could result from entertainment uses, generators, ventilation systems, and the Mobility Hub.

Entertainment

The Town Center/Community Park component of the Specific Plan would include a movie theater, a bowling alley, an ice rink, a fitness center, and dining. Noise from these venues is not expected to be audible outdoors. In addition, outdoor and/or patio dining may be offered alongside these uses, although these uses are not expected to generate acoustically-significant levels of noise.

The Specific Plan includes two town squares—Town Square East and Town Square West. Town Square East would be a passive outdoor gathering place that would include amenities for office employees and residents of the Plan Area, and it would not generate acoustically significant noise. Town Square West would include venues for outdoor events, such as cultural events, music and other outdoor performances, movies, etc. For most activities at Town Square West, noise emissions would be negligible and not expected to be audible off-site. Also, noise generated from events would be expected to comply with the Cupertino Municipal Code (i.e., 65 dBA during daytime hours at residential receivers, such as apartments within the Plan Area).

An assessment of performance noise was completed assuming a standard sound level of 90 dBA at 100 feet for an outdoor concert at Town Square West. At off-site receptors, the resulting sound level from an outdoor performance event, based on distance attenuation and attenuation due to topography and structures, would be 63 dBA. In addition, if new on-site residences would be oriented to face Town Square West, noise from outdoor performances may exceed 70 dBA at the residences' windows, depending on the performance.

Pursuant to Municipal Code requirements for outdoor concert venues (Section 10.48.052), outdoor concerts shall not produce noise levels on any residential property above 70 dBA for longer than three hours during daytime, above 60 dBA from 8 p.m. to 11 p.m., or above 55 dBA or any other night-time period. Adherence to these requirements would ensure that noise impacts from outdoor performance events at Town Square West would be less than significant.

Landscaping Activities

The Community Park and Nature Area of the Town Center/Community Park would be approximately 30 acres in size and include a wide range of vegetated cover, most of which would likely require routine maintenance and landscaping. Pursuant to the Cupertino Municipal Code Section 10.48.051, use of motorized equipment for landscaping of public facilities (the Community Park and Nature Area is assumed to be a public facility) is limited to the hours of 7 a.m. and 8 p.m. weekdays, and 7 a.m. and 6 p.m. weekends. In addition, reasonable effort must be based to minimize disturbance through use of mufflers, noise baffles, minimized equipment operation, and locating noisy equipment far from sensitive receiving properties. Adherence to these requirements would ensure that landscaping noise impacts would be less than significant.

Emergency Generators

The Town Center/Community Park would include a total of fourteen emergency generators located locally at each building, and on the Community Park and Nature Area. During emergency use, noise from emergency generators is exempt from municipal sound level criteria. However, during routine testing of these units, noise emissions are subject to the sound level limits of the Cupertino Municipal Code. Testing would not result in significant noise levels because each of these units is proposed to be located within a fully enclosed power room. For units located on the Community Park and Nature Area, generator buildings would be located several hundred feet away from the nearest residential property, and therefore the cumulative attenuation of distance and the power building enclosure would be likely to reduce noise emission to less than significant. Noise from testing of emergency power generators is expected to be less than significant.

Ventilation Systems

Buildings constructed pursuant to the Specific Plan would be serviced by ventilation systems that provide cooling and heating to residential units, offices, retail, amenities, and others. Additionally, as explained in [Chapter 6, Air Quality](#), underground parking garages would require ventilation to ensure vehicle emissions do not result in unsafe air quality conditions. Ventilation systems would be located indoors and underground, while ventilation air intake and exhaust openings would be located at various locations on roofs. Ventilation equipment is anticipated to generate relatively low levels of noise, and is not expected to be acoustically significant.

Loading/Unloading

Loading and unloading of materials would be required for the large number of commercial uses and for residential units. Although on-street loading and unloading could occur, loading docks would be located underground and not be directly audible at outside, off-site sensitive receptors. Noise from loading docks would be less than significant.

Operational Off-Site Traffic Noise

Operation of uses implemented pursuant to the Specific Plan would generate traffic. The assessment of increases in traffic noise due to implementation of the Specific Plan was focused on weekday traffic noise emissions, when average annual daily traffic volumes would be highest. To evaluate the potential for impacts related to a substantial permanent increase in noise due to traffic, an assessment was completed to evaluate existing traffic noise conditions and compare the existing conditions with future with-Specific Plan conditions, excluding the cumulative contribution from other area projects that are planned and/or approved. The assessment was completed for 23 roadway segments within the Plan Area and vicinity. Future noise levels would not exceed existing noise levels by 3 dBA or more at any of the 23 locations analyzed, and future noise levels would not result in an overall sound level that exceeds the applicable compatible noise level requirements for nearby uses. Increases in traffic noise would therefore be less than significant.

Impact N-4: Would implementation of the Specific Plan result in permanent exposure of persons to noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?

Noise levels at future sensitive noise uses that are adjacent to major existing roadways, and potentially new on-site roadways, would exceed the requirements for noise assessment of interior sound levels.

Title 24, Part 2 of the California Code of Regulations contains requirements for the construction of new hotels, motels, apartment houses, and dwellings other than detached single-family dwellings, intended to limit the extent of noise transmitted into habitable spaces from exterior noise sources. These requirements are collectively known as the California Noise Insulation Standards. The Standards set forth an interior standard of 45 dBA CNEL in any habitable room with all doors and windows closed, and require an acoustical analysis demonstrating how dwelling units have been designed to meet this interior standard in situations where units are proposed in areas subject to transportation noise levels greater than 60 dBA CNEL.

Implementation of the Specific Plan would allow a range of habitable uses with outdoor sound levels in some areas expected to exceed 60 dBA CNEL. As indicated above, properties adjacent to Wolfe Road and Stevens Creek Boulevard fall within the 70 dBA CNEL contour, as do properties in proximity to I-280. Approximately half of the Plan Area is within a 70 dBA or 65 dBA CNEL contour. The southwestern portion of the Plan Area is within a 60 dBA CNEL contour. This impact would be significant.

The Specific Plan includes **EDF 42: Acoustical Assessment** to reduce impacts to a less-than-significant level. Pursuant to this feature, a project-specific noise study would be required to demonstrate how dwelling design would meet an interior residential standard of 45 dBA CNEL. In addition, new office spaces located within all Blocks that would be near existing major roadways, including Wolfe Rd, Vallco Parkway, and I-280, would be required to ensure interior noise is within levels that are considered suitable for new (Specific Plan) uses.

Environmental Design Feature for Impact N-4

EDF 42: Acoustical Assessment

Prior to completion of detailed design for dwelling units, the Town Center/Community Park applicant and other project applicants for future development shall prepare an acoustical assessment to demonstrate how interior sound levels would achieve interior sound levels at or below 45 dBA CNEL. The following development standards shall be included in the acoustical assessments:

- Install HVAC systems for all residential units to ensure that windows and doors can remain closed during warm weather;
- Install double-glazed windows, especially on sides of buildings that are adjacent to busy roadways;
- Ensure that all windows and doors are properly sealed; and
- Ensure that exterior wall building materials are of an adequately rated Sound Transmission Class.

14.4.4 Cumulative Impacts

Impact N-5: Would implementation of the Specific Plan, combined with past, present, and reasonably foreseeable future projects, result in less-than-significant cumulative impacts to noise?

Cumulative development could result in operational noise increases in the vicinity of the Plan Area. Cumulative traffic volumes would include traffic from a number of new, approved and/or pending projects. As a result, the horizon year (2040) forecasted traffic volumes would be expected to contribute less to overall traffic volumes. An impact was determined if the difference in cumulative with and without Specific Plan traffic volumes was greater than 1 dBA if future noise levels exceeded compatible land use requirements (otherwise a 1-dBA increase in traffic noise would be considered negligible for levels that are within acceptable compatible use requirements).

Implementation of the Specific Plan would allow a range of habitable uses with outdoor sound levels in some areas expected to exceed 60 dBA CNEL. On Stevens Creek Blvd between South Blaney Avenue and Miller Avenue, as well as on Wolfe Rd between Stevens Creek Boulevard and Vallco Pkwy, future cumulative sound levels with the Specific Plan are expected to reach 81.0 and 83.2 dBA CNEL, respectively. These levels would exceed the 60 dBA Title 24

requirements for an acoustic analysis, and they would also exceed compatibility requirements for residential use, as identified in the Cupertino General Plan. Therefore, pursuant to **EDF 42: Acoustical Assessment**, a noise study would be required to demonstrate how dwelling design will meet an interior residential standard of 45 dBA CNEL. With implementation of this feature, cumulative impacts would be less than significant.

Environmental Design Feature for Impact N-5

Environmental Design Feature N-4: Acoustical Assessment (see above).

14.5 References

City of Cupertino. 2015. General Plan: *Community Vision 2015–2040*.

_____. 2016. Municipal Code. Section 10.48. Accessed January 26.

FHWA (Federal Highway Administration). 2006. FHWA Highway Construction Noise Handbook. (FHWAHEP-06-015; DOT-VNTSC-FHWA-06-02). Available at: <http://www.fhwa.dot.gov/environment/noise/handbook/index.htm>

FICON (Federal Interagency Committee on Noise). 1992. Federal Agency Review of Selected Airport Noise Analysis Issues. August. <http://www.fican.org/pdf/nai-8-92.pdf>.

FTA (Federal Transit Administration). 2006. Transit Noise and Vibration Impact Assessment Final Report. Available at: http://www.fta.dot.gov/documents/FTA_Noise_and_Vibration_Manual.pdf

OPR (California Governor’s Office of Planning and Research). 2003. State of California General Plan Guidelines. Appendix A, Guidelines for the Preparation and Content of the Noise Element. Available at: http://opr.ca.gov/docs/General_Plan_Guidelines_2003.pdf

Ramboll Environ. 2016. *The Vallco Town Center Specific Plan Noise Assessment Technical Report*. March.

Terex. Articulated Dump Trucks. Available at: <http://www.terex.com/construction/en/products/new-equipment/trucks/articulated-trucks/index.htm>

U.S. EPA (United States Environmental Protection Agency). 1974. Information on Levels of Environmental Noise Requisite to Protect Public Health and Welfare with an Adequate Margin of Safety. Available at: http://www.fican.org/pdf/EPA_Noise_Levels_Safety_1974.pdf

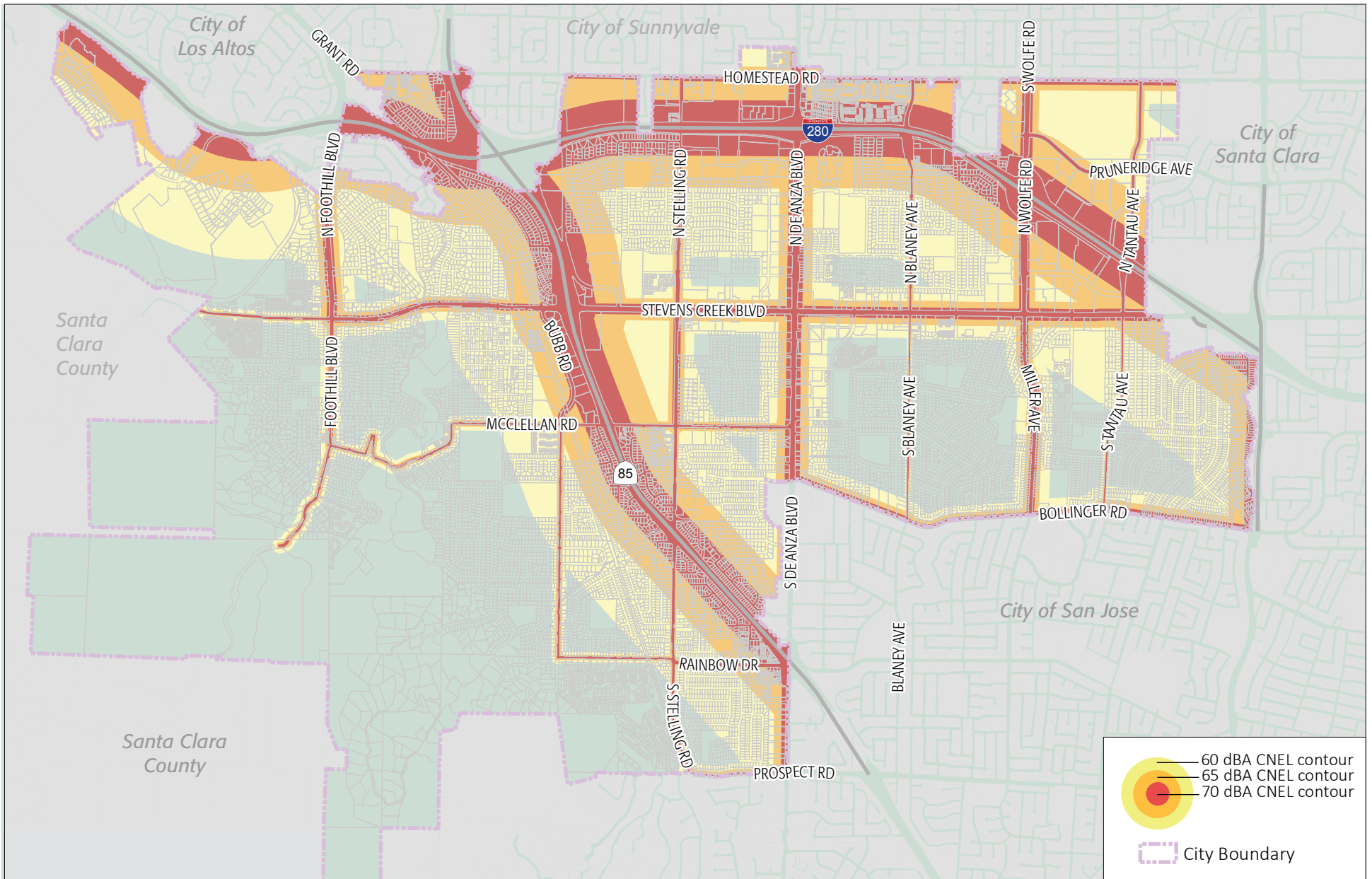
Land Use Category	Common Noise Exposure (Ldn or CNEL, dBA)						
	55	60	65	70	75	80	85
Residential - Low Density Single Family, Duplex, Mobile Homes	Green	Green	Orange	Orange	Yellow	Red	Red
Residential - Multi-Family	Green	Green	Orange	Orange	Yellow	Red	Red
Transient Lodging - Motels, Hotels	Green	Green	Orange	Orange	Yellow	Yellow	Red
Schools, Libraries, Churches, Hospitals, Nursing Homes	Green	Green	Orange	Orange	Yellow	Yellow	Red
Auditoriums, Concert Halls, Amphitheaters	Yellow	Yellow	Yellow	Yellow	Red	Red	Red
Sports Arena, Outdoor Spectator Sports	Yellow	Yellow	Yellow	Yellow	Yellow	Red	Red
Playgrounds, Neighborhood Parks	Green	Green	Green	Green	Yellow	Yellow	Red
Golf Courses, Riding Stables, Water Recreation, Cemeteries	Green	Green	Green	Green	Green	Yellow	Yellow
Office Buildings, Business Commercial and Professional	Green	Green	Green	Green	Green	Orange	Yellow
Industrial, Manufacturing, Utilities, Agriculture	Green	Green	Green	Green	Green	Green	Orange

- NORMALLY ACCEPTABLE**
 Specified land use is satisfactory, based upon the assumption that any buildings involved are of normal conventional construction, without any special noise insulation requirements.
- NORMALLY UNACCEPTABLE**
 New construction or development should generally be discouraged. If new construction or development does proceed, a detailed analysis of the noise reduction requirements must be made and needed noise insulation features included in the design.
- CONDITIONALLY ACCEPTABLE**
 New construction or development should be undertaken only after a detailed analysis of the noise reduction requirements is made and needed noise insulation features included in the design. Conventional construction, but with closed windows and fresh air supply systems or air conditioning will normally suffice.
- CLEARLY UNACCEPTABLE**
 New construction or development should generally not be undertaken.

Source: Ramboll Environ, 2016

Figure 14-1: Land Use/Noise Compatibility Matrix

Vallco Town Center Specific Plan
 Environmental Assessment



Source: City of Cupertino General Plan, 2015

Figure 14-2: Future Noise Contours

Vallco Town Center Specific Plan
Environmental Assessment



Not to scale

Kimley»Horn

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15 Population and Housing

15.1 Introduction

This chapter describes the existing setting of the Plan Area as it relates to population and housing; identifies applicable regulatory requirements; and evaluates potential impacts on population and housing. The section also provides a definition of jobs/housing balance (or jobs/housing ratio) and analyzes the Specific Plan's effect on that balance.

For purposes of estimating population and housing impacts, this analysis conservatively assumes that the Specific Plan will include 800 residential units. As discussed in the Introduction to the EA, although the General Plan allocates 389 units to the Vallco Shopping District Special Area, the General Plan allows the transfer of units from other Planning Areas.

Information used to prepare this chapter came from the following sources:

- Association of Bay Area Governments (ABAG) and Metropolitan Transportation Commission (MTC), *Plan Bay Area*.
- California Planning Roundtable, *Deconstructing Jobs-Housing Balance*.
- City of Cupertino General Plan, *Community Vision 2015–2040*, 2015, as amended.
- Keyser Marston Associates, Inc.
 - *City of Cupertino Non-Residential Jobs-Housing Nexus Analysis*
 - *City of Cupertino Residential Below Market-Rate Housing Nexus Analysis*
 - *Fiscal and Economic Impacts Assessment: Vallco Shopping District Specific Plan*

15.2 Environmental Setting

This section provides information on population, housing, and employment conditions in the City of Cupertino, Santa Clara County, and the Bay Area.

15.2.1 Population and Housing Characteristics

Table 15-1: Population, Household, and Employment Estimates shows the estimated and projected population, households, and jobs for the City of Cupertino, Santa Clara County, and the nine-county San Francisco Bay Area through 2040.

As of 2015, the City of Cupertino had approximately 21,000 dwelling units. Approximately 57 percent of the housing units in Cupertino are single-family detached homes. Large multi-family buildings comprise 21 percent of the housing stock, and single-family attached homes comprise 12 percent of the housing stock (DOF, 2015). Based on the 2010–2014 Census five-year average, owner-occupied units had an average household size of 2.90 persons, and renter-occupied households had an average household size of 2.84 persons, for a citywide average of 2.88 persons per household overall. The city had a 4.9 percent vacancy rate (U.S. Census, 2016).

The Cupertino labor force comprises 30,700 workers, with an unemployment rate of 3.1 percent. Cupertino residents commute an average of 25.5 minutes each way to work, and approximately 16 percent of workers travel less than 15 minutes (U.S. Census, 2014).

Table 15-1: Population, Household, and Employment Estimates

	2010	2020	2030	2040
Cupertino				
Population	58,302	62,100	66,300	71,200
Households	20,181	21,460	22,750	24,040
Jobs	26,090	29,960	31,220	33,110
Jobs-Household Ratio	1.29	1.40	1.37	1.38
Santa Clara County				
Population	1,781,642	1,977,900	2,188,500	2,423,500
Households	604,204	675,670	747,070	818,400
Jobs	926,270	1,091,270	1,147,020	1,229,520
Jobs-Household Ratio	1.53	1.62	1.54	1.50
Bay Area				
Population	6,432,288	7,011,700	7,660,700	8,394,700
Households	2,350,186	2,560,480	2,776,640	2,992,990
Jobs	3,040,110	3,579,600	3,775,080	4,060,160
Jobs-Household Ratio	1.29	1.40	1.36	1.36

Source: City of Cupertino, 2015b (Housing Element); ABAG, 2013; Kimley-Horn, 2016.

15.2.2 Jobs-Housing Balance Definition

The jobs-housing ratio quantitatively expresses the relationship between where people work and where people live. When a specific geographic area or community is being analyzed, one of three ratios are typically used:

- Jobs-households ratio. This is the most common numerical measure of jobs-housing balance. Households are used as a proxy for labor force.
- Jobs-housing units ratio. This measure is available because most communities have counts of local housing stock. This measure, however, does not take into account vacancies, which may affect the ratio.
- Jobs-employed residents ratio. This measure is expressed as one local job to one local worker (CPR, 2008).

The jobs-housing balance is quantified because it allows planners to understand general commute patterns for a community. Under a “balance,” residents either (a) are employed within the community, or (b) travel outside of the community each day but are offset by workers entering the community each day. The San Francisco Bay Area *Jobs-Housing Connection Strategy* indicates that benefits of a jobs-housing balance include protection of the region’s natural resources and agricultural land, reduced energy consumption, lower housing costs near transit services, less highway congestion, and protection of essential resources that will continue to support the regional economy (ABAG, 2012).

If the ratio is higher (generally, greater than 1.0), then more workers enter a community than residents leave a community each workday. The central cities of major metropolitan regions typically (although not always) have a higher jobs-housing ratios.

If the ratio is lower (generally, less than 1.0), then more residents commute outside of a community than workers enter the community each day. Jurisdictions with low ratios are often referred to as “bedroom communities” because most residents who have jobs commute to employment center some distance away.

15.2.3 Existing Jobs-Housing Ratios

As discussed above, there are several different ratios to measure jobs-housing balance. This section presents available data for jobs-households ratio, which is the most commonly used ratio, as well as the only ratio available for all three reference geographies: the City of Cupertino, Santa Clara County, and the San Francisco Bay Area.

The 2010 and projected 2040 jobs-households ratio of the City of Cupertino, Santa Clara County, and San Francisco Bay Area are calculated in [Table 15-1: Population, Household, and Employment Estimates](#), based upon the employment and household figures included in the City’s updated Housing Element. As shown, both the Bay Area and the City of Cupertino are net importers of workers, with 1.29 jobs for every household inside their borders. The jobs-households ratios are projected to moderately increase by 2040. Santa Clara County is an even greater net importer of workers, with 1.53 jobs per household, but this ratio is anticipated to decrease slightly by 2040, as jurisdictions countywide are in the aggregate planning for housing production to slightly exceed job growth.

15.3 Regulatory Setting

15.3.1 Federal

There are no federal laws specifically related to population and housing, as directly applicable here. Please see [Chapter 6, Air Quality](#), [Chapter 10, Greenhouse Gases](#), and [Chapter 17, Transportation and Circulation](#), for descriptions of federal, state, and local greenhouse gas reduction and transportation policies that are related to jobs-housing balance.

15.3.2 State

California Housing Element Law

Government Code Sections 65580–65589.8 include provisions related to the requirements for housing elements of local government general plans. Among these requirements, some of the necessary elements include an assessment of housing needs and an inventory of resources and constraints relevant to the meeting of these needs. Additionally, to assure that counties and cities recognize their responsibilities in contributing to the attainment of the state housing goals, the statute calls for local jurisdictions to plan for, and allow the construction of, a share of the region’s projected housing needs.

15.3.3 Regional

Regional Housing Needs Allocation

As stated above, state housing element law requires local jurisdictions to plan for, and allow the construction of, a share of the region’s projected housing needs. This share is called the Regional Housing Needs Allocation (RHNA). State law mandates that each jurisdiction provide sufficient land to accommodate a variety of housing opportunities for all economic segments of the community to meet or exceed the RHNA.

To initiate the Regional Housing Needs Determination, the Department of Housing and Community Development (HCD), identifies the existing and projected housing needs for each region. As the regional planning agency, ABAG then calculates the RHNA for individual jurisdictions within San Clara County, including Cupertino. Cupertino’s RHNA for the 2014 to 2022 period is 1,064 units (City of Cupertino, 2015).

When developing its RHNA methodology, state law requires ABAG to consider the intraregional relationship between jobs and housing and any potential imbalance between the two. In addition, the RHNA must also be consistent with the development pattern included in the Sustainable Communities Strategy (SCS) of the Regional Transportation Plan (discussed below). The SCS forecast is based on information from local governments regarding existing land uses and plans for future growth. It ties job growth to existing employment clusters and to future housing distribution. The RHNA methodology builds on this housing and job growth linkage. Therefore, the RHNA number allotted to an individual city is not determined solely by the amount of additional jobs generated in that city or that city’s individual/housing ratio.

Plan Bay Area, Strategy for a Sustainable Region

MTC and ABAG’s *Plan Bay Area* is the Bay Area’s Regional Transportation Plan (RTP)/ Sustainable Community Strategy (SCS). The Final Plan Bay Area was adopted on July 18, 2013. The SCS sets a development pattern for the region, which, when integrated with the transportation network and other transportation measures and policies, would reduce greenhouse gas (GHG) emissions from transportation modes (excluding goods movement) beyond the per capita reduction targets identified by California Air Resources Board (CARB). Implementation of *Plan Bay Area* would achieve a 16 percent per capita reduction of GHG

emissions by 2035 and a 10 percent per capita reduction by 2020 from 2005 conditions. (See [Chapter 6, Air Quality](#), and [Chapter 10, Greenhouse Gases](#), for further discussion of Senate Bill 375 and the Sustainable Communities Strategy.)

In 2008, MTC and ABAG initiated a regional effort (FOCUS) to link local planned development with regional land use and transportation planning objectives. Through this initiative, local governments identified Priority Development Areas (PDAs). The PDAs form the implementing framework for *Plan Bay Area*. The PDAs are areas along transportation corridors which are served by public transit and allow opportunities for implementation of transit-oriented, infill development within existing communities. PDAs are expected to host the majority of future development within the Bay Area. Overall, well more than two-thirds of all regional growth by 2040 is allocated within PDAs. If such development occurs within these PDAs, the overall jobs-housing balance would be improved compared to greenfield development.¹ The PDAs throughout the San Francisco Bay Area are expected to accommodate 80 percent (more than 525,570 units) of new housing and 66 percent (or 744,230) of new jobs.

As shown in [Figure 15-1: Priority Development Areas](#), a PDA is located in Cupertino along Stevens Creek Boulevard between State Route 85 (SR 85) and the City of Santa Clara, inclusive of the southern portion of the Specific Plan area. The PDA also stretches along De Anza Boulevard between Stevens Creek Boulevard and the City of Sunnyvale.

15.3.4 Local

City of Cupertino General Plan

The City of Cupertino's General Plan, *Community Vision 2015–2040 (General Plan)* Housing Element is an eight-year plan to address housing needs in Cupertino. It focuses on the City's needs from 2014 to 2022, in accordance with the housing element planning period established by State law for San Francisco Bay Area jurisdictions. The element outlines housing production objectives, describes strategies to achieve those objectives, examines the local need for special needs populations, identifies adequate sites for housing production serving various income levels, analyzes constraints to new development, and evaluates the Housing Element's consistency with other General Plan elements.

The Housing Element identifies Priority Housing Element Sites. If the Specific Plan is adopted, 389 units of the RHNA would be constructed in the Specific Plan Area.

¹ A "greenfield" project is one that lacks constraints imposed by prior work. In real estate development, construction on "greenfield" land is where there is no need to work within the constraints of existing buildings or infrastructure. Such developments are typically constructed on land formerly used for agricultural use or open space.

The Housing Element also includes policies and strategies that encourage the provision of housing in the community. A list of the relevant General Plan policies and strategies are provided below. A General Plan Land Use Consistency Analysis for the Specific Plan is provided in [Chapter 13, Land Use and Planning, Table 13-1](#).

Policy HE-1.1: Provision of Adequate Capacity for New Construction Need

Designate sufficient land at appropriate densities to accommodate Cupertino's Regional Housing Needs Allocation of 1,064 units for the 2014–2022 projection period.

Policy HG-1.2: Housing Densities

Provide a full range of densities for ownership and rental housing.

Policy HE-1.3: Mixed Use Development

Encourage mixed-use development near transportation facilities and employment centers.

Strategies

- Strategy 1: Land Use Policy and Zoning Provisions: To accommodate the Regional Housing Needs Allocation (RHNA), the City will continue to:
 - Provide adequate capacity through the Land Use Element and Zoning Ordinance to accommodate the RHNA of 1,064 units while maintaining a balanced land use plan that offers opportunities for employment growth, commercial/retail activities, services, and amenities.
 - Monitor development standards to ensure they are adequate and appropriate to facilitate a range of housing in the community
 - Monitor the sites inventory and make it available on the City website.
 - Monitor development activity on the Housing Opportunity Sites to ensure that the City maintains sufficient land to accommodate the RHNA during the planning period. In the event a housing site listed in the Housing Element sites inventory is redeveloped with a non-residential use or at a lower density than shown in the Housing Element sites inventory, ensure that the City has adequate capacity to meet the RHNA by making the findings required by Government Code Section 65863 and identifying alternative site(s) within the City if needed.

Priority Housing Sites: As part of the Housing Element update, the City has identified five priority sites under Scenario A (see Table HE-5) for residential development over the next eight years. The General Plan and zoning designations allow the densities shown in Table HE-5 for all sites except the Vallco Shopping District site (Site A2). The redevelopment of Vallco Shopping District will involve significant planning and community input. A specific plan will be required to implement a comprehensive strategy for a retail/ office/ residential mixed use development. The Applicant would be required to work

closely with the community and the City to bring forth a specific plan that meets the community’s needs, with the anticipated adoption and rezoning to occur within three years of the adoption of the 2014-2022 Housing Element (by May 31, 2018). The specific plan would permit 389 units by right at a minimum density of 20 units per acre.

If the specific plan and rezoning are not adopted within three years of Housing Element adoption (by May 31, 2018), the City will schedule hearings consistent with Government Code Section 65863 to consider removing Vallco as a priority housing site under Scenario A, to be replaced by sites identified in Scenario B (see detailed discussion and sites listing of “Scenario B” in Appendix B - Housing Element Technical Appendix). As part of the adoption of Scenario B, the City intends to add two additional sites to the inventory: Glenbrook Apartments and Homestead Lanes, along with increased number of permitted units on The Hamptons and The Oaks sites. Applicable zoning is in place for Glenbrook Apartments; however the Homestead Lanes site would need to be rezoned at that time to permit residential uses. Any rezoning required will allow residential uses by right at a minimum density of 20 units per acre.

Responsible Agencies	Cupertino Department of Community Development/Planning Division
Time Frame	Ongoing; Adopt Specific Plan and rezoning for Vallco by May 31, 2018; otherwise, conduct public hearings to consider adoption of “Scenario B” of sites strategy
Funding Sources	None required
Quantified Objectives	1,064 units (178 extremely low-, 178 very low-, 207 low-, 231 moderate- and 270 above moderate-income units)

- Strategy 3: Lot Consolidation. To facilitate residential and mixed use developments, the City will continue to:
 - Encourage lot consolidation when contiguous smaller, underutilized parcels are to be redeveloped.
 - Encourage master plans for such sites with coordinated access and circulation.
 - Provide technical assistance to property owners of adjacent parcels to facilitate coordinated redevelopment where appropriate.
 - Encourage intra- and inter-agency cooperation in working with applicants at no cost prior to application submittal for assistance with preliminary plan review.

Responsible Agencies	Cupertino Department of Community Development/Planning Division
Time Frame	Ongoing
Funding Sources	None required
Quantified Objectives	N/A

- Strategy 4: Flexible Development Standards. The City recognizes the need to encourage a range of housing options in the community. The City will continue to:
 - Offer flexible residential development standards in planned residential zoning districts, such as smaller lot sizes, lot widths, floor area ratios and setbacks, particularly for higher density and attached housing developments
 - Consider granting reductions in off-street parking on a case-by-case basis for senior housing.

Policy HE-4: Housing Mitigation

Ensure that all new developments—including market-rate residential developments—help mitigate project-related impact on affordable housing needs.

Policy HE-5: Range of Housing Types

Encourage the development of diverse housing stock that provides a range of housing types (including smaller, moderate cost housing) and affordability levels. Emphasize the provision of housing for lower- and moderate-income households including wage earners who provide essential public services (e.g., school district employees, municipal and public safety employees, etc.).

Strategies

- Strategy 6: Office and Industrial Housing Mitigation Program: The City will continue to implement the Office and Industrial Housing Mitigation Program. This program requires that developers of office, commercial, and industrial space pay a mitigation fee, which will then be used to support affordable housing in the City of Cupertino. These mitigation fees are collected and deposited in the City’s Below Market-Rate Affordable Housing Fund (BMR AHF).

Responsible Agencies	Cupertino Department of Community Development/Planning Division
Time Frame	Ongoing
Funding Sources	BMR AHF
Quantified Objectives	N/A

- **Strategy 7: Residential Housing Mitigation Program.** The City will continue to implement the Residential Housing Mitigation Program to mitigate the need for affordable housing created by new market-rate residential development. This program applies to new residential development. Mitigation includes either the payment of the “Housing Mitigation” fee or the provision of a Below Market-Rate (BMR) unit or units. Projects of seven or more for-sale units must provide on-site BMR units. Projects of six units or fewer for-sale units can either build one BMR unit or pay the Housing Mitigation fee. Developers of market-rate rental units, where the units cannot be sold individually, must pay the Housing Mitigation fee to the BMR AHF. The BMR program specifies the following:

 - a. **Priority.** To the extent permitted by law, priority for occupancy is given to Cupertino residents, Cupertino fulltime employees and Cupertino public service employees as defined in Cupertino’s Residential Housing Mitigation Manual.
 - b. **For-Sale Residential Developments.** Require 15% for-sale BMR units in all residential developments where the units can be sold individually (including single-family homes, common interest developments, and condominium conversions or allow rental BMR units as allowed in (d) below).
 - c. **Rental Residential Developments:** To the extent permitted by law, require 15% rental very low and low-income BMR units in all rental residential developments. If the City is not permitted by law to require BMR units in rental residential developments, require payment of the Housing Mitigation Fee.
 - d. **Rental Alternative.** Allow rental BMR units in for-sale residential developments, and allow developers of market-rate rental developments to provide on-site rental BMR units, if the developer: 1) enters into an agreement limiting rents in exchange for a financial contribution or a type of assistance specified in density bonus law (which includes a variety of regulatory relief); and 2) provides very low-income and low-income BMR rental units.
 - e. **Affordable Prices and Rents.** Establish guidelines for affordable sales prices and affordable rents for new affordable housing and update the guidelines each year as new income guidelines are received;

- f. Development of BMR Units Off Site. Allow developers to meet all or a portion of their BMR or Housing Mitigation fee requirement by making land available for the City or a nonprofit housing developer to construct affordable housing, or allow developers to construct the required BMR units off site, in partnership with a nonprofit. The criteria for land donation or off-site BMR units (or combination of the two options) will be identified in the Residential Housing Mitigation Manual.
- g. BMR Term. Require BMR units to remain affordable for a minimum of 99 years; and enforce the City’s first right of refusal for BMR units and other means to ensure that BMR units remain affordable.

Responsible Agencies	Cupertino Department of Community Development/Planning Division
Time Frame	Ongoing
Funding Sources	BMR AHF
Quantified Objectives	20 BMR units over eight years

- Strategy 8: Below Market Rate (BMR) Affordable Housing Fund (AHF). The City’s BMR AHF will continue to support affordable housing projects, strategies and services, including but not limited to:
 - BMR Program Administration;
 - Substantial rehabilitation;
 - Land acquisition;
 - Acquisition of buildings for permanent affordability, with or without rehabilitation;
 - New construction;
 - Preserving “at-risk” BMR units;
 - Rental operating subsidies;
 - Down payment assistance;
 - Land write-downs;
 - Direct gap financing; and
 - Fair housing.

The City will target a portion of the BMR AHF to benefit extremely low-income households and persons with special needs (such as the elderly, victims of domestic violence, and the disabled, including persons with developmental disabilities), to the extent that these target populations are found to be consistent with the needs

identified in the nexus study the City prepares to identify the connection, or “nexus” between new developments and the need for affordable housing.

To ensure the mitigation fees continue to be adequate to mitigate the impacts of new development on affordable housing needs, the City will update its Nexus Study for the Housing Mitigation Plan by the end of 2015.

Responsible Agencies	Cupertino Department of Community Development/Planning Division
Time Frame	Ongoing/annual publish RFPs to solicit projects; update Nexus Study by end of 2015
Funding Sources	BMR AHF
Quantified Objectives	N/A

The Specific Plan would not conflict with the Cupertino General Plan.

Resolutions 15-036 and 15-037: Residential and Non-Residential Housing Mitigation Fees and Below Market Rate (BMR) Housing Mitigation Program Procedural Manual (BMR Manual)

Since 1993, the City of Cupertino has implemented an Office and Industrial Housing Mitigation Program, as well as a Residential Housing Mitigation Program, requiring payment of housing mitigation fees by non-residential development and residential projects to partially offset impacts of such development on affordable housing. In 2014 and 2015, the City Council initiated and then reviewed Nexus Study Updates for these programs. The Council resolved that there is substantial evidence that there is a reasonable relationship between the need for affordable housing and the impacts of development of new market-rate residential and non-residential development. The Council adopted housing mitigation fees per gross square foot of new residential ownership developments of fewer than seven units, rental developments, and non-residential developments.

In addition to establishing rules related to the fees described above, the BMR Manual provides that residential ownership developments of seven or greater units or lots are to provide 15 percent of the units or lots as BMR ownership units or lots; any fractional amounts are to be paid as an in-lieu fee. The BMR Manual further provides that a developer may propose alternatives to any of the BMR requirements, including providing rental units on-site. The proposal must be “equivalent” to the requirement, as determined by the City Council. Although all rental projects may elect to pay the in-lieu fee, it is the City’s stated objective to obtain affordable units within each development (Cupertino Municipal Code Section 19.172.020).

City of Cupertino Municipal Code

The City of Cupertino Municipal Code contains all ordinances for the City. The Municipal Code is organized by Title, Chapter, and Section. Title 19 of the Municipal Code is the City’s Zoning Ordinance. Chapters 19.28 through 19.44 define the range of residential use zones and the

permitted densities allowed in each zone. Chapter 19.172 lays out the City's BMR Program, the purpose of which is to encourage development and availability of housing affordable to a broad range of income levels, add affordable housing in proportion to the overall increase in jobs and market-rate units, mitigate the need for affordable housing, mitigate impacts that accompany new residential and commercial development, and increase the supply of for-sale and rental housing for Cupertino workers whose incomes are insufficient to afford market-rate housing.

15.4 Impacts and Environmental Design Features

The following significance criteria for population and housing were derived from the Environmental Checklist in the State CEQA Guidelines Appendix G. These significance criteria have been amended or supplemented, as appropriate, to address the City of Cupertino requirements and the full range of potential impacts related to implementation of the Specific Plan. An impact of the Specific Plan would be considered significant and would require mitigation if it met one of the following criteria:

- a) Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure).
- b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere.
- c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere.

15.4.1 Summary of No Impacts

The Plan Area does not contain existing housing units. No people currently reside within the Plan Area. Therefore, implementation of the Specific Plan would not displace existing housing or people, necessitating the construction of replacement housing elsewhere. There would be no impact in terms of displacing existing housing or people.

15.4.2 Impacts of the Specific Plan

Impact PH-1: Would impacts associated with implementation of the Specific Plan induce substantial unplanned population growth?

General Plan

As stated in the Regulatory Setting and further discussed in [Chapter 13, Land Use and Planning](#), the Cupertino General Plan envisions growth within the Specific Plan area. The General Plan currently allocates 1.2 million square feet of commercial uses, 2 million square feet of office uses, 339 hotel rooms, and 389 residential dwelling units to the Plan Area. In addition, the General Plan permits a residential density of up to 35 units per acre for the Plan Area, and the Cupertino General Plan 2040 Environmental Impact Report analyzed the development of up to 800 residential dwelling units in the Plan Area. Therefore, the Specific Plan would not induce substantial unplanned population growth.

Construction

A fiscal and economic impacts analysis was prepared for the Specific Plan. Buildout of the Specific Plan would generate approximately 12,555 direct on-site job years (employment of one person for one year), plus an additional 3,392 job-years at other locations in Cupertino. In addition, buildout of the Specific Plan would indirectly result in 2,898 job-years at other locations in Santa Clara County. Therefore, in total, the Specific Plan would generate a total of 18,845 job years (KMA, 2016).

Santa Clara County and neighboring counties (Alameda, Santa Cruz, and San Mateo Counties) experienced persistently high unemployment in the last decade. The construction-mining-logging sector was particularly affected by the 2007–2008 mortgage crisis and subsequent recession. Between 2007 and 2011, construction jobs in these counties declined from approximately 114,300 jobs to 79,100 jobs. In recent years, the trend has reversed, and these four counties had approximately 98,300 construction-mining-logging jobs in 2014 (the most recent year for which data is available). Therefore, as of 2014, the net loss in employment in this sector since 2007 stood at approximately 16,000 jobs (EDD, 2016).

Given that total construction jobs in the region are substantially below the recent peak, it is anticipated that the existing regional workforce would supply the labor for direct and indirect construction jobs. Although it is possible that some workers could move to the region for the temporary employment opportunities provided by future implementation of the Specific Plan, these additional workers would not have a demonstrable effect on the growth of Cupertino, Santa Clara County, or the San Francisco Bay Area.

Operation Impacts

Jobs

The direct (on-site) and indirect (off-site) operational employment accommodated at full buildout is shown in **Table 15-2: Net Employment of the Specific Plan**. Operation of the Specific Plan would directly result in 8,264 net new on-site jobs. Inclusive of on-site jobs, there would be 11,682 net new jobs in the City of Cupertino, and 14,343 net new jobs in Santa Clara County (KMA, 2016).²

² Note: The KMA analysis of the Town Center/Community Park calculates net new on-site jobs compared to 2014 payroll at the Mall. Since 2014, the vacancy rate of the Mall has substantially increased.

Table 15-2: Net Employment of the Specific Plan

On-Going Impacts by Category	On-Site Employment	Total City Employment ²	Total County Employment ³
Retail	511	640	718
Office (Incl. Building Services)	7,610 ¹	10,816	13,277
Residential (Household Spending)	N/A	177	198
Hotel	143	177	198
Total Employment Impact	8,264	11,682	14,343

Notes:

1. Assumes 270 square feet per office worker. Building services jobs related to office use are also included.
2. Includes on-site employment and off-site employment within Cupertino.
3. Includes on-site employment, off-site employment within Cupertino, and off-site employment outside Cupertino but within Santa Clara County.

Source: KMA, 2016.

Housing

This section demonstrates the housing demand that would be generated by implementation of the non-residential and residential portions of the Specific Plan. The analysis assumes that each housing unit would be occupied by a single household.

The *City of Cupertino Non-Residential Jobs-Housing Nexus Analysis* determined that non-residential development results in demand for housing units in the City. **Table 15-3: Housing Demand per Square Foot of Non-Residential Use** shows the demand rates per square foot of office, hotel, and retail / restaurant / entertainment use at three income bands. According to the nexus analysis, buildout of these uses within the Plan Area would generate demand for a 2,089 housing units for households earning up to 120 percent of median income (KMA, 2015a). The Specific Plan would also generate demand for units for households earning more than 120 percent of median income.

The *City of Cupertino Residential Below Market Rate Housing Nexus Analysis* determined that market-rate residential development also results in demand for affordable and market-rate housing units. **Table 15-4: Housing Demand per Market Rate Residential Unit** shows the demand rates per market-rate unit at four income bands. According to the nexus analysis, a Specific Plan buildout with 800 units would generate demand for a total of 240 housing units (KMA, 2015b).

Table 15-3: Housing Demand per Square Foot of Non-Residential Use

Income Band	Office Rate ₁	Units	Hotel Rate ₂	Units	Retail / Entertainment / Restaurant Rate	Units	Total Units
< 50% Median Inc.	0.00014967	299	0.00014385	16	0.00067586	433	761
50% to 80% Median Inc.	0.00025726	515	0.00005615	6	0.00023980	153	679
80% to 120% Median Inc.	0.00031040	621	0.00002050	2	0.00006795	43	668
Total	0.00071733	1,435	0.00022049	25	0.00098361	630	2,089

Notes:

1. This rate is the demand for new housing, expressed as the number of new housing units per square foot of new office use that would be generated at each income band.

2. This rate is the demand for new housing, expressed as the number of new housing units per hotel room that would be generated at each income band. Hotels are assumed to include 600 square feet per room.

Source: KMA, 2015a.

Table 15-4: Housing Demand per Market Rate Residential Unit

Income Band	Higher Density Apartments Rate	Units
< 50% Median Inc.	0.14	112
50% to 80% Median Inc.	0.07	56
80% to 120% Median Inc.	0.04	32
> 120% Median Inc.	0.05	40
Total Households	0.30	240

Sources: KMA, 2015b

Population

Implementation of the Specific Plan would increase the population of the City of Cupertino, Santa Clara County, and the surrounding region. Implementation of the Specific Plan would result in the following population increases:

- Applying the City’s average of 2.88 persons per household, non-residential and residential uses would be projected to generate demand for 2,329 housing units, with a population of 6,708 people; and
- Conservatively applying the City’s average of 2.84 persons per renter-occupied unit, and incorporating the City’s vacancy rate of 4.7 percent, new residential uses in the Specific

Plan Area (non-hotel) would comprise 800 units,³ with a population of 2,165 people (U.S. Census, 2016).

However, the implementation of the Specific Plan would induce substantially lower population growth than these projections. As indicated in the Environmental Setting, above, approximately 16 percent of Cupertino residents commute less than 15 minutes to work, which suggests that a portion of City residents prefer to live near their place of employment. Therefore, a portion of the new housing demand attributable to non-residential development would be accommodated within the Specific Plan's envisioned units. Thus, population increases from non-residential and residential uses would partially overlap.

In addition, residents of the new residential units in the Plan Area would live in proximity to other regional employment centers, such as those located elsewhere in the City of Cupertino and Santa Clara County. Therefore, some existing residents and employees in the region may move to the Specific Plan area, resulting in little net change in regional population.

Moreover, at least 80 units or 20 percent of the total residential units would be reserved for senior citizens, which typically do not house families with children.

Mitigation Fees

Countywide, implementation of the Specific Plan would result in approximately 14,343 net new jobs. The residential and non-residential uses constructed pursuant to the Specific Plan are projected to generate demand for 2,329 residential units. As shown in [Tables 15-3 and 15-4](#), the implementation of the Specific Plan may also result in additional demand for units serving households making more than 120 percent of area median income.

As discussed in the Regulatory Setting, above, in 2015 the Cupertino City Council adopted Resolution 15-036 and 15-037: Residential and Non-Residential Housing Mitigation Fees and the BMR Manual. These resolutions authorized housing mitigation fees per gross square foot of new development to partially offset the increased housing demand generated by new development. The fees that would be applicable to the Specific Plan area are shown in [Table 15-6: Residential and Non-Residential Housing Mitigation Fees](#). The final calculation of these fees would be determined for individual development projects constructed pursuant to the Specific Plan. Payment of these fees into the City's Affordable Housing Fund (AHF) would be used to increase and preserve the supply of housing affordable to households of extremely low, very low, low, median, and moderate incomes. As an alternative to payment of the fees, any

³ The City's *General Plan: Community Vision 2015-2040* allows 389 units "by right," however; additional units may be permitted upon transfer of units from other areas of the City and issuance of a Conditional Use Permit. Because more units than 389 may be permitted under the General Plan and the City's General Plan Environmental Impact Report studied 800 units within the Vallco Shopping District Special Area, this Environmental Assessment conservatively studies a project with 800 residential units to ensure the maximum impacts are identified.

future project may propose an alternative that is shown to be equivalent to the fee, such as by providing on-site BMR units. City policy is to obtain units within a development rather than to receive payment of the fee.

Table 15-6: Residential and Non-Residential Housing Mitigation Fees

Use	BMR Units and/or Fee ¹
<i>Residential Rental</i> ²	
Multi-family Attached Townhome / Apartment / Condominium (≤35 du / acre)	\$20 / square foot
Multi-family Attached Townhome / Apartment / Condominium (> 35 du / acre)	\$25 / square foot
<i>Non-Residential</i>	
Office / Research and Development / Industrial	\$20 / square foot
Hotel	\$10 / square foot
Commercial / Retail	\$10 / square foot

Notes:

1. Fees are adjusted annually based upon the percentage increase in Consumer Price Index (CPI) for All Urban Consumers for San Francisco.
2. For new ownership developments with more than six units, the developer shall provide at least 15 percent of units or lots as BMR ownership units or lots. When the 15 percent calculation results in fractional units, developers must round up if the remainder is greater than 0.49 and pay the fee per unit if the remainder is less than 0.49.

Source: City of Cupertino, 2015a (City Council Resolution No. 15-036).

Conclusion

As stated in the Regulatory Setting and further discussed in **Chapter 13, Land Use and Planning**, Cupertino’s current General Plan allocates 1.2 million square feet of commercial uses, 2 million square feet of office uses, 339 hotel rooms, and 389 residential dwelling units to the Plan Area. In addition, the Cupertino General Plan 2040 EIR analyzed the development of up to 800 residential dwelling units in the Plan Area. Therefore, implementation of the Specific Plan would not induce substantial unplanned growth, and the impact would be less than significant.

15.4.3 Cumulative Impact Analysis

Impact PH-2: Would implementation of the Specific Plan, in combination with past, present, and reasonably foreseeable future projects, result in significant cumulative impacts with respect to population and housing?

The geographic context for the analysis of cumulative population and housing impacts includes the City of Cupertino, Santa Clara County, and the regional San Francisco Bay Area.

As indicated above, the Cupertino General Plan was prepared in 2014, amended in 2015, and incorporated development of the Plan Area with land uses consistent with those provided for in the Specific Plan. The General Plan also accounted for development of known past, present, and reasonably foreseeable future projects that would combine with the Specific Plan to result in cumulative impacts. Therefore, at the local level, the Specific Plan would not combine with such projects to result in unplanned growth.

In Santa Clara County and the San Francisco Bay Area, cumulatively considered growth primarily comprises infill development of currently underutilized sites, pursuant to the policies of the *Santa Clara County General Plan (1994)* and ABAG and MTC's *Plan Bay Area*. As indicated in the Regulatory Setting, above, PDAs are expected to host the majority of future development within the Bay Area. Overall, well more than two-thirds of all regional growth by 2040 is allocated within PDAs. The Specific Plan, which comprises redevelopment of an underutilized site partially located within a PDA, would be consistent with these goals and would not considerably contribute to cumulative unplanned growth.

Cumulative impacts to population growth would be less than significant.

15.5 References

Association of Bay Area Governments (ABAG). 2012. *Jobs-Housing Connection Strategy*. Revised March 12.

California Planning Roundtable (CPR). 2008. *Deconstructing Jobs-Housing Balance*.

City of Cupertino. 2015. *General Plan: Community Vision 2015–2040*.

City of Cupertino. 2015a. City Council Resolution No. 15-036. A Resolution of the City Council of the City of Cupertino Adopting Residential and Non-Residential Housing Mitigation Fees.

City of Cupertino. 2015b. City Council Resolution No. 15-042: A Resolution of the City Council of the City of Cupertino Adopting the 2014–2022 Housing Element.

Department of Finance (DOF). 2015. E-5 Population and Housing Estimates for Cities, Counties, and the State, 2011 – 2015 with 2010 Census Benchmark. Available online: <http://www.dof.ca.gov/research/demographic/reports/estimates/e-5/2011-20/view.php>. Accessed January 20, 2016.

Employment Development Department (EDD). 2016. Labor Market Information. Available online: <http://www.labormarketinfo.edd.ca.gov/county/sclara.html#IND>. Accessed February 1.

Energy Information Administration (EIA). 2015. Commercial Buildings Energy Consumption Survey (CBECS). Table B1. Summary table. Available online at: <http://www.eia.gov/consumption/commercial/data/2012/#summary> and <http://www.eia.gov/consumption/commercial/data/2012/xls/b1.xlsx>. March 4.

Keyser-Marston Associates, Inc. (KMA). 2015a. *City of Cupertino Non-Residential Jobs-Housing Nexus Analysis*. April.

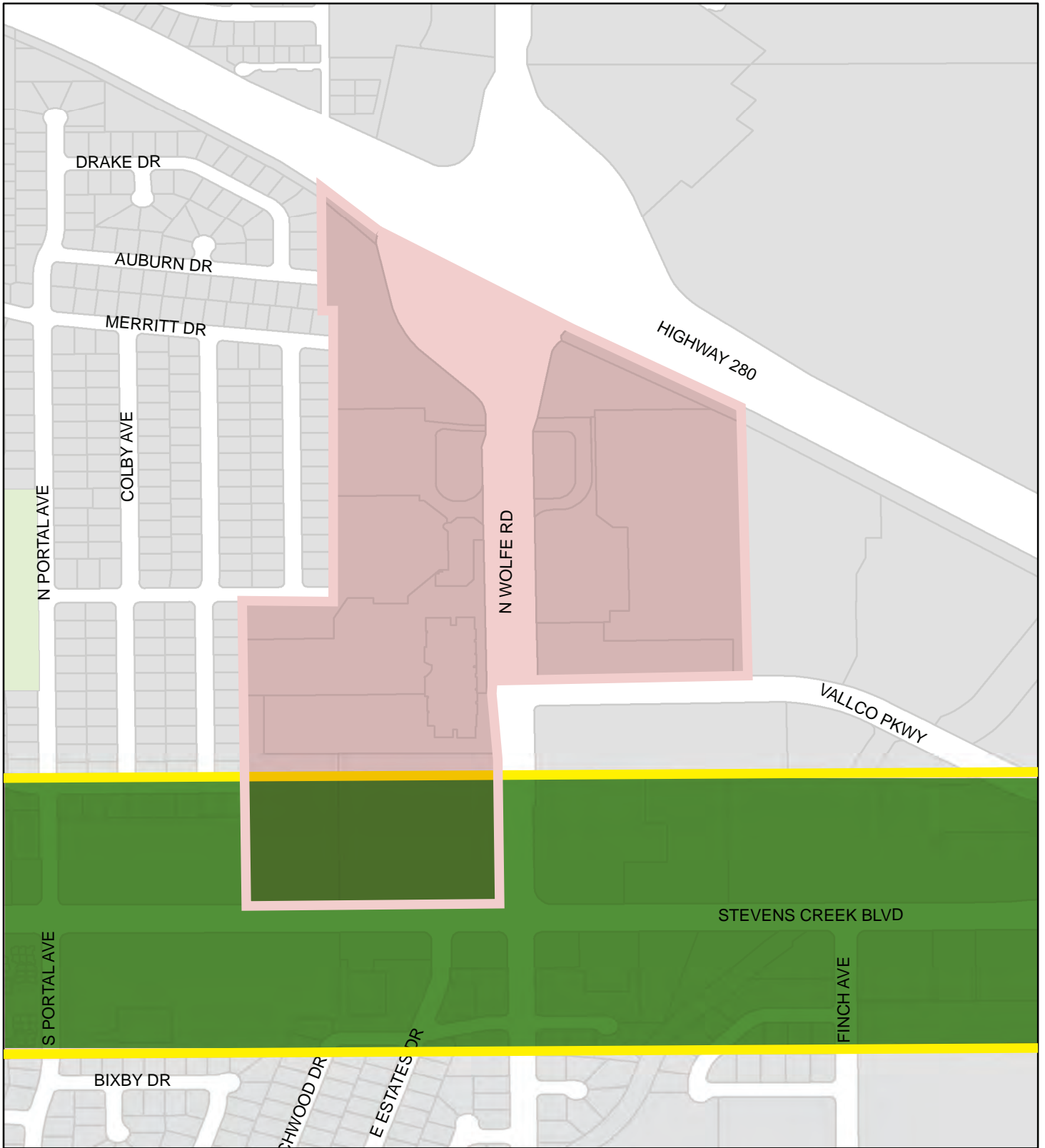
KMA. 2015b. *City of Cupertino Residential Below Market Rate Housing Nexus Analysis*. April.



KMA. 2016. *Fiscal and Economic Impacts Assessment: Vallco Shopping District Specific Plan*. Cupertino, CA. March.

Santa Clara County. 1994. *Santa Clara County General Plan*.

United States (U.S.) Census. 2014. S0802: Means of Transportation to Work by Selected Characteristics. 201–2014 American Community Survey 5-Year Estimates.

U.S. Census. 2016. American Community Survey 5-Year Estimates (2010 – 2014). Cupertino City, California. Accessed February 15.




 Vallco Town Center Specific Plan Area
 Heart of the City Special Area

 Valley Transportation Authority Priority Development Area

Source: City of Cupertino General Plan Housing Element, 2015

Figure 15-1: Priority Development Areas
 Vallco Town Center Specific Plan
 Environmental Assessment

 Not to scale

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16 Public Services

16.1 Introduction

This section describes the existing setting of the Plan Area as it relates to fire protection, police protection, schools, parks and recreation facilities, and libraries; identifies applicable regulatory requirements; and evaluates potential impacts on public services upon implementation of the Specific Plan.

Information used to prepare this section came from the following sources:

- City of Cupertino General Plan, *Community Vision 2015-2040*, 2015, as amended.
- Placeworks. 2014. General Plan Amendment, Housing Element Update, and associated Rezoning Project Draft Environmental Impact Report. State Clearinghouse No. 2014032007. Final EIR certified December 4, 2014.
- Schoolhouse Services. 2016. Enrollment and Fiscal Impact Analysis, The Hills at Vallco. December.
- Sand Hill Property Company. CUSD Fully Executed Letter of Intent. June 9, 2015.
- Sand Hill Property Company. FUHSD Fully Executed Letter of Intent. June 29, 2015.

16.2 Environmental Setting

This section presents information on public services conditions within the Plan Area. The current condition and quality of public services was used as the baseline against which to compare potential impacts associated with implementation of the Specific Plan.

16.2.1 Fire Protection Setting

The City of Cupertino contracts with the Santa Clara County Fire District (SCCFD) for fire protection, emergency, medical, and hazardous material services. The SCCFD has an agreement with the cities of San Jose, Santa Clara, and Sunnyvale for mutual aid to the City of Cupertino in the event of a large-scale emergency requiring additional support to respond. The administrative headquarters of the SCCFD is located at 14700 Winchester Boulevard, Los Gatos, approximately 5.5 miles from the Plan Area. The SCCFD service area is divided into four battalion districts with 17 fire stations. The SCCFD consists of the following four divisions:

- Fire Prevention Division. Provides fire, life, safety, and hazardous material inspection services for building construction, annual building inspection, and hazardous materials regulations.
- Operations Division. Provides services, including fire suppression, fire investigation, emergency medical response, hazardous material response and enforcement, and technical rescues.

- Training Division. Responsible for providing training, including emergency medical services.
- Support Services Division. Responsible for all vehicles, facilities, and communication services.

The SCCFD is one of the participants in the California State Fire and Rescue Mutual Aid Plan, and has response agreements with other fire agencies, including the California Department of Forestry and Fire Protection (CAL FIRE), Mountain View Fire Department, Palo Alto Fire Department, San Jose Fire Department, Scotts Valley Fire Protection District, South Santa Clara County Fire Protection District, Sunnyvale Department of Public Safety, and Woodside Fire Protection District.

The SCCFD includes 17 fire stations to protect approximately 100 square miles and serves a population of over 226,000 residents. SCCFD employs 283 personnel to provide fire suppression, emergency medical and fire marshal services, hazardous materials regulation and response, rescue and extrication, public education, and fire investigation services. SCCFD's suppression force is also augmented by volunteer firefighters (City of Cupertino, 2016).

The nearest fire station to the Plan Area is the Cupertino Fire Station, located at 20215 Stevens Creek Boulevard, approximately 0.9 miles from the Plan Area. The Cupertino Fire Station was rebuilt in 1999, is approximately 12,775 square feet in size, and has space for at least six apparatus (e.g. trucks and engines). Currently, the fire station has 8 personnel, 3 engines, and a truck (SCCFD 2016a).

In 2014, the SCCFD responded to 17,239 emergency calls. Among all the emergency calls, 62 percent of the calls requested emergency medical service, 24 percent for customer service assistance, 8 percent responded to fire alarms, 4 percent to fires, 2 percent to hazardous materials, and less than 1 percent to rescue-related calls. The SCCFD maintains department performance measures to ensure adequate response times for emergency calls. For emergency calls that do not require a paramedic, the SCCFD has a target performance goal of arrival of the first unit in less than eight minutes 90 percent of the time. For calls requiring emergency medical services (EMS), the SCCFD has a target performance goal of the arrival of a paramedic in less than eight minutes at least 90 percent of the time. In 2014, the response time for non-paramedic calls was 8 minutes 21 seconds. For EMS calls, the SCCFD responded in 7 minutes 20 seconds or less. Also, from dispatch of alarm, an effective firefighting force arrived on scene in 16 minutes 14 seconds or less. The SCCFD provided "2-in/2-out" Occupational Safety and Health Administration (OSHA) firefighter safety standards for structural fires in less than nine minutes from dispatch of alarm, at least 90 percent of the time (SCCFD 2015).

The Insurance Services Organization (ISO) is an advisory organization that, among other things, collects information on municipal fire-protection efforts in communities throughout the United States. In each of these communities, ISO analyzes the relevant data using ISO's Fire Suppression Rating Schedule (FSRS). The ISO then assigns a Public Protection Classification from 1 to 10. Class 1 generally represents superior property fire protection, and Class 10 indicates

that the area's fire-suppression program does not meet ISO's minimum criteria. The ISO rating is used by the SCCFD to evaluate their public fire-protection services. Currently the SCCFD provides ISO Class 2/5 services for Santa Clara County, with 47 percent of suburban area with an ISO rating of 2, and 53 percent wild land urban interface with an ISO rating of 5 (SCCFD 2016b).

16.2.2 Police Protection Setting

The City of Cupertino contracts with the Santa Clara County Sheriff's Office (Sheriff's Office) and West Valley Patrol Division for police protection services. The West Valley Division provides 24-hour uniformed law enforcement patrol services, as well as traffic functions, special enforcement details, and investigative services.

The West Valley Patrol Division headquarters is located at the Westside Sheriff's Substation on 1601 South De Anza Boulevard in Cupertino. Overall, the Sheriff's Office has 1,299 sworn law enforcement officers, including one Sheriff, one Undersheriff/Chief of Correction, two Assistant Sheriffs, 14 Captains, 24 Lieutenants, 117 Sergeants, and 1,142 Deputies, of which 395 are Enforcement Deputies and 747 are Correctional Deputies (Santa Clara County Sheriff's Office 2016). At the West Valley Station, there are 84 Sworn Peace Officer Positions (from Deputy to Captain) and seven non-sworn positions (including a crime analyst, records clerks, technicians, and an executive assistant). Sworn positions include one Captain, one Lieutenant, eight Sergeants, four Detectives, and 70 Deputies. There are also three law enforcement clerks, one law enforcement records clerk, one crime analyst, and one technician. Additionally, the City of Cupertino has two Code Enforcement Officers that handle parking citations and are housed within the West Valley Station; however, they are City employees, and not part of the Sheriff's Department. The West Valley Station contracts dispatching services to the County 9-1-1 Communications.

The target response times for the City of Cupertino, upon agreement with the Sheriff's Office, are five minutes for Priority 1 calls (requiring emergency dispatch), nine minutes for Priority 2 calls (non-life threatening), and 20 minutes for Priority 3 calls (non-emergency). In 2013, the Sheriff's Office average response times were 5 minutes 54 seconds for Priority 1 calls, 6 minutes 26 seconds for Priority 2 calls, and 10 minutes 49 seconds for Priority 3 calls.

16.2.3 School Setting

The Plan Area is served by two different schools districts: Cupertino Union School District (CUSD) and the Fremont Union High School District (FUHSD).

Cupertino Union School District

The CUSD serves the majority of Cupertino and some neighboring cities, including Los Altos, San Jose, Santa Clara, Saratoga, and some unincorporated Santa Clara County areas. The CUSD operates 25 schools, including 20 elementary schools and five middle schools. Among 25 schools, eight elementary schools are located within the Cupertino city boundary. **Table 16-1: Capacity and Enrollment for the CUSD** shows the enrollment and capacity for the CUSD schools, as of June 2014.

Table 16-1: Capacity and Enrollment for the CUSD

Schools	Capacity	Enrollment	Capacity Deficit
Collins Elementary School	598	720	122
Eaton Elementary School	598	590	-8
Faria Elementary School	574	678	104
Garden Gate Elementary School	598	739	141
Lincoln Elementary School	455	705	250
Regnart Elementary School	407	510	103
Sedwick Elementary School	574	599	25
Other Elementary Schools in CUSD	7,155	7,594	439
Elementary Schools Total	11,414	12,700	1,286
Cupertino Middle School	1,235	1,352	117
Hyde Middle School	672	1,039	367
Kennedy Middle School	954	1,452	498
Lawson Middle School	1,105	1,130	25
Other Middle Schools in CUSD	932	1,385	453
Middle Schools Total	4,898	6,358	1,460

Source: General Plan Amendment, Housing Element Update, and associated Rezoning Project Draft Environmental Impact Report, 2014.

As seen in the table above, CUSD schools are over their respective capacities, except for the Eaton Elementary School, which is also near its capacity. The Plan Area is located within the Collins Elementary School and the Lawson Middle School attendance areas.

The development impact fee is the source of school capital improvements funding provided by new development. CUSD is eligible to levy Level 1 development impact fees on new development, and by agreement with FUHSD, CUSD is entitled to 60 percent of \$3.36 per square foot of residential development and \$0.54 per square foot of commercial development, which equates to \$2.02 per square foot and \$0.32 per square foot respectively.

In addition to the development impact fee, the Cupertino voters approved three bond measures for school facility improvements. The three voter-approved measures with a total tax rate of \$0.0004 per dollar of assessed property value would generate approximately \$12 million per year for CUSD. As a “revenue limit” district, (a district where its property tax revenues are insufficient to reach the per student amounts guaranteed under the State of California school funding program), the CUSD receives additional funds necessary to fill the gap to the guaranteed entitlement level from the State. Local revenues other than property taxes are minimal, and most of the revenues are from the parcel tax revenues.

Fremont Union High School District

FUHSD operates five comprehensive high schools, including Cupertino High School, Fremont High School, Homestead High School, Lynbrook High School, and Monta Vista High School. Among the five schools, three high schools are located in the Cupertino city boundaries: Cupertino, Homestead, and Monta Vista high schools. The Plan Area is located within the Cupertino High School attendance area.

Table 16-2: Capacity and Enrollment for the FUHSD shows the enrollment and capacity for FUHSD schools, as of June 2014. As seen in the table below, FUHSD schools are within 5 percent of the capacity established based on FUHSD’s standards. For the district as a whole, the current enrollment is almost exactly equal to capacity.

Table 16-2: Capacity and Enrollment for the FUHSD

Schools	Capacity	Enrollment	Capacity Deficit
Cupertino High School	2,168	2,057	-111
Fremont High School	1,958	1,996	38
Homestead High School	2,279	2,384	105
Lynbrook High School	1,819	1,846	27
Monta Vista High School	2,410	2,350	-60
Other	N/A	24	N/A
District Total	10,634	10,657	23

Source: General Plan Amendment, Housing Element Update, and associated Rezoning Project Draft Environmental Impact Report, 2014.

FUHSD has been modernizing its facilities and adding enrollment capacity. Most of the improvements were funded with bond measures, though some development fee revenues have contributed. Bond Measure H in 1998, along with State proposition 1A and 47 funds, provided \$144 million for a districtwide renovation and modernization program to address facilities deficiencies, as well as to create state-of-the-art modern schools. In 2008, Bond Measure B was approved to authorize \$198 million for school improvements, and has been adding capacity to five schools in the FUHSD.

FUHSD is also eligible to levy Level 1 development impact fees on new development. By agreement with CUSD, FUHSD is entitled to 40 percent of the maximum fee of \$3.36 per square foot of new residential development and \$0.54 per square foot of commercial development, which equates to \$1.34 per square foot and \$0.22 per square foot respectively.

FUHSD receives other federal and State funding for a variety of programs, as well as some local revenues; however, those revenues are minimal compared to other sources of funding. Although the funding from federal, State, and local revenues would increase as enrollment increases, it would not be sufficient to catch up with the rate of enrollment increase. In addition

to development impact fees and property tax revenues, FUHSD receives revenue from several bond measures, but bond measures revenues are fixed and would not increase with increased student enrollment.

16.2.4 Parks and Recreational Facilities Setting

The City of Cupertino has 14 parks and seven community and recreational facilities within its boundaries. Based on a 1991 agreement, the City of Cupertino and CUSD jointly use open space areas within certain school sites and therefore, some school sites are included in the recreation acreage.

The City of Cupertino General Plan categorizes parks and open space into three different types: Residential Parks and Open Space, Neighborhood Parks, and Community Parks. For park space acreage calculations, the City also considers some school sites as open space. Including Neighborhood Parks, Community Parks, Residential Park/Open Space, and School Sites, the City has approximately 165 acres of City-owned public parks and open space areas. **Table 16-3: Existing School Sites Park and Recreation Acreage** lists the school sites included in the park acreage.

Table 16-3: Existing School Sites Park and Recreation Acreage

Name	Acreage
Kennedy Junior High School	9.0
Lincoln Elementary School	3.0
Regnant Elementary School	3.0
Stevens Creek Elementary School	3.0
Garden Gate Elementary School	3.0
Faria Elementary School	3.0
Eaton Elementary School	3.0
Hyde Junior High School	6.0
Collins Elementary School	3.0
Schools Total	36

Source: Cupertino General Plan, 2015.

Neighborhood Parks are the City's most significant open space and park resources. Each neighborhood park offers a variety of opportunities for passive and active recreation for adjacent neighborhoods and recreational programs for the community. There is a general lack of large parks, open space areas, and trails in the northeastern portion of the City. Most of the open space area, trails, and community facilities are located west of De Anza Boulevard.

Community parks include Memorial Park and the Stevens Creek corridor area. Memorial Park is an urban park and facility venue for festivals. The Sports Center, located at the intersection of Stevens Creek Boulevard and Stelling Road, provides a gym and tennis facilities, as well as a small facility where teens can gather and play indoor sports. A Senior Center is located at the intersection of Stevens Creek Boulevard and Mary Avenue, which runs programs for seniors in Cupertino. The Quinlan Community Center, located on Stelling Road, runs the majority of the art, dance, music, and other community programs. All of these facilities are located around Memorial Park

The Stevens Creek Corridor has a natural environment with trails, swimming facilities, group picnic areas, historic orchard, historic ranch, a nine-hole golf course, and related support facilities. The Blackberry Farm Recreational area's swimming facilities, recreation programs, and reserved picnic areas are only available in the summer, although access to the Stevens Creek Corridor trails is available year round.

Open Space under the jurisdiction of the Midpeninsula Regional Open Space District, and other regional open space and parks governed and owned by Santa Clara County are located within, as well as adjacent to, Cupertino. Other private open space and parklands within the City include a golf course, riding stables, and clubs offering tennis and swimming. Additionally, the City has agreements with the school districts to maintain school fields in return for allowing the community to use the fields, when they are not in use by the schools.

The City's park system is supplemented by a network of over 220 acres of local and regional interconnected trails. There are five major trail corridors identifies within the City boundary: Stevens Creek Corridor, Calabazas Creek Corridor, San Tomas-Aquino/Saratoga Creek Corridor, Union Pacific Railroad Corridor, and Mary Avenue Bicycle Footbridge. Most of the trails are located on the west side of the City.

16.2.5 Libraries Setting

The Santa Clara County Library District (SCCLD) governs and administers seven community libraries, one branch library, two bookmobiles, the Home Service Library, and the 24-7 online library for all library users. As one of the SCCLD's member cities, Cupertino has a community library located at 10800 Torre Avenue, immediately adjacent to its City Hall.

The Cupertino Library, completely redesigned and rebuilt in 2004, includes a 54,000 square-foot facility that offers spaces on two floors for different user groups, including a children's area, teen space, and group study rooms. The library provides traditional book and media lending services with self-check stations for users. As part of SCCLD, the library offers a virtual library

with online eBooks and eContent for personal readings and online research. The library also provides computers equipped with basic software and internet access, and free Wi-Fi connection is available for personal computers. The library is also equipped with computers for children, age 14 and under, and ADA computers for the visually and hearing impaired to accommodate all groups of users of the library. The library is equipped with multimedia scanning devices, as well as a color printer and photocopiers for a minimal cost.

The Cupertino Library provides different programs and events for all users. An array of more than 60 programs are offered, including book clubs for different age groups and in two different languages; English and Mandarin. The library also provides a diverse range of events, including but not limited to, book sales, English as a Second Language Conversation Club, Summer Reading Club, Cinema Club, Reading Buddies, and other community and educational events.

The Cupertino Library has the PlaneTree Health Information Center, which opened with the partnership of PlaneTree, an independent, nonprofit community service that provides health information to the public. Along with librarians and volunteers, PlaneTree assist the public to find information from trustworthy online sites, which includes both public and subscription-access, and PlaneTree's reference collection of lay and professional level books and texts.

According to the Cupertino Library Report for December 2015, the Cupertino Library attracted 679 new patrons in December 2015. The Cupertino Library has approximately 65,830 visitors and its total circulation reached 213,081 for the month of December, which includes 81,968 adult and teen materials and 131,113 children materials circulations.

The library services are primarily funded by the County's property taxes. This source is supplemented by a Mello-Roos Community Facilities District parcel tax within the City of Cupertino. Some funding is derived from the City of Cupertino General Fund in order to allow for expanded service hours. There are currently no developer impact fees for development of improvement of library facilities.

16.3 Applicable Regulations, Plans, and Standards

16.3.1 State

California Building Code

The California Building Code (CBC), Part 2 of Title 24 of the California Code of Regulations (CCR), is based on the International Building Code and established the minimum State building standards. The CBC is generally adopted on a jurisdiction-by-jurisdiction basis, subject to further modification based on local conditions. Commercial and residential buildings are plan-checked by City building officials for compliance with the CBC. Typical fire safety requirements of the CBC include installation of sprinklers in all high-rise buildings; establishment of fire resistance standards for fire doors, building materials, and particular types of construction; and clearance of debris and vegetation within a prescribed distance from occupied structures in wildlife hazard areas.

California Fire Code

The California Fire Code (CFC) incorporates, by adoption, the International Fire Code of the International Code Council, with California amendments. This is the official Fire Code for the State and all political subdivisions. It is located in Part 9 of Title 24 of the California Code of Regulations (CCR). The CFC is revised and published every three years by the California Building Standards Commission.

Senate Bill 50

Senate Bill (SB) 50 (funded by Proposition 1A, approved in 1998) limits the power of cities and counties to require mitigation of school facilities impacts as a condition of approving new development and provides instead for a standardized developer fee. SB 50 generally provides for a 50/50 State and local school facilities funding match. SB 50 also provides for three levels of statutory impact fees. The application level depends on whether State funding is available, whether the school district is eligible for State funding, and whether the school district meets certain additional criteria involving bonding capacity, year round school and the percentage of moveable classrooms in use.

California Government Code, Section 65995(b), and Education Code Section 17620

SB 50 amended California Government Code Section 65995, which contains limitations on Education Code Section 17620, the statute that authorizes school districts to assess development fees within school district boundaries. Government Code Section 65995(b)(3) requires the maximum square footage assessment for development to be increased every two years, according to inflation adjustments. In February 2016, the State Allocation Board (SAB) approved increasing the allowable amount of statutory school facilities fees (Level I School Fees) from \$3.36 to \$3.48 per square foot of assessable space for residential development of 500 square feet or more, and from \$0.54 to \$0.56 per square foot of chargeable covered and enclosed space for commercial/industrial development, although CUSD and FUHSD have not yet adopted the increased fees (State Allocation Board, 2016). School districts may levy higher fees if they apply to the SAB and meet certain conditions.

Mitigation Fee Act (Government Code 66000-66008)

Enacted as Assembly Bill (AB) 1600, the Mitigation Fee Act requires a local agency establishing, increasing, or imposing an impact fee as a condition of development to identify the purpose of the fee and the use to which the fee is to be put. The agency must also demonstrate a reasonable relationship between the fee and the purpose for which it is charged, and between the fee and the type of development plan on which it is to be levied. The Act came into force on January 1, 1989.

Quimby Act

The 1975 Quimby Act (California Government Code Section 66477) authorizes cities and counties to adopt ordinances requiring that developers set aside land, donate conservation easements, or pay fees for park improvements. Revenues generated through the Quimby Act cannot be used for operation and maintenance of park facilities. A 1982 amendment (AB 1600)

requires agencies to clearly show a reasonable relationship between the public need for the recreation facility or parkland and the type of development project upon which the fee is imposed. Cities with a high ratio of park space to inhabitants can set a standard of up to five acres per thousand persons for new development. Cities with a lower ratio can only require the provision of up to three acres of park space per thousand people. The calculation of a city's park space to population ratio is based on a comparison of the population count of the last federal census to the amount of city-owned parkland.

16.3.2 Local

City of Cupertino General Plan

The City of Cupertino's current General Plan, *Community Vision 2015–2040* includes policies and strategies in Chapter 7: Health and Safety Element that increases crime and fire prevention through design and improved use of technology. Chapter 9: Recreation, Parks and Community Services Element includes policies and strategies for the development and maintenance of a system of high-quality parks, recreational amenities, and community services. Relevant policies and strategies are provided below. A General Plan Land Use Consistency Analysis for the Specific Plan is provided in [Chapter 13, Land Use and Planning, Table 13-1](#).

Policy HS-3.1: Regional Coordination

Coordinate wildland fire prevention efforts with adjacent jurisdictions. Encourage the County and the Midpeninsula Open Space District to implement measures to reduce fire hazards, including putting into effect the fire reduction policies of the County Public Safety Element, continuing efforts in fuel management, and considering the use of "green" fire break uses for open space lands.

Policy HS-3.2: Early Project Review

Involve the Fire Department in the early design stage of all projects requiring public review to assure Fire Department input and modifications as needed.

Policy HS-3.4: Private Residential Electronic Security Gates

Discourage the use of private residential electronic security gates that acts as a barrier to emergency personnel.

Strategy HS-3.4.1: Location.

Require a fence exception for electronic security gates in certain areas.

Strategy HS-3.4.2: Access to Gates.

Where electronic security gates are allowed, require the installation of an approved key switch to be accessed by the Fire District.

Policy HS-3.5: Commercial and Industrial Fire Protection Guidelines

Coordinate with the Fire Department to develop new guidelines for fire protection for commercial and industrial land uses.

Policy HS-3.7: Multi-Story Buildings

Ensure that adequate fire protection is built into the design of multi-story buildings and require on-site fire suppression materials and equipment.

Policy HS-4.2: Crime Prevention through Building and Site Design

Consider appropriate design techniques to reduce crime and vandalism when designing public spaces and reviewing development proposals.

Strategy HS-4.2.1: Perimeter Roads for Parks.

Encircle neighborhood parks with a public road to provide visual accessibility whenever possible.

Strategy HS-4.2.2: Development Review.

Continue to request County Sherriff review and comment on development applications for security and public safety measures.

Policy RPC-1.2: Parkland Standards

Continue to implement a parkland acquisition and implementation program that provides a minimum of three acres per 1,000 residents.

Strategy RPC-1.2.1: Park Size.

Require target for parks based on function and activity supported as part of the Parks and Recreation Master Plan. While the preferred size for most neighborhood parks is about 3.5 acres for flexibility of use, smaller size parks may be considered based on opportunities and circumstances.

City of Cupertino Municipal Code

The City of Cupertino Municipal Code contains all ordinances for the City. The Municipal Code is organized by Title, Chapter, and Section.

The City's Fire Code, which is in Title 16 (Buildings and Construction), Chapter 16.40 (Fire Code) of the Municipal Code, regulate permit processes, emergency access, hazardous material handling, and fire protection systems, including automatic sprinkler systems, fire extinguishers, and fire alarms. Under Ordinance 13-2115, the City adopted the 2013 CFC. New construction or improvements are subject to the Santa Clara County Fire Departments (SCCFD) plan review and approval. Section 16.40.065, Permits, includes Section [A]105.1.4 (16.40.065) and [A]105.1.5 (Operational permit fee), which outlines the construction permit fees and plan review fees for fire hydrant systems, fire extinguishing systems, and fire alarm systems and operation permit fees that are required to be paid to the SCCFD, respectively.

The following provisions of the Municipal Code apply to parks and recreational services in Cupertino:

- Title 13, Parks, sets regulations and standards for parks and recreation buildings in the City for all people to enjoy and protects the rights to surrounding areas as well. Title 13 regulates any activities that may occur at parks and recreation buildings at the time of events and/or use, which includes, but is not limited to, sanitation requirements, vehicle requirements, picnic area requirements, advertising and sale restrictions, administrative and enforcement authority, and violation penalties. Chapter 14.05, Park Maintenance Fee, in Title 14, Streets, Sidewalks and Landscaping, requires development impact fees to maintain parks and recreational facilities to mitigate impact from new development. The collected fee is only used for acquisition, improvement, maintenance, rehabilitation, expansion, or implementation of parks and recreational facilities. The fee is calculated by multiplying the park acreage standard, average number of persons per residential dwelling unit, and value per acre.
- Title 18, Subdivisions, sets regulations for subdivisions, including park dedication and/or in-lieu fees. Chapter 18.24 (Dedications and Reservations) includes different dedication requirements for the City in Article II (Park Land Dedications). The Park Land Dedication regulations are applied to all development except commercial or industrial subdivisions, condominium conversion, convalescent hospitals, and similar dependent care facilities. The amount of dedicated land is determined by multiplying the average number of persons per unit and the park acreage standard of 3 acres of parkland for every 1,000 residents as allowed by the Quimby Act. The in-lieu fee would be determined based upon the fair market value of the land which would otherwise be required to be dedicated.
- Title 19, Zoning, sets regulations and standards for land uses within the City. Chapters 19.88 (Open Space Zones), 19.95 (Park and Recreation Zones), and 19.96 (Private Recreation Zones) contain land use and development standards for open space, parks, and recreation buildings and uses. Chapter 19.88 (Open Space Zones) applies to open space uses in private natural areas in order to avoid urban sprawl and to preserve environmentally sensitive areas. Chapter 19.92 (Parks and Recreation Zone) applies to land uses and recreational activities in publicly owned parks and recreation areas. Chapter 19.96 (Private Recreation Zone) provides development standards for private recreational activities, including indoor recreational facilities.

16.4 Impacts and Environmental Design Features

16.4.1 Significance Criteria

Would the Specific Plan:

- a) Result in substantial adverse physical impacts associated with the provision of or need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response time, or other performance objectives for any other the following public services:

- i. Fire protection;
- ii. Police protection;
- iii. Schools;
- iv. Parks and Recreation facilities; or
- v. Libraries.

16.4.2 Impacts of the Proposed Specific Plan

Impact PS-1: Would implementation of the Specific Plan result in a substantial adverse physical impacts associated with the provision of or need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response time, or other performance objectives for fire protection?

Implementation of the Specific Plan would result in future construction of 800¹ apartment units, 625,000 square feet of commercial and public uses, and two million square feet of office uses, as well as hotel uses. The introduction of these uses would potentially increase demands for fire protection. The Cupertino Fire Station, located at 20215 Stevens Creek Boulevard, is approximately 0.9 mile from the Plan Area. The Town Center According to the SCCFD Business Plan, Cupertino Fire Station is in excellent condition and currently does not have any renovations scheduled (SCCFD 2015). Additionally, the Cupertino Fire Station has room for two additional apparatus (e.g., trucks and engines) if needed. As discussed in the Public Services section of the *General Plan Amendment, Housing Element Update, and Associated Rezoning Project Draft Environmental Impact Report* for the City of Cupertino, the SCCFD has confirmed that the existing facilities, equipment, and staffing levels would be adequate to accommodate growth due to future development under the General Plan, which includes the redevelopment of the Plan Area pursuant to a Specific Plan consistent with the General Plan. Therefore, it is not anticipated that new or expanded fire protection facilities would be necessary. Staffing levels fire stations are determined by the SCCFD based on demand and strategic planning.

As discussed above, the SCCFD maintains department performance measures for emergency calls. For emergency calls that do not require a paramedic, the SCCFD has a target performance goal of the arrival of having the first unit arrive in less than eight minutes, 90 percent of the time. For calls requiring EMS, the SCCFD has a target performance goal of the arrival of a paramedic in less than eight minutes at least 90 percent of the time. In 2014, the response time for non-paramedic calls was 8 minutes 21 seconds or less. For EMS calls, the SCCFD responded in 7 minutes 20 seconds or less.

¹ The City's General Plan: Community Vision 2015-2040 allows 389 units "by right," however; additional units may be permitted upon transfer of units from other areas of the City and issuance of a Conditional Use Permit. Because more units than 389 may be permitted under the General Plan and the City's General Plan Environmental Impact Report studied 800 units within the Vallco Shopping District Special Area, this Environmental Assessment conservatively studies a project with 800 residential units to ensure the maximum impacts are identified.

Implementation of the Specific Plan may reduce the ability of SCCFD to meet existing performance standards if access to the proposed buildings in the Plan Area is limited due to physical security features such as barriers, gates, or secure doors. However, access control devices would be subject to approval by a Fire Code official, and all electrically-powered access control devices would be required to provide an approved means for deactivation or unlocking from a single location or otherwise approved by the SCCFD.

Compliance with Municipal Code Section 16.40.065 would require future development within the Plan Area to undergo plan review and approval by the SCCFD to ensure that future development complies with State, and local fire codes, as well as to ensure adequate safety features are incorporated into each building design to minimize risk of fire. Future development within the Plan Area would also be required to comply with the City's Fire Code, Cupertino Municipal Code Chapter 16.40 (Fire Code), including compliance with the building permit processes, emergency access, hazardous material handling, and fire protection systems, including automatic sprinkler systems, fire extinguishers, and fire alarms. The SCCFD would perform final inspection of required fire protection facilities and access ways for future development in the Specific Plan prior to the issuance of building permits.

Compliance with the State and local regulations would result in less-than-significant impacts to fire protection service.

Impact PS-2: Would implementation of the Specific Plan result in a substantial adverse physical impacts associated with the provision of or need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response time, or other performance objectives for police protection?

Implementation of the Specific Plan would result in future construction of 800 apartment units, 640,000 square feet of commercial and public uses, and two million square feet of office uses, as well as hotel uses. As discussed in **Chapter 15, Population and Housing**, it is anticipated that implementation of the Specific Plan would result in an increase of approximately 2,165 residents and approximately 8,264 employees to the Plan Area. The introduction of these uses would potentially increase demands for police protection within the Plan Area, which is currently served by the Sheriff's Office and West Valley Patrol Division.

As discussed in the Public Services section of the *General Plan Amendment, Housing Element Update, and Associated Rezoning Project Draft Environmental Impact Report* for the City of Cupertino, the West Valley Patrol Division has confirmed that the redevelopment of the Plan Area would be consistent with the General Plan, would not result in the need for expansion of additional facilities.

No additional police facilities would need to be constructed due to implementation of the Specific Plan. Therefore, implementation of the Specific Plan would not result in significant physical impacts related to the need for new or expanded police facilities. Potential impacts are considered less than significant.

However, during specific seasonal periods or large public events, the attendance with the Town Center/Community Park area may significantly increase for temporary periods of time in which a greater presence of law enforcement may be desired. The Specific Plan includes a community benefit that reserves a minimum of 5,000 square feet of civic space to be dedicated for a charitable lease or leases (i.e., leases for zero or a nominal fee) for civic uses that could include a police substation to facilitate operations during periods of high attendance within the Plan Area.

Impact PS-3: Would implementation of the Specific Plan result in a substantial adverse physical impacts associated with the provision of or need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response time, or other performance objectives for schools?

Implementation of the Specific Plan would result in future construction of up to 800 apartment units, which would comply with the Housing Mitigation Program, 640,000 square feet of commercial and public uses, and two million square feet of office uses, as well as hotel uses. The introduction of these uses would potentially increase demands for schools in CUSD and FUHSD. Therefore, the CUSD and FUHSD require the payment of development fees based on a per square foot basis of new residential and commercial development. These fees are collected at the building permit stage and are paid prior to building construction. These fees are used for the construction of new school facilities, which would be built to accommodate increased student enrollment resulting from new development. Payment of school facility mitigation fees (under SB 50) has been deemed by the State legislature (per Government Code Section 65995(h)) to constitute full and complete mitigation of impacts of a development project on the provision of adequate school facilities. Once funded, the school districts are responsible for identifying the location of new school facilities and undertaking acquisition, design, and construction of the facilities.

An *Enrollment and Fiscal Impact Analysis* (Impact Analysis) was completed by Schoolhouse Services in February 2016 for the Town Center/Community Park to determine the projected number of students that would be generated by the development of the Town Center/Community Park, and to estimate the fiscal impact of this development to CUSD and FUSD schools. Future development on Block 13 and Block 14 would consist of hotel and supporting commercial uses, and would not generate additional students for CUSD and FUHSD. Therefore, the Impact Analysis can be applied to the entirety of the Plan Area.

The Impact Analysis included a projection of new student enrollment that would result from implementation of the Specific Plan. Student generation rates (SGRs), the average number of students per new housing unit, are the key factors for the projection of enrollment into the future. Multiplying the number of new units by an appropriate SGR results in a projection of students from the units.

Different types of housing generate different SGRs. Single-family detached units usually generate the most students, typically approximately two to three times the amount of students

generated by most apartment units and condominiums. Most condominiums and apartments are usually not targeted toward families. Most of these units are smaller, ranging from studio to predominately one and two-bedroom units. They are usually in multi-story buildings and lack private yards. Within the range of apartments and condominiums, student generation can vary significantly, with the sizes, design, and marketing of the units being major factors (Schoolhouse Services, 2016).

According to the Impact Analysis, future residences at the Town Center/Community Park would be situated in the midst of an urban commercial environment; as a result, they are more likely to appeal to adults than to families with children. Additionally, the large number of technology firm employees who can afford high rents, make competition difficult for young families for two- and three-bedroom apartments in the region (Schoolhouse Services, 2016). **Table 16-4: Projected Student Generation Rates** shows the Town Center/Community Park SGRs by grade level for CUSD and FUHSD and the enrollment generated based on 760 non-senior apartments.

It should be noted that the Specific Plan has evolved since the Schoolhouse Services student generation report was prepared in January 2016. The project has increased the number of age restricted (senior) housing from 40 units to at least 80 units or 20% of the total units. In an 800 unit project, this would reduce the number of non-senior apartments from 760 to a maximum of 640. The original student generation calculations from the Schoolhouse Services report are included in this analysis to provide a conservative analysis of the number of students that may be generated as result of implementing the Specific Plan. This analysis represents a conservative approach because senior housing is considered not to have any contribution of additional students. As such, because the number of age restricted units in the Specific Plan has at least doubled, and potentially quadrupled, since the Schoolhouse Services report was prepared, the number of students that may be generated by the project is overstated in the following analysis.

Table 16-4: Projected Student Generation Rates and Enrollment

Grade	SGRs	Estimated Enrollment
Elementary (K-5 grades)	0.19	144
Middle (6-8 grades)	0.09	68
Total CUSD	0.28	212
High School (9-12 grades)	0.06	46
Total FUHSD	0.06	46
Total	-	258

Source: Schoolhouse Services, 2016.

The Town Center/Community Park is projected to generate approximately 258 students when fully developed. It is anticipated that these students would attend the schools to which they would be assigned, and that the development would generate 144 elementary school students, 68 middle school students, and 46 high school students.

According to the Impact Analysis, it is projected over the next five years there will be a decline of over 900 students district-wide. Two main factors appear to be responsible for this decline. One is a maturation of households, particularly in the southern half of CUSD, whose students are graduating and moving on. This process has been ongoing over the last decade, but the resulting loss of students was compensated for by the growth in young families in the northern portion of CUSD. The other factor causing a loss of students is the rapidly rising rents, which is resulting in young families being priced out of CUSD. Rising home prices are also making it much more difficult for young families to move into CUSD, though they do not price out existing homeowners and thus have less effect. It is anticipated that over at least the next five years, if not more, many households with the financial resources to move into CUSD are young technology industry employees, many not yet married and relatively few with school-age children (Schoolhouse Services, 2016).

For elementary schools in CUSD, it is projected that over the next five years that elementary enrollment will decline by almost 400 students, a 3 percent decline. The rate of decline will not be the same throughout CUSD, differing among three areas of CUSD. The majority of the schools north and northeast of I-280 will still be experiencing some growth, increasing the existing capacity shortfalls. Schools in the central area, lying below I-280 (Collins, Garden Gate, Eaton, and Sedgwick) are beginning to experience decreases in enrollment. The elementary schools located in the southern portion of CUSD have already passed their peak enrollment and have a continued decline projected in the future.

CUSD has developed programs and magnet schools that are located at campuses with available capacity, generally schools in the south part of CUSD. CUSD's Chinese Language Immersion Program is an example of this. Many students participating in the program are drawn from attendance areas in the northern/northeastern and central areas of CUSD, which lessens the pressure on these overcrowded schools.

For middle schools in CUSD, it is projected over the next five years that middle school enrollment will decrease approximately 500 students. Recently, proceeds from a bond issue have allowed CUSD to complete several projects that add enrollment capacity for the middle schools in the District. The most important is the relocation of CUSD offices to office space on Mary Avenue in Sunnyvale, freeing up the site adjacent to Lawson Middle School to add 12 classrooms, bringing up the capacity to approximately 1,500 students. Classrooms added to the Cupertino Middle School also brought capacity up to that level.

For high schools located in FUHSD, enrollment is expected to increase over the next five years by approximately 625 students, which is 6 percent of current enrollment. The Plan Area is located approximately 0.5 miles from Cupertino High School. It is projected that by 2020, the

attendance area for Cupertino High School will have approximately 312 more students in its attendance area, which would bring enrollment to more than 500 students above the current capacity of its facilities. The Lynbrook High School attendance area lies south of Cupertino High School's attendance area. Lynbrook had a Fall 2015 enrollment of 1,767 students, with a projected decline of 243 student living in it attendance area over the next five year. Lynbrook's calculated capacity is 1,803 students, ideal for current enrollment, but significantly greater than projected enrollment. The FUHSD School Board acted in January 2016 to allow students from Miller Middle School to choose to enroll in Lynbrook and appointed a committee to study options for changes in FUHSD attendance assignment policies (Schoolhouse Services, 2016).

Therefore, the CUSD and FUHSD requires the payment of development fees based on a per square foot basis of new development. The fees, which vary depending on the type of land use (e.g., the fees for residential uses may be different than commercial or civic uses), would be collected at the building permit stage and are paid prior to building construction of the Town Center/Community Park. The payment of school fees as a mitigation is consistent with Section 65995(h) of the California Government Code and is considered full and complete mitigation for impacts on school facilities and potential impacts are considered less than significant.

However, the Specific Plan requires that the Town Center/Community Park applicant provide Exceptional Educational Benefits for CUSD and FUHSD. In addition to paying the maximum state-required school fees, which are expected to be approximately \$4 million, and to recognize the important asset that schools are to the larger Cupertino community, and in an effort to make a net positive impact on the local school districts, the Town Center/Community Park applicant would provide exceptional community benefits, summarized below, to the local schools including FUHSD and CUSD. While the precise nature of these benefits must be determined in coordination and cooperation with the school districts, the community benefits for local schools shall be valued at approximately \$40 million, which would represent a financial contribution more than 10 times the legally-required amount. If the school districts agree to these benefits, the following are strongly encouraged:

Construction and 34-year charitable lease of a new 10,000 square foot, turn-key High School science and engineering "Innovation Center" intended to serve as:

- An incubator space for new student-led businesses,
- A hub for FUHSD's work-based learning initiatives,
- A place for robotics teams to compete,
- Space for student makers from a variety of disciplines to create; and
- A Black Box Theatre and Stagecraft Center.

The purpose of this large, flexible, and multi-use space would be for FUHSD high school students to engage in projects together, collaboratively across all district schools, while collaborating with members of the greater community.

Construction and 34-year charitable lease of up to 5,000 square feet of classroom and/or administrative space for FUHSD's Adult School to assist in its mission to prepare its students to achieve educational, career, and personal goals and its commitment to serve the life-long learning needs of the residents of the district's diverse community.

The Specific Plan also encourages the exceptional educational benefits to include solutions to create net additional enrollment capacity for hundreds of CUSD students, beyond what is generated by the Plan Area, and enhance the quality of instruction and student learning. The additional capacity solutions shall be agreed to with CUSD through a definitive agreement and subsequent approval process. Examples of such enrollment capacity benefits could include:

- A new 700 student elementary school at the former Nan Allan Elementary School site;
- Replacement of all portable classrooms at Collins Elementary School with permanent classrooms;
- Improvement and expanded utilization of athletic and recreation facilities at the Nan Allan/Collins Elementary School location;
- Funding a \$1,000,000 endowment for the long-term sustainability of the CUSD 8th Grade Yosemite Science Program; and
- In addition, despite the fact for-rent residential units within Plan Area will not enjoy the legal or economic benefits of individually parcelized "for-sale" units, payment of the equivalent applicable parcel tax to each of the districts for each unrestricted apartment unit allowed by this Specific Plan, subject to additional negotiated terms with the school districts, which annual payment is currently estimated to be approximately \$135,372 in the aggregate.

The exceptional community benefits also encourage compliance with the City's Below Market Rate Housing Mitigation Program by providing affordable units on-site and, to the extent permitted by law, giving CUSD and FUHAD teachers housing priority.

As noted, these Exceptional Educational Benefits are voluntary on the part of the Town Center/Community Park applicant and are subject to review and approval by the school districts. Any offsite improvements on CUSD property would be subject to review and approval by the district prior to construction. The school district and/or the Division of State Architect would complete their own environmental review and approval process prior to initiating any of the improvements described above on CUSD property.

Impact PS-4: Would implementation of the Specific Plan result in a substantial adverse physical impacts associated with the provision of or need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response time, or other performance objectives for parks and recreational facilities?

According to the Recreation, Parks and Community Services Element in the City of Cupertino General Plan, *Community Vision 2015-2040*, the park standard for the City is three acres of park per 1,000 residents. There are approximately 165 acres of parkland in Cupertino, or

approximately 2.83 acres per 1,000 residents, based on a population of 58,302 residents. Therefore, the City does not currently meet its adopted standard for park acreage. In accordance with Section 13.08.050 of the Municipal Code, the Specific Plan would be required to dedicate approximately seven acres of parkland.

The Specific Plan includes two publicly-accessible Town Center squares, which would each provide programmable landscaped space that would act as a civic/community amenity and plaza. The Specific Plan also includes an approximately 30-acre Community Park and Nature Area located above the proposed buildings. A majority of the Community Park and Nature Area would be publicly-accessible and amenities would include pedestrian trails, a playground, vineyards, orchards, organic gardens, an amphitheater, and a nature area. Also located within the community garden is a community banquet hall, with a capacity for more than 2,000 occupants and a wine garden adjacent to the vineyards would be used for large community gatherings such as weddings, fundraisers, cultural events, and festivals. The Specific Plan also includes approximately three acres for two Town Square gathering areas. Town Square West would include gathering spaces for outdoor events such as concerts, cultural events, outdoor performances, and movies. These areas would be surrounded by hardscape that could also host events and festivals or serve as exterior dining or social space. Town Square East would be a publicly-accessible park that would serve as an amenity for the surrounding office and commercial uses. Both Town Squares would act as a civic/community amenity and plaza.

Implementation of the Specific Plan would provide a nature area, civic spaces, recreational facilities, and trails to the eastern portion of Cupertino, where such amenities are currently lacking. Implementation of the Specific Plan would increase the amount of park acreage per a resident in the City.

Future development in the Plan Area would comply with the Cupertino Municipal Code regulations. Chapter 14.05, Park Maintenance Fee, requires developers to pay impact fees to maintain existing parks and recreation facilities, and Chapter 18.24, Dedications and Reservations, requires residential developments to dedicate parklands or pay in-lieu fees to accommodate and offset their fair share of impacts to parklands. The proposed approximately 30-acre community park and nature area would satisfy the parkland dedication requirements for the City. Additionally, the City would not have long-term maintenance costs for the additional parkland, since it would be privately owned.

Implementation of the Specific Plan is not expected to increase the use of existing neighborhood or regional parks such that there would be substantial physical deterioration of existing facilities. With the provision of an approximately 30-acre Community Park and Nature Area within the Plan Area, which would include recreational facilities and trails, new residents and employees generated by implementation of the Specific Plan would have access to the open space which would be privately maintained and would not result on long-term maintenance costs to the City. Therefore, impacts would be less than significant.

Impact PS-5: Would implementation of the Specific Plan result in a substantial adverse physical impacts associated with the provision of or need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response time, or other performance objectives for libraries?

As discussed in the Public Services section of the *General Plan Amendment, Housing Element Update, and Associated Rezoning Project Draft Environmental Impact Report* for the City of Cupertino, the Santa Clara County Library has confirmed that the existing library facilities would be sufficient to accommodate increased demand for library service due to future development under the General Plan, which includes the redevelopment of the Plan Area pursuant to a Specific Plan consistent with the General Plan, and would not result in the need for expansion of additional facilities. Additionally, if future expansion of the library were necessary, the project would be subject to environmental review.

Therefore, future development in the Plan Area is consistent with the City's and Santa Clara County Library's future projections and impacts would be less than significant.

16.4.3 Cumulative Impact Analysis

Impact PS-6: Would implementation of the Specific Plan, in combination with past, present, and reasonably foreseeable projects, result in significant cumulative impacts with respect to public services?

Implementation of the Specific Plan and past, present, and reasonable foreseeable future development projects would increase the demand for fire protection, police protection, schools, parks and recreation, and library services. New facilities required to maintain adequate service levels would be funded through the City's general fund and school developer fees. In addition, small increases in ongoing yearly property tax revenues would be available to fund a portion of the ongoing services. Service providers regularly review growth trends and conduct long-range planning to provide adequate public services for future growth. Therefore, cumulative impacts to these public services are expected to be less than significant.

16.5 References

City of Cupertino. *Fire*. Available at www.cupertino.org/index.aspx?page=365. Accessed January 22, 2016.

Cupertino Library Foundation. *Cupertino Library Report for December 2015*. Available at <http://cupertinolibraryfoundation.org/wp-content/uploads/2013/06/December-2015-monthly-report-002.pdf>. Accessed January 26, 2016.

LSA. 2013. *Apple Campus 2 Project Public Review Draft Environmental Impact Report*. State Clearinghouse No. 201108205.

Santa Clara County Sheriff's Office. *The Sheriff's Office*. Available at www.sccgov.org/sites/sherriff/Pages/overview.aspx. Accessed January 18, 2016.

SCCFD (Santa Clara County Fire Department). *Cupertino Fire Station*. Available at www.sccfd.org/about-sccfd/fire-station-locations/cupertino-fire-station. Accessed January 22, 2016.

SCCFD (Santa Clara County Fire Department). *Fire Department Santa Clara Business Plan, January 2015 – December 2019*. Available at www.sccfd.org/images/documents/key_reports_documents/SCCFDBusinessPlan20152019compressed.pdf. Accessed January 25, 2016.

SCCFD (Santa Clara County Fire Department). *Santa Clara County Fire Department, SCCFD Overview*. Available at www.sccfd.org/about-sccfd/sccfd-overview. Accessed January 25, 2016.

SCCFD (Santa Clara County Fire Department). *Santa Clara Fire Department 2014 Annual Report*. Available at www.sccfd.org/images/documents/key_reports_documents/Annual_Report_2014.pdf. Accessed January 25, 2016.

State Allocation Board. *Report of the Executive Officer, State Allocation Board Meeting, February 24, 2016*. Available at http://www.documents.dgs.ca.gov/OPSC/Resources/Index_Adj_Dev_2016.pdf. Accessed January 18, 2016.

17 Transportation and Circulation

17.1 Introduction

This chapter describes the existing setting of the Plan Area as it relates to transportation and circulation; identifies applicable regulatory requirements; evaluates potential impacts on transportation and circulation; and references Specific Plan Environmental Design Features (EDFs) to reduce or avoid potential impacts.

The Study Area comprises the Plan Area and the area encompassing the study intersections and freeway segments. The analysis presents transportation and circulation impacts generated by future development under guidance of the Specific Plan on all aspects of the transportation system, including vehicular traffic circulation, transit use, bicycle circulation, pedestrian circulation, and parking. For reference, [Figure 17-1: Plan Area Location Map](#) shows a map of the Plan Area and its surrounding areas. See [Figure 3-2: Specific Plan Area](#) for a breakdown of the blocks within the Plan Area. Results from the transportation impact analysis are found in [Appendix TR](#).

The analysis presented herein also considers the following Community Benefits when comparing the proposed Specific Plan with the proposed Cupertino Citizens Sensible Growth Initiative (CCSGI)¹:

- Traffic congestion is an issue of concern today in Silicon Valley. With or without the Specific Plan, traffic solutions need to be brought to Cupertino to relieve congestion.
- Implementation of the Specific Plan provides an ideal opportunity for viable economic growth, while including extensive design features to minimize traffic-related impacts. These features are above and beyond what would otherwise be required by standard mitigation measures under the guidance of a typical CEQA EIR document.
- The Specific Plan addresses multi-modal transportation and efficient parking with a forward-thinking approach and utilizing recognized site and urban design principles to enhance connectivity: locating jobs, housing and services together, near transit. Site orientation and design are focused on pedestrians, bicycles and safety. The site design reduces peak hour and daily number of trips and trip lengths. The mixed use design optimizes the use of the transportation infrastructure and parking allocation on a 24-hour basis: retail and office during the day, residential and entertainment in the evening.
- The Specific Plan creates a policy framework that would encourage, promote, and require trip reductions and transportation mode shifts away from single driver, peak hour vehicle trips. This policy framework is absent under CCSGI but is becoming a standard approach for next-generation projects nationally.

¹ Refer to Chapter 3, Project Description for a further description of the CCSGI.

- The Specific Plan specifies approximately \$40 million in addition to what is anticipated to be millions of dollars in other fair share multimodal contributions for transportation improvements that would not be available with the CCSGI.
- Maintaining Vallico as an enhanced occupancy mall would continue to generate additional traffic, but without the commitment and benefit of physical transportation improvements.
- Implementation of the Specific Plan would result in the following key transportation improvements:
 - Contribution of \$26 million to the Interstate 280 (I-280)/Wolf Road interchange reconstruction; and along with other adjacent contributions, the interchange will be rebuilt.
 - Additional \$4 million contribution to relieve I-280 congestion.
 - 20 surrounding intersections will be mitigated so that any increase in delay is less than four (4) seconds per vehicle, including \$2-\$3 million towards traffic signal timing upgrades.
 - A free public shuttle system will be funded.
 - A vigorous Travel Demand Management (TDM) program will be implemented including a strict cap on office worker drive alone car trips, resulting in a 30% reduction in peak hour trips from a typical office building.
 - With the TDM program, nearly half (46%) of all office trips will be completed using alternatives to driving alone (e.g. shuttle / transit, walking, cycling or vehicles with more than one occupant). With the TDM reduction, the number of trips generated will be comparable to a much smaller (approximately 1.4 million square foot) typical office building.
 - \$6 million contribution to the City for bicycle and pedestrian improvements, including completion of a two mile portion of the I-280 trail.
 - \$300,000 will be set aside for neighborhood traffic/parking monitoring and for construction of any necessary neighborhood protection measures to ensure there will be no project parking spill-over or cut through traffic in the adjacent neighborhoods.
 - An underground and above ground street grid will contain multi-modal circulation on-site and relieve traffic on surface streets. In addition, direct ingress and egress to the site facilitates conducive operating conditions on the public streets fronting the Specific Plan.
 - The site layout will be integrated with a transit stop on Stevens Creek Boulevard to seamlessly connect and enhance transit use and the ridership experience.
 - Extensive on- and off-site bicycle and pedestrian improvements will be implemented.

Information used to prepare this chapter came from the following resources:

- City of Cupertino General Plan, *Community Vision 2015–2040*, October 20, 2015, as amended
- City of Sunnyvale General Plan, 2011
- *City of Santa Clara 2010–2035 General Plan*, December 9, 2014, as amended
- *City of Saratoga General Plan*, November 19, 2014, as amended
- *Guide for the Preparation of Traffic Impact Studies*, California Department of Transportation (Caltrans), December 2002
- *Highway Design Manual (HDM) 6th Edition*, California Department of Transportation (Caltrans), December 30, 2015, as amended
- *Highway Capacity Manual (HCM) 2010*, Transportation Research Board (TRB), 2010
- *Traffic Impact Analysis (TIA) Guidelines*, Santa Clara Valley Transportation Authority (VTA), October 2014
- *California Environmental Quality Act (CEQA) Statutes and Guidelines*, California Natural Resources Agency (CNRA)
- National Association of City Transportation Officials (NACTO)
- California Department of Transportation (Caltrans)
- Santa Clara Valley Transportation Agency (VTA)
- County of Santa Clara
- Aerial Photography
- Vallco Town Center Specific Plan

17.2 Environmental Setting

This section presents on the existing transportation and circulation conditions in the Specific Plan Traffic Study Area. The current regional and local transportation and circulation conditions, modified as described below, were used as a baseline against which to compare potential impacts of the Specific Plan.

As noted in Chapter 3 of this Environmental Assessment (EA), tenant occupancy of the existing shopping mall (the Mall) began to deteriorate at an accelerated rate beginning in the 1990s. Since then, the Mall occupancy has fluctuated based on economic cycles, regional competition, commercial success of the tenant stores and staggered efforts by prior owners to redevelop the Mall. Although the Mall tenancy continued its decline into the early 2000s, tenancy held steady between the years 2009 and 2014 at approximately 82 percent. Driveway counts were completed in May 2015; however, this was at a time when the Mall had an occupancy of 62 percent. (Macy's, one of the three prior anchor stores, had just closed.) Trip generation naturally increases with increased occupancy and/or improved commercial performance. Although environmental baseline conditions for purposes of environmental review are usually

associated with existing conditions, then current Mall operations were not representative of historical mall operations, and they do not represent actual entitlement levels. Thus, for purposes of this analysis, the historical occupancy of approximately 82 percent is used as the traffic baseline against which impacts associated with implementation of the Specific Plan are measured. This approach has been upheld by recent case law. *North County Advocates v. City of Carlsbad*, 241 Cal. App. 4th 94 (2015).

17.2.1 Roadway Network

This section describes the existing conditions of the roadway network that provides access to the Plan Area. Information regarding baseline traffic volumes is provided in [Section 17.6.3](#).

The primary auto routes to access the Plan Area are Interstate 280, Wolfe Road / Miller Avenue, Stevens Creek Boulevard, and Vallco Parkway. These streets provide connections to the regional street system, including freeways, expressways, and arterials, such as State Route 85, De Anza Boulevard, Lawrence Expressway, Homestead Road, Tantau Avenue, and Blaney Avenue.

Interstate 280 (I-280) is a north-south freeway that provides connection between the cities of San Francisco in the north and San José in the south. This interstate roadway is one of the major commute corridors between San Francisco, San José, and Cupertino. I-280 generally has three mixed-flow lanes and one high occupancy vehicle (HOV) lane in each direction near the Plan Area. The HOV lanes are restricted to motorcycles and vehicles with two or more persons (carpools, vanpools or buses) in the mornings (5:00 a.m. – 9:00 a.m.) and evenings (3:00 p.m. – 7:00 p.m.). The average daily traffic (ADT) on I-280 near the Specific Plan Area is approximately 158,000 vehicles per day.

A partial cloverleaf interchange with Wolfe Road is located immediately north of the Specific Plan Area. The I-280 southbound on-ramps include a free flow loop on-ramp onto I-280 from southbound Wolfe Road and a free flow diagonal on-ramp onto I-280 from northbound Wolfe Road. The I-280 southbound diagonal off-ramp intersects Wolfe Road at a signal-controlled intersection. The I-280 northbound on-ramps include a free flow loop on-ramp from northbound Wolfe Road and a free flow diagonal on-ramp from southbound Wolfe Road. The I-280 northbound diagonal off-ramp intersects Wolfe Road at a signal-controlled intersection.

State Route 85 (SR-85) is a north-south freeway that connects the cities of Mountain View and San José and provides system interchanges with I-280 and US-101. In the Specific Plan Traffic Study Area SR-85 has an ADT volume of approximately 128,000 vehicles per day. SR-85 has two mixed-flow lanes and one HOV lane per direction.

De Anza Boulevard - Sunnyvale Saratoga Road is a north-south arterial road located approximately 1.0 mile west of the Plan Area, with four lanes in each direction. Connecting the City of Sunnyvale to the City of Saratoga, this road has an ADT of approximately 55,600 vehicles near I-280.

Lawrence Expressway is a six-lane facility with HOV lanes and located at the eastern edge of the City of Cupertino, and provides connections between Sunnyvale and Saratoga in the north-south direction. Lawrence Expressway is located approximately 1.0 mile east of the Plan Area. Approximately 65,000 vehicles use Lawrence Expressway on a typical weekday. Lawrence Expressway provides access to the Plan Area primarily via an interchange with Stevens Creek Boulevard.

Homestead Road is located north of the Plan Area. Homestead Road extends from Foothill Expressway in the west and Santa Clara University in the east. With four lanes, this arterial has an ADT of approximately 21,000 vehicles. Access to the Plan Area from Homestead Road is via De Anza Boulevard, Blaney Avenue, Wolfe Road, Tantau Avenue, and Vallco Parkway.

Stevens Creek Boulevard is an east-west arterial road providing regional and driveway access to the Plan Area. Connecting the City of Cupertino to Downtown San José, this six-lane road also provides connections to Tantau Avenue, Wolfe Road, Blaney Avenue, De Anza Boulevard, SR-85 and Lawrence Expressway. Close to the Plan Area, this road has an ADT of approximately 25,000 vehicles.

Wolfe Road is a north-south road and provides local and driveway access to the Plan Area. Wolfe Road consists of four to eight lanes. The roadway functions as an arterial north of Stevens Creek Boulevard. Wolfe Road has an interchange connection with I-280. Approximately 44,900 vehicles use Wolfe Road on a typical weekday. Wolfe Road is one of the main access routes for vehicles to the new Apple Campus 2 (AC2), located north of the Plan Area across I-280.

Miller Avenue is a north-south roadway and provides local access to the Plan Area. Miller Avenue consists of two lanes in both directions of travel. It primarily provides access to adjacent residential uses.

Vallco Parkway is an east-west collector connecting Wolfe Road and Tantau Avenue; immediately adjacent to the Plan Area, Vallco Parkway has six lanes and provides driveway access to the Plan Area and Main Street Cupertino mixed-use development.

Tantau Avenue is a north-south collector located east of the Plan Area that provides connections between Homestead Road, Pruneridge Avenue and Stevens Creek Boulevard. Tantau Avenue has one to two lanes in each direction. Tantau Avenue carries approximately 7,000 vehicles between Stevens Creek Boulevard and Homestead Road on a typical weekday.

Blaney Avenue is a north-south collector, located west of the Plan Area, linking Homestead Road in the north to Prospect Road in the south, with a connection to Stevens Creek Boulevard. It serves residential neighborhoods and the Collins Elementary School. Blaney Avenue has one lane in each direction.

Perimeter Road is a north-south road, located on the northern and western edge of the Plan Area. Perimeter Road links Stevens Creek Boulevard in the south to Vallco Parkway in the east.

Along with Vallco Parkway, Wolfe Road, Stevens Creek Boulevard, Perimeter Road provides access to the Mall. Perimeter Road has one lane in each direction.

17.2.2 Regional Transit Service

The Bay Area Census indicates that 2.0 percent of Cupertino residents use public transit to commute to work.² This section provides a summary of local and regional transit services in the Plan Area vicinity. See **Figure 17-2: Existing Transit Facilities** for a map of the existing transit systems in the Plan Area.

Santa Clara Valley Transportation Authority (VTA) is the primary transit operator serving the City of Cupertino. VTA provides local and limited / express bus services in addition to light rail, shuttles and paratransit. VTA bus services provided in the Study Area operate between the hours of 5:00 a.m. to 12:00 a.m. on weekdays and 5:00 a.m. to 1:00 a.m. on weekends.

Light rail service is not provided within the City of Cupertino. However, VTA buses provide connections to light rail stations outside Cupertino. The closest light-rail line to the Plan Area is the Mountain View – Winchester line, which provides service with 15-minute headways during weekday peak hours and 30-minute headways during midday weekday hours. During the weekend, the Mountain View – Winchester line generally provides service with 30-minute headways throughout the day. The closest light rail station is Winchester Station, which is located approximately 5 miles southeast of the Plan Area.

Caltrain operates commuter rail service between San Francisco and San José, with expanded service to Gilroy during the peak commute times. The closest stations are Sunnyvale Station and Lawrence Station, which are each located approximately 3.5 miles north of the Plan Area. Caltrain provides three levels of service on weekdays (Weekend Baby Bullet express and Local service are provided on weekends):

1. Baby Bullet express service with very few stops between San Francisco and San José. Baby Bullet trains do not stop at Lawrence Station.
2. Limited Stop trains serve more stations than the Baby Bullet, but fewer than local service. Limited Stop service is provided at both Sunnyvale and Lawrence stations.
3. Local service is generally provided outside of the peak commute times for all stations between San José and San Francisco, with expanded service to Gilroy during the peak commute times.

There are no direct bus routes from the Plan Area vicinity to either of the two closest Caltrain stations.

17.2.3 Local Transit Service

Transit service provided within 2000 feet of the Plan Area is summarized in **Table 17-1: Existing Transit Service in the Plan Area** and shown in **Figure 17-2: Existing Transit Facilities**. Three local,

² Source: American Community Survey 2010-2014 - <https://www.factfinder.census.gov/>

one limited and two express bus routes are operated in the Plan Area vicinity, providing peak hour service with headways ranging from 12 to 60 minutes.

VTA Route 23 is a local bus providing service between De Anza College and the Alum Rock Transit Center. The route passes through Cupertino along Stevens Creek Boulevard. Major destinations along the route include Santana Row, San José Convention Center, and Downtown San José. Route 23 provides connections to light rail at the Convention Center Light Rail Transit (LRT) Station, Paseo de San Antonio LRT Station, and Santa Clara LRT Station, all of which are served by both the Mountain View – Winchester and Alum Rock – Santa Teresa LRT lines. The final LRT station served by Route 23 is the Alum Rock LRT Station, which is served by the Alum Rock – Santa Teresa line. Route 23 provides 12-minute-headway peak hour and midday service on weekdays and 15-minute-headway service on weekends. Route 23 is one of VTA’s highest volume routes.

Table 17-1: Existing Transit Service in the Plan Area

Route	From	To	Weekdays			Weekends		Weekday Peak-hour Peak Load Factor ⁴	
			Operating Hours ¹	Headway ² (minutes)		Operating Hours ³	Head-way (minutes)	AM	PM
				Peak	Mid-day				
Local Bus									
23	De Anza College	Alum Rock Transit	5:25 AM to 1:05 AM	12	12	5:35 AM to 1:05 AM	15	0.91	0.63
26	Sunnyvale/Lockheed Martin Transit Center	Eastridge Transit Center	5:20 AM to 11:50 PM	30	30	6:25 AM to 10:54 PM	30	0.82	0.64
81	San José State University	Moffett Field/Ames Ctr.	6:15 AM to 9:10 PM	30	30	9:20 AM to 6:20 PM ⁵	60	0.56	0.31
Limited Bus									
323	Downtown San José	De Anza College	6:20 AM to 10:50 PM	15	15	8:05 AM to 10:31 PM	15	0.67	0.55
Express Bus									
101	Camden Ave & Highway 85	Palo Alto	6:15 AM to 8:20 AM 4:10 PM to 6:45 PM	60	-	No weekend service	-	0.66	0.45
182	Palo Alto	IBM/Bailey Ave	7:30 AM to 8:30 AM 5:10 PM to 6:15 PM	1 trip	-	No weekend service	-	0.39	0.37

Notes:

¹ Operating Hours rounded to the nearest 5 minutes for weekdays and weekends.

² Headways are defined as the time between transit vehicles on the same route.

³ Operating hours for Sundays may have different schedule or flexible schedule comparing to Saturdays.

⁴ The peak load factor is a ratio between ridership (passenger load) and the seated capacity of a route per vehicle on the peak load segment during the peak hour.

⁵ Line 81 does not operate on Sundays.

Source: VTA, 2016

VTA Route 26 is a local bus providing service between Lockheed Martin Transit Center and Eastridge Transit Center. The route passes through Cupertino and through the Plan Area along Wolfe Road. Major destinations along the way include Westgate Shopping Center, Downtown Campbell, and Santa Clara County Fairgrounds. Route 26 provides connections to the Lockheed

Martin, Borregas, Crossman, Fair Oaks and Campbell LRT Stations, all of which are on the Mountain View – Winchester line. Route 26 provides 30-minute-headway service during the peak hours and midday on weekdays, and on weekends.

VTA Route 81 is a local bus providing service between San José State University and Moffett Field / Ames Research Center. The route passes through Cupertino and through the Plan Area along Wolfe Road. Major destinations along the way including De Anza College, Downtown San José and San José State University. Route 81 provides connections to Caltrain service at both the Mountain View and Santa Clara Caltrain stations. Route 81 also provides connections to the LRT service with connections at Mountain View, Santa Clara and Paseo De San Antonio LRT stations. Peak hour and midday service is provided at 30-minute headways on weekdays, with weekend service provided at 60-minute headways.

VTA Route 323 is a limited-stop bus providing service between Downtown San José and De Anza College. The route passes through Cupertino and by the Plan Area along Stevens Creek Boulevard. The closest stop to the Plan Area is located at Stevens Creek Boulevard and Wolfe Road. Major destinations along the route include Santana Row, San José Convention Center and Downtown San José. Route 323 provides connection to light rail at the Santa Clara LRT station. Weekday peak hour and midday service, as well as weekend service, is provided at 15 minute headways.

VTA Route 101 is an express bus providing service between Camden Avenue/ Highway 85 and Palo Alto, with portions of the service operating on I-280. The route passes through Cupertino and through the Plan Area along Stevens Creek Boulevard and Wolfe Road. The closest stop to the Plan Area is located along Wolfe Road. Route 101 provides a connection to light rail at the Winchester LRT station. Two AM trips operate northbound (Camden Avenue to Palo Alto) with service approximately 60 minutes apart. During the PM, two trips operate in the southbound direction (Palo Alto to Camden Avenue) with service approximately 60 minutes apart. No weekday midday or weekend service is provided by Route 101.

VTA Route 182 is an express bus providing service between Palo Alto and IBM / Bailey Avenue, with portions of the route operating on I-280. The route passes through Cupertino and by the Plan Area along Vallco Parkway and Wolfe Road. The closest stop to the Plan Area is located along Vallco Parkway. Route 182 provides a connection to light rail at the Santa Teresa LRT station. One trip operates southbound (Palo Alto to IBM) in the morning, and one northbound (IBM to Palo Alto) trip in the afternoon. No weekday midday or weekend service is provided by Route 182.

Bus Stop and Bus Facilities adjacent to and within the Plan Area include transit stops on Stevens Creek Boulevard, Wolfe Road, and Vallco Parkway. Two stops (one in each direction) are along Wolfe Road, approximately 600 feet north of the intersection with Vallco Parkway. These bus stops serve Routes 26, 81 and 101. Another stop is located northbound on Wolfe Road approximately 300 feet north of the intersection with Stevens Creek Boulevard serving Routes 26 and 81. Along Stevens Creek Boulevard, there are far-side stops located approximately 150 to 250 feet on either side of the intersection with Wolfe Road, serving Routes 23 and 323. The

stop west of the intersection does not have a bus-bay and buses stop in the bike and vehicle travel lane. At Stevens Creek Boulevard and Portal Avenue there are far-side bus stops serving routes 23 and 323, located approximately 150 feet on either side of the intersection. Both stops are in-lane stops. Along Vallco Parkway, there are two stops (one in each direction) located approximately 150 feet on either side of the Vallco Parkway / Perimeter Road intersection. The stops serve routes 81 and 182.

Existing Peak Load Analysis of transit capacity has been completed for the bus routes that operate in the vicinity of the Plan Area and is based on peak hour load factors for each bus line. The peak hour load factor is a ratio between the passengers on the bus at the busiest segment of the route and the overall passenger capacity of the bus. The capacity is based upon the average number of seats for buses serving a particular route. For the purposes of the transit analysis, local and community bus routes are assumed to have a seating capacity of 37 passengers per vehicle. Local and community service can accommodate standees and therefore a load factor threshold of 1.2 has been used to account for the capacity of the bus with both standees and seated passengers.

Limited and express bus services are assumed to have a seating capacity of 39 passengers per vehicle. To determine if additional limited or express service is required, a load factor of 1.0 is used (no standing passengers). The peak load factor has been evaluated for the busiest segment along the bus route for both the AM and PM peak hours.

A *VTA Park and Ride Lot* is provided at the Mall on the second level of the parking garage located on the northern side of Vallco Parkway. The lot provides parking for 50 vehicles. The Park and Ride lot provides access to bus routes 23, 26, 81, 101, and 182. This lot is located in a shared parking structure and does not provide any taxi or passenger drop-off / pick-up areas. Although it is acknowledged that this lot exists, because there is no agreement allowing VTA's continued use of these spaces, this Park and Ride facility is not considered to be part of the existing or background conditions.

17.2.4 Future Transit Improvements

The Valley Transportation Plan 2040 (VTP 2040) provides a long-term transportation improvement plan and includes a number of planned transit improvement projects in the area. The most significant transit project in the VTP 2040 is the Stevens Creek Bus Rapid Transit (Stevens Creek BRT) project. The Stevens Creek BRT project would provide rapid transit service for approximately 8.5 miles along Stevens Creek Boulevard and West San Carlos Street, with dedicated lane operations. The Stevens Creek BRT project would provide fast, frequent and reliable service between De Anza College and Downtown San José. Operating headways are planned to be approximately 10 to 15 minutes.

The Stevens Creek BRT corridor improvements include dedicated bus lanes, special branded shelters, off-board fare collection, and other streetscape and urban design amenities. A Stevens Creek BRT station is proposed at Wolfe Road.

A precursor to the Stevens Creek BRT project is the proposed Rapid 523 route that will operate along the same corridor. Rapid 523 route will provide enhanced service, street improvements and branded buses. The Rapid 523 route is planned to begin service in late 2017.

17.2.5 Pedestrian Facilities

Pedestrian facilities in the vicinity of the Plan Area are described in this section. They include sidewalk conditions, characteristics of crosswalks, and any crossing control devices within 1,000 feet of the Plan Area boundary and along the main street frontage. **Figure 17-3: Existing Pedestrian Facilities** shows key pedestrian facilities in the vicinity of the Plan Area and also the locations of existing sidewalk gaps.

Stevens Creek Boulevard has sidewalks on both sides of the street, with an average width of 5 feet. The sidewalks are buffered from the adjacent travel lanes by a landscaping strip of approximately 8 feet. At the locations of bus stops along Stevens Creek Boulevard, the bus shelters are located behind the sidewalk and do not block pedestrian travel. At intersections (signalized and un-signalized), Americans with Disabilities Act (ADA) compliant curb ramp and pavement treatments are provided. Pedestrian call buttons are also provided.

Stevens Creek Boulevard is relatively flat with little vertical change in elevation. The cross slopes of the sidewalks are appropriate for ADA compliance. The crossing distance for Stevens Creek Boulevard (at Wolfe Road) is approximately 130 feet, with distance between crossings approximately 825 feet. No mid-block crossings are provided along this stretch of Stevens Creek Boulevard. Driveways for parking areas provide a continuous uniform walking surface for pedestrians.

Perimeter Road is a local street surrounding the Plan Area. From its intersection with Stevens Creek Boulevard to the northern Plan boundary, there is a sidewalk on the western side of the street, but no sidewalk is provided on the eastern side. The sidewalk is generally flat and free of obstructions. No ADA-compliant curb ramps or detectable warning features are provided. As Perimeter Road passes under Wolfe Road, a sidewalk is provided on the northern side, but not on the southern side. As Perimeter Road approaches the eastern property boundary (on the eastern side of Wolfe Road), the sidewalk stops and is replaced with a non-compliant sidewalk approaching the intersection with of Vallco Parkway.

Vallco Parkway has approximately 6-foot-wide sidewalks on both sides of the street. At the intersection of Vallco Parkway with Perimeter Road, there are crosswalks with ADA-compliant features at the northwest corner. No tactile surfaces are provided at the northeast corner. Along the southern side of Vallco Parkway, the sidewalk has recently been upgraded and restored as part of the Main Street Cupertino mixed-use development and the 19800 Wolfe residential development. The sidewalks are generally free of obstructions.

Wolfe Road has sidewalks on both sides, from Stevens Creek Boulevard north past the bridge crossing I-280. The sidewalk widths along Wolfe Road are approximately 6 feet wide. At the signalized intersection with Vallco Parkway, pedestrian crosswalks are provided for all

approaches and pedestrian call buttons are provided to allow pedestrian phases to be called as appropriate. ADA-compliant curb ramp and detectable warning features are provided. At the on-ramps with I-280, crosswalks are provided to indicate pedestrian priority.

In summary, given the presence of pedestrian facilities in the vicinity of the Plan Area, pedestrian access to the Mall is considered fair. However, several issues affecting pedestrian access and safety are present. Pedestrian issues include: limited ADA-compliant and marked crossings along Perimeter Road.

17.2.6 Future Pedestrian Improvements

The City of Cupertino Pedestrian Transportation Plan, developed in 2002 and summarized further below, identifies several pedestrian improvement projects in the Plan Area. The document was intended to be updated and re-evaluated over time. At the time of its preparation in 2002, applicable objectives included:

- *Generally:* Improve access from Stevens Creek such as a covered landscaped walkway that is inviting for pedestrians
- *Applicable to all freeway interchanges:* Modifications needed to be more pedestrian friendly such as reducing the radius to slow speeds, preventing right turns on red
- *Citywide:* Improved sidewalk maintenance to eliminate trees or shrubs hanging over sidewalks, as well as upheavals and uneven sidewalks
- *The Existing Mall:* Improve access to the Mall from Merritt, Amherst and Wheaton via a gate or an opening in the fence

As part of VTA's Multimodal Transportation Investment Project program, VTP 2040 provides funding for pedestrian environmental improvements for a list of financially constrained projects. However, the list of financially constrained projects is in its preliminary stage, and there are no specific pedestrian improvements identified for the projects in the VTP 2040. Efforts are under way to develop a pedestrian program.

17.2.7 Bicycle Facilities

The City of Cupertino adopted the Bicycle Transportation Plan (BTP) in May 2011. See [Figure 17-4: Existing Bicycle Facilities](#) for existing bicycle facilities within the Plan Area. The BTP is designed to encourage bicycling both within the City of Cupertino and surrounding cities. A Plan Update was prepared in March 2015 that highlights a number of new projects incorporated into the BTP.

The BTP describes three levels of bike facilities, with the third classification being subdivided into two further classifications to better match the description of the facilities. The following provides a summary of the bike classifications used in the City of Cupertino.

- **Class I – Bike Paths:** segregated right-of-way for exclusive use of bicycles and pedestrians on paved surface;
- **Class II – Bike Lanes:** striped lane for one-way bike travel on a street, with exclusive use for bicycles but allows right turning vehicles and pedestrian use when there is no adjacent sidewalk;
- **Class III – Bike Route:** shared use with pedestrians or motor vehicle traffic, to provide continuity of the bike route. This classification is further divided into the following two classes:
 - **Class IIIA – Shared Roadway:** applied in areas where bike lanes or wide shoulders are not feasible. They are designated in the plan as “Bike Route;”
 - **Class IIIB – Bicycle Boulevards:** applied for residential streets with low traffic volume where bicycle traffic is given the right-of-way whenever feasible.

Existing Bike Facilities within 2,500 feet of the Plan Area are provided along Wolfe Road, Stevens Creek Boulevard and Vallco Parkway. Wolfe Road has a Class II Bike Lane in the northbound direction from its intersection with Stevens Creek Boulevard north to Homestead Road. In the southbound direction, a Class II Bike Lane is provided from Wolfe Road and Homestead Road intersection to south of Vallco Parkway. South of Vallco Parkway, a Class III bike route is provided in the southbound direction to the intersection of Wolfe Road and Stevens Creek Boulevard. This bike route forms part of the Countywide Wolfe Road / Borregas Bike Corridor.

In the vicinity of the Plan Area, Class II Bike Lanes are provided in both directions along Stevens Creek Boulevard. This bike route forms part of the North of I-280 / Stevens Creek Boulevard Bicycle Corridor.

Class II Bike Lanes are provided along Vallco Parkway from Tantau Avenue to Wolfe Road intersection. A Class III Bike Route is provided along Miller Avenue in both directions from Stevens Creek Boulevard to Calle De Barcelona. South of Calle De Barcelona, Class II bike lanes are provided on Miller Avenue.

A Class III Bike Route is provided along Portal Avenue from Price Avenue to Merritt Drive in both directions.

17.2.8 Future Bicycle Improvements

The City of Cupertino BTP indicates a number of future bicycle facility improvement projects slated in the vicinity of the Plan Area.

Miller Avenue to Wolfe Road Bikeway Project would close some bike gaps where either no bike facility is provided or Class III facilities are pending upgrade to a Class II facility. In addition to the gap closure, improvements would be made to the bike facilities in the vicinity of the I-280 on / off ramps and would conform to VTA guidelines for bike lanes through Freeway Interchanges. This project is also identified in the VTP 2040 document.

Blaney Avenue Bike Facility Upgrade Project would add left turn lane bicycle detectors at key intersections and replace existing 4-way stops with 2-way stops to maintain bike flow in the north-south direction. The improvements would be made along Blaney Avenue between Homestead and Bollinger Road.

Portal Avenue Bike Facility Upgrade Project would add left turn lane bicycle detectors for Portal Avenue to Stevens Creek Boulevard in the southbound direction. The project would also include upgraded route signs and would convert some 4-way stops to 2-way stops.

Alves Drive / Bandle Drive / Lazaneo Drive / Forest Avenue / Amherst Drive Bicycle Boulevard Project identifies construction of new bike facilities and will connect to the Plan Area.

17.2.9 TDM Programs

The Mall does not have any active Travel Demand Management (TDM) programs for its retail employees, and no TDM ordinances apply to the Mall.

17.3 Methodology

17.3.1 Scope of Study

This section was prepared according to the requirements of the City of Cupertino and the Santa Clara VTA. For the purpose of this study, the Study Area is defined as the area that comprises the Plan Area, 68 study intersections, and 136 freeway study segments. The basis of analysis for transportation and circulation is peak hour level of service for key intersections and freeway segments in the study area. Peak hour is defined as the hour with the highest traffic volumes, typically from 6:30 am to 9:30 am (AM peak hour) and the hour with the highest traffic volumes, typically from 4:00 pm to 7:00 pm (PM peak hour) on weekdays.

17.3.2 Roadway Intersections Studied

VTA's guidelines dictate that an intersection should be considered for analysis if the implementation of Specific Plan would generate 10 new peak hour trips per lane for any movement. A total of 68 intersections (i.e., study intersections) were selected for analyses based on these guidelines. [Table 17-2: Study Intersections](#) lists the selected intersections for analysis along with the corresponding agencies whose level of service standard applies. See [Figure 17-5: Study Intersections Area](#) for the Study Area and the analyzed study intersections. [Figure 17-6: Study Driveways – Existing](#) illustrates the study existing driveways.

Table 17-2: Study Intersections

#	Intersection	#	Intersection
1.	Stevens Creek Boulevard/SR-85 Ramps West (CUP/VTA CMP)	35.	Miller Avenue/Calle De Barcelona (CUP)
2.	Stevens Creek Boulevard/SR-85 Ramps East (CUP/VTA CMP)	36.	Miller Avenue/Phil Lane (CUP)
3.	Stevens Creek Boulevard/Stelling Road (CUP/VTA CMP)	37.	Miller Avenue/Bollinger Road (SJ)
4.	Sunnyvale Saratoga Road/Remington Drive (SUN/VTA CMP)	38.	Miller Avenue/Rainbow Drive (SJ)
5.	Sunnyvale Saratoga Road/Fremont Avenue (SUN/VTA CMP)	39.	Miller Avenue/Prospect Road (SJ)
6.	Sunnyvale Saratoga Road/Cheyenne Drive (SUN)	40.	Stevens Creek Boulevard/Finch Avenue (CUP)
7.	Sunnyvale Saratoga Road/Alberta Avenue (SUN)	41.	Tantau Avenue/Homestead Road (CUP)
8.	De Anza Boulevard/Homestead Road (CUP/VTA CMP)	42.	Tantau Avenue/Pruneridge Avenue (CUP)
9.	De Anza Boulevard/I-280 Ramps North (CUP/VTA CMP)	43.	Tantau Avenue/Vallco Parkway (CUP)
10.	De Anza Boulevard/I-280 Ramps South (CUP/VTA CMP)	44.	Tantau Avenue/Stevens Creek Boulevard (CUP)
11.	De Anza Boulevard/Stevens Creek Boulevard (CUP/VTA CMP)	45.	Stevens Creek Boulevard/Calvert Drive/I-280 Ramps (SC/VTA CMP)
12.	De Anza Boulevard/McClellan Road (CUP)	46.	Stevens Creek Boulevard/I-280 Ramps East (SJ)
13.	De Anza Boulevard/Bollinger Road (CUP/VTA CMP)	47.	Stevens Creek Boulevard/Agilent Driveway (SJ)
14.	De Anza Boulevard/SR 85 Ramps North (CUP/VTA CMP)	48.	Stevens Creek Boulevard/Lawrence Expressway Ramps West (VTA CMP/EX)
15.	De Anza Boulevard/SR 85 Ramps South (CUP/VTA CMP)	49.	Lawrence Expressway Ramps/El Camino Real (VTA CMP/EX)
16.	Saratoga Sunnyvale Road/Prospect Road (CUP/VTA CMP)	50.	Lawrence Expressway/Homestead Road (VTA CMP/EX)
17.	Stevens Creek Boulevard/Torre Avenue (CUP)	51.	Lawrence Expressway/Pruneridge Avenue (SC/EX)
18.	Homestead Road/Blaney Avenue (CUP)	52.	Stevens Creek Boulevard/Lawrence Expressway Ramps East (VTA CMP/EX)
19.	Blaney Avenue/Merritt Drive (CUP)	53.	Lawrence Expressway/I-280 Ramps South (VTA CMP/EX)
20.	Blaney Avenue/Forest Avenue (CUP)	54.	Lawrence Expressway/Mitty Way (EX)
21.	Stevens Creek Boulevard/Blaney Avenue (CUP)	55.	Lawrence Expressway/Bollinger Road (VTA CMP/EX)
22.	Stevens Creek Boulevard/Portal Avenue (CUP)	56.	Lawrence Expressway/Doyle Road (EX)
23.	Stevens Creek Boulevard/Perimeter Road (CUP)	57.	Lawrence Expressway/Prospect Road (VTA CMP/EX)
24.	Wolfe Road/El Camino Real (SUN/VTA CMP)	58.	Lawrence Expressway/Saratoga Avenue (VTA CMP/EX)
25.	Wolfe Road/Fremont Avenue (SUN)	59.	Saratoga Avenue/Cox Avenue (SARA)
26.	Wolfe Road/Marion Way (SUN)	60.	Saratoga Avenue/SR 85 Ramps North (CT)
27.	Wolfe Road/Inverness Avenue (SUN)	61.	Saratoga Avenue/SR 85 Ramps South (CT)
28.	Wolfe Road/Homestead Road (CUP)	62.	Stevens Creek Boulevard/Vallco Driveway 5 (CUP)
29.	Wolfe Road/Apple Campus 2 Driveway (CUP)	63.	Wolfe Road/Vallco Driveway 1 (CUP)
30.	Wolfe Road/Pruneridge Avenue (CUP)	64.	Wolfe Road/Vallco Driveway 2 (CUP)
31.	Wolfe Road/I-280 Ramps North (CUP/VTA CMP)	65.	Wolfe Road/Vallco Driveway 3 (CUP)
32.	Wolfe Road/I-280 Ramps South (CUP/VTA CMP)	66.	Vallco Parkway/Vallco Driveway 4 (CUP)
33.	Wolfe Road/Vallco Parkway (CUP)	67.	Vallco Parkway/Perimeter Road (CUP)
34.	Wolfe Road/Stevens Creek Boulevard (CUP/VTA CMP)	68.	Stevens Creek Boulevard/Vallco Driveway 6 (CUP)

Notes:

CUP = City of Cupertino
SUN = City of Sunnyvale
SARA = City of Saratoga
SJ = City of San José

EX = Expressway / County of Santa Clara
VTA CMP = VTA's Congestion Management Program
CT = Caltrans
SC = City of Santa Clara

17.3.3 Freeway Segments Studied

VTA's guidelines dictate that a freeway segment should be considered for analysis if a project accounts for one percent or more of the freeway capacity. A total of 136 freeway segments (study freeway segments) in both directions of travel were selected for analysis based on VTA's guidelines and the 2014 Congestion Management Program (VTA CMP). [Table 17-3: Study Freeway Segments](#) lists the selected freeway segments:

Table 17-3: Study Freeway Segments

#	Freeway Segment	#	Freeway Segment
Northbound I-880			
1.	SR-237 to Dixon Landing Road	7.	SR-87 to N. 1st Street
2.	Great Mall Parkway to SR-237	8.	Coleman Avenue to SR-87
3.	Montague Expressway to Great Mall Parkway	9.	The Alameda to Coleman Avenue
4.	E. Brokaw Road to Montague Expressway	10.	N. Bascom Avenue to The Alameda
5.	US-101 to E. Brokaw Road	11.	Stevens Creek Boulevard to N. Bascom Avenue
6.	N. 1st Street to US-101	12.	I-280 to Stevens Creek Boulevard
Southbound I-880			
13.	Dixon Landing Road to SR-237	19.	N. 1st Street to SR-87
14.	SR-237 to Great Mall Parkway	20.	SR-87 to Coleman Avenue
15.	Great Mall Parkway to Montague Expressway	21.	Coleman Avenue to The Alameda
16.	Montague Expressway to E. Brokaw Road	22.	The Alameda to N. Bascom Avenue
17.	E. Brokaw Road to US-101	23.	N. Bascom Avenue to Stevens Creek Boulevard
18.	US-101 to N. 1st Street	24.	Stevens Creek Boulevard to I-280
Northbound SR-17			
25.	Hamilton Avenue to I-280	29.	Saratoga Avenue to Lark Avenue
26.	San Tomas Expressway / Camden Avenue to Hamilton Avenue	30.	Bear Creek Road to Saratoga Avenue
27.	SR-85 to San Tomas Expressway / Camden Avenue	31.	Summit Road to Bear Creek Road
28.	Lark Avenue to SR-85		
Southbound SR-17			
32.	I-280 to Hamilton Avenue	36.	Lark Avenue to Saratoga Avenue
33.	Hamilton Avenue to San Tomas Expressway / Camden Avenue	37.	Saratoga Avenue to Bear Creek Road
34.	San Tomas Expressway / Camden Avenue to SR-85	38.	Bear Creek Road to Summit Road
35.	SR-85 to Lark Avenue		
Eastbound SR-237			
77.	McCarthy Boulevard to I-880	83.	Mathilda Avenue to N. Fair Oaks Avenue
78.	Zanker Road to McCarthy Boulevard	84.	US-101 to Mathilda Avenue
79.	N. First Street to Zanker Road	85.	Maude Avenue to US-101
80.	Great America Parkway to N. First Street	86.	Central Parkway to Maude Avenue
81.	Lawrence Expressway to Great America Parkway	87.	SR-85 to Central Parkway
82.	N. Fair Oaks Avenue to Lawrence Expressway	88.	El Camino Real to SR-85
Westbound SR-237			
89.	I-880 to McCarthy Boulevard	95.	N. Fair Oaks Avenue to Mathilda Avenue
90.	McCarthy Boulevard to Zanker Road	96.	Mathilda Avenue to US-101

Table 17-3: Study Freeway Segments

#	Freeway Segment	#	Freeway Segment
91.	Zanker Road to N. First Street	97.	US-101 to Maude Avenue
92.	N. First Street to Great America Parkway	98.	Maude Avenue to Central Parkway
93.	Great America Parkway to Lawrence Expressway	99.	Central Parkway to SR-85
94.	Lawrence Expressway to N. Fair Oaks Avenue	100.	SR-85 to El Camino Real
Northbound I-280			
113.	Page Mill Road to Alpine Road	122.	Saratoga Avenue to Lawrence Expressway
114.	La Barranca Road to Page Mill Road	123.	Winchester Boulevard to Saratoga Avenue
115.	El Monte Road to La Barranca Road	124.	I-880 to Winchester Boulevard
Northbound I-280 (Continued)			
116.	Magdalena Avenue to El Monte Road	125.	Meridian Avenue to I-880
117.	Foothill Expressway to Magdalena Avenue	126.	Bird Avenue to Meridian Avenue
118.	SR-85 to Foothill Expressway	127.	SR-87 to Bird Avenue
119.	De Anza Boulevard to SR-85	128.	10th Street to SR-87
120.	Wolfe Road to De Anza Boulevard	129.	McLaughlin Avenue to 10th Street
121.	Lawrence Expressway to Wolfe Road	130.	US-101 to McLaughlin Avenue
Southbound I-280			
131.	Alpine Road to Page Mill Road	140.	Lawrence Expressway to Saratoga Avenue
132.	Page Mill Road to La Barranca Road	141.	Saratoga Avenue to Winchester Boulevard
133.	La Barranca Road to El Monte Road	142.	Winchester Boulevard to I-880
134.	El Monte Road to Magdalena Avenue	143.	I-880 to Meridian Avenue
135.	Magdalena Avenue to Foothill Expressway	144.	Meridian Avenue to Bird Avenue
136.	Foothill Expressway to SR-85	145.	Bird Avenue to SR-87
137.	SR-85 to De Anza Boulevard	146.	SR-87 to 10th Street
138.	De Anza Boulevard to Wolfe Road	147.	10th Street to McLaughlin Avenue
139.	Wolfe Road to Lawrence Expressway	148.	McLaughlin Avenue to US-101
Northbound SR-85			
166.	Central Expressway to US-101	176.	SR-17 to Winchester Boulevard
167.	SR-237 to Central Expressway	177.	S. Bascom Avenue to SR-17
168.	El Camino Real to SR-237	178.	Union Avenue to S. Bascom Avenue
169.	W. Fremont Avenue to El Camino Real	179.	Camden Avenue to Union Avenue
170.	W. Homestead Road to W. Fremont Avenue	180.	Almaden Expressway to Camden Avenue
171.	I-280 to W. Homestead Road	181.	SR-87 to Almaden Expressway
172.	Stevens Creek Boulevard to I-280	182.	Blossom Hill Road to SR-87
173.	Saratoga-Sunnyvale Road to Stevens Creek Boulevard	183.	Cottle Road to Blossom Hill Road
174.	Saratoga Avenue to Saratoga-Sunnyvale Road	184.	US-101 to Cottle Road
175.	Winchester Boulevard to Saratoga Avenue		
Southbound SR-85			
185.	US-101 to Central Expressway	195.	Winchester Boulevard to SR-17
186.	Central Expressway to SR-237	196.	SR-17 to S. Bascom Avenue
187.	SR-237 to El Camino Real	197.	S. Bascom Avenue to Union Avenue
188.	El Camino Real to W. Fremont Avenue	198.	Union Avenue to Camden Avenue
189.	W. Fremont Avenue to W. Homestead Road	199.	Camden Avenue to Almaden Expressway

Table 17-3: Study Freeway Segments

#	Freeway Segment	#	Freeway Segment
190.	W. Homestead Road to I-280	200.	Almaden Expressway to SR-87
191.	I-280 to Stevens Creek Boulevard	201.	SR-87 to Blossom Hill Road
192.	Stevens Creek Boulevard to Saratoga-Sunnyvale Road	202.	Blossom Hill Road to Cottle Road
193.	Saratoga-Sunnyvale Road to Saratoga Avenue	203.	Cottle Road to US-101
194.	Saratoga Avenue to Winchester Boulevard		

17.3.4 Study Scenarios

The potential effects associated with future implementation of the Specific Plan were evaluated during the AM and PM peak hours for the following analysis scenarios:

- **Scenario 1: Baseline Existing Conditions**

Baseline Existing Conditions are based on existing traffic counts, lane configurations, intersection control and signal operations. The traffic counts were adjusted to reflect traffic conditions assuming approximately 82% occupancy of the Mall.³
- **Scenario 2: Background Conditions**

Volumes for Background Conditions include volumes from Scenario 1 plus trips generated by approved developments, including Block 13 as described in Chapter 1. The roadway network includes the transportation system from Scenario 1 plus programmed roadway projects.
- **Scenario 3: Background Conditions Plus Specific Plan**

Volumes for Background Conditions Plus Specific Plan include volumes from Scenario 2 plus net trips generated by the Specific Plan. The roadway network includes the transportation system from Scenario 2 and roadway changes proposed as part of the Specific Plan.
- **Scenario 4: Cumulative Conditions**

Volumes for Cumulative Conditions include Scenario 2 volumes plus trips generated by pending developments plus traffic growth (for intersections in the City of Sunnyvale⁴). The roadway network includes the Scenario 2 transportation system plus anticipated roadway projects to be constructed by the horizon year 2040, the horizon year in the VTP and the City of Cupertino General Plan.
- **Scenario 5: Cumulative Conditions Plus Specific Plan**

Volumes for Cumulative Conditions Plus Specific Plan includes Scenario 4 volumes plus net trips generated by the Specific Plan. The roadway network includes the Scenario 4 transportation system plus changes proposed as part of the Specific Plan.

³ The basis for assessing the Baseline Existing Conditions at 82 percent occupancy is described in Section 17.2 Environmental Setting.

⁴ Per City of Sunnyvale methodology.

17.3.5 Analysis

Analysis of intersections and freeway segments is based on the concept of Level of Service (LOS). The LOS of an intersection is a qualitative measure used to describe operational conditions. LOS ranges from A (best), which represents minimal delay, to F (worst), which represents heavy delay and a facility that is operating at or near its functional capacity. Intersection LOS for this study have been determined using methods defined in the Highway Capacity Manual, 2000 (HCM) and TRAFFIX traffic analysis software. The analysis has been conducted for the weekday AM and PM peak hours.

The HCM includes procedures for analyzing side-street stop-controlled (SSSC), all-way stop-controlled (AWSC), signalized intersections, and freeway segments. The SSSC procedure defines LOS as a function of average control delay⁵ for each minor street approach movement and major street left-turns. The AWSC and signalized intersection procedures define LOS as a function of average control delay for the intersection as a whole. LOS for freeway segments is determined based on density in passenger cars per mile per lane.

17.3.6 Signalized Intersections

VTA has specific delay threshold values for each LOS that are more specific than that of the HCM. Pluses and minuses are added to the HCM ranges to further break down the LOS for signalized intersections. **Table 17-4: Signalized Intersection Level of Service Definitions** relates the operational characteristics associated with each LOS category for signalized intersections.

Table 17-4: Signalized Intersection Level of Service Definitions

Level of Service	Description	Signalized Avg. control delay per vehicle (sec/veh.)
A	Free flow with no delays. Users are virtually unaffected by others in the traffic stream.	delay ≤ 10.0
B+	Stable traffic. Traffic flows smoothly with few delays.	10.0 < delay ≤ 12.0
B		12.0 < delay ≤ 18.0
B-		18.0 < delay ≤ 20.0
C+	Stable flow but the operation of individual users becomes affected by other vehicles. Modest delays.	20.0 < delay ≤ 23.0
C		23.0 < delay ≤ 32.0
C-		32.0 < delay ≤ 35.0
D+	Approaching unstable flow. Operation of individual users becomes significantly affected by other vehicles. Delays may be more than one cycle during peak hours.	35.0 < delay ≤ 39.0
D		39.0 < delay ≤ 51.0
D-		51.0 < delay ≤ 55.0
E+	Unstable flow with operating conditions at or near the capacity level. Long delays and vehicle queuing.	55.0 < delay ≤ 60.0
E		60.0 < delay ≤ 75.0
E-		75.0 < delay ≤ 80.0
F	Forced or breakdown flow that causes reduced capacity. Stop and go traffic conditions. Excessive long delays and vehicle queuing.	delay > 80

Source: Transportation Research Board, Highway Capacity Manual (HCM), 2010, Santa Clara Valley Transportation Authority (VTA)

⁵ Control Delay is a primary measure for evaluating LOS at signalized and unsignalized intersections and includes delay associated with deceleration time of vehicles prior to an intersection, the time spent stopped on an intersection approach, the queue move up time, and the time spent accelerating back to the desired speed.

17.3.7 Unsignalized Intersections

Table 17-5: Unsignalized Intersection Level of Service Definitions relates the operational characteristics associated with each LOS category for unsignalized intersections.

Table 17-5: Unsignalized Intersection Level of Service Definitions

Level of Service	Description	Unsignalized Avg. control delay per vehicle (sec/veh.)
A	Free flow with no delays. Users are virtually unaffected by others in the traffic stream.	delay ≤ 10.0
B	Stable traffic. Traffic flows smoothly with few delays.	10.0 < delay ≤ 15.0
C	Stable flow but the operation of individual users becomes affected by other vehicles. Modest delays.	15.0 < delay ≤ 25.0
D	Approaching unstable flow. Operation of individual users becomes significantly affected by other vehicles.	25.0 < delay ≤ 35.0
E	Unstable flow with operating conditions at or near the capacity level. Long delays and vehicle queuing.	35.0 < delay ≤ 50.0
F	Forced or breakdown flow that causes reduced capacity. Stop and go traffic conditions. Excessive long delays and vehicle queuing.	delay > 50.0

Source: Transportation Research Board, Highway Capacity Manual (HCM), 2010, Santa Clara Valley Transportation Authority (VTA)

17.3.8 Freeway Segments

Impacts on analysis freeway segments were evaluated in accordance with VTA CMP guidelines. The measure of effectiveness used to evaluate freeway segments is based on density of traffic flow. Density of traffic flow is expressed in passenger cars per mile per lane. Table 17-6: Freeway Segment Level of Service Definitions relates the traffic density with each LOS category for freeway segments.

Table 17-6: Freeway Segment Level of Service Definitions

Level of Service	Density (pc/mi/ln) *
A	≤ 11.0
B	> 11.0 ≤ 18.0
C	> 18.0 ≤ 26.0
D	> 26.0 ≤ 46.0
E	> 46.0 ≤ 58.0
F	> 58.0

Source: Transportation Research Board, Highway Capacity Manual (HCM), 2010, Santa Clara Valley Transportation Authority (VTA)

* pc/mi/ln = passenger cars per lane-mile

17.4 Significance Criteria

The following significance criteria for transportation and circulation were derived from the Environmental Checklist in the State CEQA Guidelines Appendix G. These significance criteria have been amended or supplemented, as appropriate, to address the City of Cupertino requirements and the full range of potential impacts related to implementation of the Specific Plan.

An impact of the Specific Plan would be considered significant and would require mitigation if it met one of the following criteria:

- Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit;
- Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways;
- Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks;
- Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment);
- Result in inadequate emergency access;
- Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities.

17.4.1 Signalized Intersection Significance Criteria

City of Cupertino Criteria

The LOS standard for City of Cupertino intersections is LOS D, except for the City of Cupertino intersections of Stevens Creek Boulevard/De Anza Boulevard, Stevens Creek Boulevard/Stelling Road, and the De Anza Boulevard/Bollinger Road intersections, where the LOS impact threshold is LOS E+. Therefore, the following conditions would result in a significant impact at a City of Cupertino intersection:

1. If the intersection operates at an acceptable LOS (i.e. LOS A, B, C, or D) without the project and degrades to an unacceptable LOS (i.e. LOS E, or F) with the project, then it is a significant impact.
2. If the intersection operates at an unacceptable LOS (i.e. LOS E, or F) without the project and the project increases the critical-movement average control delay by four (4) or more seconds and increases the critical volume to capacity (v/c) value by 0.01 or more, then it is a significant impact or when the critical delay decreases and the v/c increase by more than .01.

City of Sunnyvale Criteria

There are several study intersections that lie within the City of Sunnyvale's jurisdiction. The City of Sunnyvale utilizes the VTA impact significance criteria for VTA CMP intersections.

The LOS standard for City of Sunnyvale intersections is LOS D, except for City of Sunnyvale intersections on regionally significant roadways (i.e., El Camino Real, Mathilda Avenue, and Sunnyvale-Saratoga Road) and VTA CMP intersections, which allow for a minimum level of service of LOS E. Therefore, the following conditions would result in a significant impact at a City of Sunnyvale intersection:

1. If the intersection operates at an acceptable LOS (i.e., LOS A, B, C, or D) without the project and degrades to an unacceptable LOS (i.e., LOS E, or F) with the project, then it is a significant impact.
2. If the intersection operates at an unacceptable LOS (i.e. LOS E, or F) without the project and the project increases the critical-movement average control delay by four (4) or more seconds and increases the critical volume to capacity (v/c) value by 0.01 or more, then it is a significant impact, or when the critical delay decreases and the v/c increase by more than 0.01.

City of Santa Clara Criteria

There are several study intersections that lie within the City of Santa Clara's jurisdiction. The City of Santa Clara utilizes the VTA impact significance criteria for VTA CMP intersections.

The LOS standard for the City of Santa Clara intersections is LOS D, except for the expressway and VTA CMP intersections, where the LOS impact threshold is LOS E. Therefore, the following conditions would result in a significant impact at a City of Santa Clara intersection:

1. If the intersection operates at an acceptable LOS (i.e., LOS A, B, C, or D) without the project and degrades to an unacceptable LOS (i.e., LOS E, or F) with the project, then it is a significant impact.
2. If the intersection operates at an unacceptable LOS (i.e. LOS E, or F) without the project and the project increases the critical-movement average control delay by four (4) or more seconds and increases the critical volume to capacity (v/c) value by 0.01 or more, then it is a significant impact, or when the critical delay decreases and the v/c increase by more than 0.01.

City of San José Criteria

There are several study intersections that lie within the City of San José's jurisdiction. The LOS standard for the City of San José intersections is LOS D, except for intersections within the Downtown area and on the protected intersection list, which are exempt from the LOS D standard. No study intersections meet the criteria for this exemption. Therefore, the following conditions would result in a significant impact at a City of San José intersection:

1. If the intersection operates at an acceptable LOS (i.e., LOS A, B, C, or D) without the project and degrades to an unacceptable LOS (i.e., LOS E, or F) with the project, then it is a significant impact.
2. If the intersection operates at an unacceptable LOS (i.e. LOS E, or F) without the project and the project increases the critical-movement average control delay by four (4) or more seconds and increases the critical volume to capacity (v/c) value by 0.01 or more, then it is a significant impact, or when the critical delay decreases and the v/c increase by more than 0.01.

City of Saratoga Criteria

There are several study intersections that lie within the City of Saratoga's jurisdiction. The City of Saratoga utilizes the VTA impact significance criteria for VTA CMP intersections.

The LOS standard for the City of Saratoga intersections is LOS D, except for the VTA CMP intersections, where the LOS impact threshold is LOS E. Therefore, the following conditions would result in a significant impact at a City of Saratoga intersection:

1. If the intersection operates at an acceptable LOS (i.e., LOS A, B, C, or D) without the project and degrades to an unacceptable LOS (i.e., LOS E, or F) with the project, then it is a significant impact.
2. If the intersection operates at an unacceptable LOS (i.e. LOS E, or F) without the project and the project increases the critical-movement average control delay by four (4) or more seconds and increases the critical volume to capacity (v/c) value by 0.01 or more, then it is a significant impact, or when the critical delay decreases and the v/c increase by more than 0.01.

Caltrans Criteria

Caltrans has identified a level of service objective of C/D (i.e., on the "cusp" between levels of service C and D) as the acceptable service level. Intersection impacts are defined to occur when the addition of project traffic:

1. Causes operations to deteriorate from an acceptable level (LOS C) to an unacceptable level (LOS D or worse).
2. Causes the existing measure of effectiveness (average delay) to deteriorate at a State-operated intersection operating at worse than LOS C.

Santa Clara County Valley Transportation Authority (VTA)

The LOS standard for VTA CMP and expressway intersections is LOS E. Traffic impacts at VTA CMP and expressway intersections would occur when the addition of project traffic causes:

1. Intersection operations to deteriorate from an acceptable level (LOS E or better) to an unacceptable level (LOS F).
2. If the intersection operates at an unacceptable LOS F without the project

- and the project increases the critical-movement average control delay by four (4) or more seconds and increases the critical volume to capacity (v/c) value by 0.01 or more, or
- when the critical delay decreases and the v/c ratio increases by 0.01 or more.

Most jurisdictions defer to the VTA CMP LOS standards for VTA CMP intersections within their boundaries; however, the cities of Cupertino and San José strive to maintain their respective City standards at all intersections.

17.4.2 Unsignalized Intersections

Unsignalized intersections are located within the cities of Cupertino and San José. Neither city has adopted specific significance criteria for unsignalized intersections.

Significant impacts are defined to occur when the addition of project traffic causes the average intersection delay for AWSC intersections or the worst movement/approach for SSSC intersections to degrade to LOS F and the intersections satisfies any traffic signal warrant from the California Manual on Uniform Traffic Control Devices.

17.4.3 Freeway Impact Criteria

Traffic impacts on a CMP freeway segment occurs when the addition of project traffic causes:

1. Freeway segment operations to deteriorate from an acceptable level (LOS E or better) under Baseline Existing Conditions to an unacceptable level (LOS F)
2. An increase in traffic of more than one (1) percent of the capacity of a segment that operates at LOS F under Baseline Existing Conditions.

For the purpose of this traffic impact analysis, under Cumulative Conditions, traffic impacts on freeway segments in Santa Clara County are determined to occur when

1. The addition of freeway traffic causes a freeway segment's v/c ratio to exceed one (1) and;
2. The project increases traffic demand on the freeway segment by an amount equal to 1 percent or more of the segment's capacity.

17.4.4 Transit Facilities

Significant impacts to transit service would occur if the project or any part of the project:

- Creates a substantial increase in transit demand that could not be accommodated by existing or planned transit capacity, measured by comparing the expected transit capacity with the expected demand for transit service;
- Causes a substantial increase in delay to transit vehicles;
- Reduces transit availability or interferes with existing transit users on a permanent or temporary basis; or

- Conflicts with transit policies adopted by the cities of Cupertino, Sunnyvale, San José, Santa Clara, Saratoga, Santa Clara County, VTA, or Caltrans for their respective facilities in the study area.

Assessment of the average peak load factor during the peak hours is used to assess project impacts to VTA bus services. A peak load factor of 1.2 is the threshold for determining impacts to VTA local and community bus service. A load factor of 1.0 assumes all seats on the bus are used with no standees. A load factor of 1.2 accounts for up to 20% of the seating capacity available for standees. A significant impact to local and community bus service will occur when project traffic increases the average peak load factor to be greater than 1.2.

For express and limited stop routes, a load factor of 1.0 is used as the threshold to determine if additional capacity should be provided.

For assessment of the potential for increased delay to transit vehicles, the following is used to assess a significant impact:

- Transit route average speed decreases below 15 mph or by 25 percent.
- Transit route average speed decreases by one (1) mph for transit routes currently operating at average speeds below 15 mph.

17.4.5 Pedestrian Facilities

The pedestrian impact criteria are derived from Cupertino's General Plan, which identifies existing pedestrian networks and improvements and/or related policies necessary to ensure that these facilities are safe and effective for City residents. Significant impacts to pedestrian facilities would occur if a project or an element of a project:

- Creates a challenging condition that currently does not exist for pedestrians, or otherwise interferes with pedestrian accessibility to the site and adjoining areas;
- Creates a substantial increase in demand for pedestrian facilities where no facility currently exists or creates conditions that would lead to overcrowding on existing facilities;
- Conflicts with an existing or planned pedestrian facility; or
- Conflicts with policies related to pedestrian activity adopted by the City of Cupertino for its pedestrian facilities in the study area.

17.4.6 Bicycle Facilities

The bicycle impact criteria are derived from Cupertino's General Plan and Bicycle Transportation Plan, which both identify existing and planned bicycle networks and improvements and/or related policies necessary to ensure that these facilities are safe and effective for City residents. Significant impacts to bicycle facilities would occur if a project or an element of a project:

- Creates a challenging condition that currently does not exist for bicyclists, or otherwise interferes with bicycle accessibility to the site and adjoining areas;
- Creates a substantial increase in demand for bicycle facilities where no facility currently exists or creates conditions that would lead to overcrowding on existing facilities;
- Conflicts with an existing or planned bicycle facility; or
- Conflicts with policies related to bicycle activity adopted by the City of Cupertino for bicycle facilities in the study area.

17.4.7 Parking

Section 19.124.040 of the City of Cupertino’s Municipal Code defines off-street parking requirements and shared parking adjustment factors. Additional reductions in private vehicle parking demand could be achieved through internal trip capture, transit trips, bicycle trips, and walking trips. An impact would occur when parking supply is insufficient to meet anticipated demand.

17.5 Applicable Regulations, Plans, and Standards

17.5.1 Federal

Americans with Disabilities Act of 1990 (ADA)

The American with Disabilities Act (ADA) prohibits discrimination based on disabilities in “places of public accommodation” (business and non-profit agencies that serve the public) and “commercial facilities” (other businesses). The current text of the ADA includes changes made by the ADA Amendments Act of 2008. The ADA was originally enacted in public law format and later rearranged and published in the United States Code.

ADA Standards for Accessible Design (ADA Standards)

In 2010, the final regulations were signed by then-Attorney General Eric Holder to revise the Department of Justice’s ADA regulation, including its ADA Standards for Accessible Design (ADA Standards). The ADA standards apply to facilities covered by the ADA in new construction and alterations, except for public transportation facilities, which are subject the U.S. Department of Transportation (DOT) standards.

Federal Highway Administration (FHWA)

The Federal Highway Administration (FHWA) is an agency of the U.S. DOT that carries out federal highway programs in partnership with State and Local agencies. FHWA administers and oversees federal highway programs to ensure that federal funds are used efficiently and the programs meet the nation’s transportation needs.

17.5.2 State

California Department of Transportation (Caltrans)

The California Department of Transportation (Caltrans) has jurisdiction over State transportation facilities. Caltrans also has jurisdiction over the access ramps associated with these facilities and their connections to city / local streets.

As manager of the state highway system, Caltrans provides the *Guide for the Preparation of Traffic Impact Studies (2002)*, developed in partnership with local and regional agencies through procedures established pursuant to the California Environmental Quality Act (CEQA) and other land-use planning processes. The document provides guidance on the Traffic Impact Study scope and methodologies adopted by Caltrans for traffic impact analyses on state highway facilities. VTA, as the Congestion Management Agency, is responsible for monitoring operations on Caltrans facilities within the county.

The *Transportation Management Plan (2015)* outlines strategies for minimizing traffic congestion during roadwork activities due to reconstruction, rehabilitation, operation and maintenance of existing facilities. In addition, Caltrans' Traffic Operations Policy Directive 11-01 (accommodating bicyclists in temporary traffic control zones) concentrates on minimizing impacts to bicyclists. The Temporary Pedestrian Facilities Handbook is also an important guideline for pedestrian access through construction zones.

Caltrans and CEQA implementation guidelines require archaeological record searches if construction activities are proposed within a state right-of-way (ROW). For this requirement, Caltrans provides the Standard Environmental Reference guide.

The following sections provide information about Caltrans plans and programs.

State Transportation Improvement Program (STIP)

STIP is a biennial five-year improvement plan that establishes future allocations of funds for transportation projects both on and off the State Highway System. Administrated by the California Transportation Commission (CTC), STIP is funded with revenues from the State Highway Account and other funding sources.

California Transportation Plan 2025

The California Transportation Plan (CTP) defines goals, policies, and strategies for the California transportation system. The goals defined by CTP are related to three categories (social equity, prosperous economy, and quality environment), which are tied to performance measures. Members from regional and metropolitan planning agencies are committed to report updated status on these measures to Caltrans. The current CTP 2040 is being updated and is expected to be available in 2016.

Complete Streets (AB 1358)

California Complete Streets Act of 2008 (AB 1358) consists of policies to increase travel options to reduce congestion and improve the efficiency of the transportation system. The policies look to ensure safety for all users (pedestrians, bicyclists, motorists, public transit vehicles and riders, children, elderly and disabled people). A “complete street” is defined as a transportation facility planned, designed, operated, and maintained to provide safe mobility for all users and is required for new streets or redesigned existing streets.

The Complete Streets Implementation Action Plan 2.0 (June 2014 – June 2017) is a manual provided by Caltrans with implementation guidelines.

Senate Bill 743

Changes to transportation analysis as part of the State CEQA Guidelines are currently under development by the Governor’s Office of Planning and Research. A key change will be to use Vehicle Miles Travelled (VMT), induced vehicle travel, and local safety as the metrics for identifying significant traffic impacts, rather than LOS. The implementation of this change is in progress. Although this EA was not prepared pursuant to CEQA, it is guided in substantial part by the current State CEQA Guidelines and principles.

Assembly Bill 32

California’s major initiative for reducing GHG emissions is outlined in Assembly Bill 32 (AB 32), the “California Global Warming Solutions Act of 2006.” AB 32 codifies the statewide goal of reducing GHG emissions to 1990 levels by 2020 (essentially a 15 percent reduction below 2005 emission levels; the same requirement as under S-3-05), and requires CARB to prepare a Scoping Plan that outlines the main state strategies for reducing GHGs to meet the 2020 deadline. In addition, AB 32 requires CARB to adopt regulations to require reporting and verification of statewide GHG emissions.

After completing a comprehensive review and update process, CARB approved a 1990 statewide GHG level and 2020 limit of 427 MMT CO₂e. CARB approved the Scoping Plan on December 11, 2008. The Scoping Plan includes measures to address GHG emission reduction strategies related to energy efficiency, water use, and recycling and solid waste, among other measures. Many of the GHG reduction measures included in the Scoping Plan (i.e. Low Carbon Fuel Standard, Advanced Clean Car standards, and Cap-and-Trade) have been adopted and implementation activities are ongoing.

In May 2014, CARB approved the first update to the AB 32 Scoping Plan. The 2014 Scoping Plan update defines CARB’s climate change priorities for the next 5 years and sets the groundwork to reach post-2020 goals set forth in EO S-3-05. The update highlights California’s progress toward meeting the “near-term” 2020 GHG emission reduction goals defined in the original Scoping Plan. It also evaluates how to align the State’s longer-term GHG reduction strategies with other State policy priorities, such as for water, waste, natural resources, clean energy and transportation, and land use (CARB, 2014). The Scoping Plan includes a comprehensive list of

recommended actions for each of the major sectors of the statewide emissions inventory, including energy, transportations, agriculture, water, waste management, natural and working lands, short-lived climate pollutants, green building, cap-and-trade, and evaluations actions.

The AB 32 Scoping Plan also identifies a cap-and-trade program as one of the strategies California will employ to reduce the GHG emissions. Under the cap-and-trade program, an overall limit on GHG emissions from capped sectors has been established and facilities subject to the cap are able to trade permits (allowances) to emit GHGs. The program began on January 1, 2012, with an enforceable compliance obligation beginning in 2013.

Senate Bill 375

Senate Bill 375 (SB 375), signed in August 2008, enhances the state's ability to reach AB 32 goals by directing CARB to develop regional GHG emission reduction targets to be achieved from vehicles for 2020 and 2035. In addition, SB 375 directs each of the state's 18 major Metropolitan Planning Organizations (MPOs) to prepare a "sustainable communities strategy" (SCS) that contains a growth strategy to meet these emission targets for inclusion in the Regional Transportation Plan (RTP). On September 23, 2010, CARB adopted final regional targets for reducing GHG emissions from 2005 levels by 2020 and 2035. The San Francisco Bay Area was assigned a target of 7 percent per capita reduction from 2005 levels by 2020, and a 15 percent per capita reduction from 2005 levels by 2035.

17.5.3 Regional and Local

Metropolitan Transportation Commission (MTC)

The Metropolitan Transportation Commission (MTC) is the regional agency responsible for transportation planning, financing and coordination for the San Francisco Bay Area. MTC is responsible for preparing the Regional Transportation Plan (RTP), a 20-year plan that is updated every 3 years to reflect new planning priorities and changing projections of future growth and travel demand. The RTP contains guidelines and goals for all transportation facilities within the region and identifies transportation performance improvements, through improved air quality, to meet AB 32 and SB 375 goals.

Plan Bay Area 2040

Plan Bay Area is the Sustainable Community Strategy (SCS) and Regional Transportation Plan (RTP) for the Bay Area. Overseen by MTC and the Association of Bay Area Governments (ABAG), the RTP integrates transportation and land use strategies to manage GHG emissions and plan for future population growth.

The main characteristics of Plan Bay Area 2040 are policies that shift travel demand to transit and accommodating growth along major transit corridors into areas defined as Priority Development Areas (PDAs). Key transportation investments include:

- VTA Express Lane Network
- Caltrain Electrification and Operational Service Frequency Improvements
- Stevens Creek BRT
- El Camino Real BRT

Bay Area Air Quality Management District (BAAQMD)

The BAAQMD is the San Francisco Bay Area regional agency responsible for monitoring air quality and pollution levels within the greater Bay Area. BAAQMD established the Clean Air Plan (CAP) to reduce emissions and pollutants and protect public health in the region.

Clean Air Plan

The CAP states that local governments are the implementing agencies (through their General Plans) of transportation control measures (TCM). The TCM are recommended by BAAQMD to reduce impacts of air pollution, especially from motor vehicles, as the main source of GHG emissions. BAAQMD developed guidelines for evaluating air quality impacts of projects and plans in the San Francisco Bay Area.

Peninsula Corridor Joint Powers Board

The Peninsula Corridor Joint Powers Board is the owner and operator of the Caltrain that operates between San Francisco and San José, with limited weekday service to Gilroy. Representatives from City and County of San Francisco, San Mateo County Transit District and VTA serve on the Peninsula Corridor Joint Powers Board.

Caltrain Modernization Program

The Caltrain Modernization Program includes:

- Installation of Communications-Based Overlay Signal System Positive Train Control (CBOSS PTC). CBOSS PTC is an advanced signal system that includes federally mandated safety improvements and improved headways.
- Replacement of existing diesel trains with electric multiple units (EMU), as part of the Peninsula Corridor Electrification Project (PCEP).

Peninsula Corridor Electrification Project (PCEP)

The PCEP consists of converting Caltrain cars from diesel to EMU. The improvements to infrastructure and EMU are planned to increase frequency of service from five to six trains per hour per direction during peak periods. The PCEP EIR was completed in January 2015. The project is planned to be completed in 2021.

Santa Clara Valley Transportation Authority (VTA)

VTA provides local, community, limited and express transit service in the Santa Clara County and the City of Cupertino.

VTA is the primary transit operator in Santa Clara County, responsible for development, operation, and maintenance of 71 bus lines and 3 light-rail lines. Two levels of bus service are provided which include local bus service and Express & Limited routes. In addition to the bus and light-rail operations, VTA is also responsible for para-transit and shuttle services within the County. VTA provides transit service to major regional destinations and transfer centers in adjoining counties.

In addition to its role of transit provider, VTA is also the Congestion Management Agency (CMA) responsible for reducing congestion in the area and improving air quality. The jurisdiction of VTA includes all state highways, expressways, some principal arterials, and VTA Congestion Management Program (CMP) intersections in the County of Santa Clara.

Transportation Impact Analysis Guidelines (2014)

Local jurisdictions are responsible for assessing the impacts of new developments and land use policy changes on VTA CMP facilities. VTA's *Transportation Impact Analysis (TIA) Guidelines* (October 2014) offer a consistent and uniform methodology for assessing traffic impacts of new developments and land-use policy changes. These VTA TIA Guidelines form the basis of the transportation impact analysis methodology for the Specific Plan.

Valley Transportation Plan (VTP) 2040

VTP 2040 is a long-range countywide transportation plan that provides programs, projects, and policies for roadways, transit, Intelligent Transportation Systems (ITS) and Systems Operations Management (SOM), bicycle and pedestrian facilities, and land use and transportation integration.

Short Range Transit Plan (SRTP) 2014–2023

The SRTP describes plans, programs and goals within a 10-year horizon, updated annually. The plan focuses on the characteristics and capital needs of existing and planned systems, matching the long-range Regional Transportation Plan. The SRTP focuses on funding sources for on-going projects, as well as on improvements on bus, light rail and paratransit service improvements.

Besides improvements to existing facilities, equipment and vehicles, SRTP 2014–2023 envisions reviewing bus routes and operations, upgrade of passenger facilities, development of new light-rail corridors, funding resources for Bay Area Rapid Transit (BART) extension, and implementation of BRT.

Transit Sustainability Policy (March 2010 Update) and Service Design Guidelines are focused on assisting the VTA Board of Directors in the decision-making process. It makes available the most complete information regarding options, costs, benefits and trade-offs for various transit projects and service proposals prior to a selection of mode and funding decisions.

Bus Rapid Transit (BRT) Projects planned by VTA include the Santa Clara-Alum Rock BRT Project, El Camino Real BRT Project and Stevens Creek BRT. The closest project to the Plan Area is the Stevens Creek BRT Project. It is planned to be implemented along Stevens Creek Boulevard,

south of the Plan Area. Stevens Creek BRT service will connect Cupertino to light-rail stations, Caltrain and future extension of BART. As current demand along the corridor is high, VTA is working on the “Rapid 523 Project,” to begin operating on Stevens Creek Boulevard in the fall of 2017.

Complete Streets Projects are aimed at improving overall efficiency of the transportation system for all users.

Pedestrian Programs

VTA has developed two manuals containing design guidelines for pedestrian facilities:

- Pedestrian Technical Guidelines and Community Design; and
- Transportation Manual of Best Practices for Integrating Transportation and Land Use.

Bicycle Programs

Santa Clara Countywide Bike Plan

The Santa Clara Countywide Bicycle Plan assists VTA and Member Agencies in the planning, development and programming of bicycle improvements in Santa Clara County. VTA is in the process of updating the plan. As part of the strategies defined by the VTA CMP, the final version may be issued in the beginning of 2017.

Santa Clara County Roads and Airports Department

Santa Clara County Roads and Airports Department is responsible for the unincorporated roadways and County expressways within Santa Clara County.

Although none of the expressways pass through the City of Cupertino, Lawrence Expressway located to the east of the Plan Area has been studied as part of the intersection analysis.

Expressway Plan 2040

The Expressway Plan 2040 will be successor to the 2003 Comprehensive County Expressway Planning Study (updated in 2008). The plan assesses the needs of the expressway system given changing land-use plans and increased traffic. It also aims to address the needs for Complete Streets. Originally planned for completion in 2015, the Expressway Plan 2040 is expected to be completed in 2016. The plan will identify any policy changes required, revised funding requirements, and detailed updated implementation strategies.

City of Cupertino

The City of Cupertino is bordered by Sunnyvale to the north; Santa Clara and San José to the East, Saratoga to the South and unincorporated areas of Santa Clara County to the west. The City of Cupertino is responsible for development and adoption of local plans including General Plan, Local Area Master Plans, Zoning, Specific Plans, and preparing guidelines for pedestrians and bicyclists. Further details are provided in [Section 17.4.5](#) and [Section 17.4.6](#). The City of Cupertino has jurisdiction over all city / local streets and traffic control signals.

General Plan: Community Vision 2015 – 2040

Community Vision 2015–2040 is the General Plan for the City of Cupertino. Resolution No. 15-087 approved the General Plan Update, including changes in policy, text and figures, as well as the change to the General Plan land use map.

Community Vision 2015-2040 outlines the goals, policies and strategies that will ensure that future land use, transportation, housing, and environmental resources are established and maintained. The main policies of Cupertino’s vision involve creation of cohesive neighborhoods guiding urban growth and density along mixed-use corridors. Historically built on a suburban model, Cupertino aims to balance land uses and provide better connections.

Transportation and mobility strategies are seen as key elements for connecting neighborhoods to main destinations (offices, services, open spaces) as well as providing pedestrian-friendly and bicycle-friendly streets.

In addition to improvements to the street network and a more balanced land use, Cupertino’s Community Vision will seek improved safety through good urban design elements along bicycle paths, sidewalks and at street intersections.

Community Vision 2015-2040 includes the following elements:

- Introduction – Guiding Principles
- Planning Areas
- Land Use and Community Design Element
- Housing Element
- Mobility Element
- Environmental Resources
- Health and Safety
- Infrastructure
- Recreation, Parks and Community Service Element

The General Plan divides Cupertino into 21 Planning Areas, in two categories:

- Neighborhoods: areas where there is no expectation of major land use or function;
- Special Areas: located along and near mixed-use corridors, these areas are expected to be enhanced in terms of population density and new developments in order to provide land use balance according to transit-oriented development principles.

As the major regional commercial center, the General Plan anticipates turning the Plan Area into a new mixed-use “Town Center,” which would result in a gateway to Cupertino. To accomplish the Town Center goal, a defined key vision of Cupertino’s General Plan is to provide a pedestrian-oriented feel of a revitalized area with interconnected street grid network of bike and pedestrian-friendly streets and facilities.

The Mobility section of Cupertino’s General Plan emphasizes the importance of providing bike and pedestrian-oriented design to achieve the City’s quality of life vision. A key strategy for that goal is to make alternative modes of transportation attractive choices. Thus, the General Plan proposes a Bicycle Network (Mobility Element, page M-10), that includes on-street bike lanes on Stevens Creek Boulevard, Wolfe Road and Vallco Parkway. Additionally, the General Plan defines guidelines to promote safe routes for schools, increasing walking and bicycling to schools.

Through a comprehensive plan for pedestrians and bicyclists, the City of Cupertino follows the principles of Transportation Systems Management (TSM), Transportation Demand Management (TDM), Complete Streets Guidelines and regional plans in California and Santa Clara County.

Each element of the General Plan contains specific goals, policies and strategies. Goals are presented as first-level numbers (e.g., 1), policies are presented with second-level number (e.g.: 1.1) and strategies are presented as third-level numbers (e.g., 1.1.1). **Table 17-7: City of Cupertino, General Plan Principles, Policies and Goals** provides a summary of the principles, goals, policies and strategies related to transportation.

Table 17-7: City of Cupertino, General Plan Principles, Goals, Policies, and Strategies

Number	Policy/Strategy	Description
Guiding Principles		
#1	Develop Cohesive Neighborhoods	Ensure that all neighborhoods are safe, attractive and include convenient pedestrian and bicycle access to a “full-service” of local amenities such as parks, schools, community centers, trails, bicycle paths and shopping.
#2	Improve Public Health and Safety	Promote public health by increasing community-wide access to healthy foods; ensure an adequate amount of safe, well-designed parks, open space, trails and pathways; and improve safety by ensuring all areas of the community are protected from natural hazards and fully served by disaster planning and neighborhood watch programs, police, fire, paramedic and health services.
#3	Improve Connectivity	Create a well-connected and safe system of trails, pedestrian and bicycle paths, sidewalks and streets with traffic calming measures that weave the community together, enhance neighborhood pride and identity, and create access to interesting routes to different destinations.
#4	Enhance Mobility	Ensure that efficient and safe movement of cars, trucks, transit, pedestrians, bicyclists and disabled persons throughout Cupertino in order to fully accommodate Cupertino’s residents, workers, visitors and students of all ages and abilities. Streets, pedestrian paths and bike paths should comprise an integrated system of fully connected and interesting routes to all destinations.
#5	Ensure a Balanced Community	Offer residents a full range of housing choices necessary to accommodate the changing needs of a demographically and economically diverse population, while also providing a full range of support uses including regional and local shopping, education, employment, entertainment, recreation, and daily needs that are within easy walking distance.

Table 17-7: City of Cupertino, General Plan Principles, Goals, Policies, and Strategies

Number	Policy/Strategy	Description
#6	Support Vibrant and Mixed-Use Businesses	Ensure that Cupertino’s major mixed-use corridors and commercial nodes are vibrant, successful, attractive, friendly and comfortable with inviting active pedestrian spaces and services that meet the daily needs of residents and workers.
#7	Ensure Attractive Community Design	Ensure that buildings, landscapes streets and parks are attractively designed and well maintained so they can complement the overall community fabric by framing major streets and offering a variety of active, relaxing and intimate pedestrian spaces.
#9	Support Education	Preserve and support quality community education by partnering with local school districts, community colleges, libraries and other organizations to improve facilities and programs that enhance learning, and expand community-wide access.
General Plan Planning Areas		
	Vallco Shopping District	The Vallco Shopping District will continue to function as a major regional and community destination. The City envisions this area as a new mixed-use “town center” and gateway for Cupertino. It will include an interconnected street grid network of bicycle and pedestrian-friendly streets, more pedestrian-oriented buildings with active uses lining Stevens Creek Boulevard and Wolfe Road, and publicly-accessible parks and plazas that support the pedestrian-oriented feel of the revitalized area. New development in the Vallco Shopping District should be required to provide buffers between adjacent single-family neighborhoods in the form of boundary walls, setbacks, landscaping or building transitions.
Land Use Goals		
LU-1	Balanced Community	Create a balanced community with a mix of land uses that supports thriving businesses, all modes of transportation, complete neighborhoods and a healthy community
LU-2	Community Identity	Ensure that buildings, sidewalks, streets and public spaces are coordinated to enhance community identity and character
LU-3	Site and Building Design	Ensure that project site planning and building design enhance the public realm through a high sense of identity and connectivity
LU-4	Streetscape Design	Promote the unique character of planning areas and the goals for community character, connectivity and complete streets in streetscape design
LU-5	Connectivity	Ensure that employment centers and neighborhoods have access to local retail and services within walking or bicycling distance
LU-8	Economic Development and Fiscal Stability	Maintain a fiscally sustainable city government that preserves and enhances the quality of life for its residents, workers and visitors
LU-9	Economic Development and Fiscal Stability	Promote a strong local economy that attracts and retains a variety of businesses
LU-11	Access to Community Facilities and Services	Maintain and enhance community access to library and school services provided by other agencies
LU-19	Vallco Town Center Specific Plan	Create a distinct and memorable mixed-use “Town Center” that is a regional destination and a focal point for the community

Table 17-7: City of Cupertino, General Plan Principles, Goals, Policies, and Strategies

Number	Policy/Strategy	Description
Land Use Policies and Strategies		
LU-1.1	Land Use and Transportation	Focus higher land use intensities and densities within a half-mile of public transit service, and along major corridors.
LU-1.X	Jobs/Housing Balance	Strive for a more balanced ratio of jobs and housing units.
LU-2.2	Pedestrian-Oriented Public Spaces	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
LU-3.1	Site Planning	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.
LU-3.3	Building Design	Ensure that building layouts and design are compatible with the surrounding environment and enhance the streetscape and pedestrian activity.
LU-3.3.8	Drive-up Services	Allow drive-up service facilities only when adequate circulation, parking, noise control, architectural features and landscaping are compatible with the expectations of the Planning Area, and when residential areas are visually buffered. Prohibit drive-up services in areas where pedestrian-oriented activity and design are highly encouraged such as Heart of the City, De Anza Boulevard, Monta Vista Village and neighborhood centers.
LU-3.4	Parking	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
LU-4.1	Street and Sidewalks	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.
LU-5.1	Neighborhood Centers	Retain and enhance local neighborhood shopping centers and improve pedestrian and bicycle access to neighborhoods to improve access to goods and services.
LU-5.2	Mixed-use Villages	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
LU-5.3	Enhance Connections	Look for opportunities to enhance publicly-accessible pedestrian and bicycle connections with new development or redevelopment.
LU-8.3	Incentives for Reinvestment	Provide incentives for reinvestment in existing, older commercial areas.
LU-8.3.2	Shared or Reduced Parking	Consider shared or reduced parking, where appropriate as incentives to construct new commercial and mixed-use development, while increasing opportunities for other modes of transportation.

Table 17-7: City of Cupertino, General Plan Principles, Goals, Policies, and Strategies

Number	Policy/Strategy	Description
LU-8.3.3	Infrastructure and Streetscape Improvements	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.
LU-9.2	Work Environment	Encourage the design of projects to take into account the well-being and health of employees and the fast-changing work environment.
LU-9.2.1	Local Amenities	Encourage office development to locate in areas where workers can walk or bike to services such as shopping and restaurants, and to provide walking and bicycling connections to services.
LU-11.1	Connectivity	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.
LU-13.7.3	Connectivity	Properties within a block should be inter-connected with shared access drives. Provide pedestrian paths to enhance public access to and through the development. New development, particularly on corner lots, should provide pedestrian and bicycle improvements along side streets to enhance connections to surrounding neighborhoods.
LU-19.1	Specific Plan ⁶	Create a Vallco Shopping District Town Center Specific Plan prior to any development on the site that lays out the land uses, design standards and guidelines, and infrastructure improvements required.
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.
LU-19.1.6	Connectivity ⁷	Provide a newly configured complete street grid hierarchy of streets, boulevards and alleys that is pedestrian-oriented, connects to existing streets, and creates walkable urban blocks for buildings and open space. It should also incorporate transit facilities, provide connections to other transit nodes and coordinate with the potential expansion of North Wolfe Road bridge over I-280 to continue the walkable, bikeable boulevard concept along North Wolfe Road. The project should also contribute towards a study and improvements to a potential Interstate 280 trail along the drainage channel south of the freeway and provide pedestrian and bicycle connections from the project sites to the trail. <u>Any project that fully redevelops the existing mall in the Vallco Shopping District shall also fund transportation and transit infrastructure that provides effective traffic solutions, including providing approximately \$30 million toward planned transportation improvements at the I-280 and Wolfe Road interchange and other I-280 segments, partnering with local employers and transit agencies to provide a free community shuttle, providing an on-site transit center and / or mobility hub, and implementing a transportation demand management plan with an overall target of reducing office-generated weekday peak hour trips by 30 percent below applicable Institute of Transportation Engineers Office Use trip generation</u>

⁶ If Cupertino voters approve the Vallco Town Center Specific Plan Initiative, the stricken text would be removed from and the underlined text would be added to the General Plan.

⁷ If Cupertino voters approve the Vallco Town Center Specific Plan Initiative, the underlined text would be added to the General Plan.

Table 17-7: City of Cupertino, General Plan Principles, Goals, Policies, and Strategies

Number	Policy/Strategy	Description
		<u>rates. This transportation and transit funding obligation shall not apply to any hotel project.</u>
LU-19.1.7	Existing Streets	Improve Stevens Creek Boulevard and North Wolfe Road to become more bike and pedestrian-friendly with bike lanes, wide sidewalks, street trees, improved pedestrian intersections to accommodate the connections to Rosebowl and Main Street.
LU-19.1.12	Parking	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.
LU-20.4	Pedestrian and Bicycle Connections	Pedestrian-oriented retail and hotel development will support a diverse population of workers and residents in the area. Trail routes, and alternate trail routes to address security and privacy concerns of major employers, shall be developed to provide pedestrian and bicycle connections to other destinations.
Mobility Element Goals		
M-1	Regional Coordination	Actively participate in regional planning processes to coordinate local planning and to advocate for decisions that meet and complement the needs of Cupertino
M-2	Complete Streets	Promote improvements to city streets that safely accommodate all transportation modes and persons of all abilities
M-3	Walkability and Accessibility	Support a safe pedestrian and bicycle street network for people of all ages and abilities
M-4	Transit	Promote local and regional transit that is efficient, frequent and convenient and reduces traffic impacts
M5	Safer Routes to Schools	Ensure safe and efficient pedestrian and bicycle access to schools while working to reduce school-related congestion
M6	Vehicle Parking	Promote innovative strategies to provide efficient and adequate vehicle parking
M7	Traffic Impact Analysis	Review and update tia policies and guidelines that allow for adequate consideration for all modes of transportation including automobiles, walking, bicycling and transit
M8	Greenhouse Gas Emissions and Air Quality	Promote policies to help achieve state, regional and local air quality and greenhouse gas emission reduction targets
M9	Roadway System Efficiency	Promote effective and efficient use of the city’s transportation network and services
M-10	Transportation Infrastructure	Ensure that the city’s transportation infrastructure is well-maintained for all modes of transportation and that projects are prioritized on their ability to meet the city’s mobility goals
Mobility Element Policies and Strategies		
M-1.1	Regional Transportation Planning	Participate in regional transportation planning processes to develop programs consistent with the goals and policies of Cupertino’s General

Table 17-7: City of Cupertino, General Plan Principles, Goals, Policies, and Strategies

Number	Policy/Strategy	Description
		Plan and to minimize adverse impacts on the City’s circulation system. Work with neighboring cities to address regional transportation and land use issues of mutual interest.
M-1.2	Transportation Impact Analysis	Participate in the development of new multi-modal analysis methods and impact thresholds as required by Senate Bill 743. However, until such impact thresholds are developed, continue to optimize mobility for all modes of transportation while striving to maintain the following intersection Levels of Service (LOS) at a.m. and p.m. 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+; • De Anza Boulevard and Bollinger Road
M-1.3	Regional Trail Development	Continue to plan and provide for a comprehensive system of trails and pathways consistent with regional systems, including the Bay Trail, Stevens Creek Corridor and Ridge Trail.
M-2.1	Street Design	Adopt and maintain street design standards to optimize mobility for all transportation modes including automobiles, walking, bicycling and transit.
M-2.2	Adjacent Land Use	Design roadway alignments, lane widths, medians, parking and bicycle lanes, crosswalks and sidewalks to complement adjacent land uses in keeping with the vision of the Planning Area. Strive to maximize adverse impacts and expand alternative transportation options for all Planning Areas (Special Areas and Neighborhoods). Improvement standards shall also consider the urban, suburban and rural environments found within the city.
M-2.2.3	Urban Road Improvement Standards	Develop urban improvements standards for arterials such as Stevens Creek and De Anza Boulevards. In these areas, standards may include wide sidewalks, tree wells, seating, bike racks and appropriate street furniture.
M-2.3	Connectivity	Promote pedestrian and bicycle improvements that improve connectivity between planning areas, neighborhoods and services, and foster a sense of community.
M-2.4	Community Impacts	Reduce traffic impacts and support alternative modes of transportation rather than constructing barriers to mobility. Do not close streets unless there is a demonstrated safety or over-whelming through traffic problem and there are no acceptable alternatives since street closures move the problem from one street to another.
M-2.5	Public Accessibility	Ensure all new public and private streets are publicly accessible to improve walkability and reduce impacts on existing streets.
M-2.X	Traffic Calming	Consider the implementation of best practices on streets to reduce speeds and make them user-friendly for alternative modes of transportation, including pedestrians and bicyclists.
M-3.1	Bicycle and Pedestrian Master Plan	Adopt and maintain a Bicycle and Pedestrian master plan, which outlines policies and improvements to streets, extension of trails, and pathways to create a safe way for people of all ages to bike and walk on a daily basis, and as shown in Figure M-1
M-3.2	Development	Require new development and redevelopment to increase connectivity through direct and safe pedestrian connections to public amenities,

Table 17-7: City of Cupertino, General Plan Principles, Goals, Policies, and Strategies

Number	Policy/Strategy	Description
		neighborhoods, shopping and employment destinations throughout the city.
M-3.3	Pedestrian and Bicycle Crossings	Enhance pedestrian and bicycle crossings and pathways at key locations across physical barriers such as creeks, highways and road barriers.
M-3.4	Street Widths	Preserve and enhance citywide pedestrian and bike connectivity by limiting street widening purely for automobiles as a means of improving traffic flow.
M-3.5	Curb Cuts	Minimize the number and the width of driveway openings.
M-3.5.1	Shared Driveway Access	Encourage property owners to use shared driveway access and interconnected roads within blocks, where feasible. Require driveway access closures, consolidations or both when a site is remodeled or redeveloped.
M-3.5.2	Direct Access from Secondary Streets	Encourage property with frontages on major and secondary streets to provide direct access to driveways from the secondary street.
M-3.6	Safe Spaces for Pedestrians	Require parking lots to include clearly defined paths for pedestrians to provide a safe path to building entrances.
M-3.8	Bicycle Parking	Require new development and redevelopment to provide public and private bicycle parking.
M-3.9	Outreach	Actively engage the community in promoting walking and bicycling through education, encouragement and outreach on improvement projects and programs.
M-3.10	Quarry Operations	Prioritize enforcement of truck traffic speeds from Stevens Creek Boulevard and the Lehigh Cement Plant on Stevens Canyon Road, and Stevens Creek and Foothill Boulevards.
M-4.2	Local Transportation Services	Create or partner with transit providers, employers, educational institutions, and major commercial entities to minimize gaps within local transportation services.
M-4.3	Connecting Special Areas	Identify and implement new or enhanced transit services to connect Special Areas as identified in Figure PA-1 (Chapter 2: Planning Areas)..
M-4.4	Transit Facilities with New Development	Work with VTA and/or major developments to ensure all new development projects include amenities to support public transit including bus stop shelters, space for transit vehicles as appropriate and attractive amenities such as trash receptacles, signage seating and lighting.
M-4.5	Access to Transit Services	Support right-of-way design and amenities consistent with local transit goals to improve transit as a viable alternative to driving.
M-4.6	Bus and Shuttle Programs	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.
M-4.X	Vallco Town Center Transfer Station	Work with VTA and/or other transportation service organizations to study and develop a transit transfer station that incorporates a hub for alternative transportation services such as, car sharing, bike sharing and/or other services.
M-5.1	Safer Routes to Schools	Promote Safe Routes to Schools programs for all schools serving the city.

Table 17-7: City of Cupertino, General Plan Principles, Goals, Policies, and Strategies

Number	Policy/Strategy	Description
M-5.1.1	Coordination with School Districts	Coordinate with the School Districts to develop plans and programs that encourage car/van-pooling, stagger hours of adjacent schools, establish drop-off locations, and encourage walking and bicycling to school.
M-5.1.2	Teen Commission	Encourage the Teen Commission to work with schools to encourage year-round programs to incentivize walking and biking to school.
M-5.2	Prioritizing Projects	Ensure that bicycle and pedestrian safety improvements include projects to enhance safe accessibility to schools
M-5.3	Connections to Trails	Connect schools to the citywide trail system.
M-5.4	Education	Support education programs that promote safe walking and bicycling to schools
M-6.1	Parking Codes	Maintain efficient and updated parking standards to ensure that development provides adequate parking, both on-street and off-street depending on the characteristics of the development, while also reducing reliance on the automobile.
M-6.2	Off-Street Parking	Ensure new off-street parking is properly designed and efficiently used
M-7.1	Multi-Modal Transportation Impact Analysis	Follow guidelines set by the VTA related to transportation impact analyses, while conforming to State goals for multimodal performance targets.
M-7.2	Protected Intersections	Consider adopting a Protected Intersection policy, which would identify intersections where improvements would not be considered which would degrade levels of service for non-vehicular modes of transportation. Potential locations include intersections in Priority Development Areas (PDAs) and other areas where non-vehicular transportation is a key consideration, such as, near shopping districts, schools, parks and senior citizen developments.
M-8.2	Land Use	Support development and transportation improvements that help reduce GHG emissions by reducing per capita Vehicle Miles Traveled (VMT), reducing impacts on the City's transportation network and maintaining the desired levels of service for all modes of transportation.
M-8.3	Transportation System Management (TMS) Programs	Employ TSM strategies to improve efficiency of the transportation infrastructure including strategic right-of-way improvements, intelligent transportation systems and optimization of signal timing to coordinate traffic flow.
M-8.4	Transportation Demand Management (TDM) Programs	Require large employers, including colleges and schools, to develop and maintain TDM programs to reduce vehicle trips generated by their employees and students and develop a tracking method to monitor results.
M-8.5	Design of New Developments	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
M-8.6	Alternative Fuel Charging Stations	Develop a city-wide strategy to encourage the construction of a network of public and private alternative fuel vehicle charging/fueling stations.

Table 17-7: City of Cupertino, General Plan Principles, Goals, Policies, and Strategies

Number	Policy/Strategy	Description
M-9.1	Efficient Automobile Infrastructure	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.
M-9.2	Reduced Travel Demand	Promote effective TDM programs for existing and new development
M-9.3	Street Width	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.
M-9.3.1	North Wolfe Road Overcrossing	Consider alternate designs for the North Wolfe Road/I-280 Interchange (e.g., from partial cloverleaf design to diamond design) when evaluating the need to widen the freeway overcrossing.
M-9.3.2	Streetscape Design	When reviewing the widening of an existing street, consider the aesthetically pleasing enhancements and amenities to improve the safe movement of pedestrians and bicyclists in keeping with the vision of the Planning Area.
M-10.1	Transportation Improvement Plan	Develop and implement an updated citywide transportation improvement plan necessary to accommodate vehicular, pedestrian and bicycle transportation improvements to meet the City's needs.
M-10.2	Transportation Impact Fee	Ensure sustainable funding levels for the Transportation Improvement Plan by enacting a transportation impact fee for new development
M-10.3	Multi-Modal Improvements	Integrate the financing, design and construction of pedestrian and bicycle facilities with street projects. Build pedestrian and bicycle improvements at the same time as improvements for vehicular circulation to enable travelers to transition from one mode of transportation to another, e.g. bicycle to bus.
M-10.4	Roadway Maintenance Fund	Identify and secure new funding sources to fund the ongoing routine maintenance of roadways

South Vallco Connectivity Plan

Considering the scale of developments in South Vallco, the City of Cupertino prepared a connectivity plan to support development. The South Vallco Connectivity Plan emphasizes goals, objectives, concepts and guidelines for stakeholders involved in planning and designing within this area. The plan contains connectivity, transportation and street design guidelines and complements the South Vallco Master Plan.

The main goals in the South Vallco Connectivity Plan are to promote connectivity for pedestrian and bicycles, street design, transit opportunities and reduce traffic impacts. The plan considers two possible scenarios for the Mall. The first scenario considers the existing development (large mall surrounded by parking areas) and the second scenario considers a redesign of the Mall, with improved connectivity.

The first scenario (current situation) considers creation of a trail for bicycles and pedestrians generally parallel to I-280. The plan also proposes redesigning Perimeter Road, improving sidewalks and providing landscape design.

The second scenario considers a total redevelopment that promotes a small block grid network, improving circulation and accessibility at pedestrian and bicycle scale and promoting a more livable on-street space. Through redesigning the Mall, the plan recommends improving livable atmosphere of streets by allowing outdoor use for dining, events and art features.

The South Vallco Connectivity Plan recommends a series of design elements, summarized in Table 17-8 below.

Table 17-8: South Vallco Connectivity Plan

Element	Recommendation
Bicycle Amenities	<ul style="list-style-type: none"> • New bike path (Class I) on eastern portion of Perimeter Road • New bike lane (Class II) on northern and eastern portions of Perimeter Road • High visibility paint for bike lanes/paths on Wolfe Road and Vallco Parkway, improving safety • Encouragement of property owners to incorporate bike facilities and amenities • Improve safety through design strategies on Wolfe Road/I-280 interchange
Pedestrian Amenities	<ul style="list-style-type: none"> • Ensure continuous sidewalks (min. 6 feet wide) and tree shaded areas when possible • Active outdoor areas connected to sidewalks or other public spaces • Crosswalks (min. 10 feet wide) clearly marked complying to ADA standards and with special paving material to make it attractive • Bulb-outs as public plazas
Bicycle and Pedestrian Trail	<ul style="list-style-type: none"> • Creation of Class I bicycle and pedestrian trail adjacent to I-280 connecting the Mall and other important developments in the area • Unique design along the trail, turning it into an inviting place • Improvement of Perimeter Road undercrossing, as part of new trail
Street Furniture and Lighting	<ul style="list-style-type: none"> • Streetscape amenities (seatings, trash receptables and covered bus shelters) at key intersections and major entry points to parking areas, not obstructing pedestrian circulation • Bicycle racks and lockers • Cohesive identity between street furniture/amenities and landscape/architectural design • Functional and energy efficient lighting

City of Cupertino Bicycle Transportation Plan

The City of Cupertino Bicycle Transportation Plan (BTP) was originally adopted on May 3, 2011. A draft update was developed in March 2015. The update proposes new bicycle facilities to be installed at 17 key bikeway locations.

The 2011 version contains adopted criteria for defining the bike lane network, estimated costs for implementation and programs to encourage bicycling as daily mode of transportation. The adopted BTP includes recommendations for a comprehensive bicycle network in Cupertino and identifies a number of bikeway projects required for implementation. The BTP also identifies City proposed and sponsored bicycle programs to encourage and educate bicyclists of all ages and levels.

The Mall is identified within the BTP as a key destination, requiring suitable bicycle access and parking facilities. Bikeway projects in the vicinity of the Plan Area include gap closure projects along Wolfe Road / Miller Avenue between I-280 and Bollinger Road, specifically the gap between Stevens Creek Boulevard and Calle De Barcelona.

Pedestrian Policy in Cupertino

Issued in 2002, the Cupertino Pedestrian Transportation Plan (CPTP) was developed to complement the 1998 Bicycle Transportation Plan to define goals, policies and recommendations to improve walkability.

The CPTP includes a diagnosis of existing conditions, and defines guidelines for implementing projects and programs to improve walkability.

As part of these walkability policies, a series of maps called “Suggested Routes to School” was developed to assist parents and students with appropriated paths for biking and walking to schools. The CPTP highlights several pedestrian circulation / safety projects in the Plan Area.

Neighborhood Traffic Management Program (NTMP)

The City of Cupertino has a Neighborhood Traffic Management Program (NTMP). The objectives of the program are to address vehicle speed, increase pedestrian safety, reduce the need for police enforcement, enhance the street environment, increase access for all modes of transportation, and reduce cut-through vehicle traffic. Typically, the NTMP calls for the installation of traffic calming and roadway design features that address vehicle speed and traffic volume.

If a project adds traffic to residential streets, the City may decide to fund implementation of the program and the neighborhood residents have an opportunity to petition the City to conduct a neighborhood traffic calming study to determine if traffic management issues need to be addressed. It is a collaborative effort between the City and neighborhood residents to implement the NTMP, and two-thirds of residents (by petition) must be in favor of the study.

17.6 Baseline Existing Conditions

This section addresses the baseline existing conditions of the transportation network facilities in the Study Area, including roadways, transit service, bicycle facilities, and pedestrian facilities.

17.6.1 Scenario Description

The Baseline Existing Condition analyzes traffic operations assuming occupancy of the Mall at approximately 82 percent. In 2015, right after Macy’s (one of the Mall’s three prior anchor tenants) closed, there was particularly low activity at the Mall and tenant occupancy decreased to approximately 62 percent. However, the Mall had maintained an approximately 82 percent historical occupancy level from 2009 to 2014.⁸ Thus, for purposes of this analysis, the historical

⁸ The basis for assessing the Baseline Existing Conditions at 82% occupancy is described in Section 17.2 Environmental Setting.

occupancy of 82 percent occupancy is used as the baseline against which traffic impacts associated with implementation of the Specific Plan are measured. This approach is consistent with CEQA and recent case law. *North County Advocates v. City of Carlsbad*, 241 Cal. App. 4th 94 (2015).

17.6.2 Baseline Existing Lane Configurations and Traffic Control

The intersection Level of Service (LOS) Analysis uses existing intersection lane configurations and traffic control. For intersections where the lane configurations are temporarily modified by adjacent construction activities, the LOS Analysis uses lane geometries that were present prior to the onset of construction. Note that traffic counts were also conducted prior to construction activities. [Appendix TR-A, Figures 1A and 1B](#) show the existing intersection lane geometries and traffic control.

17.6.3 Baseline Existing Peak-Hour Turning Movement Volumes

The majority of the intersection traffic counts were collected in May 2015. As mentioned in [Section 17.2](#), during 2015 the Mall occupancy decreased to 62 percent from a historical occupancy level of approximately 82 percent. For the intersection LOS Analysis, traffic counts were adjusted to reflect traffic conditions assuming an 82 percent occupancy of the Mall (approximately 82 percent of 1,207,774 square feet). [Appendix TR-B, Figures 1A and 1B](#) show the adjusted Baseline Existing AM and PM peak hour traffic volumes used in the analysis.

17.6.4 Baseline Existing Intersection Level of Service

Baseline existing traffic conditions were evaluated at the study intersections. The following intersections operate at unacceptable levels of service under the Baseline Existing Conditions scenario:

- De Anza Boulevard/Stevens Creek Boulevard (Intersection #11) (PM Peak)
- De Anza Boulevard/McClellan Road (Intersection #12) (PM Peak)
- Wolfe Road/Fremont Avenue (Intersection #25) (PM Peak)
- Wolfe Road/Homestead Road (Intersection #28) (PM Peak)
- Miller Avenue/Bollinger Road (Intersection #37) (PM Peak)

See [Appendix TR-C](#) for the complete set of LOS results for each study intersection.

17.7 Background Conditions (Baseline Plus Approved)

17.7.1 Scenario Description

The Background Conditions is the Baseline Existing Conditions with the addition of vehicle trips generated by approved developments and improvements to the study area intersections that are programmed and anticipated to be funded and/or constructed by the 2016 analysis year.

Several developments in various stages of planning, approval, or construction are in proximity to the Plan Area and are anticipated to impact the existing roadway network. A majority of these projects will be completed around the same time period as implementation of the Specific Plan in Cupertino, California. The list of nearby approved developments are summarized in [Table 17-9: List of Approved Developments for Background Conditions](#) and were obtained from the Cities of Cupertino, Sunnyvale, and Santa Clara.

Table 17-9: List of Approved Developments for Background Conditions

#	City	Development	Description
1	Cupertino	19800 Wolfe Road	204 Residential DU; 47 KSF ⁹ Retail
2	Cupertino	Main Street Cupertino - Stevens Creek Blvd / Vallco Pkwy	180 Hotel Rooms; 120 Residential DU; 260 KSF Office; 130 KSF Retail
3	Cupertino	Homestead Square Shopping Center -20572 Homestead Rd	198 KSF Retail
4	Cupertino	Cupertino Village - Homestead Rd / Wolfe Rd	24 KSF Retail
5	Cupertino	Biltmore Apts - Stevens Creek Blvd / Blaney	80 Residential DU; 7 KSF Restaurant
6	Cupertino	Saich Way Station - 20803 Stevens Creek Blvd	11 KSF Retail; 4.5 KSF Restaurant
7	Cupertino	Apple Campus 2 - 19111 Pruneridge Ave	3,420 KSF Office; 245 KSF Amenities
8	Cupertino	Mixed Use Development - 10121 N. Foothill Blvd	6 Residential DU; 3 KSF Office
9	Cupertino	Mixed Use Development - 10049 Imperial Ave	0.5 KSF Office; 1 KSF Retail
10	Cupertino	Hotel Development- I-280 / Wolfe Rd ¹⁰	148 Hotel Rooms; 3 KSF Restaurant
11	Cupertino	7-Eleven Market Expansion - 21530 Stevens Creek Blvd	2 KSF Retail
12	Cupertino	Residential Development - 20840 McClellan Rd	2 Residential DU
13	Cupertino	Residential Development - 10310 N. Foothill Blvd	15 Residential DU
14	Santa Clara	Residential Development - 90 Winchester Blvd	165 Residential DU
15	Santa Clara	Office Redevelopment - 5402 Great America Parkway	278 KSF Office
16	Santa Clara	Office Development - 2350 Mission College Blvd	300 KSF Office; 6 KSF Retail
17	Santa Clara	Mixed Use Development - 2620 Augustine Dr	1,970 KSF Office; 35 KSF Retail
18	Santa Clara	Office Redevelopment - 2600 San Tomas Expressway	1,200 KSF Office
19	Santa Clara	Office Redevelopment - Mission College Blvd / Great America Pkwy	427 KSF Office
20	Santa Clara	Office Development - 5010 Old Ironsides Drive	3,000 KSF Office; 675 KSF Industrial
21	Santa Clara	Office Development - 5403 Stevens Creek Blvd	187 KSF Office
22	Santa Clara	Office Development - 2200 Lawson Ln	614 KSF Office

⁹ KSF = 1,000 square feet

¹⁰ This project is within the Plan Area, but because it was recently approved, the analysis assumes that it is part of the background conditions.

Table 17-9: List of Approved Developments for Background Conditions

#	City	Development	Description
23	Santa Clara	Office Development - 4800 Great America Pkwy	171 KSF Office
24	Santa Clara	Residential Development - 2645 ECR	183 Residential DU
25	Santa Clara	Mixed Use Development - 3515 Monroe St	825 Residential DU; 40 KSF Retail
26	Santa Clara	Residential Development - 45 Buckingham Dr	222 Residential DU
27	Santa Clara	Office Development - 4301 Great America Pkwy	718 KSF Office
28	Santa Clara	Office Redevelopment - 3001 Coronado Dr	180 KSF Office
29	Santa Clara	Mixed Use Development - 1313 Franklin St	46 Residential DU; 16 KSF Retail
30	Santa Clara	Office Redevelopment - 3333 Scott Blvd	581 KSF Office
31	Santa Clara	Office Development - 2000 El Camino Real	200 KSF Office
32	Santa Clara	Office Development - 3535 Garrett Street	310 KSF Office
33	Sunnyvale	Moffett Park - 1152 Bordeaux Drive	1,770 KSF Office
34	Sunnyvale	Yahoo! Campus Expansion - 589 W. Java Drive	315 KSF Office; 24 KSF Amenities
35	Sunnyvale	NetApp Campus Expansion - 495 E Java Drive	121 KSF Office
36	Sunnyvale	NetApp Campus Expansion - 549 Baltic Way	483 KSF Office
37	Sunnyvale	Juniper Networks - 1081 Innovation Way	2,430 KSF Office
38	Sunnyvale	Sheraton Sunnyvale Hotel Expansion - 1100 N Mathilda Ave	342 Hotel Rooms
39	Sunnyvale	Moffett Park - 215 Moffett Park Drive	86 KSF Office; 5 KSF Restaurant
40	Sunnyvale	Office Park Redevelopment - 1221 Crossman Ave	541 KSF Office
41	Sunnyvale	Mixed Use Development - 1095 W El Camino Real	156 Residential DU; 41 KSF Office
42	Sunnyvale	Residential Development - 455 Mathilda Ave	105 Residential DU
43	Sunnyvale	Office Park Redevelopment - 479 N Pastoria Ave	52 KSF Office
44	Sunnyvale	Mixed Use Development - 2502 Town Center Lane	292 Residential DU; 275 KSF Office; 1,000 KSF Retail
45	Sunnyvale	Residential Development - 388 E Evelyn Ave	67 Residential DU
46	Sunnyvale	Residential Development -457 E Evelyn Ave	117 Residential DU
47	Sunnyvale	Residential Development -617 E Arques Ave	85 Residential DU
48	Sunnyvale	Residential Development - 620 E. Maude	121 Residential DU
49	Sunnyvale	Residential Development - 822 E Evelyn Ave	31 Residential DU
50	Sunnyvale	Residential Development - 520 E Weddell Drive	465 Residential DU
51	Sunnyvale	Residential Development - 470 Persian Drive	47 Residential DU
52	Sunnyvale	Residential Development - 610 E Weddell Drive	205 Residential DU
53	Sunnyvale	Residential Redevelopment - 698 E Taylor Ave	13 Residential DU
54	Sunnyvale	Office Park Development - 280 Santa Ana Ct	777 KSF Office; 30 KSF Amenities
55	Sunnyvale	Hotel Development - 1101 Elko Dr	51 Hotel Rooms
56	Sunnyvale	Office Park Development - 433 N Mathilda Ave	210 KSF Office

17.7.2 Background Conditions Transportation Improvements

Background Conditions incorporate improvements to the Baseline Existing study intersections based on programmed roadway projects and approved developments in the proximity of the

Plan Area. Appendix TR-A, Figures 2A and 2B illustrate the adjusted study intersection geometries and traffic control during the Background Conditions. The Background Conditions roadway improvements were obtained from the Apple Campus 2 and Main Street Cupertino Traffic Impact Analysis studies and include the following:

- Wolfe Road / Apple Campus 2 Driveway (Intersection #29) – This is a new signalized intersection with the addition of the Apple 2 campus. It is located north of the Vallco Town Center Specific Plan along Wolfe Road. The southbound approach is two left turn lanes and three through lanes. The westbound approach comprises two left turn lanes and one right turn lane. The northbound approach comprises two through lanes and two right turn lanes.
- Wolfe Road / Pruneridge Avenue (Intersection #30) – This is an existing signalized intersection. It is located just north of the I-280 interchange along Wolfe Road. The northbound approach will be modified to add two (2) through lanes and convert the existing right turn lane into a shared through-right lane, resulting in two left turn lanes, four (4) through lanes, and one shared through-right turn lane. The westbound approach will be reduced to only one left-turn and one shared thru lane.
- Wolfe Road / I-280 Ramps North (Intersection #31) – This is an existing Caltrans freeway ramp intersection that is signal controlled. An additional northbound lane on Wolfe Road will be added to result in three through lanes. The I-280 northbound off-ramp approach will be modified with an additional turn lane to result in two left turn lanes and two right turn lanes.
- Wolfe Road / Vallco Shopping District Parkway (Intersection #33) – This existing signalized intersection is located north of the Stevens Creek Boulevard / Wolfe Road intersection and provides direct driveway access to the Mall. The striping on the westbound approach will be modified to have one left turn lane, one shared left-through lane, and two right turn lanes. In addition, an overlap phase will be added to the westbound right turn movement, and the eastbound and westbound approaches will operate on split phasing.
- Tantau Avenue / Homestead Road (Intersection #41) – This existing signalized intersection is located east of the Wolfe Road / Homestead Road intersection. The eastbound approach will be modified with an additional right turn lane to have one left turn lane and two through lanes.
- Tantau Avenue / Pruneridge Avenue (Intersection #42) – This is an existing signalized intersection and will be reconfigured. Pursuant to the approved Apple 2 project, the west leg of the intersection will be removed, resulting in no eastbound approach. The southbound approach will no longer have a right turn movement, resulting in a left turn lane and a through lane only. The westbound approach will be a left turn lane and a right turn lane. The northbound approach will be a through lane and a right turn lane.
- Tantau Avenue / Vallco Parkway (Intersection #43) – This existing signalized intersection is located east of the proposed Vallco Town Center Specific Plan and north of the

Stevens Creek Boulevard / Tantau Avenue intersection. An additional northbound through lane will be added to result in one left turn lane, one through lane, and one shared through-right lane. For the westbound approach, the lane geometry will be one shared left-through lane and one shared through-right turn lane. For the southbound approach, an exclusive right turn lane will be added to result in one left turn lane, two through lanes, and one right turn lane. For the eastbound approach, the through lane will be converted to a shared left-through lane.

- Stevens Creek Boulevard / Calvert Drive / I-280 Ramps (Intersection #45) – This is an existing Caltrans freeway ramp intersection that is signal controlled. The Calvert Drive approach will be modified with an additional shared lane to have one shared left-right lane. An additional eastbound Stevens Creek Boulevard lane will also be added to create three through lanes and one right turn lane.
- Stevens Creek Boulevard / Lawrence Expressway Ramps East (Intersection #52) – This existing signalized intersection facilitates traffic exiting the I-280 northbound freeway as well as traffic entering and exiting the Lawrence Expressway northbound ramps. The northbound approach will be modified with two additional storage lanes to have two left turn lanes, one shared left-through lane, one shared through-right lane, and one right turn lane.
- Lawrence Expressway / I-280 Ramps South (Intersection #53) – This is an existing Caltrans freeway ramp intersection that is signal controlled. The eastbound approach will be modified with an additional through lane to result in one shared left-through lane, one through lane, and one right turn lane.

17.7.3 Background Conditions Traffic Volumes

The traffic volumes for the Background Conditions were determined by using the Baseline Existing Conditions volumes from [Section 17.6.3](#) and adding traffic volumes from the approved developments list. The approved project generated trips were distributed throughout the roadway network based on existing traffic patterns in the Study Area and the locations of complementary land uses. The Background Conditions volumes are shown in [TR-B Figures 2A and 2B](#).

17.7.4 Background Conditions Intersection Level of Service

Background Conditions were evaluated at the study intersections. The following intersections would operate at unacceptable LOS under Background Conditions:

- De Anza Boulevard/Homestead Road (Intersection #8) (PM Peak)
- Tantau Avenue/Stevens Creek Boulevard (Intersection #44) (AM Peak)
- Stevens Creek Boulevard/Calvert Drive/I-280 Ramps (Intersection #45) (PM Peak)
- Lawrence Expressway/Homestead Road (Intersection #50) (AM Peak)
- Lawrence Expressway/Pruneridge Avenue (Intersection #51) (AM Peak)
- Lawrence Expressway/I-280 Ramps South (Intersection #53) (AM and PM Peak)

- Lawrence Expressway/Mitty Way (Intersection #54) (AM Peak)
- Lawrence Expressway/Bollinger Road (Intersection #55) (AM and PM Peak)
- Lawrence Expressway/Prospect Road (Intersection #57) (AM Peak)
- Lawrence Expressway/Saratoga Avenue (Intersection #58) (PM Peak)
- Vallco Parkway/Vallco Driveway 4 (Intersection #66) (PM Peak)

See [Appendix TR-C](#) for the complete set of LOS results for each study intersection.

17.8 Trip Generation, Distribution, and Assignment

17.8.1 The Mall

The traffic impact to the existing roadway network by a proposed development is estimated through determination of trip generation, trip distribution, and trip assignment. For implementation of the Specific Plan, trip generation was calculated based on rates contained in the Institute of Transportation Engineer's (ITE) publication, Trip Generation Manual, 9th Edition (except where noted below). This ITE publication is a standard reference used by jurisdictions throughout the country for estimating trip generation potential of proposed developments.

For purposes of determining the worst-case impacts of traffic on the surrounding roadway network, the trips generated by the proposed Specific Plan are estimated between the weekday hours of 6:00–9:00 AM and 4:00–7:00 PM. While the Specific Plan itself may generate high traffic volumes during some other time of the day such as around noon, the peak of “adjacent street traffic” represents the time period when the uses generally contribute to the greatest amount of congestion, with the weekday PM peak commonly being the greatest congestion period. For the purposes of this study, weekday AM and PM peak hour project trip generation estimates were developed in order to study the impacts of traffic on the surrounding roadway network. Daily project trip generation estimates were also provided for reference purposes. See [Figure 17-7: Baseline Existing Conditions Trip Distribution for the Mall](#) for the trip distribution of the Mall within the study area.

17.8.2 Historic Occupancy of the Mall

The Mall has approximately 1.2 million square feet of available retail space for shopping, entertainment, and restaurant use; however, in its current condition, the shopping mall is operating at reduced retail occupancy and many sections of the Mall are vacant. To account for these vacancies, the Mall trips were adjusted to represent 82 percent occupancy¹¹ and analyzed based on approximately 944,000 square feet of utilized retail land use. ITE's shopping center rates (Land Use Code 820) was applied to the Mall using fitted curve equations to obtain daily, AM and PM peak hour trips. Background Conditions traffic generated by the Mall, which will be displaced by implementation of Specific Plan, was subtracted from the traffic generated by the Specific Plan, to provide a net change in trips.

¹¹ The basis for assessing the Baseline Existing Conditions at 82% occupancy is described in Section 17.2 Environmental Setting.

17.8.3 Specific Plan

The Specific Plan would facilitate the development of individual projects that would result in impacts to transportation and circulation. This section provides a project-level impact assessment for the Town Center/Community Park development (approximately 51 acres) and Block 14 (approximately 5.2 acres), which represents approximately 96.4 percent of the total acreage within the Plan Area (58.3 acres).

The Specific Plan traffic impact analysis consists of deconstructing the Mall and redeveloping the site as the Town Center/Community Park, which would include up to 800 residential dwelling units, 640,000 square feet of commercial space for shopping and entertainment, 2,000,000 square feet of office space, a transit center, a high school innovation center, a 30-acre green roof community park, and amenity space. Amenity space is incidental to, and in support of, the principal structure or use. Examples of such space include a fitness and wellness center, clubhouse, common kitchen and dining room, movie room, business center, conference center, cafeteria or café to serve employees, atriums, employee break space, lounge space, storage spaces, utility rooms, covered bridges and walkways, and non-habitable spaces supporting mechanical facilities.

Although the General Plan provides that the Plan Area may be developed with 389 units “by right,” this traffic analysis provides a conservative analysis and studies 800 units, which is the number of units studied in the Environmental Impact Report (EIR) for the General Plan. As noted above, the Specific Plan also includes the potential development of Block 14 with 191 hotel rooms and supporting commercial uses, though, as of January 2016, there are no current development applications pending for the site.¹² The impacts from these potential uses are also studied.

The office land use component identified in the Specific Plan occupies the Town Center/Community Park at a maximum of two million square feet, serving incubator, startups, emerging and/or established Silicon Valley companies.

Instead of using traditional ITE sources, the trips generated by office uses were based on a Silicon Valley (SV) trip rate to reflect the trip behavior of high-tech office facilities in the area. The Silicon Valley rate was developed by Fehr & Peers from local surveys and empirical data for employers including Intuit, Apple, Facebook, and VM Ware. It should be noted that these sites have less public transit access than the Plan Area, considering existing local, express, and limited bus service as well as the planned rapid bus service on Stevens Creek Boulevard. Therefore, the Silicon Valley trip rates can be considered conservative with respect to public transit access. Compared to national ITE office rates, the Silicon Valley rates have higher daily vehicle trip generation but lower vehicle trip generation during the AM and PM peak hours. These rate differences are attributable to Silicon Valley offices offering transportation demand management (TDM) programs and flexible work hours, allowing a greater proportion of

¹² Services, facility management, and loading, including a Central Plant, may also be allowed on a minor portion of Block 14. The Central Plant has been studied as part of the Town Center/Community Park.

employees to travel to and from work during non-peak hour times. Because the proposed offices in the Plan Area are expected to operate with similar TDM strategies and would include provision of a transit center, the total office land use was calculated using the local Silicon Valley rates.

The Town Center/Community Park is proposed to include approximately 640,000 square feet of commercial area, including family-friendly entertainment, retail, sports and recreation uses. Although the specific types of retail businesses that would ultimately occupy the Plan Area are unknown, it is assumed that the retail uses would be mixed and integrated, similar to ITE's Shopping Center land use description. The ITE shopping center rate (Land Use Code 820) was applied to the total retail land use using fitted curve equations.

In addition to office and commercial use, implementation of the Specific Plan would also include a residential component with a proposed 389 apartments for multi-generational living, and the greater of 80, or 20 percent of the total units as senior apartments, a minimum of 100,000 square feet of incubator work space, a potentially 100-student high school program, and a 30-acre rooftop garden for public use. ITE rates for apartment (Land Use Code 220), senior adult housing (Land Use Code 252), hotel (Land Use Code 310), light industry (Land Use Code 110), high school (Land Use Code 530), and City Park (Land Use Code 411) were applied to generate trips for the respective land uses. As noted above, this analysis conservatively assumes the development of 800 residential units, the number of units studied in the EIR for the General Plan.

The mixed land use and integrated site design associated with the implementation of the Specific Plan would encourage alternative travel modes that reduce traffic impacts to the existing transportation network. Compared to automobile-dependent, single-use developments, a mixed-use development incorporates smart growth elements such as improved walkability between sites, improved regional accessibility, and multiple transit options to support a healthy sustainable community. To represent the internal capture and traffic benefits of a mixed-use development (MXD), a trip-generation reduction is applied to the Specific Plan trips through a MXD model. This reduction is supported by the VTA Traffic Impact Study Guidelines.

The trip reduction credits for the Specific Plan were calculated using MXD Trip Generation Model Version 4 created by Fehr & Peers and adopted by the United States Environmental Protection Agency. This spreadsheet tool estimates MXD vehicle trips for daily, AM and PM peak periods and predicts trip reduction by internal capture, transit use, and walking or biking. National default parameters from ITE and National Cooperative Highway Research Program (NCHRP) were used to predict the MXD trip generation. Project information associated with implementation of the Specific Plan—such as developed area, land use type, employment, demographics, transit routes, intersection sites, and home-to-work trip distribution—were entered into the MXD model. The model calculated the trip reduction between shared uses for daily and peak hour conditions.

Based on the MXD model, implementation of the Specific Plan would have an MXD reduction of 21 percent for daily trips, 16 percent for AM peak hour trips, and 21 percent for PM peak hour trips. The trip credits were applied to the Specific Plan land uses to subtract vehicle trips from the total Plan Area. These MXD results account for the Specific Plan's location in proximity to the surrounding residential and employment land uses, bike/pedestrian access, and transit accessibility including VTA buses and shuttles. The MXD calculation does not assume a built-in transit reduction for the Silicon Valley office land uses.

Additional trip reduction credits that can often be applied to conventional shopping center uses include pass-by and diverted trips. These are trips that are already part of the existing roadway network and are attracted to the commercial land use. However, for the Specific Plan, the level of pass-by trips and diverted trips in the Plan Area are already accounted for from freeway and existing land uses. Therefore, the new pass-by trips generated would be low and have a negligible impact to the roadway network. For these reasons, no pass-by or diverted trip reductions were applied. See [Figure 17-8: Specific Plan Trip Distribution](#) for the future trip distribution within the study area.

17.8.4 Weekday

The net new weekday trip generation for the Specific Plan is summarized in [Table 17-10: Weekday Trip Generation](#). Based on the Specific Plan description and trip reduction credits, the implementation of the Specific Plan is anticipated to generate approximately 16,162 net new daily trips, including 2,805 net new AM peak hour trips and 1,583 net new PM peak hour trips.

Trip distribution estimates the directions to and from which the project trips would travel. The Specific Plan trip distribution was developed based on distributions prepared in previous traffic impact analysis reports (i.e., Apple Campus 2 and Main Street Cupertino), existing traffic patterns, and the general orientation of population and employment sources to the site. Trips were assigned to specific streets, intersections, and freeway segments in the traffic network. The directional distribution of the Specific Plan generated traffic to and from the site was determined from a select zone analysis from the Traffix 8 model and shown in [Appendix TR-G](#). The peak hour trips generated by the proposed uses are assigned to the roadway system by the model at each study location.

Table 17-10: Weekday Trip Generation

Vallco Town Center Specific Plan ¹¹		Total Trips							Notes
ITE Code	Land Use Description	Daily Weekday Trips *	AM Peak Hour Trips	PM Peak Hour Trips	AM Peak Hour Trips In	AM Peak Hour Trips Out	PM Peak Hour Trips In	PM Peak Hour Trips Out	
SV-A	Town Center/Community Park - Office	24,700	2,580	2,400	2,270	310	408	1,992	1
820-A	Town Center/Community Park - Retail	22,698	484	2,078	300	184	997	1,081	2
220	Town Center/Community Park - Apartment	4,730	376	436	75	301	283	153	3
252	Town Center/Community Park - Senior Adult Housing (Attached)	138	8	9	3	5	5	4	3
SV-B	Town Center/Community Park - Pavilion 4 - Banquet Hall	0	0	0	0	0	0	0	4
530	Town Center/Community Park - High School Innovation Center	171	31	29	29	2	10	19	5
SV-C	Town Center/Community Park - Pavilion 6 - Civic Meeting Space	50	5	5	4	1	1	4	1
SV-D	Town Center/Community Park - Transit Center	0	0	0	0	0	0	0	6
SV-E	Town Center/Community Park - Pavilion 5 - Office Event Center	248	26	24	23	3	4	20	1
SV-F	Town Center/Community Park - Pavilion 7 - Office Cafe / Fitness	248	26	24	23	3	4	20	1
SV-G	Town Center/Community Park - Additional Office Amenities	1,668	174	162	153	21	28	134	1
SV-H	Town Center/Community Park - Loading Facilities & Security Areas	928	97	90	85	12	15	75	1
110	Town Center/Community Park - Industrial Testing & Workshop	1,206	117	93	103	14	11	82	-
SV-I	Town Center/Community Park - Central Plant	0	0	0	0	0	0	0	7
411-A	Town Center/Community Park - Rooftop Garden Park	200	45	35	25	20	20	15	8
	Town Center/Community Park Total Project Trips	56,985	3,969	5,385	3,093	876	1,786	3,599	
310	Vallco Town Center Specific Plan – Block 14	1,562	101	115	60	41	59	56	
	Total Gross Vallco Specific Plan Project Trips	58,547	4,070	5,500	3,153	917	1,845	3,655	
	MXD Trip Reduction - Internal and Non-Motorized Trips	-	-632	-1,125	-492	-139	-373	-752	9
	Net External Project Trips	46,378	3,438	4,374	2,661	778	1,472	2,903	
820-C	The Mall - 82.83% Occupancy	30,216	-633	-2,791	-392	-241	-1,340	-1,451	10
	Net New Project Trips	16,162	2,805	1,583	2,269	537	132	1,452	

Notes:

* Daily Weekday Trips are comprised of the AM and PM peak hour trips and all other non-peak hour AM and PM trips.

1. Silicon Valley (SV) Trip Rates applied to office land uses based on local surveys and empirical data from industry standards.
2. Includes entertainment uses, health club uses, and roof pavilions 4, 5, 6, 7, and portion of Pavilion 2.
3. Includes Pavilion 1 - Clubhouse and fitness pool. Included 80 BMR units for 800 total residential units.
4. Land Use only expected to generate trips on special events and excluded from weekday Trip Generation.
5. 10,000 Sq Ft Facility. High School Innovation Center trips based on 100 students.
6. 5,000 Sq Ft Facility on Stevens Creek Blvd. Trip Generation accounted in Office Land Use from SV Trip Rates.
7. Not a typical ITE Land Use. Facility does not generate additional trips.
8. Trip Generation conservatively estimated by assuming City Park (ITE Land Use 411) rates to 1/3 of 30 total acres. 4.5 AM and 3.5 PM rates used from ITE weekday peak hour of adjacent street traffic.
9. MXD reductions account for internalization, transit, and bike/ped access. Rates determined from EPA MXD model for the Proposed Town Center/Community Park Project.

Table 17-10: Weekday Trip Generation

Vallco Town Center Specific Plan ¹¹		Total Trips						Notes
ITE Code	Land Use Description	Daily Wee kday Trips *	AM Peak Hour Trips	PM Peak Hour Trips	AM Peak Hour Trips In	AM Peak Hour Trips Out	PM Peak Hour Trips In	

10. Daily, AM, and PM Trips for existing land use at the Mall are conservatively based on 1.2 million Sq Ft Shopping Center (ITE Land Use 820) reduced to reflect 82.83% mall occupancy.

11. Amenity space (per the Specific Plan Chapter 2) trips are included as part of this trip generation table. Amenity space is incidental to, and in support of, the principal structure or use. Examples of such space include a fitness and wellness center, clubhouse, common kitchen and dining room, movie room, business center, conference center, cafeteria or café to serve employees, atriums, employee break space, lounge space, storage spaces, utility rooms, covered bridges and walkways, and non-habitable spaces supporting mechanical facilities.

17.8.5 Saturday

Mixed use projects, and particularly projects including retail uses, can potentially generate impacts during the weekend peak hour that are greater than an identified weekday peak period analysis. Therefore, a Saturday midday (the retail peak hour) trip generation analysis was prepared. Saturday midday was selected as the time when the combined Background Conditions Plus Specific Plan traffic volumes would potentially be at their combined highest weekend level.

Trip generation for Saturday peak conditions was calculated based on ITE Trip Generation 9th Edition rates for Saturday conditions. The same methodology was used as the weekday trip generation for the Saturday trip generation. The trip generation for each component of the Specific Plan was calculated separately and totaled. An internal capture and non-motorized trip reduction from the MXD Trip Generation Model Version 4 were applied to these raw trips to achieve the final Specific Plan trips. The trip generation spreadsheets for each scenario are provided in [Appendix TR-E. Table 17-11: Specific Plan Trip Generation Comparison – Weekday vs Saturday](#) compares the trip generation for a typical weekday and Saturday for the Mall at 82 percent historic baseline occupancy.

Table 17-11: Specific Plan Trip Generation Comparison – Weekday vs Saturday

Scenario	Daily Weekday Trips	Weekday AM Peak Hour Trips	Weekday PM Peak Hour Trips	Saturday Peak Hour Trips
Specific Plan Assuming Existing Mall at 82% Occupancy				
Weekday Trip Generation				
Weekday Specific Plan Only	46,378	3,438	4,374	
Weekday the Mall at 82% (MXD)	30,216	633	2,791	
<i>Net Increase in Weekday Traffic</i>	<i>16,162</i>	<i>2,805</i>	<i>1,583</i>	
Saturday Trip Generation				
Saturday Specific Plan Only	36,077			3,960
Saturday the Mall at 82% (MXD)	39,264			3,890
<i>Net Increase/Decrease in Saturday Traffic</i>	<i>-3,187</i>			<i>70</i>
Net Difference (Saturday minus Weekday)¹	-19,349			

¹For the Difference (Saturday minus Weekday) calculation the Weekday daily trips were compared to the Saturday daily trips. The Saturday peak period would generate substantially less traffic compared to a Weekday.

As shown in **Table 17-11: Specific Plan Trip Generation Comparison – Weekday vs Saturday** the implementation of the Specific Plan would generate more traffic on a weekday than on a Saturday.

The Mall, occupied at 82 percent, would generate 3,187 more daily trips on a Saturday than would the Specific Plan. During the Saturday peak hour, the Specific Plan would generate 70 trips more than the Mall occupied at 82 percent.

Both the weekday AM and PM peak hour trip addition from the Specific Plan is higher than the Saturday peak hour. The reason for the higher trip generation is because the Specific Plan would replace existing retail with a substantial amount of mixed use, which include office and residential use. The office use has a substantial increase effect on the weekday trip generation, compared to almost no effect on a typical Saturday, resulting in a much higher trip generation on a typical weekday.

With implementation of the Specific Plan, LOS impacts at the study intersections during Saturday midday peak hour would not be greater than those analyzed for weekday peak hour conditions. Therefore, no further analysis of Saturday midday peak hour conditions is necessary.

17.9 Background Conditions Plus Specific Plan

17.9.1 Scenario Description

Background Conditions Plus Specific Plan are the Background Conditions with the addition of the Specific Plan trips. The Specific Plan trips would result from the demolition of the Mall and the development of the following land uses: 800 residential dwelling units,¹³ 640,000 square feet of commercial land uses, 2,000,000 square feet of office space, a community park, and other complementary uses. The Specific Plan also includes the potential development of Block 14 with 191 hotel rooms and supporting commercial uses, though, as of January 2016, there are no current development applications pending for the site.¹⁴ The Background Conditions Plus Specific Plan are compared to the Background Conditions to determine the impact of the Project.

17.9.2 Background Conditions Plus Specific Plan Transportation Improvements

The lane geometry assumed in this analysis scenario is shown in [Appendix TR-A, Figures 3A and 3B](#).

The transportation improvements assumed in the Background Plus Specific Plan Conditions are the same as the Background Conditions (as described in [Section 17.7.2](#)) with additional improvements for the Plan Area driveways, as shown in the latest Specific Plan dated March 2016, and other off-site improvements. Driveways analyzed with addition of the Specific Plan are shown in [Figure 17-9: Study Driveways – Specific Plan](#).

The improvements to the Plan Area driveways include:

- Wolfe Road / Vallco Driveway #1 (Intersection #63) – This would be a new signalized intersection along Wolfe Road, just north of the intersection of Wolfe Road / Vallco Parkway. The intersection would have the following lane geometry:
 - Southbound approach: 2 left turn lanes, 4 through lanes, and a right turn lane
 - Northbound approach: 4 through lanes and a right turn lane
 - Eastbound approach: 1 right turn lane and 1 through lane
 - Westbound approach: 2 right turn lanes
- Wolfe Road / Vallco Driveway #2 (Intersection #64) – This is an uncontrolled entrance ramp into the parking structure in the southbound direction and an uncontrolled exit ramp from the parking structure in the northbound direction.

¹³ Although the General Plan provides that the Plan Area may be developed with 389 units “by right,” The traffic analysis provides a conservative analysis and studies 800 units, which is the number of units studied in the EIR for the General Plan.

¹⁴ Services, facility management, and loading, including a Central Plant, may also be allowed on a minor portion of Block 14. The Central Plant has been studied as part of the Town Center/Community Park.

- Wolfe Road / Vallco Driveway #3 (Intersection #65) – This is an existing driveway along Wolfe Road, just north of the intersection of Wolfe Road / Stevens Creek Boulevard. An additional southbound through lane would be added, resulting in three through lanes and a shared through-right turn lane.
- Vallco Parkway / Vallco Driveway #4 (Intersection #66) – This is an existing driveway to a parking garage along Vallco Parkway between Wolfe Road and Perimeter Road. The Specific Plan shows two driveway accesses along Vallco Parkway between Wolfe Road and Perimeter Road. An additional westbound through lane would be added, resulting in two through lanes and a shared through-right turn lane. In addition, the driveways would be offset from the opening in the existing raised median and therefore no left turns in or left turns out would be permitted.
- Vallco Parkway / Perimeter Road (Intersection #67) – This is an existing intersection to the east of the intersection of Vallco Parkway / Wolfe Road. A southbound right turn lane would be added, resulting in one southbound left turn lane and one southbound right turn lane.
- Wolfe Road / Vallco Parkway (Intersection #33) – This is an existing intersection to the north of the intersection of Stevens Creek Boulevard / Wolfe Road. The eastbound approach would be changed to have one eastbound left turn lane, one through lane, and a shared through-right turn lane. The westbound approach would be changed to be one westbound left turn lane, one shared left-through lane, and two right turn lanes.

The off-site improvements associated with the implementation of the Specific Plan include:

- The Town Center/Community Park applicant would—in collaboration with the City of Cupertino, VTA, and Caltrans—lead a separate effort for the widening and rebuilding the I-280 and Wolfe Road interchange. The process to analyze the options for improvements at the interchange has commenced. The improvements would widen the overpass, reconfigure the on-ramps and off-ramps, and upgrade the pedestrian and bicycle connections. This environmental analysis omits the analysis of the I-280 / Wolfe Road interchange improvements to eliminate duplicate effort.
- Wolfe Road, along with the project frontage, would be improved. The new proposed intersection at 2nd Street (Intersection #63) would provide improved access for vehicles, pedestrians, and bicycles between the west side and the east side of the Plan area. This would replace the existing access ramps between Wolfe Road and Perimeter Road. Wolfe Road would be improved to four (4) lanes in each direction between Vallco Parkway and Perimeter Road. Signal timing improvements along Wolfe Road would be made as well.

The Town Center/Community Park applicant has committed to leading a partnership with the City of Cupertino, VTA, and corporate employers to fund a complimentary community shuttle for Cupertino residents and employees to connect numerous destinations within the community such as the Project site, library, Civic Center, Memorial Park, De Anza College, one or more high schools, the Apple campuses, and more. The following characteristics are proposed:

- Headways of 30 minutes or less if operated in fixed-schedule service; could initially be offered as a more flexible on-demand service
- Route structure has not been finalized, but could be fixed-route, or flexible (allowing deviations from the primary route within a specified distance), or zone-based service (near-door-to-door service within specified service zones)
- Vehicles would likely be vans or small shuttle buses unless ridership warrants larger vehicles like buses
- Quiet, low-emissions vehicles

17.9.3 Background Conditions Plus Specific Plan Traffic Volumes

The traffic volumes for the Background Plus Specific Plan Conditions were determined using the Background Conditions volumes from [Section 17.7.3](#) and adding the traffic volumes from the Specific Plan. These volumes are shown in [Appendix TR-B, Figures 4A and 4B](#).

17.9.4 Background Conditions Plus Specific Plan Intersection Level of Service

Background Conditions Plus Specific Plan were evaluated at the study intersections. [Appendix TR-C](#) presents the LOS results for each study intersection. Locations operating at acceptable LOS that would operate at unacceptable LOS with Specific Plan traffic are considered a significant impact. In addition, locations already operating unacceptably without the implementation of the Specific Plan that have an increase in average control delay for the critical movements by four [4] or more seconds and an increase in critical v/c ratio by 0.01 or more are considered a significant impact.

Without implementation of the Specific Plan Environmental Design Features (EDFs) identified in [Section 17.6](#), the following intersections would operate at unacceptable levels of service in the Background Conditions Plus Specific Plan scenario and would have a significant impact:

- De Anza Boulevard/Stevens Creek Boulevard (Intersection #11) (PM Peak)
 - Intersection operating at acceptable LOS without project. Project added delay degrades LOS to unacceptable level – **Significant Impact** This impact is considered less-than-significant with implementation of Specific Plan [EDF 43](#) and [EDF 52](#).
- De Anza Boulevard/McClellan Road (Intersection #12) (PM Peak)
 - Intersection operating at acceptable LOS without project. Project added delay degrades LOS to unacceptable level – **Significant Impact** This impact is considered less-than-significant with implementation of Specific Plan [EDF 43](#) and [EDF 52](#).
- De Anza Boulevard/Bollinger Road (Intersection #13) (AM Peak)
 - Intersection operating at acceptable LOS without project. Project added delay degrades LOS to unacceptable level – **Significant Impact** This impact is considered less-than-significant with implementation of Specific Plan [EDF 43](#) and [EDF 52](#).

- Wolfe Road/Stevens Creek Boulevard (Intersection #34) (AM Peak)
 - Intersection operating at acceptable LOS without project. Project added delay degrades LOS to unacceptable level – **Significant Impact** This impact is considered less-than-significant with implementation of Specific Plan EDF 43 and EDF 52.

The following intersections would operate at unacceptable LOS under Background Conditions Plus Specific Plan scenario, but they would have no significant impact:

- De Anza Boulevard/Homestead Road (Intersection #8) (PM Peak)
 - PM Peak: Intersection operating unacceptably without project with increase in critical v/c ratio less than 0.01 – **No Significant Impact**
- Tantau Avenue/Stevens Creek Boulevard (Intersection #44) (AM Peak)
 - AM Peak: Intersection operating unacceptably without project with increase in critical v/c ratio less than 0.01 – **No Significant Impact**
- Stevens Creek Boulevard/Calvert Drive/I-280 Ramps (Intersection #45) (PM Peak)
 - Intersection operating unacceptably without project with increase in critical v/c ratio less than 0.01 – **No Significant Impact**
- Lawrence Expressway/Homestead Road (Intersection #50) (AM Peak)
 - AM and PM Peak: Intersection operating unacceptably without project with increase in critical v/c ratio less than 0.01 – **No Significant Impact**
- Lawrence Expressway/Pruneridge Avenue (Intersection #51) (AM Peak)
 - AM and PM Peak: Intersection operating unacceptably without project with increase in critical v/c ratio less than 0.01 – **No Significant Impact**
- Lawrence Expressway/I-280 Ramps South (Intersection #53) (AM and PM Peak)
 - AM Peak: Intersection operating unacceptably without project with increase in critical v/c ratio less than 0.01 – **No Significant Impact**
 - PM Peak: Intersection operating unacceptably without project with increase in critical delay less than four (4) seconds – **No Significant Impact**
- Lawrence Expressway/Mitty Way (Intersection #54) (AM Peak)
 - Intersection operating unacceptably without project with increase in critical v/c ratio less than 0.01 – **No Significant Impact**
- Lawrence Expressway/Bollinger Road (Intersection #55) (AM and PM Peak)
 - AM Peak: Intersection operating unacceptably without project with increase in critical v/c ratio less than 0.01 – **No Significant Impact**
 - PM Peak: Intersection operating unacceptably without project with increase in critical delay less than four (4) seconds – **No Significant Impact**
- Lawrence Expressway/Prospect Road (Intersection #57) (AM Peak)
 - Intersection operating unacceptably without project with increase in critical v/c ratio less than 0.01 – **No Significant Impact**
- Lawrence Expressway/Saratoga Avenue (Intersection #58) (PM Peak)
 - Intersection operating unacceptably without project with increase in critical v/c ratio less than 0.01 – **No Significant Impact**

Given the current and historical occupancy of the Mall, this transportation analysis also presents traffic operations assuming an enhanced occupancy of the mall (greater than 82 percent occupancy, consistent with typical empirical mall vacancy rates). Exclusively retail developments (those lacking complementary office or residential use) generate more peak-hour and daily trips than do comparably sized mixed-use developments that incorporate office and residential uses. As such, it can be reasonably assumed that enhanced occupancy of the Mall would also result in significant impacts to study intersections. There would be no required approvals involved in increasing the occupancy of the Mall. Therefore, no EDFs would be implemented under an enhanced occupancy scenario, and impacts to study intersections would be significant and unavoidable.

17.9.5 Background Conditions Plus Specific Plan Intersection Queues

Background and Background Plus Specific Plan traffic queue conditions were evaluated at the study intersections. The following table presents the average results for each study intersection where the addition of Specific Plan traffic would result in a left turn queue increase in the Background Conditions of one (1) car length or more in a location where there is insufficient storage. The Town Center/Community Park applicant would collaborate with the Public Works Director of the governing agency to implement geometrical improvements at the intersections and implement signal phasing improvements to shorten queue lengths and alleviate queue overflow. Where no geometrical improvements are deemed necessary, the Town Center/Community Park applicant would contribute \$2,000,000 to \$3,000,000 toward software acquisition and implementation that would improve traffic signal operations and signal coordination at the intersections listed in [Table 17-12](#).

Table 17-12: Background and Background Plus Specific Plan Average Queue Results

#	Intersection	Movement	Peak Period	Storage Length (Feet)	Bg No SP Queue (Feet)	Bg Plus SP Queue (Feet)
11	De Anza Boulevard/Stevens Creek Boulevard	WBL	PM	270	394	782
11	De Anza Boulevard/Stevens Creek Boulevard	SBL	PM	500	441	607
34	Wolfe Road/Stevens Creek Boulevard	EBL	AM	325	317	469
34	Wolfe Road/Stevens Creek Boulevard	NBL	AM	175	299	411
42	Tantau Avenue/Pruneridge Avenue	WBL	AM	160	204	224
58	Lawrence Expressway/Saratoga Avenue	EBL	AM	260	756	1,121

17.10 Cumulative Conditions (Baseline Plus Approved Plus Pending)

17.10.1 Scenario Description

Cumulative Conditions are Background Conditions with the addition of vehicle trips generated by pending developments, plus ambient growth. The Background Conditions were developed by adding approved development volumes to existing volumes associated with the Mall at 82 percent historic baseline occupancy.¹⁵

The pending projects were provided by the Planning Departments from the City of Cupertino, Santa Clara, and Sunnyvale and are summarized in [Table 17-13: List of Pending Developments for Cumulative Conditions](#).

Table 17-13: List of Pending Developments for Cumulative Conditions

#	City	Development	Description
1	Cupertino	The Hamptons Apartment Project - 19500 Pruneridge Avenue	Demo 342 apts. Build 942 new apts
2	Cupertino	The Marina Food Store Site - 10122 Bandlely Drive	Demo 44,000 s.f. of comm. build 20,000 s.f. of comm., 122 room hotel, 205 dwelling units
3	Cupertino	The Oaks Shopping Center Site - 21267 Stevens Creek Boulevard	Demo 53,701 s.f. of commercial & 17,553 s.f. of office. Build 280,000 s.f. of office, 200 room hotel, 270 residential units, 47,660 s.f. retail
4	Cupertino	Goodyear Tire Site - 10931 DeAnza Boulevard	Demo 8,323 s.f. of comm. Build 270 room hotel
5	Santa Clara	3069 Lawrence Expressway	Proposal for 333 unit multi-family development
6	Santa Clara	2041 Mission College Boulevard	24,000 sf of retail 175-room hotel Existing office buildings
7	Santa Clara	575 Benton Street	25,942 sf of commercial space 417 apartments
8	Santa Clara	3607 Kifer Road	199,460 sf of office
9	Santa Clara	3505 Kifer Road	996 residential units 37,000 sf of retail
10	Santa Clara	2855 Stevens Creek Boulevard	25,210 new retail
11	Santa Clara	3265 Scott Boulevard	Santa Clara Square Mixed Use Project - 2,000 rental housing units 40,000 sf of retail
12	Santa Clara	2230 El Camino Real	164 apartment units
13	Santa Clara	5155 Stars and Stripe (City Place)	5.7M sf of office 1.1M sf of retail 1,360 mixed density residential units 700 hotel rooms 250,000 sf of restaurant uses 190,000 sf of entertainment space
14	Santa Clara	2570 El Camino Real	315 dwelling units 7ksf Restaurant

¹⁵ The basis for assessing the Baseline Existing Conditions at 82% occupancy is described in Section 17.2 Environmental Setting.

Table 17-13: List of Pending Developments for Cumulative Conditions

#	City	Development	Description
15	Santa Clara	2950 Lakeside Drive	188 hotel rooms
16	Santa Clara	5301 Stevens Creek Boulevard	727,500 sf of office/R&D 30,633 sf of industrial use
17	Santa Clara	3000 Bowers	229,958 new office
18	Santa Clara	4301, 4401 & 4551 Great America Parkway	718,000 Office
19	Santa Clara	3535 Garrett Street	310, 540 Office
20	Sunnyvale	1080 Stewart Drive	Redevelopment of a hotel site (Residence Inn) resulting in a total 357 guest rooms. The new 7-story building will contain 133 rooms (24 of the 248 existing guest rooms are to be demolished, resulting in a net increase of 109 rooms).
21	Sunnyvale	1500 Partridge Ave	Use Permit to allow the reuse of buildings for a primary school at a former Raynor activity Center.
22	Sunnyvale	871 E Fremont Ave	Rezone to R-4/ECR, Special Development Permit and Vesting Tentative Map allow the redevelopment of Butcher's Corner site with 153 residential units (39 townhomes and 114 flats) plus 6,936 square feet of retail/office use with surface and underground parking. Project includes preparation of an Environmental Impact Report (EIR) and annexation.
23	Sunnyvale	221 N. Mathilda Ave.	3-story 126,535 s.f. office/R&D building with 69% FAR and a 4-story parking structure at the Mellow's Nursery site.
24	Sunnyvale	250 E. Java Dr.	Major Moffett Park Special Development Permit for a new 5-story hotel with 180 guest rooms and 6,000 SF of ground floor retail.
25	Sunnyvale	615 N Mathilda Ave	Redevelop 8 parcels by combining the site into one site and construct two new 4-story R&D buildings for a total of 264,000 s.f. (80% FAR), and serviced by a new 5-level parking garage.
26	Sunnyvale	1184 Mathilda Ave	Allow a new 248,259 sq. ft., 5-story office/ R & D building over a 3-level parking structure attached to the building (including one-level of underground basement parking. Project includes reconfiguration of existing surface parking lot.
27	Sunnyvale	1240 Crossman	Expansion of the NetApp campus (site 2) utilizing the green building bonus to enable 75.8% FAR for a total of 525,057 s.f. two 4-story buildings (12 and 14) and a 4-level parking garage would be built. Two buildings (10 & 11) to remain.
28	Sunnyvale	1250 Lakeside Dr.	allow two new buildings: 1) a 6-story, 263 room hotel with an attached 3,393 sq. ft. restaurant and an attached 3-level above grade parking structure, and 2) 7-story, 250 unit apartment building over a 2-level podium parking garage. Includes an amendment to the Lakeside Specific Plan.
29	Sunnyvale	725 S. Fair Oaks	187 room, 5-story hotel
30	Sunnyvale	590 W. El Camino Real	Allow an 85-room hotel with underground parking.
31	Sunnyvale	520 Alamanor Ave.	Construct a 207,200-square foot, four-story office building with a freestanding parking structure and 4,000 square feet of retail for a total of 110% FAR. The proposal includes demolition of the existing industrial/office building and use

Table 17-13: List of Pending Developments for Cumulative Conditions

#	City	Development	Description
			of the Green Building incentive to earn an additional 10% FAR by achieving LEED Gold with USGBC certification.
32	Sunnyvale	1010 Sunnyvale Saratoga Rd.	Special Development Permit for a new 14,578 sq. ft. pharmacy with a drive thru (Rite Aide).
33	Sunnyvale	562 N. Britton Ave.	Allow four modular classrooms totaling 3,840 s.f. within an existing private school site (The Kings Academy).

Source: City of Cupertino, Santa Clara, and Sunnyvale Planning Department, 2015

17.10.2 Cumulative Conditions Transportation Improvements

The transportation improvements assumed in the Cumulative Conditions are the same as the Background Conditions Plus Specific Plan (as described in Section 17.9.2), with the exception of one off-site improvement. The additional off-site improvement includes:

- De Anza Boulevard / Homestead Road (Intersection #8) – The addition of an exclusive southbound right turn lane on De Anza Boulevard to westbound Homestead Road. The intersection will have the following lane geometry:
 - Southbound approach: 2 left turn lanes, 3 through lanes, and a right turn lane
 - Northbound approach: 2 left turn lanes, 3 through lanes and a right turn lane
 - Eastbound approach: 2 left turn lanes, 2 through lanes and a right turn lane
 - Westbound approach: 2 left turn lanes, 1 through lane and one through + right turn lane

17.10.3 Cumulative Conditions Traffic Volumes

The traffic volumes for the Cumulative Conditions were determined using the Background Conditions volumes from Section 17.7.3 and adding the vehicle trips generated by pending developments. Pending project volumes were determined using a list of pending projects provided by the Planning Departments of the City of Cupertino, Santa Clara, and Sunnyvale. The trip generation for each project was calculated then distributed to the study-area roadway network. These turning movement volumes are found in Appendix TR-B, Figures 5A and 5B.

17.10.4 Cumulative Conditions Intersection Level of Service

Cumulative traffic conditions were evaluated at the study intersections. The following intersections operate at unacceptable levels of service under the Cumulative scenario:

- Stevens Creek Boulevard/SR-85 Ramps West (Intersection #1) (PM Peak)
- Sunnyvale Saratoga Road/Remington Drive (Intersection #4) (AM and PM Peak)
- Sunnyvale Saratoga Road/Fremont Avenue (Intersection #5) (AM and PM Peak)
- De Anza Boulevard/Homestead Road (Intersection #8) (AM and PM Peak)
- De Anza Boulevard/Stevens Creek Boulevard (Intersection #11) (PM Peak)
- De Anza Boulevard/Bollinger Road (Intersection #13) (AM Peak)

- Homestead Road/Blaney Avenue (Intersection #18) (PM Peak)
- Wolfe Road/El Camino Real (Intersection #24) (PM Peak)
- Wolfe Road/Fremont Avenue (Intersection #25) (AM and PM Peak)
- Wolfe Road/Homestead Road (Intersection #28) (PM Peak)
- Wolfe Road/Stevens Creek Boulevard (Intersection #34) (AM and PM Peak)
- Miller Avenue/Bollinger Road (Intersection #37) (PM Peak)
- Tantau Avenue/Homestead Road (Intersection #41) (PM Peak)
- Tantau Avenue/Stevens Creek Boulevard (Intersection #44) (AM and PM Peak)
- Stevens Creek Boulevard/Calvert Drive/I-280 Ramps (Intersection #45) (PM Peak)
- Lawrence Expressway/Homestead Road (Intersection #50) (AM and PM Peak)
- Lawrence Expressway/Pruneridge Avenue (Intersection #51) (AM Peak)
- Lawrence Expressway/I-280 Ramps South (Intersection #53) (AM and PM Peak)
- Lawrence Expressway/Mitty Way (Intersection #54) (AM Peak)
- Lawrence Expressway/Bollinger Road (Intersection #55) (AM and PM Peak)
- Lawrence Expressway/Prospect Road (Intersection #57) (AM and PM Peak)
- Lawrence Expressway/Saratoga Avenue (Intersection #58) (PM Peak)
- Vallco Parkway/Vallco Driveway 4 (Intersection #66) (PM Peak)

See [Appendix TR-C](#) for the complete set of LOS results for each study intersection.

17.11 Cumulative Conditions Plus Specific Plan

17.11.1 Scenario Description

Cumulative Conditions Plus Specific Plan are Cumulative Conditions with the removal of trips generated by existing uses (e.g. the Mall), and the addition of Specific Plan volumes. Cumulative Conditions Plus Specific Plan are compared to the Cumulative Conditions to determine the impact associated with the implementation of the Specific Plan.

17.11.2 Cumulative Conditions Plus Specific Plan Transportation Improvements

The transportation improvements assumed in the Cumulative Plus Specific Plan Conditions are the same as the Cumulative Conditions (as described in [Section 17.10.2](#)).

As stated above, the Town Center/Community Park applicant has committed to leading a partnership with the City of Cupertino, VTA, and corporate employers to fund a complimentary community shuttle for Cupertino residents and employees to connect numerous destinations within the community such as the Project site, library, Civic Center, Memorial Park, De Anza College, one or more high schools, the Apple campuses, and more.

17.11.3 Cumulative Conditions Plus Specific Plan Traffic Volumes

The traffic volumes for the Cumulative Conditions Plus Specific Plan scenario were determined by using the Cumulative Conditions volumes from [Section 17.10.3](#), removing the trips

generated by the existing uses at the Mall, and adding the volumes from the Specific Plan traffic. These turning movement volumes are shown in [Appendix TR-B, Figures 6A and 6B](#).

17.11.4 Cumulative Conditions Plus Specific Plan Intersection Level of Service

Cumulative Conditions Plus Specific Plan traffic conditions were evaluated at the study intersections. [Appendix TR-C](#) presents the LOS results for each study intersection. Locations operating acceptably that deteriorate to unacceptable LOS with implementation of the Specific Plan are considered to have a significant impact. In addition, locations already operating unacceptably without implementation of the Specific Plan (that have an increase in average control delay for the critical movements by four [4] or more seconds and an increase in critical v/c ratio by 0.01 or more) are considered a significant impact.

Without implementation of the Specific Plan Environmental Design Features (EDFs) identified in [Section 17.6](#), the following intersections would operate at unacceptable levels of service under the Cumulative Plus Specific Plan Conditions scenario and would have a significant impact:

- De Anza Boulevard/Homestead Road (Intersection #8) (AM Peak)
 - Intersection operating at acceptable LOS without project. Project added delay degrades LOS to unacceptable level – **Significant Impact** This impact is considered less-than-significant with implementation of Specific Plan [EDF 43](#) and [EDF 52](#).
- De Anza Boulevard/Stevens Creek Boulevard (Intersection #11) (PM Peak)
 - Intersection operating unacceptably without project with increase in critical movement delay by more than four (4) seconds and increase in critical v/c ratio by more than 0.01 – **Significant Impact** This impact is considered less-than-significant with implementation of Specific Plan [EDF 43](#) and [EDF 52](#).
- De Anza Boulevard/McClellan Road (Intersection #12) (PM Peak)
 - Intersection operating unacceptably without project with increase in critical movement delay by more than four (4) seconds and increase in critical v/c ratio by more than 0.01 – **Significant Impact** This impact is considered less-than-significant with implementation of Specific Plan [EDF 43](#) and [EDF 52](#).
- De Anza Boulevard/Bollinger Road (Intersection #13) (AM Peak)
 - Intersection operating unacceptably without project with increase in critical movement delay by more than four (4) seconds and increase in critical v/c ratio by more than 0.01 – **Significant Impact** This impact is considered less-than-significant with implementation of Specific Plan [EDF 43](#) and [EDF 52](#).
- Wolfe Road/Stevens Creek Boulevard (Intersection #34) (AM Peak)
 - Intersection operating unacceptably without project with increase in critical movement delay by more than four (4) seconds and increase in critical v/c ratio by more than 0.01 – **Significant Impact** This impact is considered less-than-significant with implementation of Specific Plan [EDF 43](#) and [EDF 52](#).

The following intersections would operate at unacceptable levels of service under the Cumulative Plus Specific Plan Conditions scenario and have no significant impact:

- Stevens Creek Boulevard/SR-85 Ramps West (Intersection #1) (PM Peak)
 - Intersection operating unacceptably without project with increase in critical v/c ratio less than 0.01 – **No Significant Impact**
- Sunnyvale Saratoga Road/Remington Drive (Intersection #4) (AM and PM Peak)
 - AM and PM Peak: Intersection operating unacceptably without project with increase in critical v/c ratio less than 0.01 – **No Significant Impact**
- Sunnyvale Saratoga Road/Fremont Avenue (Intersection #5) (AM and PM Peak)
 - AM and PM Peak: Intersection operating unacceptably without project with increase in critical v/c ratio less than 0.01 – **No Significant Impact**
- De Anza Boulevard/Homestead Road (Intersection #8) (PM Peak)
 - PM Peak: Intersection operating unacceptably without project with increase in critical v/c ratio less than 0.01 – **No Significant Impact**
- Homestead Road/Blaney Avenue (Intersection #18) (PM Peak)
 - PM Peak: Intersection operating unacceptably without project with increase in critical v/c ratio less than 0.01 – **No Significant Impact**
- Wolfe Road/El Camino Real (Intersection #24) (PM Peak)
 - Intersection operating unacceptably without project with increase in critical v/c ratio less than 0.01 – **No Significant Impact**
- Wolfe Road/Fremont Avenue (Intersection #25) (AM and PM Peak)
 - AM Peak: Intersection operating unacceptably without project with increase in critical delay of less than four (4) seconds – **No Significant Impact**
 - PM Peak: Intersection operating unacceptably without project with increase in critical v/c ratio less than 0.01 – **No Significant Impact**
- Tantau Avenue/Homestead Road (Intersection #41) (PM Peak)
 - PM Peak: Intersection operating unacceptably without project with increase in critical v/c ratio less than 0.01 – **No Significant Impact**
- Tantau Avenue/Stevens Creek Boulevard (Intersection #44) (PM Peak)
 - PM Peak: Intersection operating unacceptably without project with increase in critical v/c ratio less than 0.01 – **No Significant Impact**
- Stevens Creek Boulevard/Calvert Drive/I-280 Ramps (Intersection #45) (PM Peak)
 - Intersection operating unacceptably without project with increase in critical v/c ratio less than 0.01 – **No Significant Impact**
- Lawrence Expressway/Homestead Road (Intersection #50) (AM and PM Peak)
 - AM and PM Peak: Intersection operating unacceptably without project with increase in critical v/c ratio less than 0.01 – **No Significant Impact**
- Lawrence Expressway/Pruneridge Avenue (Intersection #51) (AM Peak)
 - AM and PM Peak: Intersection operating unacceptably without project with increase in critical v/c ratio less than 0.01 – **No Significant Impact**
- Lawrence Expressway/I-280 Ramps South (Intersection #53) (AM and PM Peak)
 - AM and PM Peak: Intersection operating unacceptably without project with increase in critical delay less than four (4) seconds – **No Significant Impact**
- Lawrence Expressway/Mitty Way (Intersection #54) (AM Peak)
 - Intersection operating unacceptably without project with increase in critical v/c ratio less than 0.01 – **No Significant Impact**

- Lawrence Expressway/Bollinger Road (Intersection #55) (AM and PM Peak)
 - AM Peak: Intersection operating unacceptably without project with increase in critical v/c ratio less than 0.01 – **No Significant Impact**
 - PM Peak: Intersection operating unacceptably without project with increase in critical delay less than four (4) seconds – **No Significant Impact**
- Lawrence Expressway/Prospect Road (Intersection #57) (AM and PM Peak)
 - AM and PM Peaks: Intersection operating unacceptably without project with increase in critical v/c ratio less than 0.01 – **No Significant Impact**
- Lawrence Expressway/Saratoga Avenue (Intersection #58) (PM Peak)
 - Intersection operating unacceptably without project with increase in critical v/c ratio less than 0.01 – **No Significant Impact**

17.11.5 Cumulative Conditions Plus Specific Plan Intersection Queues

Cumulative Conditions and Cumulative Conditions Plus Specific Plan traffic queues were evaluated at the study intersections. The following table presents the average results for each study intersection where the addition of Specific Plan traffic results in a left turn queue increase in the Cumulative Conditions of one (1) car length or more and there is insufficient storage. The Town Center/Community Park applicant would collaborate with the Public Works Director of the governing agency to implement geometrical improvements at the intersections and implement signal phasing improvements to shorten queue lengths and alleviate queue overflow. Where no geometrical improvements are deemed necessary, the applicant would contribute \$2,000,000 to \$3,000,000 toward software acquisition and implementation that would improve traffic signal operations and signal coordination at the intersections listed in Table 17-14.

Table 17-14: Cumulative and Cumulative Plus Specific Plan Average Queue Results

#	Intersection	Movement	Peak Period	Storage Length (Feet)	Cumul No SP Queue (Feet)	Cumul Plus SP Queue (Feet)
11	De Anza Boulevard/Stevens Creek Boulevard	WBL	PM	270	431	848
11	De Anza Boulevard/Stevens Creek Boulevard	SBL	PM	500	488	656
12	De Anza Boulevard/McClellan Road	NBL	PM	415	485	521
34	Wolfe Road/Stevens Creek Boulevard	EBL	AM	325	351	516
34	Wolfe Road/Stevens Creek Boulevard	NBL	AM	175	314	428
42	Tantau Avenue/Pruneridge Avenue	WBL	AM	160	207	227
58	Lawrence Expressway/Saratoga Avenue	EBL	AM	260	857	1227

17.12 Freeway Analysis

17.12.1 Baseline Existing Conditions

The criteria for selection of freeway segments for analysis are included in VTA's *Transportation Impact Analysis Guidelines* (VTA, 2014). A freeway segment should be included if the project meets any one of the following conditions:

- The project is expected to add traffic equal to or greater than one (1) percent of the freeway segment's capacity.
- The project is adjacent to one of the freeway segment's access or egress points.
- Based on engineering judgment, Lead Agency staff determines that the freeway segment should be included in the analysis.

Based on the guidance and engineering judgment, 136 freeway segments were identified and selected for analysis.

Under Baseline Existing Conditions, the v/c ratios for the freeway segments were analyzed. Per VTA TIA Guidelines, 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 or larger freeway segments. HOV lane capacity is defined as 1,650 vphpl.

Appendix TR-C shows the Baseline Existing Conditions freeway segment levels of service (for specified peak hour) for the mixed-flow and HOV lanes based on the segment densities reported in VTA's *2014 Annual Monitoring and Conformance Report*.

The following summarizes the groups of freeway segments that operate at LOS E or worse:

SR-17 Northbound

- Summit Road to Saratoga Avenue
- SR-85 to I-280

SR-17 Southbound

- SR-85 to Saratoga Avenue

SR-85 Northbound

- Cottle Road to Saratoga Avenue
- Saratoga-Sunnyvale Road to El Camino Real

SR-85 Southbound

- US-101 to W Fremont Avenue
- I-280 to Saratoga Avenue
- SR-17 to Union Avenue

SR-237 Eastbound

- US-101 to Zanker Road
- McCarthy Boulevard to I-880

SR-237 Westbound

- I-880 to McCarthy Boulevard to Zanker Road
- N Fair Oaks Avenue to Mathilda Avenue
- Maude Ave to El Camino Real

I-280 Northbound

- US-101 to Foothill Expressway

I-280 Southbound

- Page Mill Road to Magdalena Avenue
- SR-85 to 10th St

I-880 Northbound

- I-280 to N. First Street
- SR-237 to Dixon Landing Road

I-880 Southbound

- Dixon Landing Road to SR-237
- Montague Expressway to Stevens Creek Boulevard

17.12.2 Baseline Existing Conditions Plus Specific Plan

The study freeway segments were analyzed during the AM and PM peak hours to assess the Specific Plan traffic projected to be added to these segments and the impacts of this additional traffic on freeway operations. Project traffic was either added or subtracted based on the ratio of on and off ramp versus mainline volumes. The split between mixed flow lanes and HOV lanes for project traffic was based on the freeway mainline split between the HOV lane and mixed flow. The Baseline Existing Conditions Plus Specific Plan freeway volumes were estimated by subtracting existing Mall trips (assuming 82 percent occupancy) and adding the trips generated by implementation of the Specific Plan.

No Specific Plan trips were assigned on the HOV lanes along the following freeway segments: SR 85, between W. Homestead Rd and Stevens Creek Blvd; I-280, between De Anza Blvd and Lawrence Expressway. These segments were excluded from HOV lane trip projections based on the assumption that vehicles would leave the HOV lanes and enter the mixed-flow lanes to either merge onto the adjacent freeway or exit the freeway in the direction of the Plan Area. All other freeway segments with HOV lanes were assumed to have a portion of Specific Plan-generated trips in the HOV lanes.

Appendix TR-F shows the estimated number of trips added to the freeway segments under Baseline Existing Conditions Plus Specific Plan Conditions, the estimated vehicle densities, and the resulting LOS. The percentage impact resulting from the addition of the Specific Plan, or added traffic volume as a percent of the segment's capacity, is also shown in Appendix TR-F.

Per VTA TIA Guidelines, an impact is considered significant if it causes the freeway segment operations to deteriorate from an acceptable level (LOS E or better) under Baseline Existing Conditions to an unacceptable level (LOS F) under Baseline Existing Conditions Plus Specific Plan, or if the number of new trips is more than one (1) percent of the freeway capacity on segments operating at LOS F under Baseline Existing Conditions.

The same mainline and HOV freeway segments identified to operate at unacceptable LOS F under Baseline Existing Conditions are projected to continue to operate deficiently under Baseline Existing Conditions Plus Specific Plan.

The following summarizes the groups of freeway segments that are anticipated to deteriorate in LOS from an acceptable LOS to an unacceptable LOS F and would therefore be considered a significant impact with the addition of Specific Plan traffic:

SR-85 Northbound

- Camden Avenue to Union Avenue

I-280 Northbound

- SR-85 to Foothill Expressway

The following summarizes the groups of freeway segments that are anticipated to add more than 1 percent of traffic volume (as a percentage of segment's capacity) and are currently operating at LOS F and would therefore be considered a significant impact with the addition of Specific Plan traffic. All other freeway segments not listed would continue to operate at an acceptable condition with the addition of Specific Plan traffic:

SR-85 Northbound

- Blossom Hill Road to Saratoga Avenue
- Stevens Creek Boulevard to El Camino Real

SR-85 Southbound

- SR-237 to El Camino Real
- I-280 to Stevens Creek Boulevard
- Saratoga-Sunnyvale Rd to Saratoga Avenue
- SR-17 to Union Avenue

I-280 Northbound

- US-101 to Foothill Expressway

I-280 Southbound

- Page Mill Road to Magdalena Avenue
- SR-85 to 10th St

As indicated in [Section 17.9.4](#), above, exclusively retail developments (those lacking complementary office or residential use) generate more peak-hour and daily trips than do comparably sized mixed-use developments that incorporate office and residential uses. Enhanced occupancy of the Mall (an occupancy of greater than 82 percent, consistent with typical empirical mall vacancy rates) would result in additional traffic heading to freeway segments in the study area that would operate at an unacceptable LOS F. This is an existing condition and would occur with or without either the Specific Plan or enhanced occupancy of the Mall. However, as previously mentioned, increased occupancy of the Mall would not require additional approvals, and as such no EDFs would be implemented that would improve the traffic conditions on the Wolfe Road / I-280 interchange or the freeway system.

17.12.3 Cumulative Conditions

Under Cumulative Conditions, the v/c ratios for the freeway segments were analyzed. Per VTA TIA Guidelines, 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 or larger freeway segments. HOV lane capacity is defined as 1,650 vphpl.

See [Appendix TR-F](#) for volumes anticipated in the year 2040 for Cumulative Conditions and the respective v/c ratios for the mixed-flow and HOV lanes.

17.12.4 Cumulative Conditions Plus Specific Plan

Under the Cumulative Conditions Plus Specific Plan scenario, the same number of Specific Plan trips would access the freeway system as under the Baseline Existing Conditions Plus Specific Plan scenario. The percentage of trips projected to use HOV lanes has been adjusted to reflect the estimated total volume on the HOV lanes in the year 2040. Similar to the Baseline Existing Conditions Plus Specific Plan, no trips were projected on the HOV lanes along the following freeway segments: SR-85 northbound, between I-280 and Stevens Creek Blvd; I-280 northbound and southbound, between SR-85 and Lawrence Expressway. These segments were excluded from HOV lane trip projections based on the assumption that vehicles would leave the HOV lanes and enter the mixed-flow lanes to either merge onto the connecting freeway or exit the freeway in the direction of the Plan Area. All other freeway segments with HOV lanes were assumed to have proposed trips in the HOV lanes. Additional segments that would not have new trips projected on the HOV lanes include the northbound and southbound segments on SR 17 between I-280 and Hamilton Avenue and on I-880 between I-280 and Stevens Creek

Boulevard. This is based on the assumption that vehicles would exit the HOV lane and enter the mixed-flow lanes to merge onto I-280.

Under Cumulative Conditions Plus Specific Plan, traffic impacts would be significant when the addition of freeway traffic causes a freeway segment's v/c ratio to exceed one (1) and the project increases traffic demand on the freeway segment by an amount equal to one (1) percent or more of the segment's capacity.

Appendix TR-F presents the number of trips projected on the mixed-flow and HOV lanes, the volume-to-capacity ratios, and the Specific Plan percentage impact under this scenario. The Specific Plan percentage impact is the added volume of trips shown as a percentage of the freeway segment's capacity.

The following summarizes the groups of freeway segments that are anticipated to add more than 1 percent of traffic volume (as a percentage of segment's capacity) and are currently operating at LOS F and would therefore be considered a significant impact with the addition of Specific Plan traffic. All other freeway segments not listed would continue to operate at an acceptable condition with the addition of Specific Plan traffic:

SR-17 Northbound

- Saratoga Avenue to SR-85
- Hamilton Avenue to I-280

SR-85 Northbound

- Blossom Hill Road to Saratoga-Sunnyvale Road
- Stevens Creek Boulevard to El Camino Real

SR-85 Southbound

- US-101 to W Homestead Road
- I-280 to Stevens Creek Boulevard
- Saratoga-Sunnyvale Road to US-101

I-280 Northbound

- US-101 to Alpine Road

I-280 Southbound

- Alpine Road to El Monte Road
- Magdalena Avenue to US-101

17.13 Transit, Bicycle, and Pedestrian Mobility

17.13.1 Transit Service

Implementation of the Specific Plan would include the provision of a Mobility Hub to accommodate local transit. The existing bus stop on the north side of Stevens Creek Boulevard between Wolfe Road and Perimeter Road would function as part of the Mobility Hub where VTA buses (specifically, bus routes 23 and 323), future bus rapid transit, corporate shuttles, a future community shuttle (part of the Transportation Demand Management Plan), and sharing economy transportation services (e.g., rideshare and bikeshare) would stop. The Specific Plan would include an entrance plaza along Stevens Creek Boulevard that would accommodate pedestrian access to curbside transit stops. The new plaza would improve the pedestrian experience to the existing curbside stop along Stevens Creek Boulevard. Given the anticipated ridership generated by implementation of the Specific Plan, the stop would be a major bus stop; the specific amenities would be specified in VTA’s forthcoming Transit Passenger Environment Plan. The existing bus stops along Wolfe Road near Vallco Parkway would also be upgraded with improved passenger waiting areas and pedestrian access into the site.

The Specific Plan’s Mobility Hub would also serve the office uses within the Plan Area to accommodate commuter shuttle bus service, as is currently offered by numerous employers in Silicon Valley in an effort to reduce the number of car trips generated by their office workers.

The Specific Plan does not propose to make any significant changes to existing bus routes or service frequency. The Plan Area would, however, generate transit ridership. Based upon the results of the mixed-use trip generation analysis, approximately 260 peak hour riders would access the site using public transit or the new community shuttle. **Table 17-15** provides a breakdown of the projected transit ridership by route and the resulting peak load factor with the additional Specific Plan transit trips.

Table 17-15: Transit Capacity Analysis Results

#	Trips per Hour (Peak)	Distribution of Transit Trips	Future Load Factor with Specific Plan		Meets Standard?
			AM Peak Hour	PM Peak Hour	
23	5	20%	1.18	0.91	Yes
26	2	8%	1.10	0.93	Yes
81	2	8%	0.84	0.60	Yes
323	4	16%	0.93	0.82	Yes
101	1	4%	0.92	0.72	Yes
182	1	4%	0.65	0.64	Yes
<i>New Community Shuttle</i>	<i>New Service</i>	20%	<i>New Shuttle Service</i>		N/A
<i>New Private Employee Shuttle</i>	<i>New Service</i>	20%	<i>New Shuttle Service</i>		N/A

Source: VTA, 2015, Arup, 2015

All bus lines in the vicinity of the Plan Area would meet the established standard with regards load factor, therefore the Specific Plan would have a less than significant impact on transit load capacity.

Impacts to transit vehicle delay were also determined. The analysis compared the average transit vehicle speed through the study area between the Background Conditions and Background Conditions Plus Specific Plan, using the approach delay for each bus movement at the study intersections. Existing travel speeds are based upon published schedules, with additional vehicle delay based upon the intersection LOS results.

For routes where the average speed under Background Conditions is less than 15 mph, a reduction of one mile per hour or more would be considered a significant impact. For routes where the average speed under Background Conditions is greater than 15 mph, a speed reduction to below 15mph or a 25 percent reduction in the average speed would be considered a significant impact. Table 17-16 presents a summary of the Transit Delay analysis.

Table 17-16: Transit Delay Analysis Results

Route	Direction	Background Average Speed (mph)	Background Plus Specific Plan Average Speed (mph)	Change in Speed (mph)	% Change in Speed	Significant Impact
AM Peak Hour						
23	Eastbound	8.5	8.5	0.0	0.2%	No
	Westbound	7.3	7.0	-0.3	-4.4%	
26	Southbound	11.6	11.4	-0.2	-2.0%	No
	Northbound	6.0	5.8	-0.2	-2.7%	
81	Eastbound	9.4	9.2	-0.2	-2.0%	No
	Westbound	8.9	8.7	-0.1	-1.6%	
323	Eastbound	8.5	8.3	-0.2	-2.4%	No
	Westbound	6.6	6.4	-0.3	-4.3%	
101	Westbound	13.0	12.2	-0.8	-6.0%	No
182	Eastbound	35.3	34.5	-0.8	-2.1%	No
PM Peak Hour						
23	Eastbound	6.9	6.9	-0.1	-1.3%	No
	Westbound	6.4	6.3	-0.1	-1.3%	
26	Southbound	9.1	9.1	-0.1	-0.6%	No
	Northbound	11.1	10.4	-0.7	-6.6%	
81	Eastbound	8.6	8.4	-0.3	-3.0%	No
	Westbound	8.6	8.3	-0.3	-3.6%	
323	Eastbound	7.3	6.9	-0.3	-4.7%	No
	Westbound	9.0	8.5	-0.5	-5.4%	
101	Eastbound	13.3	12.8	-0.5	-4.1%	No
182	Westbound	32.0	30.2	-1.8	-5.6%	No

The closure of the current VTA Park and Ride facility would eliminate the parking spaces at that location. Even though there is no formal active agreement for providing this facility, there is a perception of the transit facility due to ongoing use and promotion through the VTA website and therefore would likely be an impact.

This transportation analysis also presents transit operations assuming an enhanced occupancy of the mall (greater than 82 percent occupancy, consistent with typical empirical mall vacancy rates). As previously mentioned, increased occupancy of the Mall would not require additional approvals, and as such no EDFs would be implemented that would improve the transit conditions. No Community Shuttle service would be initiated, and no new Transit Center or Mobility Hub would be installed.

17.13.2 Pedestrian Circulation

Implementation of the Specific Plan would include numerous design features to improve pedestrian conditions. The South Vallco Connectivity Plan was used to guide the development of these features, including intersection improvements and prioritization of streetscape design for better walkability. The Specific Plan would replace the existing “superblock” configuration with a more fine-grained street grid, which would improve the pedestrian accessibility of the Plan Area with several new entrance points. With the exception of on-street parking, parking would be located in basements which would improve the pedestrian environment by replacing parking structures and surface parking lots that currently act as barriers to pedestrian circulation. Street designs would incorporate pedestrian-oriented design features including sidewalks, narrow streets, sidewalk “bulb-outs” at crossings, short blocks, landscaping and on-street parking as buffers, and ground-level retail amenities. Sidewalks would be continuous, accessible, and tree-lined with signalized crosswalks safely connecting the existing street network.

Town Squares East and West would highlight the Specific Plan’s walkability and focus on community life. The streets surrounding the town squares would be intended to extend the area of each town square by emphasizing the shared nature of the street, through use of different paving materials, color, height differences, or other street design features.

The existing sidewalk along Perimeter Road, surrounding the Plan Area would be improved and expanded into a shared use, off-street path. As envisioned in the South Vallco Connectivity Plan, the path would be separated from Perimeter Road and would support both bicyclists and pedestrians. Where existing trees are present, the path would split, minimizing disturbance to the trees and allowing the path to be shaded. Any trees that cannot remain along Perimeter Road would be relocated or new trees would be planted in place of trees that must be removed. The shared use path would allow for multiple connection points to future paths at the northern Specific Plan border, as identified in the South Vallco Connectivity Plan.

Intersection design would facilitate pedestrians, bicyclists, vehicle movement and minimize conflict. For example, a new intersection proposed at Wolfe Road and 2nd Street would allow bicyclists and pedestrians to cross without conflicts with southbound vehicles turning left from Wolfe Road to the future 2nd Street and westbound vehicles turning right from 2nd Street to Wolfe Road.

Along Perimeter Road, crossings would be clearly marked to facilitate connections from the shared use path into the internal street grid. Interior streets would be designed as low-speed

shared streets that feature a mix of bicycle, auto, and street parking activity. The Perimeter Road tunnel (under Wolfe Road) would provide a through, grade-separated route across Wolfe Road, as it has in the past, but with improved functionality and environment for pedestrians.

This transportation analysis also presents pedestrian operations assuming an enhanced occupancy of the mall (greater than 82 percent occupancy, consistent with typical empirical mall vacancy rates). As previously mentioned, increased occupancy of the Mall would not require additional approvals, and as such no EDFs would be implemented that would improve the pedestrian conditions. There would be no funding allocated for the 2-mile bicycle/pedestrian trail along the southern edge of I-280, and no new crosswalk would be installed along the project street frontages or Portal Avenue.

17.13.3 Bicycle

The existing bicycle network on Wolfe Road, Vallco Parkway, and Stevens Creek Boulevard would continue onto the site with additional bike lanes provided on 3rd and 2nd Streets. The Perimeter Road tunnel would continue to provide a through, grade-separated route across Wolfe Road, as it has in the past, but with improved functionality and environment for bicyclists.

The existing sidewalk along Perimeter Road, surrounding the Project would be improved and expanded into a shared use, off-street path for pedestrians and bicyclists, as envisioned in the South Vallco Connectivity Plan.

A new intersection proposed at Wolfe Road and 2nd Street would provide an east-west bi-directional bike lanes along the southern edge that allows bicyclists to cross without conflicts with southbound vehicles turning left from Wolfe Road to the future 2nd Street and westbound vehicles turning right from 2nd Street to Wolfe Road.

This transportation analysis also presents bicycle operations assuming an enhanced occupancy of the mall (greater than 82 percent occupancy, consistent with typical empirical mall vacancy rates). As previously mentioned, increased occupancy of the Mall would not require additional approvals, and as such no EDFs would be implemented that would improve the bicycle conditions. There would be no funding allocated for the 2-mile bicycle/pedestrian trail along the southern edge of I-280, and there would be no bicycle improvements on Portal Avenue or Tantau Avenue.

17.13.4 Parking

Automobile Parking

Parking to support implementation of the Specific Plan would include both on-street and off-street facilities distributed through the Plan Area. The number of parking spaces provided is allocated based upon the adjacent program uses and shared where possible to provide better space utilization, reduce the overall supply, and better meet total projected demands.

The overall parking supply required to meet anticipated demand is 8,860 spaces. This calculation includes time of day adjustments and shared use of parking, per municipal code Section 19.124.040, Regulations for Off-Street Parking. Consistent with trip generation analysis, a reduction factor was applied to account for internal trip capture, proximity to transit, and improved pedestrian connectivity. Table 17-17 provides a summary of parking space requirements per land-use.

Table 17-17: Parking Supply Required to Meet Anticipated Demand

Land-Use	Area	Supply Rate	Time of Day Adjustment ¹	Parking Supply Requirement
Office	2,000 ksf*	3.51	100%	7,020
Residential	800 units	2.00	75%	1,200
Retail	640 ksf	4.00	60%	1,440
High School Innovation Center	100 students	0.33	100%	33
Amenity Space	254 ksf	3.51	100%	892
Industrial Testing and Workshop	175 ksf	3.51	100%	614
Rooftop Garden Park	10 acres	1.65 ²	100%	16
Total Parking Requirement per City Code				11,215
Parking Reduction Factor for Internal Trip Capture, Transit, and Walking ³				21%
Parking Supply Required to Meet Anticipated Demand				8,860

Notes:

* ksf = 1,000 square feet

1. Based on weekday daytime demand (9 a.m. – 4 p.m.) per City code
2. Based on ITE for City Park (Land Use Code 411), based on 50% of Sunday peak demand, as an equivalent City code rate is not available.
3. Based on daily MXD auto trip reduction factor from the trip generation analysis (see Table 17-10)

The Specific Plan would provide for 9,060 parking spaces, which would result in a surplus of 200 spaces. The City code accounts for time of day adjustments and shared use of parking (i.e. office trips can use parking spaces during the day, with movie theater using the spaces during the evenings). It should be noted that the calculated requirements in Table 17-17 do not account for further potential reductions in demand resulting from implementation of the Specific Plan TDM strategies or additional vehicle trip reduction targets. The 200 space surplus would be anticipated to be even higher when the TDM strategies are implemented. Because the proposed parking supply will exceed the Specific Plan demand, no impact would result.

Bicycle Parking

Table 17-18 provides a summary of the bike parking supply rates used for the Specific Plan.

Table 17-18: Bicycle Parking Supply Rates

Land Use	Bike Space Requirement
High Density Multiple-Family	Class I for 40% of units
Office (Corporate/Administrative/General Multi-Tenant)	Class I facilities equal to 5% of auto parking supply
Commercial (including General Commercial, Bowling Alley)	Class II facilities equal to 5% of auto parking supply

Source: Cupertino Parking Regulations, Table 19.124.040

The Specific Plan would include a total of 487 Class I Facilities (intended for long term parking) and 81 Class II Facilities (intended for short term parking) in conformance with established bike parking requirements.

17.14 Construction Traffic

Construction activity information has been provided to determine any potential impacts to the Plan Area during construction of the Town Center/Community Park. Information relative to this development is available, thus, development-specific impacts regarding construction can be quantified. The main construction activities would include demolition of existing buildings, site preparation, site grading, building construction, paving and architectural coating. During construction activities, a number of construction works would be required to access the Plan Area and would include construction equipment and construction worker vehicles.

Construction is expected to be completed in one concurrent phase with two primary staging sequences.

- Stage 1: January 2017 to December 2018;
- Stage 2: May 2018 to December 2021

Typical construction activities would be generally completed between the hours of 7:00 am and 5:00 pm, six days per week.

Table 17-19 provides a summary of the key construction activities, duration and typical workdays per week.

Table 17-19: Key Construction Activities

Sequence	Construction Activity	Start Date	End Date	Number of Workdays per Week
1	Demolition	01/01/2017	02/05/2017	6
	Site Preparation	02/06/2017	02/26/2017	6
	Grading	02/27/2017	05/21/2017	6
	Building Construction	05/22/2017	10/15/2018	6
	Paving	10/16/2018	11/22/2018	6
	Architectural Coating	11/23/2018	12/30/2018	7
	2	Demolition	05/01/2018	07/01/2018
Site Preparation		07/02/2018	08/06/2018	6
Grading		08/07/2018	01/20/2019	6
Building Construction		01/21/2019	08/21/2021	6
Paving		08/22/2021	10/26/2021	6
Architectural Coating		10/27/2021	12/31/2021	7

Source: Arup, 2016

Table 17-20 provides a summary of the estimated average truck, vendor and hauling trips for each phase of construction.

Table 17-20: Average Truck, Vendor, and Hauling Trips by Construction Phase

Trip Type	Construction Average Daily Round-Trip Generation		
	Weekday	Saturday	Sunday
Sequence 1			
Worker	231	231	12
Vendor	50	5	3
Hauling	129	0	0
Sequence 2			
Worker	482	482	119
Vendor	50	5	3
Hauling	129	0	0

Source: Arup, 2016

Sequence 2 would have the more intense construction with the higher number of workers, trucks and off-site hauling trips. Assuming that construction delivery and equipment vehicles would be evenly distributed over the workday (with workers typically arriving and departing earlier), this would result in approximately 66 construction trips during the peak hours. The numbers provided only represent the average number of trips during the peak hour, and at times trips could be higher. For the purpose of this assessment, peak number of trips would be between 60 and 120 peak hour trips. This volume of traffic would be substantially lower than the trips generated by both the Mall and the implementation of the Specific Plan. Therefore, construction traffic impacts would be less than the Specific Plan operational impacts identified in Sections 17.9 thru 17.11.

During construction, there would be short term impacts to the roadways surrounding the Plan Area, particularly along frontages along Stevens Creek Boulevard, Wolfe Road and Vallco Parkway.

Construction of the new tunnel underneath Wolfe Road would specifically have a short-term impact on traffic circulation. Tunnel construction would likely result in closure of portions of Wolfe Road. This closure would likely result in lane closures and possible traffic route diversions, which would have a short term impact on adjacent neighborhoods and intersections. Other temporary lane closures may occur as part of implementation of the Specific Plan.

A Construction Management Plan would be prepared by applicants for Review and Approval by the City of Cupertino Public Works Department prior to construction, and would include at minimum the following:

- Information on the type of traffic control devices to be used during construction including temporary and detour signage, lane closure procedures, traffic safety measures, designated construction traffic access routes and details of temporary diversions for any required lane or road closures.
- Notification procedures for adjacent property owners, the public, emergency services, transit providers and public safety personnel for lane closures or temporary diversions
- Locations of construction access points from the public highway as well as staging areas within the project site boundaries
- Approved off-site haul routes, minimizing the impacts to transportation facilities and monitoring of these routes for damage or debris caused by construction related vehicles
- Procedures for responding, recording and tracking of complaints related to construction activities

17.15 Neighborhood Traffic

A neighborhood traffic evaluation was conducted to determine the potential of Specific Plan trips to divert from the collector and arterial roads and cut through the surrounding neighborhoods. This traffic would be considered an option by drivers to and from the Plan Area if the adjacent intersections and roadways are at or near capacity. Drivers would then divert to alternate roadways and through intersections to avoid the intersections that are oversaturated to find the alternate routes to and from the Plan Area. The intersections near the Plan Area that would be at or near capacity are Stevens Creek Boulevard / Wolfe Road, Stevens Creek Boulevard / Tantau Avenue, and Vallco Parkway / Tantau Avenue. Given these conditions, multiple neighborhoods adjacent to the Plan Area were considered, as categorized below:

- West (bordered by Blaney Avenue to the west, Stevens Creek Boulevard to the south, Vallco to the east, and I-280 to the north)
- Southwest (bordered by Blaney Avenue to the west, Bollinger Road to the south, Miller Avenue to the east, and Stevens Creek Boulevard to the north)
- South (bordered by Miller Avenue to the west, Bollinger Road to the south, Tantau Avenue to the east, and Stevens Creek Boulevard to the north)
- Southeast bordered by Tantau Avenue to the west, Bollinger Road to the south, Lawrence Expressway to the east, and Stevens Creek Boulevard to the north)

Each of these neighborhoods were reviewed to determine if there would be any potential cut-through traffic to and from the Plan Area.

17.15.1 West Neighborhood

The west neighborhood consists mostly of residential land uses, but also includes Collins Elementary School and Portal Park. An existing wall separates the west neighborhood and the Mall. The wall would be retained with implementation of the Specific Plan. This wall would prohibit any direct pedestrian, bicycle, or vehicular traffic between the neighborhood and the Plan Area that would be deemed cut-through traffic. All traffic would have to use the collector

and arterial roads to access the Plan Area. This distribution is consistent with the existing distribution of traffic to and from the Plan Area. The wall ends just south of Wheaton Drive, thereby forcing all vehicle trips to use Stevens Creek Boulevard. Therefore, no cut-through traffic is anticipated in this neighborhood.

Traffic from the northwest that would use De Anza Boulevard may divert to Homestead Avenue and Blaney Avenue to avoid delays at the Stevens Creek Boulevard/De Anza Boulevard intersection. Blaney Avenue is a two-lane north-south collector street with bike lanes and no raised median. Blaney Avenue connects from Stevens Creek Boulevard to Homestead Avenue in the north and intersects Stevens Creek Boulevard at a signalized intersection, making it a potential cut-through route for north-south travelers that may want to avoid De Anza Boulevard south of Stevens Creek Boulevard.

17.15.2 Southwest Neighborhood

The southwest neighborhood consists residential land uses, as well as Wilson Park, Creekside Park, and Calabazas Creek. Calabazas Creek runs diagonally through the neighborhood from the southwest corner to the northeast corner. Calabazas Creek prevents many roadways within the neighborhood from traversing the entire neighborhood, making it unlikely for there to be any cut-through traffic through this neighborhood. The only potential cut-through route is Blaney Avenue. Specific Plan traffic would distribute onto Blaney Avenue. Blaney Avenue is a two-lane north-south collector street with bike lanes and no raised median. Blaney Avenue connects from Stevens Creek Boulevard to Prospect Road in the south and intersects Stevens Creek Boulevard at a signalized intersection, making it a potential cut-through route for north-south travelers that may want to avoid De Anza Boulevard south of Stevens Creek Boulevard. The intersection of De Anza Boulevard / Stevens Creek Boulevard operates at LOS E in the AM peak and LOS F in the PM peak in the Background Conditions Plus Specific Plan scenario.

17.15.3 South Neighborhood

The south neighborhood consists of residential land uses, Cupertino High School, Sedgwick Elementary School, and Hyde Middle School. The major north-south roadway within this neighborhood is Finch Avenue. Finch Avenue could be a potential cut-through route to avoid Wolfe Road / Miller Avenue.

Finch Avenue is a two-lane north-south collector street with bike lanes and no raised median. Finch Avenue connects to Stevens Creek Boulevard to the north and Phil Lane to the south. This roadway also provides the primary access to Cupertino High School. This roadway intersects Stevens Creek Boulevard at a signalized intersection, making it a potential cut-through route for north-south travelers that may want to avoid Miller Avenue, south of Stevens Creek Boulevard. The intersection of Wolfe Road / Miller Avenue / Stevens Creek Boulevard operates at LOS E- in the AM peak and LOS F in the PM peak in the Background Plus Specific Plan Conditions.

17.15.4 Southeast Neighborhood

The southeast neighborhood primarily consists of residential land uses. There are no major north-south or east-west connectors, making it unlikely that there will be any cut-through traffic through this neighborhood. Saratoga Creek borders the neighborhood on the east, making it difficult for any east-west cut-through traffic. The only potential cut-through route is Tantau Avenue.

Tantau Avenue is a two-lane north-south collector street with parking and no raised median. Tantau Avenue connects to Homestead Road to the north and Bollinger Road to the south. Although Tantau Avenue is located near I-280, there is no direct access from the freeway to Tantau Avenue. This roadway intersects Stevens Creek Boulevard at a signalized intersection, making it a potential cut-through route for north-south travelers that may want to avoid Miller Avenue south of Stevens Creek Boulevard. The intersection of Wolfe Road / Miller Avenue / Stevens Creek Boulevard operates at LOS E- in the AM peak and LOS F in the PM peak in the Background Conditions Plus Specific Plan.

17.15.5 Summary

The potential cut-through routes identified in the evaluation are Blaney Avenue, Finch Avenue, and Tantau Avenue. Each of these routes may experience some additional traffic due to diversion from anticipated congestion on Stevens Creek Boulevard, De Anza Boulevard, and Wolfe Road / Miller Avenue. In the absence of specified thresholds for determining how much traffic may divert to the neighborhoods, this analysis assumes that there is potential for cut-through traffic through the adjacent neighborhoods and therefore it is recommended that the City monitor these potential cut-through routes.

17.16 Environmental Impacts and Design Features

17.16.1 Project Level Impacts

The following analysis summarizes the project level impacts of implementing the Specific Plan.

Impact TR-1: Would implementation of the Specific Plan cause levels of service at local intersections to substantially deteriorate, and therefore conflict with applicable congestion management programs, plans, ordinances or policies establishing measures of effectiveness for the performance of the circulation system?

As indicated in [Section 17.9](#), implementation of the Specific Plan would deteriorate LOS conditions per agency significance criteria at four (4) study intersections. Therefore, the future implementation of the Specific Plan would result in a significant impact for LOS at local intersections unless environmental design features are implemented. Feasible environmental design features have been incorporated into the Specific Plan, as indicated in [Environmental Design Feature 43](#) and [Environmental Design Feature 52](#), to reduce impacts to a less-than-significant level.

Environmental Design Features for Impact TR-1

EDF 43 Level of Service (LOS) at Local Intersections

Prior to the issuance of the first certificate of occupancy, the Town Center/Community Park applicant and other project applicants for future development shall demonstrate to the reasonable satisfaction of the Public Works Director that geometric and/or signal improvements (in close collaboration with the applicable governing agencies) have been implemented at the following intersections alleviating the increase in delay due to the addition of net project traffic. To improve traffic operations where no geometrical improvements are deemed necessary, the Town Center/Community Park applicant, in conjunction with City Staff, shall contribute toward software acquisition and implementation that would improve traffic signal operations and signal coordination along the study area roadways. These improvements are subject to future City approval. The City shall have the discretion to modify these improvements or require alternative improvements, as determined by the Public Works Director, provided the modified or alternative improvements provide similar congestion relief and are similar in scope and cost.

Intersection		Improvements
	De Anza Blvd / Homestead Rd	In the AM peak, provide an eastbound right turn overlap phase
	De Anza Blvd / Stevens Creek Blvd	In the PM peak, provide an eastbound right turn and a northbound right turn overlap phases
	De Anza Blvd / McClellan Rd	In the PM peak, provide an eastbound right turn overlap phase
	De Anza Blvd / Bollinger Rd	In the AM peak, provide a westbound right turn overlap phase
	Wolfe Rd / Stevens Creek Blvd	Add a second southbound left turn lane by widening 400 feet along project frontage and modify the signal accordingly. In addition, provide an overlap phase for the southbound right turn and the eastbound right turn. Alternatively, if the City prioritizes the retention of trees, the City has the option to require the applicant to provide \$250,000 as an in lieu payment for traffic improvements in the area
	Stevens Creek Blvd / Calvert Dr / I-280 Ramps	The intersection traffic operations will benefit due to the implementation of new traffic signal software

EDF 52 Transportation Demand Management Plan

Prior to the issuance of the first certificate of occupancy, the Town Center/Community Park applicant and other project applicants for future office development shall prepare and implement a Transportation Demand Management (TDM) Plan with an overall target of reducing Specific Plan office-generated weekday peak hour trips by 30 percent below applicable Institute of Transportation Engineers trip generation rates. Future project applicant(s) for office developments must demonstrate to the satisfaction of the Public Works

Director that a TDM manager has been appointed and retained with the responsibility to implement and monitor the TDM Plan and that the TDM Plan incorporates the following:

Vehicle Trip Reduction Targets

The TDM Plan shall achieve an overall target reduction of 30 percent below applicable Institute of Transportation Engineers Office Use trip generation rates. These reductions shall be measured through counts of vehicles that enter and exit the site and comparing the results to established trip thresholds.

The TDM Plan shall reduce the amount of vehicle traffic generated by future development within the Plan Area by shifting office employees from driving alone to using transit, carpooling, cycling, and walking modes through TDM measures, strategies, incentives, and policies. The TDM obligation in this measure is to apply for the lifetime of all Plan Area projects.

The TDM Plan shall specify a phased implementation approach that provides initially for implementation of the TDM measures that are appropriate for multi-tenant offices (e.g., measures aimed at increased transit use), which are expected to be developed during the first phase of development, and then provides for more expansive TDM measures that are appropriate for large corporate office tenants in the remaining phases (such as shuttles). The Cupertino Director of Community Development shall have the authority and discretion to permit modification of the measures provided that the modifications continue to achieve the overall trip reduction objective and/or Cupertino Director of Community Development is satisfied that all feasible TDM measures are being implemented if the overall trip reduction objective is not being met.

As part of the annual monitoring process, vehicle trip generation estimates, based on the land uses and their sizes, shall be prepared by a transportation professional, who shall use the trip generation rates and internalization, public transit ridership reductions, and TDM reductions to create the thresholds. The estimates and thresholds shall be reviewed and approved by the City's Traffic Engineer.

Measures and Strategies

The TDM Plan shall identify the vehicle trip-reducing measures and strategies to be provided and implemented by future project applicant(s) for office developments within the Plan Area and those to be provided by individual tenants/employers. Some TDM measures and strategies shall be incorporated into the design of the site and the buildings. The following TDM measures should be considered for inclusion in the TDM Plan for some of all portions of the office

development, to the extent feasible and appropriate, either as part of an initial TDM Plan or as options for enhanced or remedial measures if trip reduction targets are not met:

- Valet bicycle parking
- Bike supply vending machines (lights, batteries, locks, tubes, patches, small tools, etc.)
- On-site bicycle mechanic
- Bike share pods / community bike program
- Towel and laundry service for on-site showers
- Giveaway programs (bicycle, helmet, lock, light, etc.)
- Bike to School encouragement and incentive program
- Advanced carshare and rideshare matching services, such as real-time matching
- Financial incentives for carpoolers, e.g., gas cards
- Subsidized vanpools
- Subsidies for on-demand shared ride services
- Private shuttles for medium- or long-distance commutes
- Guaranteed ride home services

Automobile Parking

Future project applicant(s) for office development within the Plan Area shall implement aggressive shared parking and parking management programs to more efficiently utilize the available parking area. Applicant(s) shall provide monitoring of adjacent neighborhoods to identify parking intrusion due to insufficient parking supply.

Monitoring

The TDM Plan shall be monitored annually for the first 10 years from when the first certificate of occupancy is issued to gauge its effectiveness in meeting the thresholds and to make modifications to add, intensify, or change TDM measures. Monitoring shall commence one year after occupancy of the first phase of development. If the monitoring reveals that the trip reduction targets have not been exceeded in the last 3 years of the first 10 years of annual monitoring, the TDM monitoring shall be reduced to once every 2 years. However, if any biennial report reveals that the trip thresholds have been exceeded, the monitoring shall revert to annual monitoring until such time that the trip reduction targets have been met for three consecutive annual reports.

The TDM Coordinator shall be responsible for implementing monitoring activities consisting of traffic counts at the driveways to office parking locations, and reporting the results to the City of Cupertino. Traffic counts shall be conducted annually using mechanical counters or other devices approved by the City of Cupertino to measure the peak-hour entering and exiting vehicle volumes over a 3-day period, Tuesday through Thursday. The counts shall be conducted when schools are in session and during non-holiday weeks with fair weather. Counts will be averaged across the three days. The individual driveway volumes will be summed to provide the total office traffic volumes. The method(s) used to isolate office trips in shared-use parking facilities will be based on the site conditions, configuration, and occupancy at the time of the survey and will be approved by the City at that time. The volumes will be compared to the trip thresholds to determine whether the reduction in vehicle trips is being met for office use.

The TDM Coordinator shall use the results of the annual vehicle counts to prepare an annual report to be submitted to the City of Cupertino within 60 days of the vehicle counts presenting progress towards achieving the vehicle trip reduction target. The report shall include descriptions of the TDM measures in place, highlights of new or modified measures, summary results of the counts, and a conclusion whether the trip reduction targets are being met. If the morning and afternoon peak-hour trip reduction targets are met, no additional TDM strategies would be required.

Remedial Action and Penalties

If TDM Plan monitoring results show that the trip reduction target is not being met, future project applicant(s) for projects in the Plan Area will begin to accrue a penalty of \$5 per trip per weekday that exceeds the peak-hour thresholds, commencing from the first weekday following the end of the just-concluded count period. If no further action is taken by the project applicant(s), the penalty will be payable to the City every four months until the next annual count period (for a total of three payments per year), at which time a new count and monitoring cycle would start.

Future office development project applicant(s) may choose to amend the TDM Plan within 60 days following delivery of the annual report, subject to approval of the Public Works Director. An amendment shall identify changes to be implemented to attempt to meet the target trip reduction, which could include replacement and/or additional feasible TDM strategies. If the Public Works Director approves the amended TDM Plan, the penalty accrual shall resume 90 days after approval. However, future project applicant(s) shall have the option of conducting a new set of counts at any time after approval to determine whether the trip reduction target has been met. If the new counts indicate that the trip

reduction target has been met, then the penalties accrued for the entire current annual cycle shall be waived. If the trip reduction target has still not been met, then the penalty shall be assessed starting from 90 days after approval of the amended TDM Plan, at a rate of \$3 per trip per weekday that exceeds the peak-hour thresholds, until the start of the next annual cycle.

If the City and future office development project applicant(s) cannot reach agreement on an amended TDM Plan, then the penalty shall resume accrual at the time the amended TDM Plan is rejected, and the penalty shall accrue at a rate of \$3 per trip per weekday that exceeds the peak-hour thresholds.

All penalty rates will be adjusted annually starting in 2016 according to the Consumer Price Index for All Urban Consumers in the San Francisco-Oakland-San Jose area.

Impact TR-2: Would implementation of the Specific Plan cause levels of service at freeway segments to substantially deteriorate, and therefore conflict with applicable congestion management programs, plans, ordinances or policies establishing measures of effectiveness for the performance of the circulation system?

As indicated in [Section 17.12](#), implementation of the Specific Plan would deteriorate LOS per agency significance criteria at 45 Study Area freeway segments. Therefore, the implementation of the Specific Plan is considered to be a significant impact for levels of service at freeway segments. Pursuant to the Specific Plan, future project applicants within the Plan Area shall pay a fair-share contribution towards regional freeway improvement projects, as indicated in [Environmental Design Feature 44](#) and [Environmental Design Feature 52](#), which would reduce impacts to a less-than-significant level.

Environmental Design Features for Impact TR-2

EDF 44 Level of Service at Freeway Segments

Prior to the issuance of the first certificate of occupancy, the Town Center/Community Park applicant and other project applicants for future development shall pay a voluntary fair share contribution of \$4,000,000 towards planned transportation projects identified in VTA's Valley Transportation Plan 2040 (VTP 2040) that would improve traffic operations of the impacted freeway segments and provide added transportation capacity on parallel facilities. The fair share contribution amount will be calculated in consultation with VTA staff with the development's contribution to the impacted freeway segment.

EDF 52 Transportation Demand Management Plan

Implement [EDF 52: Transportation Demand Management Plan](#), described above.

Impact TR-3: Would implementation of the Specific Plan result in queuing at local intersections that would conflict with an applicable plan, ordinance, or policy establishing measures of effectiveness for the performance of the circulation system?

As indicated in **Section 17.9**, implementation of the Specific Plan would result in vehicle queues exceeding available storage under Background Conditions Plus Specific Plan at six (6) left-turn pockets. Therefore, the implementation of the Specific Plan would result in a significant impact for queuing at local intersections. Feasible environmental design features have been included in the Specific Plan, as indicated in **Environmental Design Features 45, 46, 52 and 55**, which would reduce impacts to a less-than-significant level.

Environmental Design Features for Impact TR-3

EDF 45 Queues at Local Intersections

Prior to the issuance of the first certificate of occupancy, the Town Center/Community Park applicant and other project applicants for future development shall demonstrate to the satisfaction of the Public Works Director that geometrical improvements and signal phasing improvements (in close collaboration with the applicable governing agencies) have been implemented at the following intersections to alleviate queue length due to the addition of the net project traffic. To improve traffic operations where no geometrical improvements are deemed necessary, the Town Center/Community Park applicant and other project applicants for future development shall contribute \$2,000,000 to \$3,000,000 toward software acquisition and implementation that would improve traffic signal operations and signal coordination along the following study area intersections, subject to modifications approved by the Director of Public Works in coordination with other agencies:

Intersections

- De Anza Boulevard/I-280 Ramps North
- De Anza Boulevard/Stevens Creek Boulevard
- De Anza Boulevard/McClellan Road
- De Anza Boulevard/Bollinger Road
- De Anza Boulevard/SR 85 Ramps South
- Stevens Creek Blvd/Perimeter Road
- Wolfe Road/El Camino Real
- Wolfe Road/Fremont Ave
- Wolfe Road/Iverness Avenue
- Wolfe Road/Vallco Parkway

- Wolfe Road/Stevens Creek Boulevard
- Tantau Avenue/Pruneridge Avenue
- Stevens Creek Blvd/Agilent Driveway

EDF 46 Queues at Intersection - De Anza Boulevard/Stevens Creek Boulevard, PM Peak, Westbound Left

To potentially eliminate the need to lengthen the westbound left turn pocket at this intersection, and prior to the issuance of final occupancy for each building sequence, the Town Center/Community Park applicant and other project applicants for future development shall evaluate the PM peak hour queue length to confirm if alternative signal phasing and/or geometric improvements would achieve level of service or queue that is equivalent to lengthening the westbound left turn pocket at this intersection. If geometric and/or signal phasing improvements would result in the same or better level of service and queue, then lengthening the left-turn pocket would not be required.

EDF 52 Transportation Demand Management Plan

Implement **EDF 52: Transportation Demand Management Plan**, described above.

EDF 55 Queues at Intersection – Lawrence Expressway / Saratoga Avenue, AM Peak, Eastbound Left

To potentially eliminate the need to lengthen the eastbound left turn pocket at this intersection, and prior to the issuance of certificate(s) of occupancy that triggers a level of service equivalent to the existing occupied Vallco Mall level of service, the Town Center/Community Park applicant and other project applicants for future development shall evaluate the queue length to confirm if alternative signal phasing and/or geometric improvements would achieve level of service and queue that is environmentally equivalent to lengthening the eastbound left turn pocket at this intersection. If geometric and/or signal phasing improvements would result in an equivalent level of service and queue, then lengthening of the left-turn pocket would not be required.

Impact TR-4: Would implementation of the Specific Plan exceed the capacity utilization standards for transit providers or cause a substantial increase in delays and therefore conflict with an applicable plan, ordinance, or policy establishing measures of effectiveness for the performance of the circulation system?

As indicated in **Section 17.13**, implementation of the Specific Plan would generate additional public transit riders that would use existing available transit capacity. Implementation of the Specific Plan would generate additional traffic and increase the average delay for some vehicles at some intersections. The additional delay for transit vehicles at intersections would not have a significant environmental impact on public transit delay. Therefore, the implementation of the Specific Plan would have a less-than-significant impact on transit capacity and delay.

Although the impact would be less than significant, **Environmental Design Features 47 and 48** have been included in the Specific Plan to further reduce impacts.

Environmental Design Features for Impact TR-4

EDF 47 Transit/East Side Transit Center & Community Shuttle¹⁶

The Town Center/Community Park applicant and other project applicants for future development shall implement the following transit improvements prior to issuance of certificate(s) of occupancy that trigger a level of service equivalent to the existing occupied Vallco Mall level of service:

1. Install a public transit center on the east side of the Specific Plan Area to serve office workers.
2. Spearhead and provide substantial funding for a partnership with the City, VTA, local school districts, property owners, and/or corporate employers (see Community Benefit 16 above).

EDF 48: Transit/Mobility Hub

The Town Center/Community Park applicant and other project applicants for future development shall implement the following transit improvements prior to issuance of certificate(s) of occupancy for (i) the Block 1 buildings or (ii) the entirety of the Residential allocation:

Install a public transit center as part of the Mobility Hub on the north side of Stevens Creek Boulevard.

Impact TR-5: Would implementation of the Specific Plan create potentially hazardous conditions for pedestrians or bicyclists, or otherwise substantially interfere with pedestrian or bicyclist access, and therefore substantially conflict with adopted policies, plans, or programs regarding bicycle or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?

As indicated in **Section 17.13**, implementation of the Specific Plan would not result in new challenging situations for bicyclists, or interfere with bicycle accessibility to the site and adjacent areas. Implementation of the Specific Plan would provide sufficient Class I and Class II bike parking facilities. Implementation of the Specific Plan would not conflict with any existing or planned bicycle facilities, nor with any relevant policies. Implementation of the Specific Plan would not create new challenging situations for pedestrians, or interfere with pedestrian accessibility to the site and adjacent areas. The Specific Plan would not conflict with any existing or planned pedestrian facilities, nor with any relevant policies. Therefore, the implementation of the Specific Plan would have a less-than-significant significant impact on pedestrians and bicyclists.

¹⁶ Please refer to Community Benefits #1-23 for a full listing of applicable exceptional community benefits.

Although the impact would be less than significant, the Specific Plan includes **Environmental Design Features 49** and **50** to further reduce impacts.

Environmental Design Features for Impact TR-5

EDF 49 Bicycles and Pedestrian Improvements

The Town Center/Community Park applicant shall, prior to the issuance of the first certificate of occupancy, and to the extent not already constructed or funded by other existing commitments, implement the following bicycle and pedestrian improvements:

1. Install green color backed sharrows on Tantau Avenue between Stevens Creek Boulevard and Bollinger Road for Class III facilities.
2. Install marked bike loop-detectors on southbound Portal Avenue at Stevens Creek Boulevard and convert all-way stop-control to two-way stop-control at the Portal Avenue and Wheaton Drive intersection with stops on Wheaton Drive.
3. On Portal Avenue between Stevens Creek Boulevard and Wheaton Drive, install green color backed sharrows for a Class III facility, and install a ladder-style crosswalk at Amherst Drive and Portal Avenue, and install “neighborhood greenway” signage along Portal Avenue.

EDF 50 Bicycle and Pedestrian Funding¹⁷

The Town Center/Community Park applicant shall, prior to the issuance of the final certificate of occupancy, and to the extent not already constructed or funded by other existing commitments, implement the following bicycle and pedestrian improvements:

If approved by the City, provide a \$6 million cash donation to the City for the express purpose to analyze and construct a 2-mile bicycle/pedestrian trail along the southern edge of Interstate 280 between De Anza Boulevard and Wolfe Road (See Community Benefit 17).

Impact TR-6: Would implementation of the Specific Plan result in inadequate emergency access?

The Specific Plan would integrate a grid system of local systems that would provide sufficient emergency access for all proposed uses. Therefore, the implementation of the Specific Plan is considered to have no significant impact on emergency access.

¹⁷ Please refer to Community Benefits #1-23 for a full listing of applicable exceptional community benefits.

Impact TR-7: Would construction pursuant to implementation of the Specific Plan conflict with an applicable plan, ordinance, or policy establishing measures of effectiveness for the performance of the circulation system?

As indicated in [Section 17.14](#), implementation of the Specific Plan would generate construction traffic that is projected to be substantially lower than current land use traffic generation. Therefore, the construction traffic associated with implementation of the Specific Plan would have a less than significant impact on the circulation system.

Impact TR-8: Would short term effects of construction pursuant to implementation of the Specific Plan conflict with an applicable plan, ordinance, or policy establishing measures of effectiveness for the performance of the circulation system?

As indicated in [Section 17.14](#), implementation of the Specific Plan would result in temporary lane closures or temporary traffic diversions for short periods during construction, resulting in short term increases in traffic volumes and delay at adjacent intersections. Therefore, the implementation of the Specific Plan would have a significant impact on short term effects of construction on the circulation system. Feasible environmental design features have been identified in the Specific Plan, as indicated in [Environmental Design Feature 51](#) and [Environmental Design Feature 52](#), which would reduce impacts to a less-than-significant level.

Environmental Design Features for Impact TR-8

EDF 51 Construction Traffic Management

The Town Center/Community Park applicant and other project applicants for future development shall prepare and maintain a Construction Management Plan (CMP) to minimize disruption to transportation facilities caused by short term construction activities. The CMP will include flagmen, schedules of potential closures, a construction hotline, delineation layout, truck routes, delivery schedules, and alternative routes, per city industry standards and requirements.

EDF 52 Transportation Demand Management Plan

Implement [EDF 52: Transportation Demand Management Plan](#), described above.

Impact TR-9: Would implementation of the Specific Plan exceed capacity for automobile parking and therefore conflict with an applicable plan, ordinance, or policy establishing measures of effectiveness for the performance of the circulation system?

As shown in [Table 17-17](#), implementation of the Specific Plan would result in a surplus of automobile parking spaces. Therefore, the implementation of the Specific Plan is considered to have no significant impact on automobile parking. Feasible environmental design features have been identified in the Specific Plan, as indicated in [Environmental Design Feature 52](#), which would reduce impacts on automobile parking.

Environmental Design Feature for Impact TR-9

EDF 52 Transportation Demand Management Plan

Implement **EDF 52: Transportation Demand Management Plan**, described above.

Impact TR-10: Would implementation of the Specific Plan divert traffic from the collector and arterial roads to cut through to surrounding neighborhoods and therefore conflict with an applicable plan, ordinance, or policy establishing measures of effectiveness for the performance of the circulation system?

As indicated in **Section 17.15**, implementation of the Specific Plan could result in cut-through routes on Blaney Avenue, Finch Avenue, and Tantau Avenue. In the absence of specified thresholds for determining how much traffic may divert to the neighborhoods, this analysis assumes that there is potential for cut-through traffic through the adjacent neighborhoods and therefore it is recommended that the City monitor these potential cut-through routes. Feasible environmental design features have been identified in the Specific Plan, as indicated in **Environmental Design Feature 53**, which would reduce impacts on neighborhood intrusion

Environmental Design Feature for Impact TR-10

EDF 53 Potential Neighborhood Intrusion

The Town Center/Community Park applicant and other project applicants for future development shall fund neighborhood traffic monitoring studies and provide fees to implement potential traffic calming improvements to minimize neighborhood traffic if needed. The City of Cupertino Traffic Calming Programs should be considered when evaluating traffic calming measures. Prior to the issuance of the first certificate of occupancy, the Town Center/Community Park applicant and other project applicants for future development shall provide up to \$300,000 for the City of Cupertino for potential neighborhood traffic improvements.

The monitoring program could include the following items:

- Identifying the monitoring areas (roadways where the monitoring will occur);
- Setting baseline conditions (number of parked vehicles and traffic volumes on the roadways);
- Determining thresholds for parking and traffic volume increases requiring action;
- Establishing the monitoring schedule; and
- Creating reporting protocols.

The baseline conditions shall be established prior to but within 1 year of initial occupancy. Monitoring would then occur annually for 5 years.

17.16.2 Cumulative Impacts

The following analysis summarizes the cumulative impacts of implementing the Specific Plan.

Impact TR-11: Would implementation of the Specific Plan, combined with past, present, and reasonably foreseeable future development, cause levels of service at local intersections to substantially deteriorate, and therefore conflict with applicable congestion management programs, plans, ordinances or policies establishing measures of effectiveness for the performance of the circulation system?

As indicated in Section 17.9, implementation of the Specific Plan, combined with past, present, and reasonably foreseeable future development, would deteriorate LOS conditions per agency significance criteria at five (5) study intersections. Therefore, implementation of the Specific Plan would result in a significant cumulative impact for LOS at local intersections. Feasible environmental design features have been incorporated into the Specific Plan, as indicated in Environmental Design Feature 43 and Environmental Design Feature 52, to reduce impacts to a less-than-significant level.

Environmental Design Features for Impact TR-11

EDF 43 Level of Service at Local Intersections

Implement EDF 43: Level of Service (LOS) at Local Intersections, described above.

EDF 52 Transportation Demand Management Plan

Implement EDF 52: Transportation Demand Management Plan, described above.

Impact TR-12: Would implementation of the Specific Plan, combined with past, present, and reasonably foreseeable future development, cause levels of service at freeway segments to substantially deteriorate, and therefore conflict with applicable congestion management programs, plans, ordinances or policies establishing measures of effectiveness for the performance of the circulation system?

As indicated in Section 17.11, implementation of the Specific Plan, combined with past, present, and reasonably foreseeable future development, would deteriorate LOS per agency significance criteria at 68 Study Area freeway segments. Therefore, the implementation of the Specific Plan would have a significant cumulative impact on LOS at freeway segments. Applicants would pay a fair-share contribution towards regional freeway improvement projects, as indicated in Specific Plan Environmental Design Features 44, 52, 54, and 56, which would reduce impacts to a less-than-significant level.

Environmental Design Features for Impact TR-12

EDF 44 Level of Service at Freeway Segments

Implement EDF 44: Level of Service at Freeway Segments, described above.

EDF 52 Transportation Demand Management Plan

Implement **EDF 52: Transportation Demand Management Plan**, described above.

EDF 54 Wolfe Road Interchange

Prior to the issuance of certificate(s) of occupancy that triggers a level of service equivalent to the existing occupied Vallco Mall level of service, the Town Center/Community Park applicant and other project applicants for future development shall pay \$26 million contribution towards the planned transportation improvements at the I-280 and Wolfe Road interchange subject to design optimization based on level of service standard, other funding sources, and local match.

EDF 56 County Expressway Facilities: Lawrence Expressway

Prior to the issuance of certificate(s) of occupancy that triggers a level of service equivalent to the existing occupied Vallco Mall level of service, the Town Center/Community Park applicant and other project applicants for future development shall pay a fair share contribution towards the following planned transportation improvements along Lawrence Expressway. The fair share shall be calculated as a portion of the total Specific Plan percentage fair share and consultation with County Roads and Airports Department subject to design optimization based on level of service standard, other funding sources, and local match.

- Lawrence Expressway / Homestead Rd
- Lawrence Expressway / Pruneridge Ave
- Lawrence Expressway / Prospect Rd

Impact TR-13: Would implementation of the Specific Plan, combined with past, present, and reasonably foreseeable future development, result in queuing at local intersections that would conflict with an applicable plan, ordinance, or policy establishing measures of effectiveness for the performance of the circulation system?

As indicated in **Section 17.11**, implementation of the Specific Plan, combined with past, present, and reasonably foreseeable future development, would create vehicle queues exceeding available storage, in excess of Background Conditions, would occur at seven (7) left-turn pockets. Therefore, the implementation of the Specific Plan would have a significant impact on queueing at local intersections. Feasible environmental design features have been identified for 13 intersections, as indicated in **Environmental Design Features 45, 46, 52, and 55**. Additionally, feasible environmental design features have been identified at intersections #11 and #58, which would reduce impacts to a less-than-significant level.

Environmental Design Features for Impact TR-13

EDF 45 **Queues at Local Intersections**

Implement EDF 45: Queues at Local Intersections, described above.

EDF 46 **Queues at Intersection - De Anza Boulevard/Stevens Creek Boulevard, PM Peak, Westbound Left**

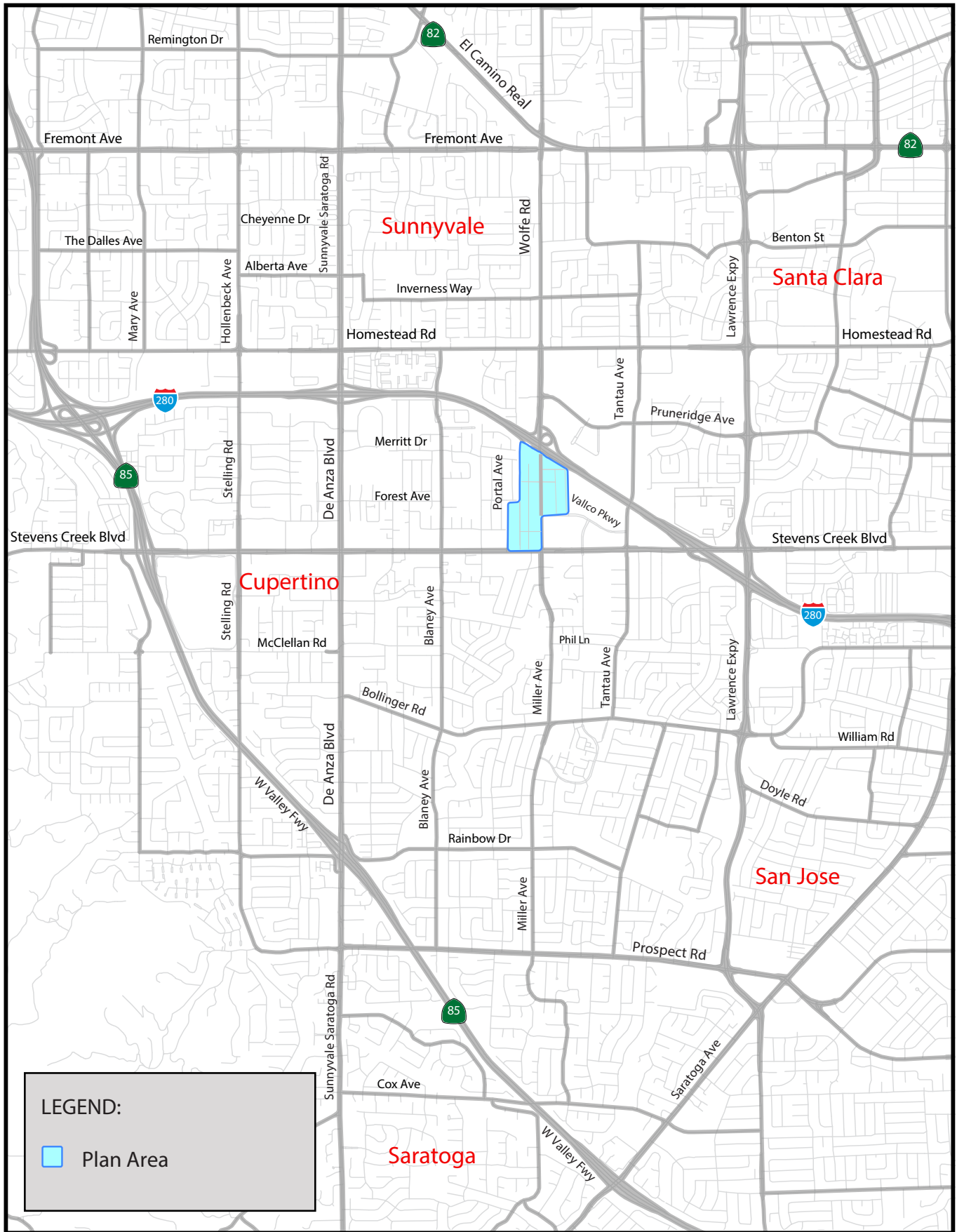
Implement EDF 46: Queues at Intersection – De Anza Boulevard/Stevens Creek Boulevard, PM Peak, Westbound Left, described above.

EDF 52 **Transportation Demand Management Plan**

Implement EDF 52: Transportation Demand Management Plan, described above.

EDF 55 **Queues at Intersection – Lawrence Expressway / Saratoga Avenue, AM Peak, Eastbound Left**

Implement EDF 55: Queues at Intersection– Lawrence Expressway / Saratoga Avenue, AM Peak, Eastbound Left, described above.

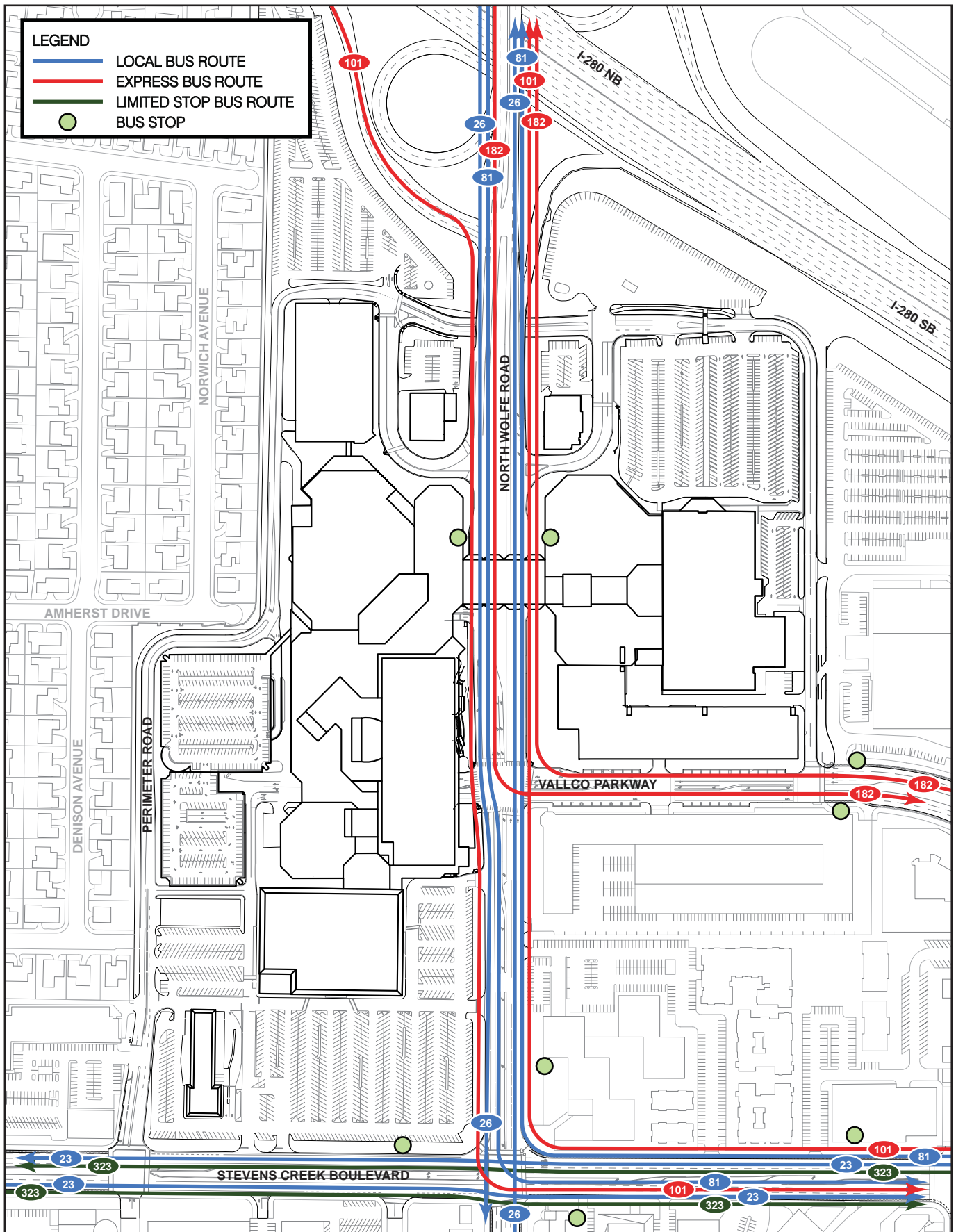


Source: Kimley-Horn, 2016

Figure 17-1: Plan Area Location Map
 Vallco Town Center Specific Plan
 Environmental Assessment



Not to scale



Source: ARUP, 2016

Figure 17-2: Existing Transit Facilities

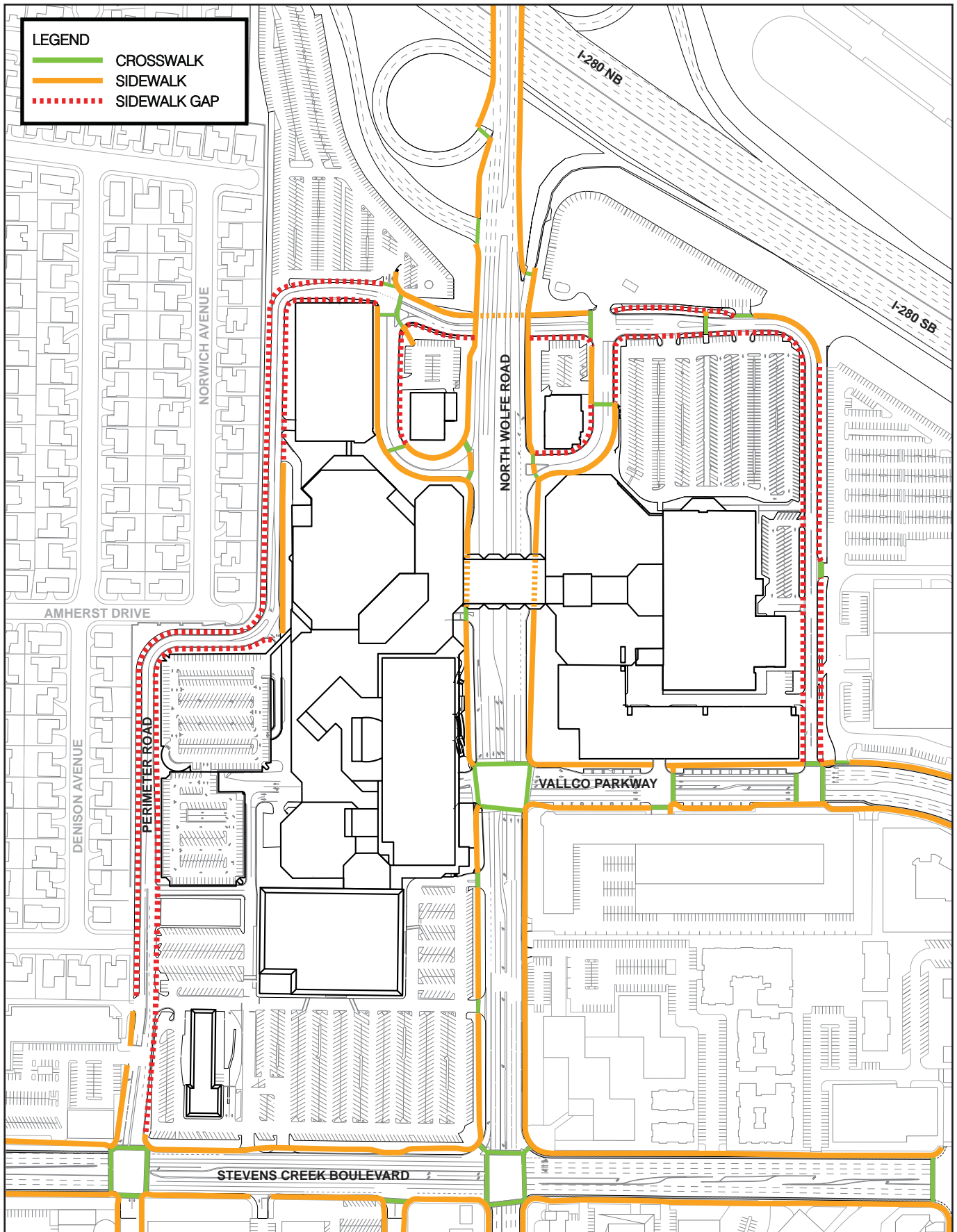
Vallco Town Center Specific Plan
Environmental Assessment



Not to scale

Kimley»Horn

Expect More. Experience Better.



Source: ARUP, 2016

Figure 17-3: Existing Pedestrian Facilities

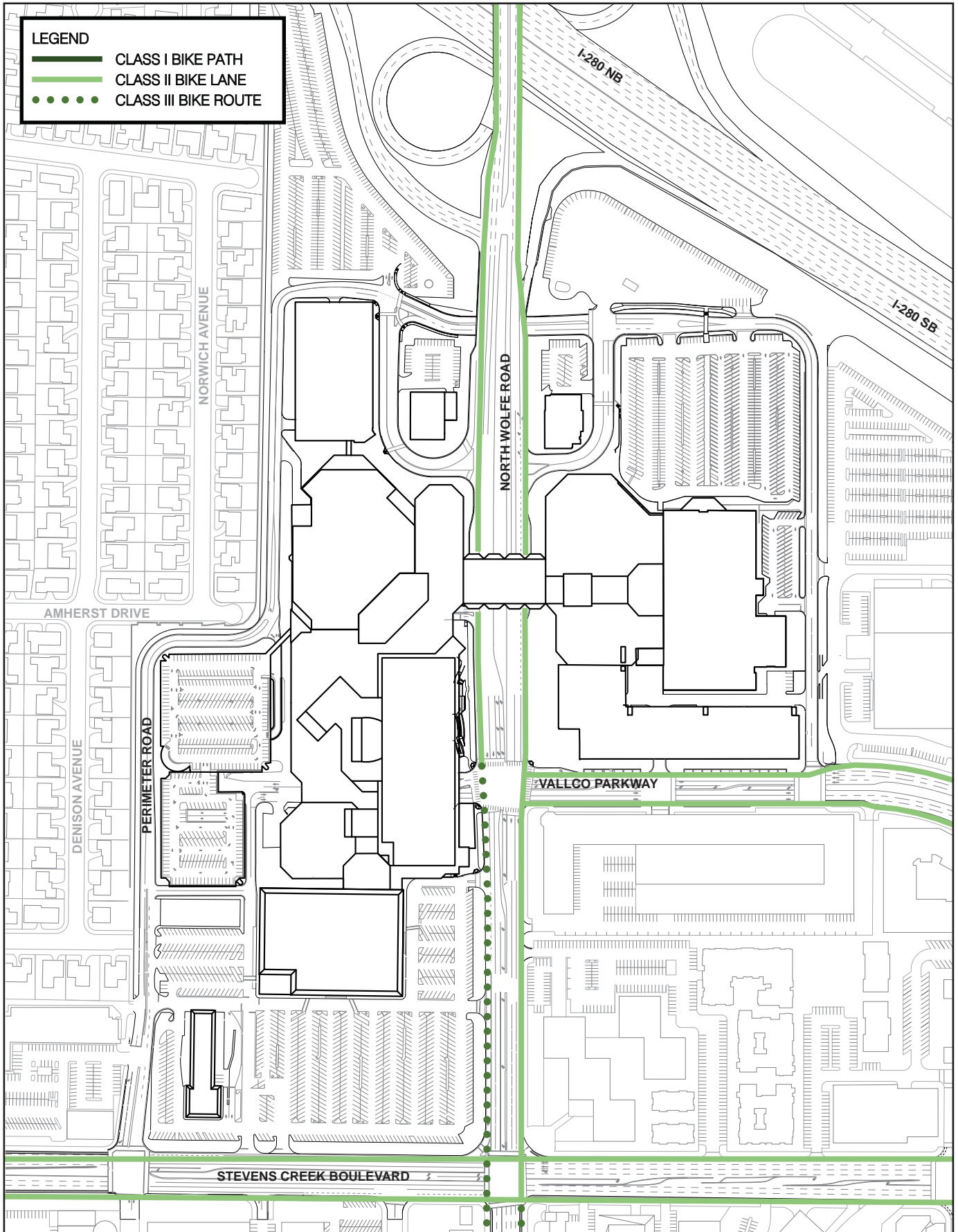
Vallco Town Center Specific Plan
 Environmental Assessment



Not to scale

Kimley»Horn

Expect More. Experience Better.



Source: ARUP, 2016

Figure 17-4: Existing Bicycle Facilities

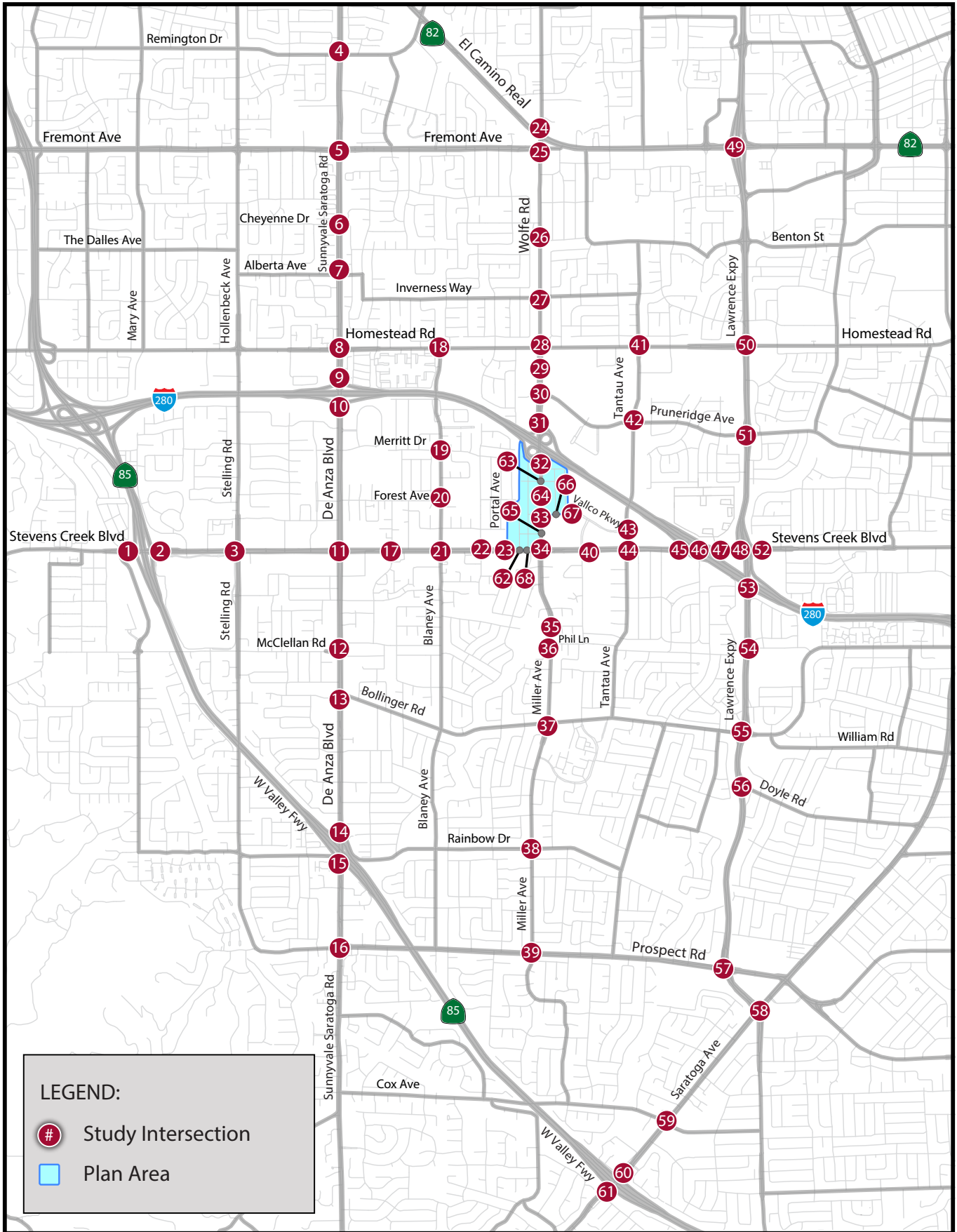
Vallco Town Center Specific Plan
 Environmental Assessment



Not to scale

Kimley»Horn

Expect More. Experience Better.

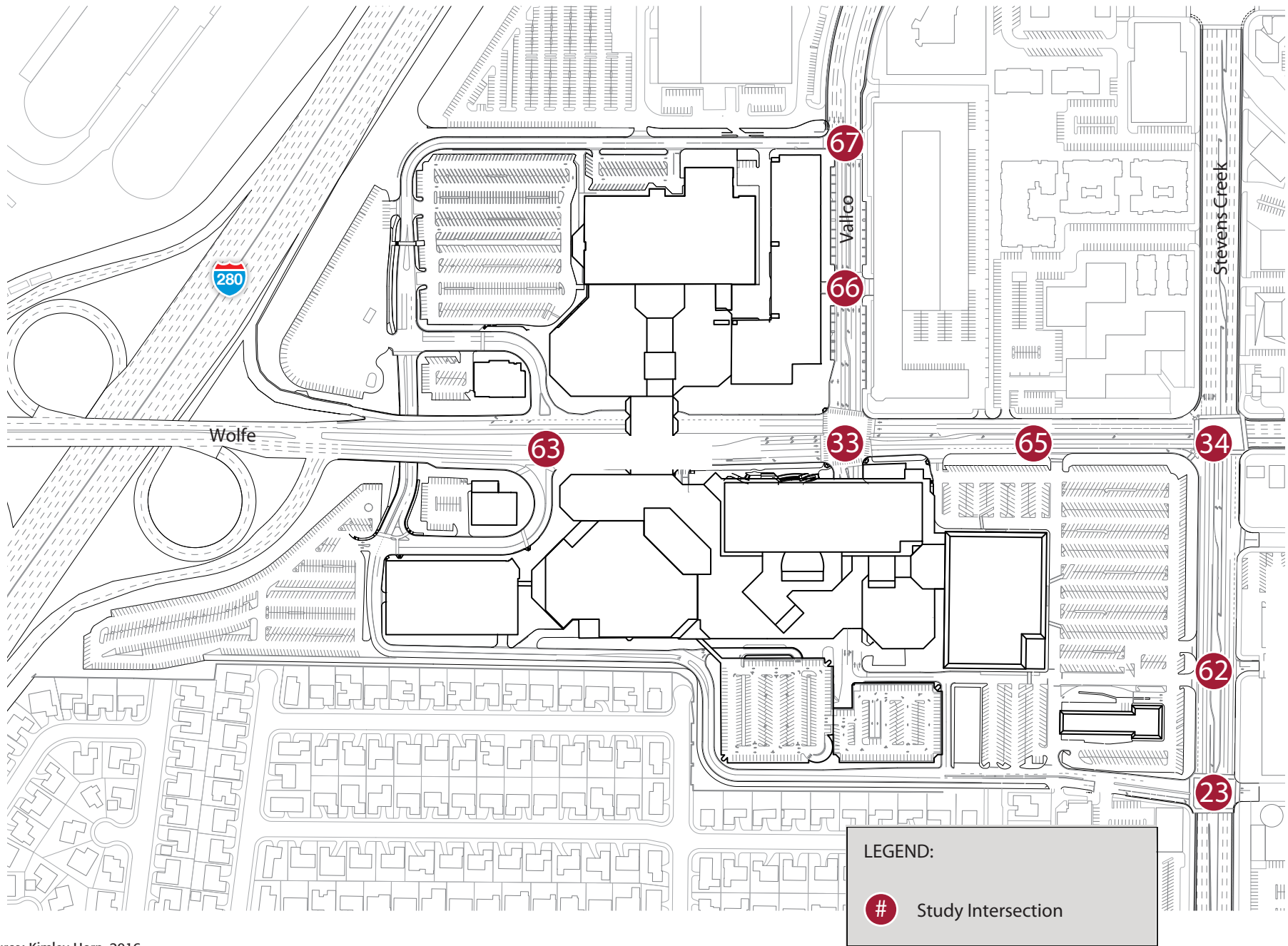


Source: Kimley-Horn, 2016

Figure 17-5: Study Intersections
 Vallco Town Center Specific Plan
 Environmental Assessment



Not to scale



Source: Kimley-Horn, 2016

Figure 17-6: Study Area Driveways - Existing

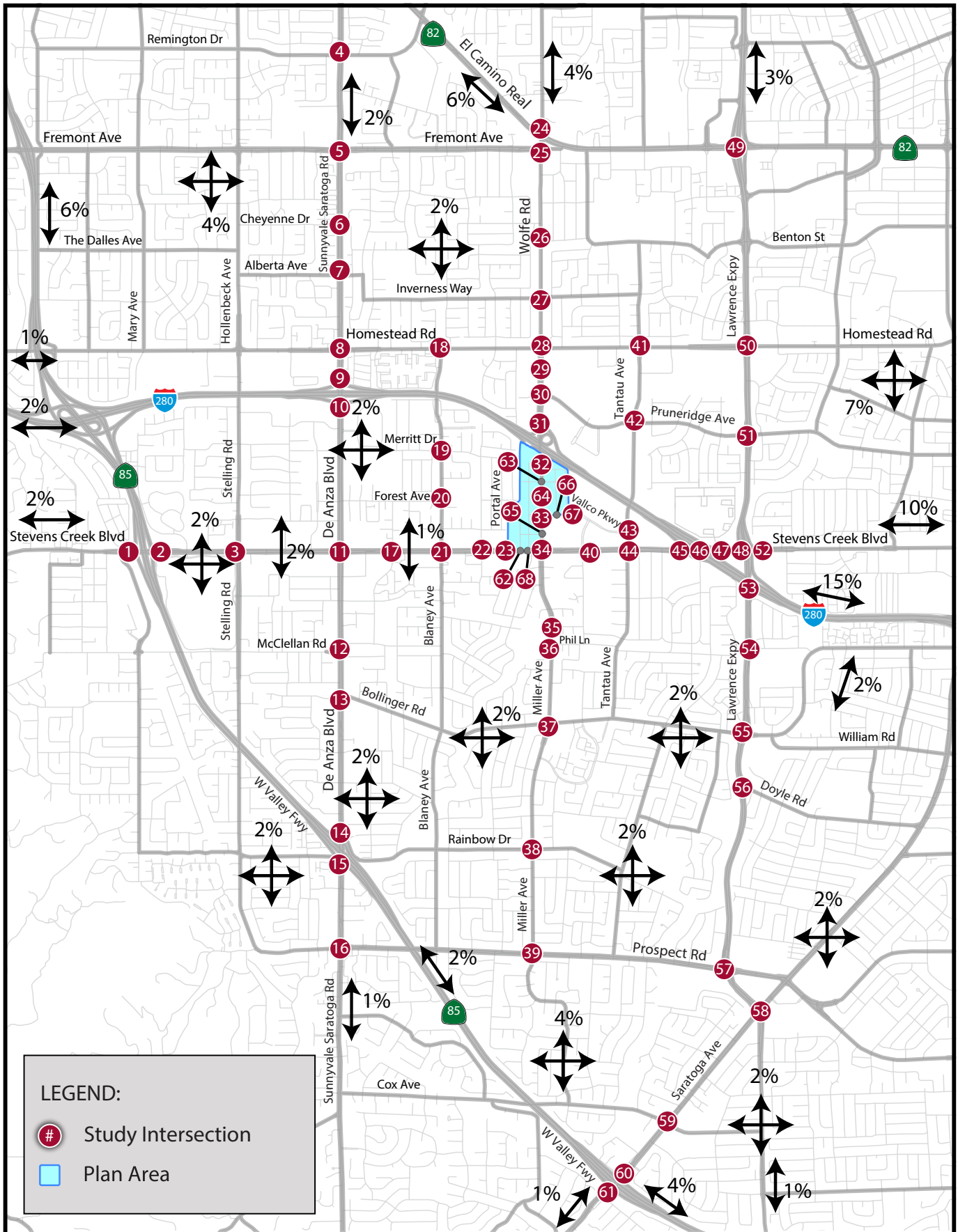
Vallco Town Center Specific Plan
 Environmental Assessment



Not to scale

Kimley»Horn

Expect More. Experience Better.



Source: Kimley-Horn, 2016

Figure 17-7: Baseline Existing Conditions Trip Distribution for the Mall

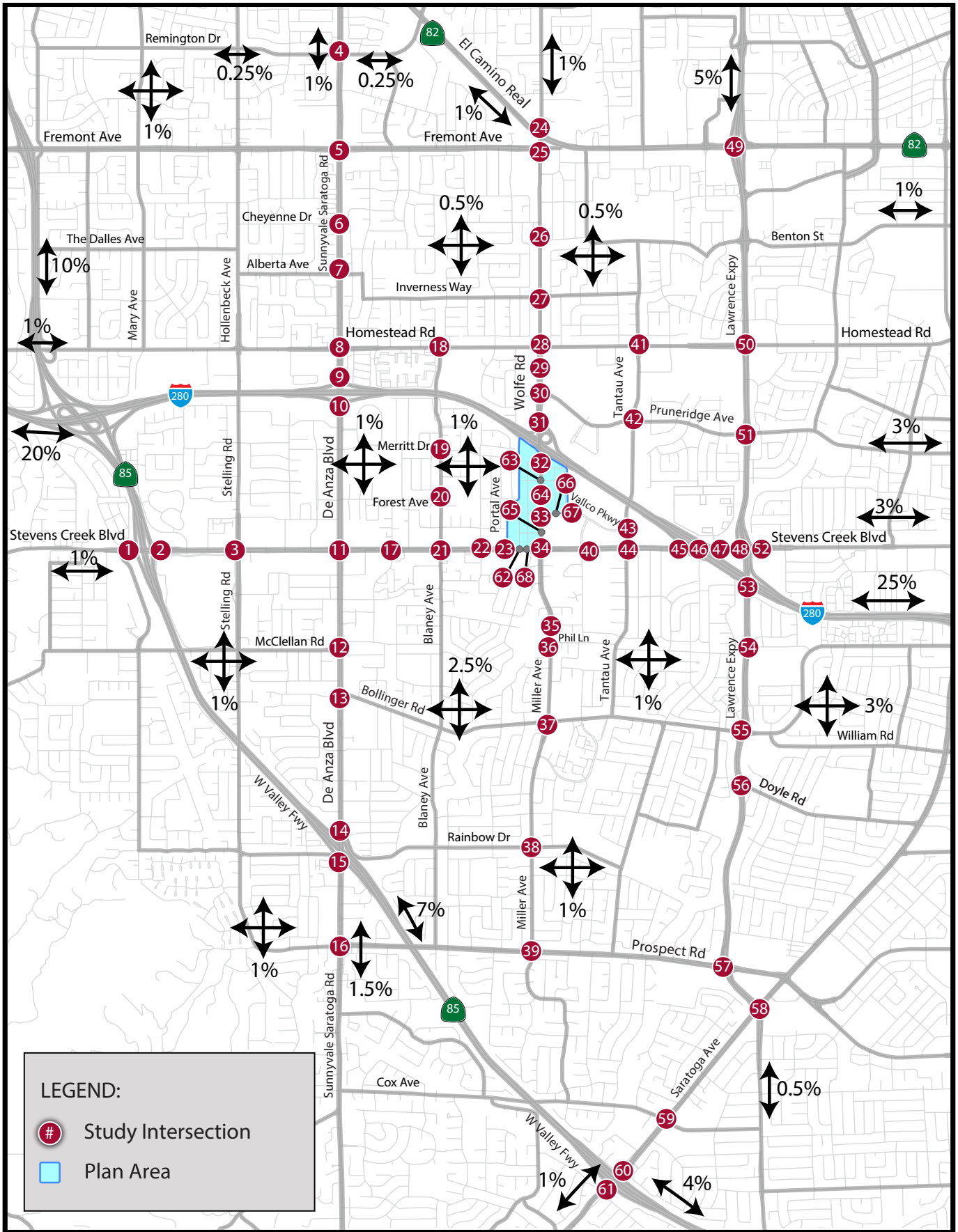
Vallco Town Center Specific Plan
Environmental Assessment



Not to scale

Kimley»Horn

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Source: Kimley-Horn, 2016

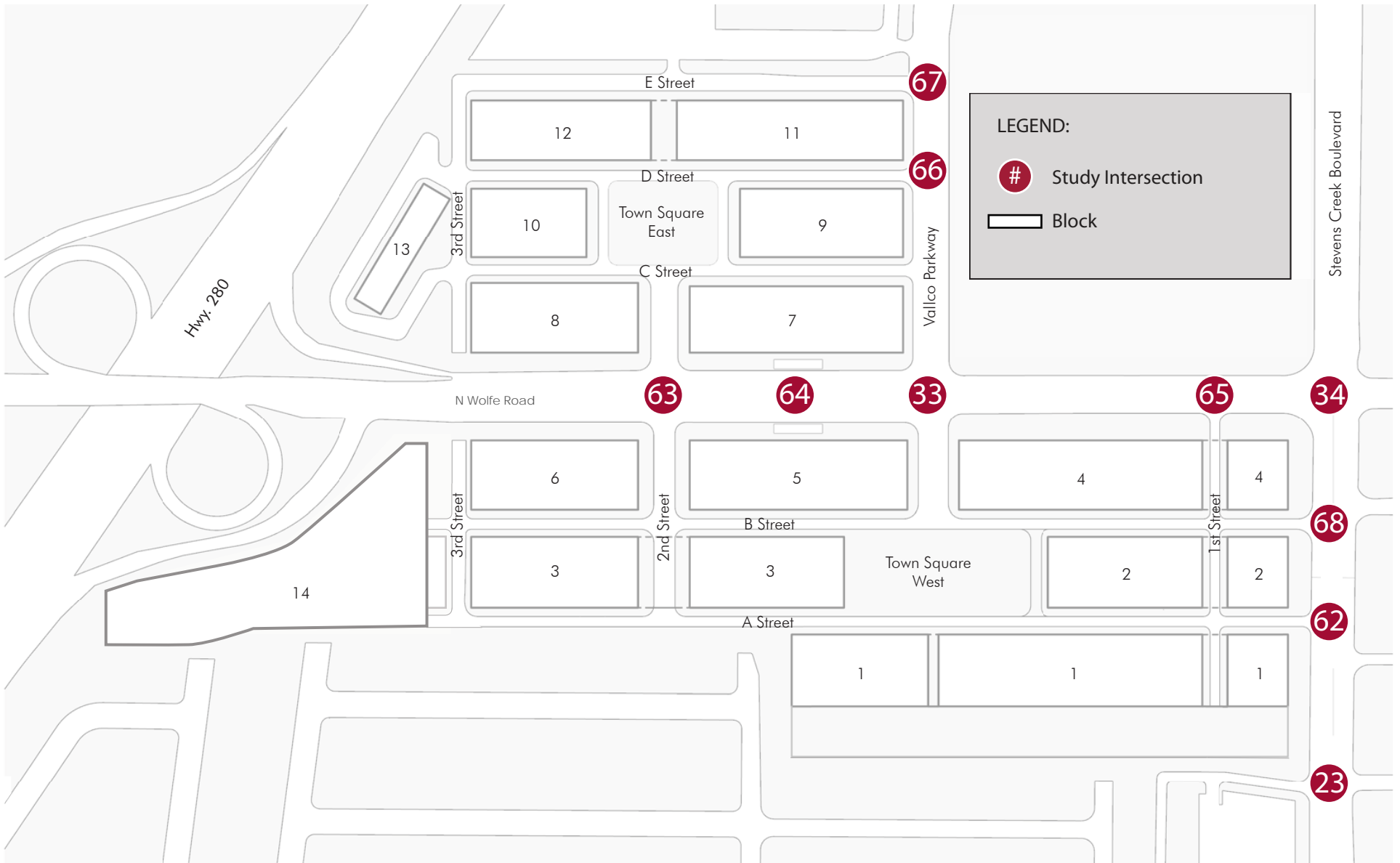
Figure 17-8: Specific Plan Trip Distribution
 Vallco Town Center Specific Plan
 Environmental Assessment



Not to scale

Kimley >>> Horn

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Source: Kimley-Horn, 2016

Figure 17-9: Study Area Driveways - Specific Plan

Vallco Town Center Specific Plan
 Environmental Assessment



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18 Utilities and Service Systems

18.1 Introduction

This chapter describes the existing setting of the Plan Area as it relates to utilities and services systems; identifies applicable regulatory requirements; evaluates potential impacts on wastewater, water, and solid waste; and references Specific Plan Environmental Design Features (EDFs) to reduce or avoid potential impacts.

Information used to prepare this chapter came from the following sources:

- City of Cupertino General Plan, *Community Vision 2015-2040*, 2015, as amended.
- PlaceWorks, 2014. General Plan Amendment, Housing Element Update, and associated Rezoning Project Draft Environmental Impact Report. State Clearinghouse No. 2014032007. Final EIR certified December 4, 2014.
- LUK and Associates, 2016. Town Center/Community Park – Recycled Water Pipeline Extension, February.
- LUK and Associates, 2016. Town Center/Community Park – Sanitary Sewer Capacity Study, February.
- LUK and Associates, 2016. Town Center/Community Park – Water Demand Assessment, February
- Cupertino Sanitation District Letter Regarding District Services to Vallco Development November 19, 2015.
- Yarne & Associates, Water Supply Assessment, Vallco Town Center Specific Plan January, 22, 2016.

18.2 Environmental Setting

This section presents information on utilities and service systems in the Plan Area. Physical impacts to utilities and service systems are usually associated with population in-migration and growth in an area, which increase the demand for a particular service, leading to the need for expanded or new facilities.

18.2.1 Utilities and Service Systems

Water

Water Supply Sources

California Water Service Company (Cal Water) is the municipal water utilities provider for the Los Altos Suburban (LAS) District of the City Cupertino where the Plan Area is located. Water supply for the LAS District is a combination of groundwater from wells in the District and treated water purchased from the Santa Clara Valley Water District (SCVWD). Approximately 32 percent of supply comes from groundwater production and 68 percent from SCVWD.

In a given year, the amount of groundwater production versus purchased treated water varies depending on the supply available from SCVWD. SCVWD imports surface water to its service area from the South Bay Aqueduct of the State Water Project (SWP), the San Felipe Division of the federal Central Valley Project (CVP) and the San Francisco Public Utilities Commission’s (SFPUC) Regional Water System. However, Cal Water only receives SCVWD water from the SWP and CVP sources.

Water Demand

The existing average daily water use from the existing shopping mall (the Mall) is estimated to be approximately 253,831 gallons per day (gpd) or 284 acre feet per year (AFY) based on Cal Water uses factors for user categories currently in the mall.¹ The water demand is calculated as follows:

- Dry goods stores: 794,771 ft² x 0.110 gpd/ft² = 87,425 gpd
- Restaurants and food stores: 149,020 ft² x 1.10 gpd/ft² = 163,922 gpd
- Commercial offices: 49,673 ft² x 0.05 gpd/ft² = 2,484 gpd
- Total Estimated Existing Average Daily Water Use: 253,831 gpd = 284 AFY

Table 18-1, *Cal Water LAS District Projected SB X7-7 Water Demand (AFY)*, provides a summary of the projected water demand for the Cal Water LAS District.

Table 18-1: LAS District Actual and Projected Water Demand (AFY)

	2005 (actual)	2010 (actual)	2015 ¹	2020	2025	2030	2035	2040
LAS District	14,758	11,648	14,440	14,706	14,983	15,273	15,577	15,984

¹ Demand Estimates for 2015 are based on actual water use data through September 2015 and estimates for October - December

Note: AFY = Acre feet per year.

Source: Yarne & Associates, 2016. Vallco Town Center Specific Plan Water Supply Assessment. January.

Water System Facilities

Cal Water has a contract with SCVWD until 2035 to purchase treated surface water and convey it to the LAS District. The SCVWD “contract” water is delivered through four connections within its transmission system. These connections are called the Vallco, Granger, Farndon, and Covington turnouts. Each of these turnouts is equipped with pressure and flow control devices that provide a hydraulic transition between their respective delivery main and the LAS District distribution system. The LAS District owns and operates a water system that includes 295 miles of pipeline, 65 booster pumps, and 46 storage tanks. Cal Water proactively maintains and upgrades its facilities to ensure a reliable, high-quality water supply.²

¹ Source: Yarne & Associates, 2016. Vallco Town Center Specific Plan Water Supply Assessment. January

² PlaceWorks. 2014. General Plan Update Vision 2040 Final Environmental Impact Report. December.

Vulnerability to Water Shortages

In 2010, Cal Water developed 5-year conservation program plans for each of its districts. The complete Los Altos Suburban District Conservation Master Plan is in Appendix G of the LAS district's 2010 Urban Water Management Plan (UWMP).³ Cal Water has developed Water Conservation Master Plans (WCMPs) for each of its districts. The WCMP is a plan for water use reduction and describes specific conservation actions to be implemented in a 5-year period. Examples of core programs in the WCMP include: rebates/vouchers for toilets, urinals, and clothes washers, residential showerhead/water conservation kits, and pop-up nozzle irrigation system distribution.

Cal Water has also developed Water Shortage Allocation Plans (WSAPs), which are plans of action to reduce water demand should significant water supply shortages occur, primarily due to drought. These actions may be implemented for several months or several years, depending on circumstances. The WSAPs differ from the WCMPs, which are focused on achieving permanent reductions in per capita water use by Cal Water's customers, and are not driven by significant short or long reductions in supply. In the short-term, the WSAPs assist Cal Water in further reducing demand to match any possible significant reductions in supply.

Cal Water has developed a four-stage approach to drought response that corresponds to specific levels of water supply shortage. At higher stages, Cal Water will become more aggressive in requiring water use reductions from its customers. The decision to move to a higher stage is based on consideration of a variety of factors including wholesale supply, availability of alternative supplies, time of year and regional coordinated activities. In each progressive stage, actions taken in earlier stages are carried through to the next stage, either at the same or an increased intensity level, thereby becoming more restrictive.⁴

Global Climate Change

Increasing attention has been paid to the issue of global climate change and its potential effects on existing water resources and supplies. Potential impacts and consequences of climate change on California's water resources include: reduction of the State's average annual snow pack; changes in the timing, intensity, location, amount, form and variability of precipitation; long-term changes in watershed vegetation that can change intensity and timing of runoff; sea level rise, increased water temperatures that can affect water quality; and changes in evapotranspiration rates that can result in increased water demands.

Studies prepared by the State of California indicate that climate change may seriously affect the State's water resources as a result of temperature increases, changes in timing and amount of precipitation, and sea level rise that could adversely affect coastal areas. Simulations conducted by the State of California predict drier conditions in the future, although at the same time there is continued risk from intense rainfall events that can generate more frequent and/or more extensive runoff; some recent reports indicate that warming temperatures, combined with

³ California Water Service Company.2011, 2010 Urban Water Management Plan. June.

⁴ Ibid.

changes in rainfall and runoff patterns, will exacerbate the frequency and intensity of droughts. Although average annual precipitation may not change, more intense wet and dry periods also are anticipated. Regions that rely heavily upon surface water could be particularly affected as runoff becomes more variable.

Recycled Water

There is currently no existing recycled water system in the vicinity of the Plan Area. In 2013 the California Department of Transportation, Santa Clara Valley Water District, the City of Sunnyvale, Cal Water, and the City of Cupertino, partnered together to initiate the Wolfe Road Recycled Water Facilities Project to extend recycled water service in the City of Sunnyvale south to the Apple Campus 2 Project located just north of the Plan Area and Interstate 280. The Wolfe Road Recycled Water Project is a short-term expansion of Sunnyvale/SCVWD's facilities and part of a greater masterplan to expand recycled water use into the west-side of Santa Clara County. Recycled water service to the Plan Area would be provided once the Wolfe Road Recycled Water Facilities Project is completed. The City of Sunnyvale would be the wholesaler for recycled water. Service to the Plan Area would include extension of this recycled water line across I-280 the Wolfe Road Recycled Water Facilities Project is completed.

Wastewater

Wastewater Conveyance

The Cupertino Sanitary District (CSD) provides sewage collection, treatment and disposal services for the communities of Cupertino, portions of Saratoga, Sunnyvale, Los Altos, and unincorporated areas within Santa Clara County, comprising approximately 15 square miles with a population of over 50,000 residents and more than 23,000 homes and businesses. The CSD owns and manages more than one million lineal feet of sewer mains, 500,000 lineal feet of sewer laterals and seventeen pump stations. The collected wastewater from all areas is conveyed to the San Jose/Santa Clara Water Pollution Control Plant (SJ/SCWPCP) through mains and interceptor lines shared with both the cities of San Jose and Santa Clara, pursuant to a joint use agreement.⁵ The SJ/SCWPCP treats wastewater for eight cities. The plant presently has a daily treatment capacity of 167 million gallons per day

Primary trunk lines serving the Plan Area include 12-inch facilities in Homestead Road, 15- and 18-inch facilities along the north side of Interstate 280 (I-280), 12- and 15-inch facilities Wolfe Road, 10- inch facilities on De Anza Boulevard, 18-inch facilities on Shetland Place, and 27-inch facilities on Pruneridge Avenue.

Within the Plan Area, an existing 15-inch sanitary sewer line flow north within Wolfe Road, traverses through a portion of the Plan Area and connects to a 15-inch system that flows under I-280. Existing sanitary sewer lines are also present in Vallco Parkway and Stevens Creek Boulevard. The majority of the existing buildings on the Plan Area discharge to the 15-inch main sewer flowing north on Wolfe Road. This 15-inch line services a large portion of the City of

⁵ PlaceWorks 2014, General Plan Update Vision 2040 Final Environmental Impact Report, December.

Cupertino, and is at capacity (assuming half full flow) for dry weather flow. The 15-inch sewer system, connects to the recently installed 27-inch at Wolfe/Pruneridge that ultimately discharges to the San Jose/Santa Clara Water Pollution Control Plant via the City of Santa Clara system.

There is also a line located in Perimeter Road on the western edge of the site that collects sewage from the Portal residential community to the west and flows to the Wolfe Road sewer main.

Wastewater Treatment

The CSD has a contractual treatment allocation with the SJ/SCWPCP of 7.85 million gallon per day (mgd), on average. Current wastewater flow to SJ/SCWPCP is approximately 5.3 mgd.⁶ In a November 19, 2015 letter to the City of Cupertino, the CSD provided the following table regarding CSD’s available capacity at the SJ/SCWPCP. **Table 18-2, Cupertino Sanitation District Wastewater Treatment Capacity**, evaluates CSD capacity based on buildout of the City of Cupertino’s General Plan. The data shows that with a full buildout of the City’s General Plan, the District will still have 1.39 mgd of allocated capacity at the treatment plant (7.85 mgd – 6.457 mgd = 1.39 mgd). As explained in Section 13, Land Use, the Specific Plan is consistent with the development allocations in the General Plan and thus will not cause wastewater treatment demand in excess of the City’s allocation under its agreement with the CSD.

Table 18-2: Cupertino Sanitation District Wastewater Treatment Capacity

Use	Current Built		2040 Buildout		Net New Buildout	
	Size	Sewer Flow	Size	Sewer Flow	Size	Estimated Sewer Flow
Office	8,916,179 sf	1.337 mgd	11,470,005 sf	1.721 mgd	+ 2,553,826 sf	0.383 mgd
Commercial	3,632,065 sf	0.363 mgd	4,430,982 sf	0.443 mgd	+ 798,917 sf	0.080 mgd
Hotel	1,116 rooms	0.223 mgd	1429 rooms	0.286 mgd	+ 313 rooms	0.063 mgd
Residential	21,412 units	3.683 mgd	23,294 units	4.007 mgd	+ 1,882 units	0.324 mgd
	Total	5.606 mgd		6.457 mgd		0.850 mgd

Cupertino Sanitary District Letter Regarding District Services to Vallco Development November 19, 2015

⁶ Ibid.

Solid Waste

The Newby Island Sanitary Landfill is a subsidiary of Republic Services, and is located at 1601 Dixon Landing Road in the City of Milpitas. This facility was established in 1938 and has an area of 342 acres. This landfill's total capacity is 57.5 million cubic yards; as of 2015, the landfill's total estimated used capacity was 36.3 million cubic yards, or 63 percent of the landfill's total capacity. The remaining capacity was 21,200,000 cubic yards, as of February 2015. The permitted daily disposal capacity is 4,000 tons per day, and the landfill is anticipated to have sufficient overall capacity until January 2041, its estimated closure date.⁷ Changes to the design or operation of the facility could extend the estimated closure date. According to the franchise agreement, the Newby Island Sanitary Landfill is prepared to accept all of the waste generated in Cupertino.

Dry Utilities

Pacific Gas and Electric Company (PG&E) provides electricity and natural gas services to the City of Cupertino. PG&E is a publicly traded utility company which generates, purchases, and transmits energy under contract with the California Public Utilities Commission (CPUC). PG&E owns and maintains above and below ground networks of electric and gas transmission and distribution facilities throughout the City. Both gas and electrical service is available and have served the existing development within the Plan Area. Existing gas and high voltage power lines are located in Wolfe Road, running from north to south. There are no proposed changes to these existing high voltage lines. Future development under the Specific Plan would extend new public gas and electric support lines from Wolfe Road to Perimeter Road in a joint trench within a new easement internal to the Plan Area. Service lines for the buildings will be extended from these new public lines. These service lines would be for the use of future development within the Plan Area but would not require any offsite improvements or an expansion of existing distribution facilities. An analysis of energy use and conservation through the implementation of the Specific Plan is included in Chapter 19. No further analysis of gas and electric utilities is required.

AT&T, Verizon, Comcast, Qwest, and Level 3 provide telecommunication services within the City of Cupertino. These service providers provide or host a variety of other telecommunication services, such as Digital Subscriber Line (DSL), Internet Service Provider (ISP), web hosting, virtual private networking, U-verse, Multi-protocol Label Switching (MPLS), content delivery network (CDN), and wireless/cellular paging services. The CPUC requires that telecommunications providers anticipate and serve new growth. To meet this requirement, these providers continually upgrade their facilities and infrastructure, adding new facilities and technology to remain in conformance with CPUC tariffs and regulations and to serve customer demand in the City. Telecommunication providers also work with the City to ensure that construction of new facilities does not interfere with any new or newly-paved streets. Existing public communication lines run underground on the east side of Wolfe Road from north to

⁷ Calrecycle.ca.gov; <http://www.calrecycle.ca.gov/SWFacilities/Directory/43-AN-0003/Detail/>, accessed January 20, 2016

south. There are no proposed changes to these lines. Internal to the Plan Area, communication lines would be extended from Wolfe Road to serve future development within the Plan Area off of Perimeter Road. Communication lines, including wireless communications, serving future development within the Plan Area would be sized appropriately to serve new users at speeds and capacities that meet current standards set by a competitive marketplace among communications providers. No lost or diminished communications services is anticipated. These utilities are available to the Plan Area and have been serving the existing development at the Mall property. No significant infrastructure upgrades for communication lines are needed to support future development in the Plan Area. No further analysis of these utilities is required.

18.3 Applicable Regulations, Plans, and Standards

18.3.1 Federal

Water

Federal Safe Drinking Water Act

The Safe Drinking Water Act authorizes the United States Environmental Protection Agency (EPA) to set national standards for drinking water, called the National Primary Drinking Water Regulations, to protect against both naturally-occurring and man-made contaminants. These standards set enforceable maximum contaminant levels in drinking water and require all water providers in the United States to treat water to remove contaminants, except for private wells serving fewer than 25 people. In California, the State Department of Health Services conducts most enforcement activities. If a water system does not meet standards, it is the water supplier's responsibility to notify its customers.

Wastewater

Clean Water Act

The Federal Water Pollution Control Act of 1972, more commonly known as the Clean Water Act (CWA), regulates the discharge of pollutants into watersheds throughout the nation. Under the CWA, the EPA implements pollution control programs and sets wastewater treatment standards.

National Pollutant Discharge Elimination System

The National Pollutant Discharge Elimination System (NPDES) permit program was established by the CWA to regulate municipal and industrial discharges to surface waters of the United States. Federal NPDES permit regulations have been established for broad categories of discharges, including point-source municipal waste discharges and nonpoint-source stormwater runoff. NPDES permits generally identify effluent and receiving water limits on allowable concentrations and/or mass emissions of pollutants contained in the discharge; prohibitions on discharges not specifically allowed under the permit; and provisions that describe required actions by the discharger, including industrial pretreatment, pollution prevention, self-monitoring, and other activities.

Wastewater discharge is regulated under the NPDES permit program for direct discharges into receiving waters and by the National Pretreatment Program for indirect discharges to a sewage treatment plant.

In California, the federal requirements are administered by the State Water Resources Control Board (SWRCB), and individual NPDES permits are issued by the California Regional Water Quality Control Boards (RWQCBs).

18.3.2 State

Water Supply

Senate Bill 610

Senate Bill (SB) 610 amended the Public Resources and Water Codes as they pertain to consultation with water supply agencies and water supply assessments. SB 610 requires that water supply assessments (WSAs) be prepared for projects that are subject to the California Environmental Quality Act (CEQA), and propose to construct 500 or more residential units or the equivalent. SB 610 provides that when environmental review of certain large development projects is required, the water agency that is to serve the development must complete a WSA to evaluate water supplies that are or will be available during normal, single dry, and multiple dry years during a 20-year projection to meet existing and planned future demands, including the demand associated with a proposed project. A WSA pursuant to SB 610 was prepared by Cal Water for the Specific Plan. The results of the WSA are incorporated into the analysis below.

Senate Bill 221

Whereas SB 610 requires a written assessment of water supply availability, SB 221 requires lead agencies to obtain an affirmative written verification of sufficient water supply prior to approval of certain specified subdivision projects. For this purpose, water suppliers may rely on an Urban Water Management Plan (if the proposed project is accounted for within the UWMP), a WSA prepared for the project, or other acceptable information that constitutes “substantial evidence.” “Sufficient water supply” is defined in SB 221 as the total water supplies available during normal, single-dry and multiple-dry water years within the 20-year (or greater) projection period that are available to meet the projected demand associated with a proposed project, in addition to existing and planned future uses.

Urban Water Management Planning Act

The Urban Water Management Planning Act (California Water Code Section 10631) requires every urban water supplier that provides water to 3,000 or more customers or provides over 3,000 acre-feet of water annually to prepare and adopt an urban water management plan (UWMP) (updated every 5 years) for the purpose of “actively pursu[ing] the efficient use of available supply.” In preparing the UWMP, the urban water supplier is required to coordinate with other appropriate agencies, including other water suppliers that share a common source, water management agencies, and relevant public agencies. When a city or county proposes to adopt or substantially amend a general plan, the water agency is required to provide the

planning agency with the current version of the adopted UWMP, the current version of the water agency's capital improvement program or plan, and other information about the system's sources of water supply. The Urban Water Management Planning Act also requires urban water suppliers, as part of their long-range planning activities, to make every effort to ensure the appropriate level of reliability in their water service sufficient to meet the needs of their various categories of customers during normal, dry, and multiple dry water years.

The Water Conservation Act of 2009

California legislation enacted in 2009 as Senate Bill (SB) 7 of the 7th Special Legislative Session (SB X7-7) instituted a new set of urban water conservation requirements known as "20% by 2020." These requirements stipulate that urban water agencies such as Cal Water reduce per capita water use within their service areas by 20% relative to their use over the previous 10 to 15 years. Cal Water plans to comply with the SB X7-7 requirements through a combination of ongoing water conservation measures and additional recycled water development.

Wastewater

On May 2, 2006 the SWRCB adopted a General Waste Discharge Requirement (Order No. 2006-0003) for all publicly owned sanitary sewer collection systems in California with more than 1 mile of sewer pipe. The order provides a consistent statewide approach to reducing sanitary sewer overflows (SSOs) by requiring public sewer system operators to take all feasible steps to control the volume of waste discharged into the system, to prevent sanitary sewer waste from entering the storm sewer system, and to develop a Sewer System Management Plan (SSMP). The General Waste Discharge Requirement also requires that storm sewer overflows be reported to the SWRCB using an online reporting system. The SWRCB has delegated authority to nine Regional Water Quality Control Boards to enforce these requirements within their region. The Plan Area is within the jurisdiction of the San Francisco Bay RWQCB.

Solid Waste

California Integrated Waste Management Act

California's Integrated Waste Management Act of 1989 (AB 939) requires that cities and counties divert 50 percent of all solid waste from landfills as of January 1, 2000, through source reduction, recycling, and composting. AB 939 also establishes a goal for all California counties to provide at least 15 years of ongoing landfill capacity. To help achieve this goal, the Act requires that each city and county prepare a Source Reduction and Recycling Element to be submitted to the Department of Resources Recycling and Recovery (CalRecycle), a department within the California Natural Resources Agency, which administers programs formerly managed by the State's Integrated Waste Management Board and Division of Recycling. As part of California's Integrated Waste Management Board's (CIWMB) Zero Waste Campaign, regulations affect what common household items can be placed in the trash. As of February 2006, household materials—including fluorescent lamps and tubes, batteries, electronic devices and thermostats that contain mercury—are no longer permitted in the trash and must be disposed of separately.

In 2007, SB 1016 amended AB 939 to establish a per capita disposal measurement system. The per capita disposal measurement system is based on a jurisdiction's reported total disposal of solid waste divided by a jurisdiction's population. CIWMB sets a target per capita disposal rate for each jurisdiction. Each jurisdiction must submit an annual report to CIWMB with an update of its progress in implementing diversion programs and its current per capita disposal rate.

California Solid Waste Reuse and Recycling Access Act of 1991

The California Solid Waste Reuse and Recycling Access Act requires areas in development programs to be set aside for collecting and loading recyclable materials. The Act required CalRecycle to develop a model ordinance for adoption by any local agency relating to adequate areas for collection and loading of recyclable materials as part of development projects. Local agencies are required to adopt the model, or an ordinance of their own, governing adequate areas in development programs for collection and loading of recyclable materials.

CALGreen Building Code

The California Green Building Standards Code (CALGreen Code) came into effect for all projects beginning after January 1, 2011. Section 4.408, Construction Waste Reduction Disposal and Recycling mandates that, in the absence of a more stringent local ordinance, a minimum of 50 percent of non-hazardous construction and demolition debris must be recycled or salvaged. The Code requires the applicant to have a waste management plan for on-site sorting of construction debris.

18.3.3 Local

City of Cupertino General Plan

The City of Cupertino's General Plan, *Community Vision 2015-2040*, as amended, includes policies in its Health and Safety Element that relate to utilities and service systems. A list of the relevant General Plan policies and strategies are provided below. A General Plan Land Use Consistency Analysis for the Specific Plan is provided in **Chapter 13, Land Use and Planning, Table 13-1**.

Policy ES-7.6: Other Water Sources

Encourage the research of other water sources, including water reclamation.

Strategy ES-7.9.1: Water Conservation Measures

Implement the mandatory water conservation measures and encourage the implementation of voluntary water conservation measures from the City's water retailers and SCVWD, in times of drought.

Policy ES-7.11: Water Conservation and Demand

Reduction Measures Promote efficient use of water throughout the City in order to meet State and regional water use reduction targets.

Strategy ES-7.11.3: Recycled Water System

Continue to work with water retailers to promote and expand the availability of recycled water in the City for public and private use.

Strategy ES-7.11.4: Recycled Water in Projects

Encourage and promote the use of recycled water in public and private buildings, open space and streetscape planting.

Strategy ES-7.11.5: On-site Recycled Water

Encourage on-site water recycling including rainwater harvesting and gray water use.

Strategy ES-7.11.6: Water Conservation Programs

Benchmark and continue to track the City's public and private municipal water use to ensure ongoing accountability and as a means of informing prioritization of future agency water conservation projects.

Strategy ES-7.11.7: Green Business Certification and Water Conservation

Continue to support the City's Green Business Certification goals of long-term water conservation within City facilities, vegetated stormwater infiltration systems, parks and medians, including installation of low-flow toilets and showers, parks, installation of automatic shut-off valves in lavatories and sinks and water efficient outdoor irrigation.

Strategy INF-1.1.3: Private Development

Require new development to pay its fair share of, or to extend or construct, improvements to the City's infrastructure to accommodate growth without impacting service levels.

Strategy INF-1.1.4: Coordination

Require coordination of construction activity between various providers, particularly in City facilities and rights-of-way, to ensure that the community is not unnecessarily inconvenienced. Require that providers maintain adequate space for all utilities when planning and constructing their infrastructure.

Strategy INF-.4.2: Private Development Future Infrastructure Needs

For new infrastructure, require new development to pay its fair share of, or to extend or construct, improvements to accommodate growth without impacting service levels.

Policy INF-2.5: Recycled Water Infrastructure

Plan for citywide access to recycled water and encourage its use.

Strategy INF-2.5.1: Availability

Expand the availability of a recycled water system through public infrastructure projects and development review.

Strategy INF-2.5.2: Use

Encourage private and public projects to incorporate the use of recycled water for landscaping and other uses.

GOAL INF-8: Develop and Enhance Programs that Reduce, Reuse and Recycle Waste*Policy INF-8.1: Reducing Waste*

Meet or exceed Federal, State and regional requirements for solid waste diversion through implementation of programs.

Strategy INF-8.1X: Construction Waste

Continue to require recycling and encourage the reuse of building materials during demolition and construction of City, agency, and private projects.

Strategy INF-8.1.x: Recycled Materials

Encourage the use of recycled materials and sustainably harvested materials in City, agency and private projects.

Water

In addition to the General Plan, the City of Cupertino Municipal Code shapes the form and character of physical development in the City of Cupertino. The following provisions from the Municipal Code address the conservation of water resources in Cupertino:

- Chapter 15.32 establishes the City's water conservation measures with the intent to reduce the consumption of water, assure reasonable and beneficial use of water, prevent the waste of water, and maximize the efficient use of water across the City of Cupertino. Section 15.32.030 identifies the prohibited uses of water within the City and Section 15.32.040 provides provisions for the City Council to determine that additional restrictions on water use are needed as a result of other water supply conditions to achieve additional water conservation goals and adopt Regulations Restricting Water Use.
- Chapter 16.58 sets out the City's green building standards, including the CALGreen requirements with local amendments for projects in the city. This chapter codifies green building techniques, including measures affecting water use efficiency and water conservation. Sections 16.58.100 through 16.58.220 sets forth the standards for green building requirements by type of building. As shown on Table 101.10 in Section 16.58.220, developments of single family and multi-family homes greater than nine homes and buildings larger than 50,000 square feet are required to be Leadership in

Energy & Environmental Design (LEED) Certified⁸; non-residential buildings from 25,000 to 50,000 square feet are required to be LEED certified, and non-residential buildings greater than 50,000 square feet are required to be LEED Silver. Under Section 16.58.230, applicants may apply an alternate green building standard in lieu of the minimum standards outlined above that meet the same intent of conserving resources and reducing solid waste and includes a formalized certified process verified by a third party.

- Chapter 14.15, Landscaping Ordinance, establishes water-efficient landscaping standards to conserve water use on irrigation. The provisions of this chapter apply to landscaping projects that include irrigated landscape areas, exceeding 2,500 square feet when these projects are associated with new water service, subdivision improvements, grading and drainage improvements, a new construction subject to a building permit, or building additions or modifications subject to grading and drainage plan approval.

Wastewater

The following provisions from the Municipal Code help ensure wastewater treatment capacity and sewer infrastructure is adequate to serve the residents and employees of Cupertino:

- Chapter 15.20, Sewage Disposal Systems, establishes standards for the approval, installation, and operation of individual onsite sewage disposal systems consistent with the California Regional Water Quality Board standards. The chapter sets regulation for connecting to public sanitary sewer system, including required permits, Soil Test requirement, and procedures for plan approval by the Health Officer.

Solid Waste

The following provisions from the Municipal Code ensure that the City is consistent with the requirements of the California Integrated Waste Management Act (AB 939), described above. The City has adopted the State's model ordinance to fit local conditions, in a manner that complies with AB 1327, the California Solid Waste Reuse and Recycling Areas Act of 1991, also described above.

Chapter 9.16 contains provisions for the City to address access to solid waste for source reduction, recycling and composting activities. Section 9.16.040 provides site development regulations which require, in part, recycling areas for multi-tenant development projects. Section 9.16.045 requires any person owning, controlling or maintaining any premises within the City which is required to have and maintain recycling area enclosures as a condition of development, shall keep all garbage, organic waste, recycling, and other waste containers within the confines of the enclosures at all times except when the containers are being emptied by the solid waste collector.

⁸ Leadership in Energy & Environmental Design (LEED) is a green building certification program that recognizes best-in-class building strategies and practices that reduce consumption energy, and water, and reduce solid waste directly diverted to landfills.

18.4 Environmental Impacts and Design Features

18.4.1 Significance Criteria

The following significance criteria for utilities and service systems were derived from the Environmental Checklist in the State CEQA Guidelines Appendix G. These significance criteria have been amended or supplemented, as appropriate, to address the City of Cupertino requirements and the full range of potential impacts related to implementation of the Specific Plan.

An impact of the Specific Plan would be considered significant and would require mitigation if it met one of the following criteria.

- Exceed wastewater treatment requirements of the San Francisco Bay Regional Water Quality Control Board.
- Require or result in the construction of new water facilities or expansion of existing facilities, the construction of which could cause significant environmental effects.
- Require or result in the construction of new wastewater facilities or expansion of existing facilities, the construction of which could cause significant effects.
- Cause there to be insufficient water supplies to serve the Specific Plan from existing entitlements and resources, requiring new or expanded entitlements.
- Result in a determination by the wastewater treatment provider which serves or may serve Specific Plan development that it has adequate capacity to serve the Specific Plan's projected demand in addition to the provider's existing commitments.
- Be served by a landfill with sufficient permitted capacity to accommodate the Specific Plan development's solid waste disposal needs.
- Violate applicable, federal, state, and local statutes and regulations related to solid waste.

18.4.2 Impacts of the Proposed Specific Plan

Impact U-1: Would implementation of the Specific Plan exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?

Future development under the Specific Plan would require treatment of wastewater generated within the Plan Area by the use of toilets, sinks, showers, drinking fountains, and laundry facilities. The CSD collection system directs wastewater to the SJ/SCWPCP, a joint powers authority.

The San Francisco RWQCB established wastewater treatment requirements for the SJ/SCWPCP in an NPDES Permit (Order No. R2-2009-0038), adopted April 8, 2009 and effective June 1, 2009. The NPDES Permit sets out a framework for compliance and enforcement applicable to operation of the SJ/SCWPCP and its effluent, as well as those contributing influent to the SJ/SCWPCP. This NPDES Permit currently allows dry weather discharges of up to 167 million gallons per day (mgd) with full tertiary treatment, and wet weather discharges of up to 271

mgd with full tertiary treatment.⁹ The CSD has indicated that the District has the capacity with SJ/SCWPCP for wastewater treatment for the future development of the Plan Area.¹⁰ Therefore, potential impacts are considered less than significant.

Impact U-2: Would implementation of the Specific Plan require the construction of new wastewater treatment or storm drain facilities, or expansion of existing facilities, the construction of which could cause significant environmental effects?

Development under the Specific Plan would include a variety of different uses as described in the Specific Plan Description in Chapter 3 that would generate sewer flows. Wastewater from within the Plan Area would come from the Town Center/Community Park, the approved hotel on the Block 13, and potentially a hotel with supporting commercial uses on Block 14 (no development is proposed on Block 14 at this time). The Town Center/Community Park development would be the largest generator of the three because it is the largest development. Table 18-3, Proposed Town Center/Community Park Sewer Flows with Peaking Factors, shows the maximum anticipated sewer flows anticipated as a result of developing the Town Center/Community Park within the Plan Area.

Table 18-3: Proposed Town Center/Community Park Sewer Flows with Peaking Factors

Use	Project Annual Water Use (AF) ¹	Project Sewer Flows			
		Daily (cfs)	Daily (mgd)	Daily with Peaking Factor (cfs) ²	Daily with Wet Weather Peaking Factor (cfs) ³
Indoor – Office	38	0.05	0.03	0.08	0.22
Indoor – Cooling Towers	66	0.08	0.05	0.14	0.39
Indoor – Residential	18	0.02	0.01	0.04	0.11
Indoor – Retail	90	0.11	0.07	0.19	0.53
Total	212	0.26	0.17	0.44	1.23
East of Wolfe Rd		0.13	0.08	0.21	0.60
West of Wolfe Rd		0.13	0.09	0.22	0.63

Notes:

- Sanitary Sewer Flows Assumed 90% of Water Use
- Dry Weather Peaking Factor = 1.65 (Peak Dry Weather flow / Average Flow)
- Wet Weather Peaking factor = 4.68 (Peak Flow / Average Flow)

Source: LUK and Associates, 2015

The CSD currently conveys approximately 5.3 mgd of wastewater to the SJ/SCWPCP. The Town Center/Community Park development would add an average of 0.17 mgd daily, which represents an approximately 3 percent increase in the existing 5.3 mgd currently conveyed by CSD, and would not exceed 7.5 mgd that the CSD is contracted with the SJ/WPCP. This is a

⁹ San Francisco RWQCB NPDES Permit (order No. R2-2009-0038) for SJ/SCWPCP.

http://www.waterboards.ca.gov/sanfranciscobay/board_info/agendas/2009/april/SJSC_FinalOrder%20-%204-09.pdf (accessed January 20, 2016)

¹⁰ Cupertino Sanitation District Letter Regarding District Services to Vallco Development November 19, 2015

conservative analysis because it does not take into account any waste water currently generated from the existing uses in the Mall. Additionally, the growth associated with implementation of the Specific Plan is consistent with the existing General Plan and is accounted for in growth projections for the CSD. As such, the development under the Specific Plan would not require the construction of a new wastewater treatment facility nor the expansion of an existing treatment facility. Potential impacts are considered less than significant.

The maximum collective capacity of the existing sanitary sewer mains entering the Plan Area is 6.45 cfs. The capacity of the existing pipe flowing north Wolfe Road across Interstate 280 (I-280) is 2.48 cfs and is currently operating at capacity.

The proposed Wastewater Plan for the Specific Plan proposes to reroute the sewer main that flows north on Wolfe Road to flow south to Vallco Parkway and then east along Vallco Parkway to the intersection with Perimeter Road. A new public sanitary sewer main would be installed in Perimeter Road located within a public utility easement around the Plan Area and would be reconnected to an upgraded sewer main that crosses the I-280. All existing laterals along Vallco Parkway would be reconnected to the new line. Based on the projected sewer flows, upgrades to the existing lines in Wolfe Road would be required to accommodate the projected flows from implementation of the Specific Plan. The anticipated pipe size would include a 21-inch line and a parallel 18-inch line. The Specific Plan Wastewater Plan is shown in [Figure 18-1](#),

Conceptual Wastewater Plan.

Effluent generated by the Town Center/Community Park development would be separated into greywater (re-usable water) and black water (water requiring treatment at the SJ/SCWPCP). The grey water would be used on-site for irrigation within the Town Center/Community Park development and potentially other uses as allowed by code while black water would be discharged into the relocated public sanitary sewer mains.

Development of the previously approved hotel on Block 13 was determined to be less than significant in the adopted Mitigated Negative Declaration prepared for the hotel development. Development of the hotel was not expected to generate enough wastewater to require CSD to purchase more wastewater capacity from the SJ/SCWPCP nor require the construction or expansion of new wastewater treatment facilities. As a result, new or expanded wastewater treatment facilities would not be required, and impacts to wastewater treatment facilities were determined to be less than significant.

No development is proposed on Block 14 at this time. Future development on this site could include a 191-room hotel with supporting commercial uses consistent with the existing City of Cupertino General Plan. Future development on this site would be required to tie-in to the existing sanitary sewer main in Wolfe Road. Development consistent with City's General Plan would be within the CSD's capacity to serve future development on this site. Prior to approving any development on Block 14 a site specific analysis of the sewer demand would be required.

As a result, new or expanded wastewater treatment facilities would not be required, and impacts to wastewater treatment facilities were determined to be less than significant.

The addition of wastewater flow from implementation of the Specific Plan would result in the need to increase the size of the existing sewer mains. Implementation of EDF 57 would reduce potential impacts to less than significant.

Environmental Design Feature for Impact U-2

EDF 57 Sanitary Sewer Conveyance Facilities

Prior to the issuance of occupancy permit(s) for the final construction sequence, the Town Center/Community Park applicant and other project applicants for future development shall demonstrate to the reasonable satisfaction of the Public Works Director that adequate sanitary sewer services are available.

Impact U-3: Would implementation of the Specific Plan incrementally increase potable water demand within the service area? Are sufficient water supplies available to serve future development under the Specific Plan from existing entitlements and resources, and no new or expanded entitlements or facilities, the construction of which would have significant environmental effects, are needed?

A WSA was prepared for the Plan Area. The water demand for a 191-room hotel on Block 14 is included in the overall water demand projections for the Plan Area. No development is proposed at this time, and as such, there is no breakdown of specific water demand or water conservation components for this potential use. However, because the Town Center/Community Park is anticipated to generate the most substantial water demand within the Plan Area and also implement the majority of the water conservation techniques including the use of recycled water and the proposed Community Park and Nature Area, a specific breakdown of the water demand for this portion of the Plan Area is provided. The projected water demand for this development is generally categorized as follows:

- Indoor fixtures in the commercial, residential and retail components of the Town Center/Community Park (toilets, urinals, sinks, drinking fountains, showers, water for cooking and cleaning, etc.)
- Process water for mechanical cooling system
- Landscape irrigation

Indoor Fixtures

The Specific Plan Sustainability Strategies include the use of water-efficient infrastructure and fixtures. These strategies consider the implementation of water-efficiency measures for indoor, outdoor, and cooling systems.

Indoor water demand can be reduced by improving the efficiency of the water fixtures beyond the minimum code requirements. Examples of fixture efficiency measures are as follows:

- Reduce toilet flushing from 1.6 gallons per flush to 1.28 (CALGreen requirement is 1.28 gpf)
- Reduce urinal flushing from 1 gallon per flush to 0.125 (CALGreen requirement is 0.6 gpf)
- Reduce shower flow rates from 2.5 gallons per a minute to 1.5 (CALGreen requirement is 2 gpm)
- Reduce kitchen sink flow rates (CALGreen requirement is 1.8 gpm)
- Reduce lavatory faucets from 1.5 gallons per minute to 0.5 (CALGreen requirement is 0.5)

Combined, these efficiency measures result in a fixture water demand reduction of approximately 35 percent.

Cooling Systems

As noted in Chapter 3, the Town Center/Community Park would develop a central plant in the Facility Management area of the Plan Area. The central plant would be located in the northern portion of the Plan Area adjacent to I-280. The central plant would contain the main infrastructure for the cooling systems for the Town Center/Community Park development. Process water for the building cooling systems would result in the largest water demand. Because of this, it is desirable for the cooling towers to run on recycled water. However, the towers are anticipated to use slightly more water overall with recycled water due to elevated chloride concentrations.

Landscape Irrigation

Adjustments to the landscape irrigation demand assumptions significantly impact the water estimate. Irrigation demand is reduced by using plants that consume less water and by increasing the efficiency of the irrigation systems. Future development under the Specific Plan would extend the recycled water line from the Wolfe Road Recycled Water Facilities across I-280 (discussed below). At that time, a majority of landscape irrigation demands would be met by recycled water.

Water Demand

The Specific Plan document includes sustainability strategies and infrastructure design guidelines with the intent of maximizing water conservation measures. The following conservation measures included in the Specific Plan are:

- Utilize the municipal recycled water supply for irrigation, central plant cooling towers, and toilet flushing, reusing greywater when possible, and sending blackwater to the local sewage treatment plant that supplies the recycled water, closing the water conservation loop;
- Collect rainwater and minimally treat to offset some of the recycled water use and also meet stormwater goals;

- Obtain potable water from drinking, sinks, and showers from the public water supply for use as greywater;
- Reduce water consumption through building energy efficiency, to minimize water wasted through the generation of energy;
- Use water efficient native or regionally appropriate landscaping; and
- Preserve existing trees.

The total annual demand for implementation of the Specific Plan is shown in [Table 18-4, Water Demand Summary Using Potable Water and Recycled Water](#). [Table 18-4](#) provides baseline demand rates and use assumptions typical of a development built in Silicon Valley today to compare the water demand and proposed water savings from development under the Specific Plan. As shown in the table, incorporating water efficient fixtures and landscaping into future Specific Plan development reduces potable water demand by approximately 227 acre-feet (529 AFY – 302 AFY) on an annual basis.

When available, recycled water would be used for non-potable needs such as toilet flushing, cooling demands, and a portion of irrigation requirements. These demands constitute approximately 33 percent of the demand, equivalent to approximately 99 AFY. On-site rainwater reuse and greywater treatment systems are being investigated to limit the amount of water used as well. It is currently assumed that at least 50 percent of the landscape irrigation needs can be met with recycled water.¹¹ As shown in [Table 18-4](#), the irrigation demand for the Town Center/Community Park portion of the Specific Plan, including the Community Park and Nature Area would be 76 acre feet per year under a typical development scenario. However, the Specific Plan Landscape and Public Realm Element that landscaping within this area will consist of a variety of trees, shrubs and ground covers been selected to thrive with little or no irrigation. Small areas of planting with specific programmatic uses or historical references such as lawns and orchards, will be maintained using primarily non-potable water sources such as municipal recycled water or on-site greywater and stormwater capture and reuse. As such, irrigation demand is reduced by using plants that consume less water and by increasing the efficiency of the irrigation systems. Therefore, irrigation demand is reduced by approximately 31 AFY (40 percent) compared to Typical Development shown in [Table 18-4](#). The proposed demand is also less than the 284 AFY per year water demand from the existing development within the Mall.

The Specific Plan proposes the construction a dual plumbing system to accommodate recycled water when it becomes available within the Plan Area. This commitment would reduce the amount of potable water for domestic uses. Toilet flushing, cooling, and limited landscape irrigation demands can potentially be met using recycled water, assuming acceptable level of quality.

¹¹ LUK and Associates, Water Demand Assessment, November 4, 2015

Table 18-4: Annual Water Demand Summary Using All Potable Water and Recycled Water (in acre-feet [AF])

Use	Typical Development		Specific Plan	
	Potable Demand	Recycled Demand	Potable Demand	Recycled Demand
Indoor – Office	30	26	23	15
Indoor – Cooling Towers	24	6	16	2
Indoor – Residential	128	7	86	5
Indoor – Retail	78	78	33	33
Irrigation	76	76	45	45
Total	336	192	203	99
Percentage of Total	64%	36%	67%	33%

Source: LUK and Associates, 2015

The WSA prepared for the LAS District of Cal Water evaluated the potential impacts of the Plan Area using Cal Water’s Average Water Use Factors. The water demand as calculated in the WSA for the Specific Plan is shown in **Table 18-5, Vallco Specific Plan Water Use**. As shown in **Table 18-5**, the total water demand for the Plan Area is 439 AFY and the net increase over the existing demand is 155 AFY.

Table 18-5: Projected Vallco Specific Plan Water Use

Use	Projected Demand (gpd)	Projected Demand (AFY)
Retail and Recreational	212,520	238
Residential	41,220	46
Office and Related Uses	87,938	99
Civic	3,330	4
Other Supportive Uses	9,075	10
Hotel (Block 14) ¹	37,245	42
Total	391,328	439
Net Increase From Existing Demand (253,831 gpd/284 AFY)	391,328 – 253,831 = 137,497	439-284 = 155

¹ Projected, no development is proposed at this time.

Source: Yarne & Associates, 2016. Vallco Shopping District Specific Plan Water Supply Assessment. January

Water Availability

Water supply for the LAS District is from Cal Water wells and purchased treated water from SCVWD. Approximately, 32 percent of total supply is from Cal Water wells and 68% is purchased water. In normal hydrologic years, Non-Contract water (i.e., additional water above what is contracted) is expected to be available. Cal Water also expects increases in approved SCVWD deliveries will

eventually reduce availability of Non-Contract water. According to the SCVWD 2012 Water Infrastructure Plan (WIP), LAS District projected water scheduled delivery amounts will be available through at least 2035.

Cal Water's well capacity is sufficient to accommodate reductions in treated water from SCVWD. The LAS distribution system has the ability to meet demands under reduced deliveries from SCVWD and increased use of Cal Water wells. LAS district groundwater supplies are not limited during multiple dry year periods. An adequate supply to meet projected demands is expected to be available during multiple-dry year events. During future dry periods customer water use patterns are expected to be similar to past events.

According to SCVWD's UWMP, if reductions in State Water Project and Central Valley Project deliveries occur due to drought events, the diversion of water to percolation ponds will be curtailed first, followed by agricultural deliveries, and finally urban water deliveries. When this happens an increased reliance will be put on production from stored groundwater, which increases during years of surplus surface water deliveries. Because of this policy, SCVWD anticipates that it will be able to meet all of its retail urban water demands by shifting supply sources even during multiple dry year periods.

SCVWD gives highest priority to delivery of Contract water to urban water retailers and indicates it will be deliver 100 percent of its contracted supply obligations even during multiple dry year periods after additional supply projects are implemented in 2025. During drought periods, SCVWD will eliminate deliveries of Non-Contract water. If drought conditions are severe enough, SCVWD will reduce or eliminate surface water recharging to aquifers within its service area. If further reductions are necessary, deliveries to agricultural customers will be reduced or eliminated. Deliveries to SCVWD urban water retailers are the last to be affected by drought conditions. Based on SCVWD supplies and policies, Cal Water expects that 100 percent of Contract water will be delivered to the LAS District during a multiple dry year period in 2030, 2035 and 2040. Cal Water will continue pump its LAS District wells so that there will be no reduction in total supply available to meet water demands.

Table 18-6, Multiple Dry Year Period (4 years): Demand and Supply Comparison (Acre Feet) compares demand to supply for a four year multiple dry year period. For the first three years, it is conservatively assumed that demand remains unchanged from a normal hydrologic year and that in the fourth year, demand decreases by 20 percent and the delivery of SCVWD Contract water is reduced by 20 percent. For all four years, total supply is projected to meet 100 percent of resultant demand.¹² Therefore, sufficient water supplies are available. With the implementation of EDFs 58, 59, 60, and 61, impacts would be less than significant.

¹² Yarne & Associates, Inc. 2016. Vallco Town Center Specific Plan Water Supply Assessment. January.

Table 18-6 –Multiple Dry Year Period (4 years): Demand and Supply Comparison (Acre Feet)

	2020	2025	2030	2035	2040
SCVWD Supply	10,850	11,200	11,550	11,900	12,250
Recycled Water	175	175	175	175	175
Cal Water Wells	4034	3961	3901	3855	3822
Total Supply	15,059	15,336	15,626	15,930	16,247
Demands					
SCVWD Demand	8,680	8,960	9,240	9,520	9,800
Recycled Water Demand	175	175	175	175	175
Cal Water Wells Demand	3,192	3,158	3,086	3,049	3,023
Total Demand	12,047	12,293	12,501	12,744	12,998
Surplus	3,012	3,043	3,125	3,186	3,249

Source: Yarne & Associates, Inc. 2016. Vallco Town Center Specific Plan Water Supply Assessment. January. Table 14.

As shown in **Table 18-6**, the WSA demonstrates that for the next 25 years (2015 – 2040), the LAS District will have adequate water supplies to meet projected demands of the Specific Plan and those of all existing customers and other anticipated future customers for normal, single dry year and multiple dry year conditions.

It should be noted that as to the previously approved hotel development on Block 13, the water demand was determined to be consistent with the anticipated buildout of the General Plan. It is also consistent with the allocation for new hotel rooms for the City of Cupertino and the South Vallco area. Therefore, increased water use from development of the hotel on Block 13 was anticipated by the environmental review documents for that project. Potential impacts related to water supply for the proposed hotel are considered less than significant.

No development is proposed for Block 14 at this time. Consistent with the Cupertino General Plan, a 191-room hotel with supporting commercial uses could be developed on this site at a future time. As shown in Table 18-5, the Cal Water LAS District has determined that they are able to meet their demand for contract water from SCVWD over a multiple dry year period. Development of this parcel as a 191-room hotel would be consistent with the General Plan and within the potable water demand projects for the water district. Any future development on this site would require site specific analysis prior to development approval.

Infrastructure to Serve the Plan Area

Development under the Specific Plan would result in the need to reroute the main line that flows down Wolfe Road and direct it to new public main lines that surround the Plan Area in Perimeter Road. These lines would be reconnected to the main loop line that runs under Interstate-280. Plan Area development would be serviced from a new public water main line installed in Perimeter Road, located within an easement to Cal Water. **Figure 18-2, Conceptual Water Service Plan** identifies the proposed potable and recycled water lines for the Plan Area.

The Plan Area would be plumbed to accept recycled water, and be planned to accommodate the public recycled water system installed in the future. This would extend the recycled water line. The proposed alignment of the recycled water main is shown in [Figure 18-2](#). Service to the Plan Area would include extension of this recycled water line to the Plan Area once the Wolfe Road Recycled Water Facilities Project is completed. Environmental review of the pipeline extension would take place at the time when the project is initiated. Therefore, with the implementation of [EDFs 60](#) and [61](#) potential impacts would be less than significant.

Environmental Design Features for Impact U-3

EDF 58 **Potable Water Supply**

Prior to the issuance of building permits, the Town Center/Community Park applicant and other project applicants for future development shall demonstrate, to the satisfaction of the Public Works Director, that adequate water facilities are available at the time of permit issuance and will continue to be available until time of occupancy.

EDF 59 **Potable Water Lines**

Prior to the issuance of any grading permits or improvement plans, the Town Center/Community Park applicant and other project applicants for future development shall design public water facilities in conjunction with the California Water Service Company engineer and City and the City of Cupertino engineer for implementation into the proposed improvements.

EDF 60 **Recycled Water Lines**

Prior to the issuance of any grading permits or improvement plans, the Town Center/Community Park applicant and other project applicants for future development shall design landscape and irrigation plans utilizing recycled water as a source to meet all non-potable water demands as discussed in the Sustainability Strategies element in the Specific Plan.

EDF 61 **Recycled Water Line Extension**

Prior to the issuance of final occupancy permits for 500,000 square feet of office space, the Town Center/Community Park applicant and other project applicants for future development shall provide to the Director of Public Works a status update of the Santa Clara Valley Water District's Wolfe Road Recycled Water Facilities Project. Once the Wolfe Road Recycled Water Facilities Project is complete north to I-280, the applicant shall initiate the design, permitting and construction of the recycled line extension across I-280 to Wolfe Road at Stevens Creek Boulevard.

Impact U-4: Would implementation of the Specific Plan result in increased wastewater flows to the wastewater treatment provider, which has adequate capacity to serve the Specific Plan's expected demand in addition to existing commitments?

As discussed in **Impact U-1** above, based on growth projections, the CSD does not anticipate that flows would exceed the capacity of the existing SJ/SCWPCP. Future development under the proposed Specific Plan is consistent with the existing City of Cupertino General Plan's land use analysis for density and intensity projections for development within the Plan Area, and these projections are included in General Plan growth forecasts. As previously noted, the wastewater flow from future development within the Plan Area would not deplete a significant amount of available capacity at the SJ/SCWPCP such that improvements or an expansion of the WPCP would be required. Therefore, since sufficient wastewater treatment capacity is available to serve future development within the Specific Plan, potential impacts to the wastewater treatment provider would be less than significant.

Impact U-5: Would implementation of the Specific Plan be served by a landfill with sufficient permitted capacity to accommodate the Specific Plan's solid waste disposal needs, and comply with federal, state, and local statutes and regulations regarding solid waste?

Development under the Specific Plan would be served by the Newby Island Landfill, which has the capacity to handle solid waste generated by the demolition and operational phases of the future development. Demolition wastes from existing structures, paved asphalt areas, and utilities would be collected and hauled to the landfill for diversion and recycling.

As required by AB 939, a minimum of 50 percent of the City's solid waste must be diverted from landfills. Per the City's Construction and Demolition Debris Diversion Ordinance, the construction contractor would be required to salvage or recycle at least 60 percent of the debris from construction to meet City requirements.

Waste would be diverted through recycling, re-use at future construction sites within the Plan Area, or re-use at off-site locations. A waste diversion plan prepared by future developers within the Plan Area would identify, source, and re-use/recycle materials by category. Concrete, steel, and wood would be sorted separately for re-use and recycling. Drywall, carpet and other finish materials would be evaluated for appropriate diversion streams. Delivery packaging and crating would be planned for intended reuse and diversion, and integrated into the Specific Plan-wide waste diversion program.

Solid waste generated by the demolition and construction sequencing associated with implementation of the Specific Plan would therefore not substantially shorten the life of the landfill and would result in a less than significant impact on the landfill's remaining capacity of 21,200,000 cubic yards.

The Town Center/Community Park part of the Specific Plan would also generate solid waste during its operational phases. CalRecycle's Solid Waste Characterization Database indicates that the average employee generates 1.2 tons of solid waste per year and the average resident

generates 2.2 tons of solid waste per year.¹³ The 8,121 potential new employees and 2,165 new residents resulting from development of the Town Center/Community Park under the Specific Plan would generate up to approximately 15,200 additional tons of solid waste per year (or approximately 42 tons of solid waste per day). This represents approximately one percent of the total daily permitted throughput for the Newby Island Sanitary Landfill. This is a conservative analysis because it does not take into account of the past or existing uses of the Mall. The landfill has a remaining capacity of approximately 21,200,000 cubic yards. Development of the Town Center/Community Park under the Specific Plan would represent one percent of the daily permitted throughput, the amount of solid waste generated by implementation of the Specific Plan would not exceed the capacity of the landfill or substantially shorten the life of the landfill. Potential impacts related to solid waste from the operational phase of the Town Center/Community Park part of the Specific Plan are considered less than significant.

The recently approved hotel project located on Block 13 would result in the approximately 155 tons of solid waste per year. Using this waste generation estimate, solid waste disposal from the proposed hotel would be approximately 0.011 percent of the 4,000 tons of daily capacity permitted for the Newby Island Landfill. Therefore, the hotel's contribution to the daily landfill capacity at the Newby Island Landfill would be considered insignificant and the landfill would have sufficient capacity to accommodate the hotel's solid waste disposal needs. Therefore, the impact would be considered less than significant.¹⁴

No development on Block 14 is proposed at this time. Consistent with the Cupertino General Plan, a 191-room hotel with supporting commercial uses could be developed on this site at a future time. A hotel of that size would have a similar waste generation rate as the approved hotel on Block 13 and similar minimal impacts on the landfill capacity would be anticipated. A site specific analysis of any future development on this site would be required prior to development.

Additionally, implementation of the Specific Plan would not result in any violations of national, state or local standards. Therefore, waste generated as a result of development under the Specific Plan would not result in the need for additional systems or services and would be considered a less than significant impact to the capacity of the landfill.

Impact U-6: Would implementation of the Specific Plan, combined with past, present, and reasonably foreseeable future development, result in significant cumulative impacts to utilities and service systems?

The City of Cupertino General Plan Amendment Community Vision 2040 EIR concluded that buildout under the General Plan would generate a minor increase in the volume of wastewater delivered for treatment at SJ/SCWPCP. This increase represents less than one percent of the available treatment capacity at the SJ/SCWPCP and SWPCP, and it would occur incrementally over a period of 26 years. The Specific Plan is consistent with the City's General Plan analysis for

¹³ <http://www.calrecycle.ca.gov/wastechar/WasteGenRates/default.htm> accessed January 21, 2016

¹⁴ PlaceWorks, 2014. Initial Study. August.

density and intensity projections for development under the Specific Plan. The SJ/SCWPCP, which serves the Plan Area, currently uses less than its designed and permitted wastewater treatment capacity. The Community Vision 2040 EIR evaluated recent trends of diminishing wastewater treatment demand in combination with projected population growth within the service areas, and concluded that cumulative wastewater treatment demand of planned development would not exceed the operational capacity of the SJ/SCWPCP. The project sewer demand associated with implementation of the Specific Plan would be far well within the available capacity of the SJ/SCWPCP and SWPCP. Because the cumulative demand would not substantially impact the existing or planned capacity of the wastewater treatment systems, which have sufficient capacity for wastewater that would be produced by the proposed Specific Plan, the construction of new wastewater treatment facilities would not be necessary and potential impact are considered less than significant.

As previously discussed, the WSA prepared for the Cal Water concludes that the Los Altos District would have adequate water supplies to meet projected demand associated with projected buildout within the district through the year 2040, taking into account all existing and anticipated future customers for normal, single dry year, and multiple dry year conditions. As noted above, the WSA demonstrated that the LAS District will have adequate water supplies to meet projected demands associated with implementation of the Specific Plan and those of all existing customers and other anticipated future customers for normal, single dry year and multiple dry year conditions.

Implementation of the Specific Plan is consistent with the City's General Plan analysis for density and intensity projections for development under the Specific Plan. Since implementation of the Specific Plan would not result in significant impacts to the existing or future water supply, implementation of the Specific Plan would not result in a considerable contribution to cumulative adverse water supply impacts.

Implementation of the Specific Plan would incrementally increase the quantity of solid waste for disposal. Future development under the Specific Plan and other large development projects within Cupertino and the surrounding cities would be required to implement waste reduction, recycling programs, and diversion requirements discussed above. Recycling and waste diversion programs would reduce the potential for exceeding existing capacities of landfills. Potential impacts are considered less than cumulatively considerable.

18.5 References

City of Cupertino. 2015. General Plan: *Community Vision 2015–2040*.

LUK and Associates. 2016. Town Center/Community Park – Recycled Water Pipeline Extension, February.

LUK and Associates. 2016. Town Center/Community Park – Sanitary Sewer Capacity Study, February.

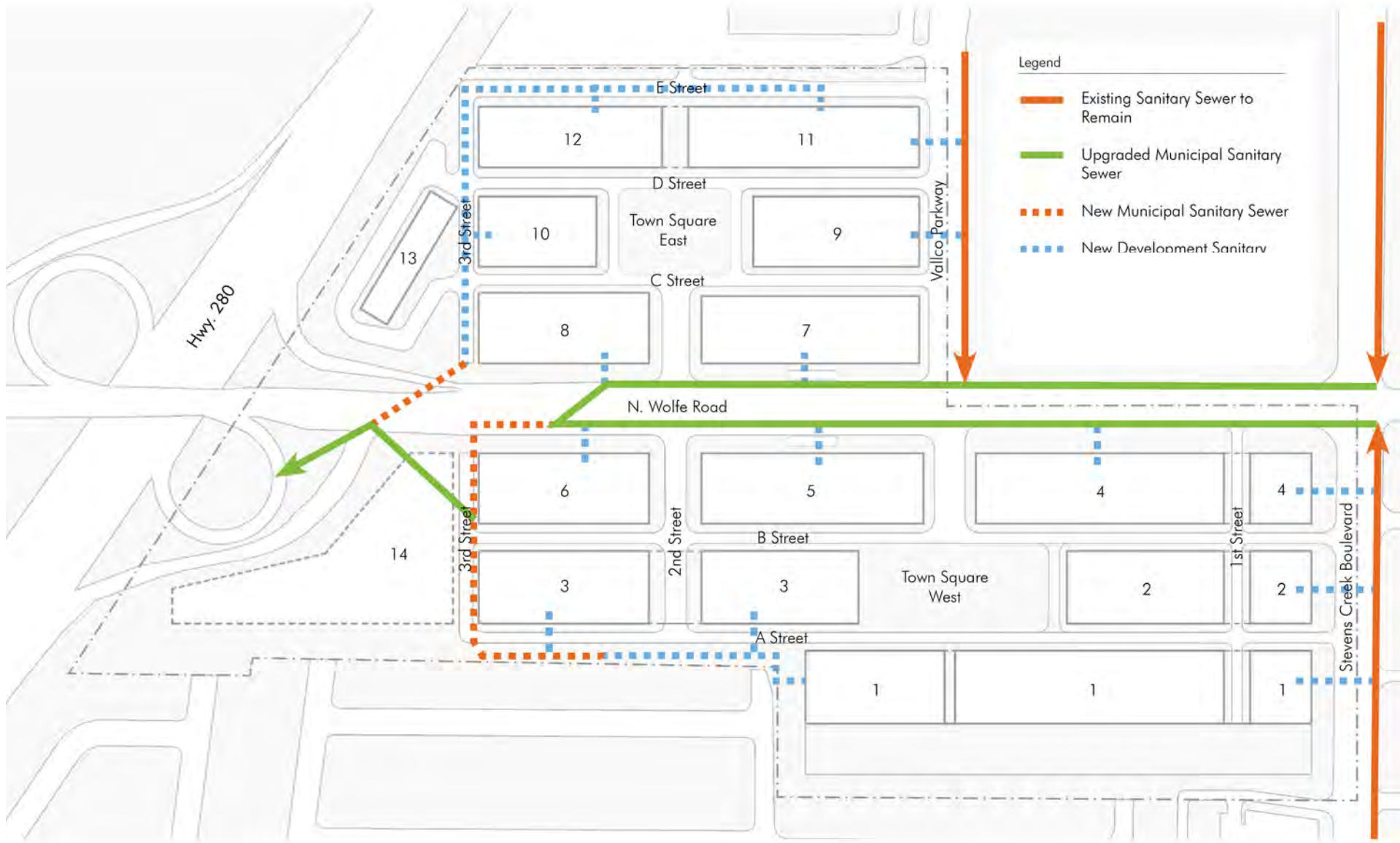
LUK and Associates. 2016. Town Center/Community Park – Water Demand Assessment, February.

Cupertino Sanitation District Letter Regarding District Services to Vallco Development November 19, 2015.

PlaceWorks. 2014. General Plan Amendment, Housing Element Update, and associated Rezoning Project Draft Environmental Impact Report. State Clearinghouse No. 2014032007. Final EIR certified December 4, 2014.

PlaceWorks, 2014. Initial Study. August.

Yarne and Associates, Inc. 2016. Vallco Town Center Specific Plan Water Supply Assessment. January.



Source: RVA, 2016

Figure 18-1: Conceptual Wastewater Plan

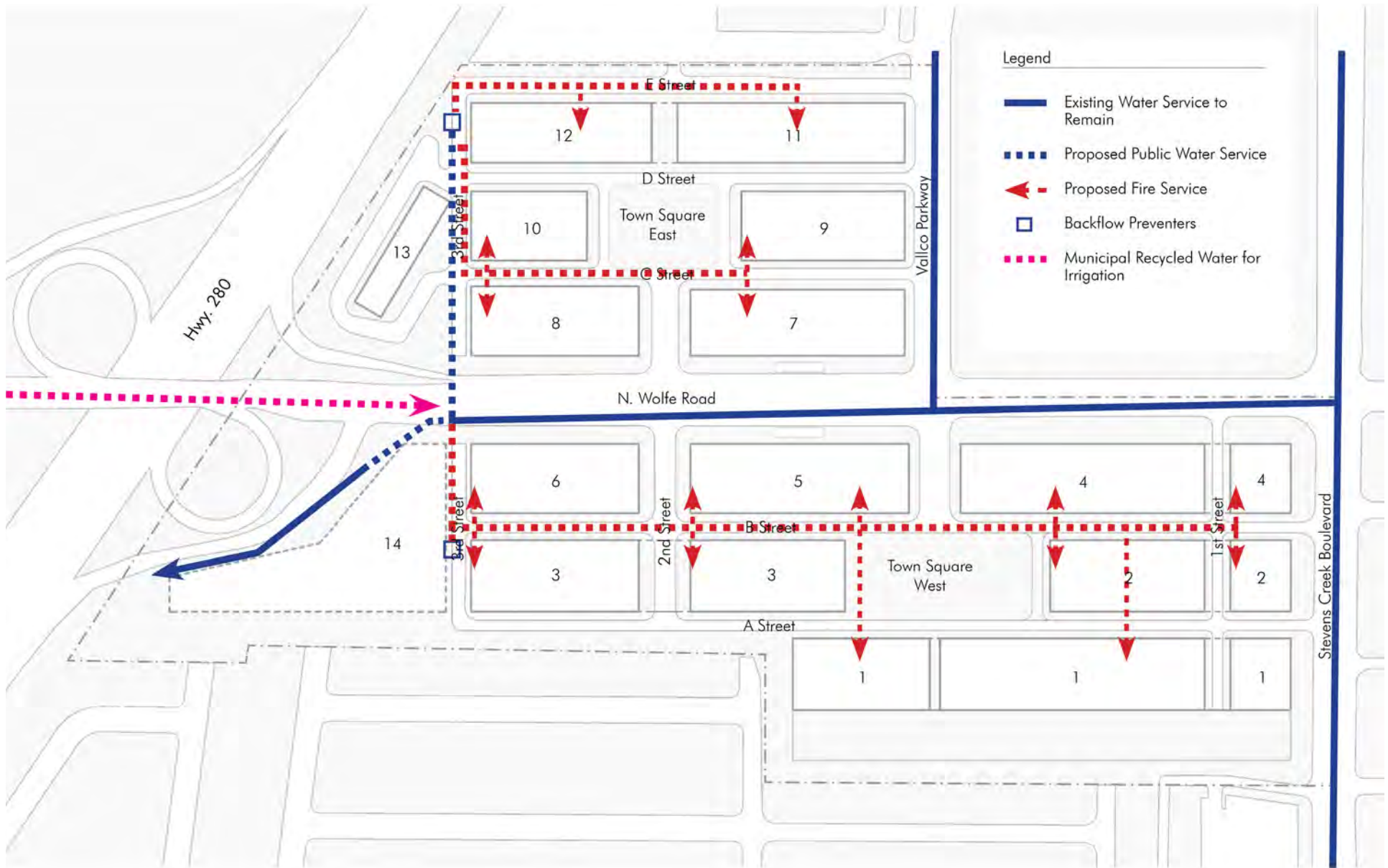
Vallco Town Center Specific Plan
 Environmental Assessment



Not to scale

Kimley»Horn

Expect More. Experience Better.



Source: RVA, 2016

Figure 18-2: Conceptual Water Service Plan

Vallco Town Center Specific Plan
 Environmental Assessment



Not to scale

Kimley»Horn

Expect More. Experience Better.

19 Energy Conservation

This chapter describes the existing setting of the Plan Area as it relates to energy conservation; identifies applicable regulatory requirements; and evaluates potential impacts related to use of fuel or energy upon implementation of the Specific Plan.

- Information used to prepare this chapter came from the following sources:
- California Air Resources Board (CARB) Emission Factor Model (EMFAC2014)
- South Coast Air Quality Management District (SCAQMD) California Emissions Estimator Model (CalEEMod)
- CEQA Guidelines Appendix F, Energy Conservation
- City of Cupertino General Plan, *Community Vision 2015–2040*, 2015, as amended

19.1 Environmental Setting

19.1.1 California's Energy Use and Supply

Californians consumed 282,154 gigawatt hours (GWh)¹ of electricity in 2014, which is the most recent year for which data is available. Of this total, Santa Clara County consumed 16,671 GWh (CEC, 2016a). In 2014, the California electricity mix included natural gas (61.3 percent), coal (0.5 percent), large hydroelectric plants (7.1 percent), and nuclear (8.6 percent). The remaining 22.5 percent was supplied from renewable resources, such as wind, solar, geothermal, biomass, and small hydroelectric facilities (CEC, 2016b). California's natural gas use grew from 41.5 percent in 2006 to 61.3 percent in 2010 (CEC, 2007; 2016b). In 2014, the state consumed 10,308 million therms² of natural gas.

In 2002, California established its Renewable Portfolio Standard program³ with the goal of increasing the annual percentage of renewable energy in the state's electricity mix by the equivalent of at least 1 percent of sales, with an aggregate total of 20 percent by 2017. The California Public Utilities Commission subsequently accelerated that goal to 2010 for retail sellers of electricity (*Public Utilities Code* Section 399.15(b)(1)). Then-Governor Schwarzenegger

¹ A watt hour is a unit of energy equivalent to one watt of power expended for one hour. For example, a typical light bulb is 60 watts, meaning that if it is left on for one hour, 60 watt hours have been used. One kilowatt equals 1,000 watts. The consumption of electrical energy by homes and businesses is usually measured in kilowatt hours (kWh). Some large businesses and institutions also use megawatt hours (MWh), where one MWh equals 1,000 kWh. One gigawatt equals 1,000 megawatts, or 1,000,000 kilowatts. The energy output of large power plants over long periods of time, or the energy consumption of jurisdictions, can be expressed in gigawatt hours (GWh).

² A British Thermal Unit (BTU) is the amount of energy needed to raise the temperature of one pound of water by one degree Fahrenheit. A kBTU is 1,000 BTUs. A therm is 100,000 BTUs.

³ The Renewable Portfolio Standard is a flexible, market-driven policy to ensure that the public benefits of wind, solar, biomass, and geothermal energy continue to be realized as electricity markets become more competitive. The policy ensures that a minimum amount of renewable energy is included in the portfolio of electricity resources serving a state or country.

signed Executive Order S-14-08 in 2008, increasing the target to 33 percent renewable energy by 2020. In September 2009, then-Governor Schwarzenegger continued California's commitment to the Renewable Portfolio Standard by signing Executive Order S-21-09, which directs the California Air Resources Board under its Assembly Bill (AB) 32 authority to enact regulations to help the state meet its Renewable Portfolio Standard goal of 33 percent renewable energy by 2020. In September 2010, the California Air Resources Board adopted its Renewable Electricity Standard regulations, which require all of the state's load-serving entities to meet this target. Additional energy efficiency measures are needed to meet these goals as well as the AB 32 greenhouse gas (GHG) reduction goal of reducing statewide GHG emissions to 1990 levels by 2020 (see [Chapter 6, Air Quality](#), and [Chapter 10, Greenhouse Gases](#), for a discussion of AB 32).

California's energy goals include reducing petroleum use in cars and trucks by 50 percent, increasing from one-third to one-half of California's electricity derived from renewable sources, doubling the efficiency savings achieved at existing buildings and making heating fuels cleaner; reducing the release of methane, black carbon, and other short-lived climate pollutants; and managing farm and rangelands, forests, and wetlands so they can store carbon (CEC, 2015).

19.1.2 Current Energy Providers

Pacific Gas and Electric Company

Electricity in Santa Clara County is primarily provided by PG&E. The PG&E 2014 power mix was as follows: 24 percent natural gas, 21 percent nuclear, 27 percent renewables, 8 percent large hydroelectric, and 21 percent unspecified power (PG&E, 2016b).

PG&E operates one of the largest natural gas distribution networks in the country, including more than 48,000 miles of natural gas transmission and distribution pipelines (PG&E, 2016a). In all, PG&E delivers gas to approximately 4.3 million customer accounts in Northern and Central California, including in Santa Clara County.

Transportation Fuels

California's transportation sector uses roughly half of the energy consumed in the state. In 2014, Californians consumed approximately 14.7 billion gallons of gasoline and 2.7 billion gallons of diesel fuel, which were down from 15.8 billion gallons of gasoline and 3.0 billion gallons of diesel in 2006 (BOE, 2016a; 2016b).

19.2 Applicable Regulations, Plans, and Standards

This section presents legislation and regulations specifically related to energy. See also [Chapter 6, Air Quality](#), and [Chapter 10, Greenhouse Gases](#), and [Chapter 17, Transportation and Circulation](#), for other policies related to energy use. See [Chapter 18, Utilities and Service Systems](#), for policies related to water Consumption.

19.2.1 Federal

National Energy Conservation Policy Act

The National Energy Conservation Policy Act serves as the underlying authority for federal energy management goals and requirements. Signed into law in 1978, it has been regularly updated and amended by subsequent laws and regulations. This act is the foundation of most federal energy requirements.

Energy Policy Act of 2005

The Energy Policy Act of 2005 sets equipment energy efficiency standards and seeks to reduce reliance on non-renewable energy resources and provide incentives to reduce current demand on these resources. For example, under the act, consumers and businesses can attain federal tax credits for purchasing fuel-efficient appliances and products, including hybrid vehicles; constructing energy-efficient buildings; and improving the energy efficiency of commercial buildings. Additionally, tax credits are available for the installation of qualified fuel cells, stationary micro-turbine power plants, and solar power equipment.

Executive Order 13693 (Planning for Federal Sustainability in the Next Decade), signed in 2015, seeks to maintain Federal leadership in sustainability and greenhouse gas emission reductions. Its goal is to reduce agency Scope 1 and 2 greenhouse gas emissions⁴ by at least 40 percent by 2025, foster innovation, reduce spending, and strengthen communities through increased efficiency and improved environmental performance. Sustainability goals are set for building efficiency and management, energy portfolio, water use efficiency, fleet efficiency, sustainable acquisition and supply chain greenhouse gas management, pollution prevention, and electronic stewardship.

Energy and Independence Security Act of 2007

The Energy and Independence Security Act of 2007 sets federal energy management requirements in several areas, including energy reduction goals for federal buildings, facility management and benchmarking, performance and standards for new buildings and major renovations, high-performance buildings, energy savings performance contracts, metering, energy-efficient product procurement, and reduction in petroleum use and increase in alternative fuel use. This act also amends portions of the National Energy Policy Conservation Act.

⁴ In greenhouse gas inventories, direct emissions are Scope 1; indirect emissions from consumption of purchased electricity, heat or steam are Scope 2; and other indirect emissions (such as extraction and production of purchased materials and fuels, transport in vehicles not controlled by the reporting entity, outsourced activities) are Scope 3.

19.2.2 State

Assembly Bill 32

California's major initiative for reducing GHG emissions is outlined in Assembly Bill 32 (AB 32), the "California Global Warming Solutions Act of 2006." AB 32 codifies the statewide goal of reducing GHG emissions to 1990 levels by 2020 (essentially a 15 percent reduction below 2005 emission levels; the same requirement as under S-3-05), and requires CARB to prepare a Scoping Plan that outlines the main state strategies for reducing GHGs to meet the 2020 deadline. In addition, AB 32 requires CARB to adopt regulations to require reporting and verification of statewide GHG emissions. See [Chapter 10, Greenhouse Gases](#), for a further discussion of AB 32.

2008 California Energy Action Plan Update

The *2008 Energy Action Plan Update* provides a status update to the *2005 Energy Action Plan II*, which is the State of California's principal energy planning and policy document (CPUC & CEC, 2008). The plan continues the goals of the original *Energy Action Plan*, describes a coordinated implementation plan for state energy policies, and identifies specific action areas to ensure that California's energy is adequate, affordable, technologically advanced, and environmentally sound. First-priority actions to address California's increasing energy demands are energy efficiency, demand response (i.e., reduction of customer energy usage during peak periods in order to address system reliability and support the best use of energy infrastructure), and the use of renewable sources of power. If these actions are unable to satisfy the increasing energy and capacity needs, the plan supports clean and efficient fossil-fired generation.

California Green Building Standards Code

The 2013 *California Green Building Standards Code*, as specified in Title 24, Part 11 of the California Code of Regulations, specifies building standards to improve public health, safety, and general welfare by enhancing the design and construction of buildings through the use of building concepts having a positive environmental impact and encouraging sustainable construction practices in five categories: planning and design, energy efficiency, water efficiency and conservation, material conservation and resource efficiency, and environmental quality. The provisions of this code apply to the planning, design, operation, construction, replacement, use and occupancy, location, maintenance, removal and demolition of every building or structure or any appurtenances connected or attached to such building structures throughout California.

Building Energy Efficiency Standards

The Energy Efficiency Standards for Residential and Nonresidential Buildings, as specified in Title 24, Part 6, of the California Code of Regulations, were established in 1978 in response to a legislative mandate to reduce California's energy consumption. The standards are updated periodically to allow consideration and possible incorporation of new energy efficiency technologies and methods. The California Energy Commission (CEC) adopted an update in 2013, and these new standards become effective on July 1, 2014 (CEC, 2016c).

2006 Appliance Efficiency Regulations

The California Energy Commission adopted Appliance Efficiency Regulations (Title 20, CCR Sections 1601 through 1608) on October 11, 2006. The regulations were approved by the California Office of Administrative Law on December 14, 2006. The regulations include standards for both federally regulated appliances and non-federally regulated appliances. While these regulations are now often viewed as “business-as-usual,” they exceed the standards imposed by all other states and they reduce GHG emissions by reducing energy demand.

Senate Bill 1078 and 107; Executive Order S-14-08, S-21-09, and SB 2X

SB 1078 (Chapter 516, Statutes of 2002) requires retail sellers of electricity, including investor-owned utilities and community choice aggregators, to provide at least 20 percent of their supply from renewable sources by 2017. SB 107 (Chapter 464, Statutes of 2006) changed the target date to 2010. In November 2008, then-Governor Schwarzenegger signed Executive Order S-14-08, which expands the state’s Renewable Portfolio Standard to 33 percent renewable power by 2020. In September 2009, then-Governor Schwarzenegger continued California’s commitment to the Renewable Portfolio Standard by signing Executive Order S-21-09, which directs the ARB under its AB 32 authority to enact regulations to help the state meet its Renewable Portfolio Standard goal of 33 percent renewable energy by 2020. In April 2011, Governor Brown signed SB 2X, which legislated the prior Executive Order S-14-08 renewable standard.

Executive Order B-30-15 and Senate Bill 350

In April 2015, Governor Edmund G. Brown Jr. issued Executive Order B-30-15, which established a greenhouse gas reduction target of 40 percent below 1990 levels by 2030. SB 350 (Chapter 547, Statutes of 2015) advanced these goals through two measures. First, the law increases the renewable power goal from 33 percent renewables by 2020 to 50 percent by 2030. Second, the law requires the CEC to establish annual targets to double energy efficiency in buildings by 2030. The law also requires the California Public Utilities Commission (CPUC) to direct electric utilities to establish annual efficiency targets and implement demand-reduction measures to achieve this goal.

19.2.3 Local

City of Cupertino General Plan

The City of Cupertino’s General Plan, *Community Vision 2015–2040 (General Plan)*, as amended, includes policies and strategies that encourage the conservation of energy in the Environmental Resources and Sustainability Element. Below are the policies specifically related to energy that would be applicable to the Specific Plan. A General Plan Land Use Consistency Analysis for the Specific Plan is provided in [Chapter 13, Land Use and Planning, Table 13-1](#).

Policy ES-2.1: Conservation and Efficient Use of Energy Resources

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.

Strategy ES-2.1.5: Urban Forest.

Encourage the inclusion of additional shade trees, vegetated stormwater treatment and landscaping to reduce the “heat island effect” in development projects.

Strategy ES-2.1.6: Alternate Energy Sources.

Promote and increase the use of alternate and renewable energy resources for the entire community through effective policies, programs and incentives.

Strategy ES-2.1.7: Energy Cogeneration Systems.

Encourage the use of energy cogeneration systems through the provision of an awareness program targeting the larger commercial and industrial users and public facilities.

Strategy ES-2.1.9: Energy Efficient Transportation Modes.

Continue to encourage fuel-efficient transportation modes such as alternative fuel vehicles, driverless vehicles, public transit, car and van-pooling, community and regional shuttle systems, car and bike sharing programs, safe routes to schools, commuter benefits, and pedestrian and bicycle paths through infrastructure investment, development incentives, and community education.

Policy ES-3: Green Building Design

Set standards for the design and construction of energy and resource conserving/efficient building.

Strategy ES-3.1.1: Green Building Program.

Periodically review and revise the City’s Green Building ordinance to ensure alignment with CALGreen requirements for all major private and public projects that ensure reduction in energy and water use for new development through site selection and building design.

ES-3.1.2: Staff Training.

Continue to train appropriate City staff in the design principles, costs and benefits of sustainable building and landscape design. Encourage City staff to attend external trainings on these topics and attain relevant program certifications (e.g., Green Point Rater, LEED Accredited Professional).

ES-3.1.3: Green Buildings Informational Seminars.

Conduct and/or participate in Green Building informational seminars and workshops for members of the design and construction industry, land development, real estate sales, lending institutions, landscaping and design, the building maintenance industry and prospective project applicants.

ES-3.1.4: Green Building Demonstration.

Pursue municipal facility retrofits, through a Green Capital Improvement Program (CIP), and new construction projects that exceed CalGreen and achieve third-party certification criteria (i.e. LEED, Living Building Challenge, Zero Net Energy) as a means of creating demonstration spaces for developer and community enrichment.

19.3 Impacts and Environmental Design Features

The analysis below generally follows Appendix F of the State CEQA Guidelines, which states that the goal of conserving energy implies the wise and efficient use of energy, including decreasing overall per capita energy consumption, decreasing reliance on fossil fuels, and increasing reliance on renewable energy sources. According to Appendix F, the analysis should include a description of energy conservation measures included within the Specific Plan and should consider whether a project would result in inefficient, wasteful and unnecessary consumption of energy.

Here, the Specific Plan includes the following energy conservation strategies, further detailed under **Impact ER-1**:

- The Specific Plan targets LEED Platinum certification; use recycled water for irrigation, heating, and cooling; and recapture rainwater to reduce water consumption.
- The sustainable park would feature native, drought-tolerant, and climate-responsive landscaping that thrives on little to no water.
- The green roof, natural ventilation, and smart technology would ensure energy efficiency, keeping buildings, and surroundings, cool in the summer and warm in the winter.

19.3.1 Significance Criteria

The following significance criterion for energy conservation is derived from the State CEQA Guidelines Appendix F, which states that environmental analyses should include a discussion of the potential energy impacts of proposed projects, with a particular emphasis on avoiding or reducing unnecessary consumption of energy:

- Would the Specific Plan encourage activities that result in the use of large amounts of fuel or energy, or use these resources in a wasteful manner?

19.3.2 Impact Assessment Methodology

In determining whether implementation of the Specific Plan would encourage wasteful consumption of fuel or energy, this analysis considers the recommendations of Appendix F (as described above), which states that environmental impact analyses of energy conservation may include:

1. The project's energy requirements and its energy use efficiencies by amount and fuel type for each stage of the project's life cycle including construction, operation, maintenance and/or removal. If appropriate, the energy intensiveness of materials maybe discussed.
2. The effects of the project on local and regional energy supplies and on requirements for additional capacity.
3. The effects of the project on peak and base period demands for electricity and other forms of energy.
4. The degree to which the project complies with existing energy standards.
5. The effects of the project on energy resources.
6. The project's projected transportation energy use requirements and its overall use of efficient transportation alternatives.

This section provides an energy consumption analysis addressing implementation of the Specific Plan's energy consumption under construction and operation, as well as the effect of that consumption on energy supplies and resources. Each discussion provides an explanation of the inputs that were used. Transportation-related energy consumption is also addressed.

Impact ER-1: Would implementation of the Specific Plan encourage activities that result in the use of large amounts of fuel or energy, or use these resources in a wasteful manner?

19.3.3 Construction (Short-Term)

The energy consumption associated with buildout of the Specific Plan includes electricity usage associated with water usage for dust control, diesel fuel consumption from on-road hauling trips and off-road construction diesel equipment, and gasoline consumption from on-road worker commute and vendor trips. The methodology for each category is discussed below. This analysis relies on the construction equipment list and operational characteristics, as stated in [Chapter 6, Air Quality](#), and [Chapter 10, Greenhouse Gases](#), and [Appendix AQ](#) of the Environmental Assessment. Quantifications of construction energy consumption are provided for the Specific Plan, inclusive of development of both the Town Center/Community Park and a hotel with supporting commercial uses on Block 14.

Electricity Usage

Water Consumption for Construction Dust Control

Electricity usage associated with water consumption for construction dust control is calculated based on total water consumption and the energy intensity for supply, distribution, and treatment of water.

The total number of gallons of water usage is calculated based on acreage disturbed during grading and site preparation, as well as the daily water consumption rate per acre disturbed.

- The total acres disturbed are calculated using the methodology described in Chapter 4.2 of Appendix A of the CalEEMod® User's Guide (Grading Equipment Passes).
- The water application rate of 3,020 gallons per acre per day is from Air & Waste Management Association's Air Pollution Engineering Manual.

The energy intensity value is based on the CalEEMod® default energy intensity per gallon of water for Santa Clara County.

As summarized in [Table 19-1: Specific Plan Energy Consumption During Construction](#), the total electricity consumption associated with water consumption for construction dust control would be approximately 12,900 kWh over the duration of buildout of the Specific Plan.

On-Road Electric Vehicle Trips

The EMFAC2014 model includes the fraction of electric vehicles projected to be in the on-road fleet during construction. Using this data, electricity consumption related to electric vehicle traffic was estimated. The electric vehicles included in the EMFAC2014 model are all in the light-duty auto and light-duty truck category, and as such would only exist in the construction worker fleet, not the vendor and haul truck fleets. The efficiency of electric vehicles in kilowatt-hours per vehicle mile travelled (kWh/mile) are the model year 2015 average for current model electric vehicles (USDOE 2016). Total electricity usage from the on-road worker fleet during construction would be approximately 51,000 kWh over the duration of buildout of the Specific Plan.

Diesel Usage

On-Road Construction Trips

The diesel usage associated with on-road construction mobile trips is calculated based on vehicle miles travelled (VMT) from vehicle trips (i.e., worker, vendor, and hauling), the CalEEMod default diesel fleet percentage, and vehicle fuel efficiency in miles per gallon.

VMT for the entire construction period are calculated based on the total one-way trips as discussed in the Environmental Assessment Air Quality and Greenhouse Gas analyses and CalEEMod default one-way trips.

Vehicle fuel efficiency is calculated based on CARB's EMFAC2014 model output, which includes the Pavley Clean Car Standards and the Low Carbon Fuel Standard. (See [Chapter 6, Air Quality](#), and [Chapter 10, Greenhouse Gases](#), for a discussion of these standards.) The 2017 through 2021 fuel efficiency is used for each respective year of construction.

As summarized in [Table 19-1: Specific Plan Energy Consumption During Construction](#), the total diesel consumption associated with on-road construction trips would be approximately 1,409,000 gallons over the duration of buildout of the Specific Plan.

Off-Road Construction Equipment

The construction diesel usage associated with the off-road construction equipment is calculated based on the total equipment horsepower-hour and the off-road mobile source fuel usage rate of 0.05 gallons of diesel per horsepower-hour, calculated based on diesel fuel properties from the USEPA AP-42 compilation of emission factors (USEPA, 1996). As summarized in [Table 19-1: Specific Plan Energy Consumption During Construction](#), the total diesel consumption associated with off-road construction equipment is approximately 399,000 gallons for duration of buildout the Specific Plan.

Gasoline Usage

On-Road Construction Trips

The gasoline usage associated with on-road construction mobile trips is calculated based on VMT from vehicle trips (i.e., worker, vendor, and hauling), the CalEEMod default gasoline fleet percentage, and vehicle fuel efficiency in miles per gallon using the same methodology as the construction on-road trip diesel usage calculation discussed above. As summarized in [Table 19-1: Specific Plan Energy Consumption During Construction](#), the total gasoline consumption associated with on-road construction trips would be approximately 735,000 gallons over the duration of buildout of the Specific Plan.

Analysis

In total, construction of the Specific Plan would consume approximately 63,600 kWh of electricity, 1.8 million gallons of diesel, and 735,000 gallons of gasoline.

As indicated in the environmental setting, above, Californians consumed 282,154 GWh of electricity in 2014, of which Santa Clara County consumed 16,671 GWh. Extrapolating this consumption over a five-year period, Californians would consume approximately 1.4 million GWh and Santa Clara County would consume approximately 83,355 GWh. Therefore, assuming that the uses implemented pursuant to the Specific Plan are built out over a five-year period, construction electricity consumption would represent approximately 0.000004 percent of the electricity consumption in the state, and 0.00007 percent of the electricity consumption in Santa Clara County.

Table 19-1: Specific Plan Energy Consumption During Construction

Source	Town Center/Community Park	Block 14	Total (Specific Plan Area)
Electricity Use	Kilowatt Hours (kWh)		
Water Consumption ¹	12,235	634	12,869
On-Road Construction Trips ²	50,271	447	50,718
Construction Electricity Total	62,506	1,082	63,588
Diesel Use	Gallons		
On-Road Construction Trips ²	1,398,692	10,780	1,409,472
Off-Road Construction Equipment ³	361,196	37,700	398,896
Construction Diesel Total	1,759,888	48,480	1,808,368
Gasoline	Gallons		
On-Road Construction Trips ²	719,513	15,221	734,734
Construction Gasoline Total	719,513	15,221	734,734

Notes:

1. Construction water use estimated based on acres disturbed per day per construction sequencing and estimated water use per acre (AWMA 1992).

2. On-road mobile source fuel use based on vehicle miles traveled (VMT) from CalEEMod and fleet-average fuel consumption in gallons per mile from EMFAC2014 for 2017 through 2021 in Santa Clara County. Electricity demand based on VMT and calculated average electric vehicle fuel economy for 2015 models (in kWh per mile) from the DOE Fuel Economy Guide.

3. Off-road mobile source fuel usage based on a fuel usage rate of 0.05 gallons of diesel per horsepower (hp)-hour from USEPA.

Abbreviations:

CalEEMod: California Emission Estimation Model; EMFAC: Emission Factor Model 2014; kWh: kilowatt-hour;

Sources: Ramboll Environ, 2016; AWMA, 1992; DOE 2016; USEPA 1996.

In 2014, Californians consumed approximately 14.7 billion gallons of gasoline and 2.7 billion gallons of diesel fuel. Extrapolated over a five-year period, Californians would consume 73.5 billion gallons of gasoline and 13.5 billion gallons of diesel. Therefore, Specific Plan construction gasoline consumption would represent 0.005 percent of gasoline consumption in the state, and construction diesel consumption would represent 0.067 percent of diesel consumption in the state.

Therefore, construction of uses pursuant to implementation of the Specific Plan would not substantially affect existing energy or fuel supplies or resources. New capacity would not be required.

19.3.4 Operations (Long-Term)

The energy consumption associated with operation of uses pursuant to the Specific Plan would include building electricity, water, and natural gas usage, as well as fuel usage from on-road vehicles. The methodology for each category is discussed below. Note that this energy resources analysis is consistent with the analysis presented in [Chapter 6, Air Quality](#), and

Chapter 10, Greenhouse Gases. Quantifications of operational energy consumption are provided for the Specific Plan, inclusive of development of both the Town Center/Community Park and a hotel with supporting commercial uses on Block 14.

Transportation Energy Demand

The gasoline and diesel usage associated with on-road vehicular trips is calculated based on total VMT from the **Chapter 6, Air Quality**, and **Chapter 10, Greenhouse Gas** analyses and average fuel efficiency from EMFAC2014 model for the first operational year of 2022. The EMFAC2014 fuel efficiency data incorporate the Pavley Clean Car Standards and the Low Carbon Fuel Standard. As summarized in **Table 19-2: Specific Plan Annual Energy Consumption During Operations**, the total gasoline and diesel consumption associated with on-road trips would be approximately 2,968,131 gallons per year and 544,394 gallons per year, respectively.

The EMFAC2014 model includes the fraction of electric vehicles projected to be in the on-road fleet during the assumed first year of operation, 2022, however the fraction of the fleet that is electric is assumed to continue to increase, allowing a decrease in gasoline and diesel consumption. The electricity consumption related to electric vehicle traffic during operation was estimated based on the EMFAC2014 fleet mix and the model year 2015 average kWh/mile for current model electric vehicles (USDOE 2016). Total electricity usage from the on-road transportation during operation is approximately 815,628 kWh per year.

Electricity Usage

Building Envelope

The electricity usage associated with the building envelopes constructed pursuant to the Specific Plan is based on CalEEMod defaults. As summarized in **Table 19-2: Specific Plan Annual Energy Consumption During Operations**, the buildings would consume 76,950,408 kWh (approximately 76.9 GWh) of electricity per year.

Water Consumption

The electricity usage associated with operational water consumption is estimated based on the annual water consumption and the energy intensity factor is the CalEEMod default energy intensity per gallon of water for Santa Clara County. The total water usage for the Town Center/Community Park is based on the Water Demand Assessment for the Town Center/Community Park (Luk Associates, 2016). Other Plan Area water use is based on the water demand per square foot factors in the CalEEMod model. As summarized in **Table 19-2: Specific Plan Annual Energy Consumption During Operations**, the electricity usage associated with operational water usage would be 521,142 kWh (approximately 0.5 GWh) per year.

Table 19-2: Specific Plan Annual Energy Consumption During Operations

Source	Town Center/Community Park	Block 14	Total (Specific Plan)
Electricity Use	Kilowatt Hour/Year (kWh/year)		
Building ¹	74,760,871	2,189,536	76,950,408
Water ¹	493,041	28,101	521,142
Mobile ²	796,637	21,990	815,628
Total Electricity	76,047,550	2,239,627	78,287,177
Natural Gas Use	Thousands British Thermal Units/year (kBTU/year)		
Building ¹	3,182,731	10,923,043	14,105,773
Central Plant ³	350,400,000	-	350,400,000
Total Natural Gas	353,582,731	10,923,043	364,505,773
Diesel Use	Gallons/Year		
Backup Generators ⁴	14,303	1,022	15,325
Mobile ²	514,805	14,264	529,069
Total Diesel	529,108	15,286	544,394
Gasoline Use	Gallons/Year		
Mobile ²	2,898,106	80,025	2,968,131

Notes:

- The electricity, natural gas, and water usage are based on project-specific estimates and CalEEMod defaults.
 - Calculated based on the mobile source fuel use based on vehicle miles traveled (VMT) and fleet-average fuel consumption (in gallons per mile) from EMFAC2014 for operational year 2022. For electric vehicles, model year 2015 electric vehicle fuel economy is used from the DOE Fuel Economy Guide.
 - Although the Central Plant will be processed and constructed as part of the Town Center/Community Park, part or all of the Central Plant may be constructed on Block 14.
 - Diesel use from backup generators was calculated from the provided horsepower, assuming 50 hours/year/generator (consistent with the Air Quality analysis) and 0.05 gallons/horsepower-hour (consistent with diesel conversion factors from USEPA).
- Abbreviations: CalEEMod: California Emission Estimation Model; EMFAC2014: California Air Resources Board Emission Factor Model; kBTU: thousand British Thermal Units; kWh: kilowatt-hour

Natural Gas Usage

Building Envelope

The methodology used to calculate the natural gas usage associated with the building envelopes constructed pursuant to the Specific Plan is based on CalEEMod default usage rates. As summarized in **Table 19-2: Specific Plan Annual Energy Consumption During Operations**, the building envelope would consume 14,105,773 thousand British Thermal Units (kBTU) of natural gas per year. The boilers at the Central Plant consume approximately 350,400,000 kBTU of natural gas per year.

Analysis

Operation of uses implemented pursuant to the Specific Plan would annually consume approximately 78.2 million kWh of electricity, 364.5 million kBtu of natural gas, 544,394 gallons of diesel, and 2.98 million gallons of gasoline.

Californians consumed 282,154 GWh of electricity in 2014, of which Santa Clara County consumed 16,671 GWh. Therefore, Specific Plan operational electricity consumption would represent 0.03 percent of the electricity consumption in the state, and 0.47 percent of the energy consumption in Santa Clara County. Regarding natural gas, Californians consumed 10,208 million therms (or 1,020.8 billion kBtus) of natural gas in 2014. Therefore, Specific Plan operational natural gas consumption would represent 0.04 percent of the natural gas consumption in the state.

In 2014, Californians consumed approximately 14.7 billion gallons of gasoline and 2.7 billion gallons of diesel fuel. Therefore, Specific Plan operational consumption of gasoline and diesel would represent 0.02 percent of both diesel and gasoline consumption state-wide.

Therefore, operation of uses under the guidance of the Specific Plan would not substantially affect existing energy or fuel supplies or resources. New capacity would not be required.

19.3.5 Efficiency Measures

Compact infill development, such as redevelopment under the Specific Plan, can reduce energy use compared to low-density, greenfield development. According to the United States Department of Housing and Urban Development (HUD), the average multi-family household unit consumes 64.14 million BTUs annually, and single-family dwellings consume an average of 106.58 million BTUs, nationwide (HUD, 2011). Therefore, the multi-family residential buildings constructed pursuant to the Specific Plan would consume less energy than the same number of units constructed in detached housing. Similarly, reuse of all parcels within the Specific Plan area would reduce overall energy use compared to a similar development in a greenfield area.

In addition, the Specific Plan broadly targets energy efficiency measures that reduce energy demand, increase energy efficiency, generate on-site renewable energy and meet LEED Platinum certification criteria. Specific Plan Chapter 5, Sustainable & Smart City Strategies, defines these strategies. The sustainability and Smart City strategies are categorized into five groups, as follows:

Green Space – Natural and Human Assets: The approximately 30-acre a Community Park and Nature Area, as well as using non-potable water for irrigation, would capture and treat stormwater, reduce the urban heat island effect, and reduce energy consumption.

Resource Efficiency – Water, Energy and Solid Waste: Stormwater treatment and reuse for irrigation, energy-efficient building practices and materials, construction and demolition waste recycling and use of recycled materials, as well as renewable energy generation would reduce total energy and resource demand.

Urban Design – Accessibility and Urban Form: Achievement of green certification, provision of transit, and implementation of a transportation demand management program would reduce energy consumption compared to exclusive private automobile use and less efficient development techniques and materials.

Community – Jobs, Housing and Economics: The co-location of commercial, residential, and retail and entertainment uses within the Specific Plan area would encourage walking and among uses as opposed to traveling via private automobile, which would reduce overall energy demand.

Technology – Services and Innovation: The incorporation of digital interfaces and interactive media to enhance retail experiences, smart home technologies to reduce energy demand and enhance security, social fitness and data-enhanced monitoring to improve wellness, and shared workspaces to accelerate and facilitate development of new products and services that may enhance man-made and natural systems.

19.3.6 Conclusion

Construction and operations associated with implementation of the Specific Plan would result in the consumption of fuel and energy, but it would not do so in a wasteful manner. The consumption of fuel and energy would not be substantial in comparison to state-wide electricity, natural gas, gasoline, and diesel demand. New capacity or supplies would not be required. The impact would be less than significant. In addition, based on the infill location of the Plan Area and the sustainability, Smart City, and energy efficiency measures included in the Specific Plan, consumption impacts would be further reduced below the already less-than-significant level.

19.4 References

Air & Waste Management Association (AWMA). 1992. Air Pollution Engineering Manual.

California State Board of Equalization (BOE.) 2016a. Net Taxable Gasoline Gallons. Available online: http://www.boe.ca.gov/sptaxprog/reports/Diesel_10_Year_Report.pdf. Accessed January 16.

California State Board of Equalization (BOE.) 2016b. Taxable Diesel Gallons 10 year Report. Available online: http://www.boe.ca.gov/sptaxprog/reports/mvf_10_year_report.pdf. Accessed January 16.

California Emissions Estimator Model (CalEEMod). 2013. CalEEMod User's Guide. July. Available online at <http://www.caleemod.com/>.

California Energy Commission (CEC). 2007. *2006 Net System Power Report*. Available online: <http://www.energy.ca.gov/2007publications/CEC-300-2007-007/CEC-300-2007-007.PDF>. April. Accessed January 16, 2016.

- CEC. 2015. *Draft Integrated Energy Policy Report*. Available Online:
http://docketpublic.energy.ca.gov/PublicDocuments/15-IEPR-01/TN206330_20151012T134153_2015_Draft_Integrated_Energy_Policy_Report.pdf.
Accessed January 17.
- CEC. 2016a. Energy Consumption Data Management Service. Electricity Consumption by County. Available online at <http://ecdms.energy.ca.gov/elecbycounty.aspx>. Accessed January 13.
- CEC. 2016b. *Energy Almanac, California's Major Sources of Energy*. Available online at http://energyalmanac.ca.gov/overview/energy_sources.html. Accessed January 13, 2016.
- CEC. 2016c. California's Energy Efficiency Standards for Residential and Nonresidential Buildings, available online at <http://www.energy.ca.gov/title24/2013standards/>. Accessed January 16.
- California Public Utilities Commission and California Energy Commission (CPUC & CEC). 2008. *2008 Update, Energy Action Plan*. Available online:
<http://www.energy.ca.gov/2008publications/CEC-100-2008-001/CEC-100-2008-001.PDF>. February.
- Luk Associates. 2016. Project Report – Town Center/Community Park – Water Demand Assessment. February 10.
- Pacific Gas & Electric (PG&E). 2016a. Fast Facts, available online:
<http://www.pge.com/en/about/company/profile/index.page>. Accessed January 14.
- (PG&E). 2016b. PG&E's 2014 Electric Power Mix Delivered to Retail Customers. Available online at: <http://www.pge.com/myhome/edusafety/systemworks/electric/energymix/>. Accessed January 16.
- Ramboll Environ. 2016. Energy Consumption Calculations.
- United States Department of Housing and Urban Development (HUD). 2011. *Evidence Matters* Newsletter, Summer. Available online:
http://www.huduser.org/portal/periodicals/em/EM_Newsletter_Summer_2011_FNL.pdf.
Accessed January 14, 2016.
- United States Department of Energy [USDOE]. 2016. Model Year 2015 Fuel Economy Guide. January. Available online at:
<https://www.fueleconomy.gov/feg/pdfs/guides/FEG2015.pdf>. Accessed January 2016.
- United States Environmental Protection Agency [USEPA]. 1996. AP 42. Compilation of Air Pollutant Emission Factors, Volume 1. Fifth Edition. Chapter 3.4, Large Stationary Diesel and All Stationary Dual-fuel Engines. October. Available online at:
<http://www.epa.gov/ttn/chief/ap42/ch03/final/c03s04.pdf>. Accessed January 2016.

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