City of Burlingame

Douglas Avenue Multi-Family Residential Development Project

Draft Environmental Impact Report

State Clearinghouse No. 2015062033

August 2016

PANORAMA ENVIRONMENTAL, INC.

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City of Burlingame

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Prepared for:
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ACRONYMS AND ABBREVIATIONS

°F	degrees Fahrenheit
AB	Assembly Bill
ABAG	Association of Bay Area Governments
AIA	Airport Influence Area
ALUCP	Airport Land Use Compatibility Plan
amsl	above mean sea level
AQP	Air Quality Plan
AQPSD	California Air Resources Board Air Quality Planning and Science Division
ASCE	American Society of Civil Engineers
ATCM	Airborne Toxic Control Measure
BAAQMD	Bay Area Air Quality Management District
BART	Bay Area Rapid Transit
bgs	below ground surface
BMP	best management practice
CAA	Clean Air Act
CAAQS	California Ambient Air Quality Standards
CAFÉ	corporate average fuel economy
CalEEMod	California Emissions Estimator Model
CALGreen	California Green Building Standards
CAP	Clean Air Plan
CARB	California Air Resources Board
CBC	California Building Code
CBSC	California Building Standards Commission
CCAA	California Clean Air Act
CDFW	California Department of Fish and Wildlife
CEC	California Energy Commission
CEQA	California Environmental Quality Act
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CESA	California Endangered Species Act
CFR	Code of Federal Regulations
CGP	Construction General Permit
CH_4	methane
CHP	California Highway Patrol
CMP	Congestion Management Plan
CNDDB	California Natural Diversity Database
CNEL	Community Noise Equivalent Level

CNPS	California Native Plant Society
CO	carbon monoxide
CO_2	carbon dioxide
CO_2e	carbon dioxide equivalent(s)
CPUC	California Public Utilities Commission
CRHR	California Register of Historical Resources
CRPR	California Rare Plant Rank
CWA	Clean Water Act
dB	decibel(s)
dBA	A-weighted decibel(s)
DPF	diesel particulate filter
DPM	diesel particulate matter
DTSC	Department of Toxic Substances Control
EIR	Environmental Impact Report
EPA	Environmental Protection Agency
FAA	Federal Aviation Administration
FE	Federally endangered species
FEMA	Federal Emergency Management Agency
FESA	Federal Endangered Species Act
FHWA	Federal Highway Administration
FIRM	Flood Insurance Rate Map
FMMP	Farmland Mapping and Monitoring Program
FP	fully protected species
GHG	greenhouse gas
GWP	global warming potential
H_2S	hydrogen sulfide
HCP	Habitat Conservation Plan
HFC	hydrofluorocarbon
HI	Hazard Index
HW	Highway
hp	horsepower
IPCC	Intergovernmental Panel on Climate Change
ISA	interim supply allocations
ISG	Individual Supply Guarantee
ITE	Institute of Transportation Engineers
IWMB	Integrated Waste Management Board
KOP	key observation point
kW	kilowatt(s)
LID	low impact development
LOS	Level of Service
MBTA	Migratory Bird Treaty Act

MCL	maximum contaminant level
MERV	minimum efficiency reporting value
mg	million gallon(s)
mgd	million gallon(s) per day
MPO	Metropolitan Planning Organization
MRZ	Mineral Resource Zone
MT	metric ton
Mw	moment magnitude
MWh	megawatt(s) per hour
MY	model year
NAAQS	National Ambient Air Quality Standard
NBSU	North Bayside System Unit
NCCP	Natural Community Conservation Plan
NCP	National Contingency Plan
NHTSA	National Highway Traffic Safety Administration
NMFS	National Marine Fisheries Service
NO_x	nitrogen oxides
NOI	Notice of Intent
NOP	Notice of Preparation
NPDES	National Pollutant Discharge Elimination System
NPL	National Priorities List
NPPA	Native Plant Protection Act
NPS	Non-Point Source
NRHP	National Register of Historic Places
NSDWR	National Secondary Drinking Water Regulations
O_3	ozone
OSHA	Occupational Safety and Health Administration
Pb	lead
PCB	polychlorinated biphenyl(s)
PDA	Priority Development Area
PFC	perfluorocarbon
$PM_{2.5}$	particulate matter fewer than 2.5 microns in diameter
PM_{10}	particulate matter fewer than 10 microns in diameter
PPV	peak particle velocity
RCRA	Resource Conservation and Recovery Act
RHNA	Regional Housing Need Allocation
ROG	reactive organic gas
ROWD	Report of Waste Discharge
RWQCB	Regional Water Quality Control Board
SARA	Superfund Amendments and Reauthorization Act
SB	Senate Bill

SFBAAB	San Francisco Bay Area Air Basin
SFHA	Special Flood Hazard Areas
SFO	San Francisco International Airport
SFPUC	San Francisco Public Utilities Commission
SIP	State Implementation Plan
SMARA	Surface Mining and Reclamation Act
ST	State threatened species
SO_2	sulfur dioxide
SPCC	Spill Prevention, Control, and Countermeasure
SR	State Route
SSC	State species of special concern
SWPPP	Stormwater Pollution Prevention Plan
SWRCB	State Water Resources Control Board
TA	Transportation Authority
TAC	toxic air contaminant
TPZ	tree protection zone
UFMP	Urban Forest Management Plan
UNFCCC	United Nations Framework Convention on Climate Change
USACE	U.S. Army Corps of Engineers
USC	U.S. Code
USGS	U.S. Geological Survey
USFWS	U.S. Fish and Wildlife Service
WDR	Waste Discharge Requirement
WRCC	Western Regional Climate Center
WWTP	Waste Water Treatment Plant

EXECUTIVE SUMMARY

A stand-alone summary of the Draft Environmental Impact Report (EIR) is presented as required by California Environmental Quality Act (CEQA) Guidelines Section 15123. The summary follows the organization of the Draft EIR and describes the proposed project, environmental setting, environmental impacts and mitigation measures, alternatives to the proposed project, and a summary of public and agency concerns raised during the EIR scoping.

PROJECT OVERVIEW

Proposed Project

Project Description

The proposed project would include the demolition of two single-family houses and a 4-unit apartment building on two adjacent lots at 1128 and 1132 Douglas Avenue, and construction of a 29-unit apartment building. The project also includes moving a historic house from the 1128 Douglas Avenue site and relocating it to 524 Oak Grove Avenue. The existing house at the Oak Grove Avenue location would be demolished to accommodate the historic house. The proposed project is located in the City of Burlingame in San Mateo County.

The new construction at the Douglas Avenue project site location would result in a 5-story, 29-unit residential building with a mix of studio, one-, two-, and three-bedroom apartments. The building would have a total area of 45,770 square feet. The occupancy of the building is anticipated to be 67 people. The building height would be 56 feet 10 inches to the top of parapet as measured from average top of curb level.

The site would be landscaped with drought-tolerant plantings. Three existing street trees that would be removed during construction would be replaced with three new street trees. Four of the existing protected trees on the site would be replaced with 10 new trees.

Zoning

The Oak Grove Avenue project site is one block south of Rollins Road and US Highway 101. The site is designated as low-density residential development in the R-1 Zoning District.

The Douglas Avenue project site is within the City's Downtown Specific Plan Area. It is less than one block from California Drive and the Caltrain tracks, and two blocks west of downtown Burlingame. This project site is designated as high-density residential development in the R-4 Zoning District. The 56-foot 10-inch height of the apartment building is within the 75 feet height

allowed in the R-4 Zoning District; however, the City requires a Conditional Use Permit for all buildings over 35 feet in that District.

The proposed project would have an 18.4-foot front setback, which is less than the block average of 19.9 feet, and a minimum 9-foot-wide driveway, which is less than the required width of 12 feet. Variances to the front setback distance and the driveway width are required to allow for the ordinance deviations and are intended by the applicant to accommodate two existing protected trees (one oak and one redwood) located at the north east corner of the site.

Parking

The project at the Douglas Avenue site would include 34 full-size parking spaces on-site. Most of those spaces would be in an underground garage. Twelve at-grade spaces would be located at the rear of the building. As allowed by the Downtown Specific Plan, no guest spaces would be provided on-site.

Project Construction

Construction activities at the project sites would start with the demolition of the single-family house at the Oak Grove Avenue project site. Once that house has been cleared, deconstruction of the historic house at 1128 Douglas Avenue would take place, followed by loading, transporting, and setting it in its new location on Oak Grove Avenue. Construction activities would happen concurrently at both locations.

Loading and setting of the historic house would take a total of three days. During this time, roads may be closed and power would be shut down. The interruptions would be localized to properties along the truck route between the two project site locations. The deconstructed sections of the historic house may be stored temporarily on nearby Caltrain property. These activities would be coordinated with utility companies, Caltrain, and the City. Neighbors and businesses in the vicinity would be notified in advance.

The construction period for the proposed project is estimated to be 14 to 15 months. There would be up to 25 construction workers on site depending upon the construction schedule. A construction management plan would be prepared for the proposed project as required by the City.

Construction activities are proposed to occur between the hours of 7:00 a.m. and 7:00 p.m. Monday through Friday. Construction may also occur from 9:00 a.m. to 6:00 p.m. on Saturday, and 10:00 a.m. to 6:00 p.m. on Sundays and holidays, as specified in City of Burlingame Municipal Code 18.07.110, to allow for a shorter construction period.

The majority of the equipment and material staging would occur on the street directly in front of the project sites, with some staging that would occur on the project sites. The construction activities would include excavation, grading, and paving. Roughly 6,000 cubic yards of soil would be excavated and trucked off site. It is estimated that approximately 500 dump truck trips (roughly 32 tons per load) (inclusive of both project sites) would be required for the

proposed project. Construction debris would be taken to Zanker Recycling for sorting and diversion, or to Ox Mountain Landfill for disposal.

Construction at the Oak Grove Avenue project site would be typical of single-family house construction.

Construction at the Douglas Avenue project site would include use of heavy construction equipment such as excavators, backhoes, drill rigs, forklifts, and rollers.

ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

Table 2, Summary of Impacts and Mitigation Measures, included at the end of this chapter, lists all the impacts, recommended mitigation measures for potentially significant impacts, and the level of significance after the mitigation measures are implemented.

The proposed project would not result in significant and unavoidable impacts.

ALTERNATIVES TO THE PROPOSED PROJECT

The applicant has developed alternatives to the proposed project to address the significant impacts of the proposed project related to the overall size of the project. These alternatives provide options that the City Planning Commission may consider during the design review process.

Features of Alternatives to the Proposed Project

The Draft EIR considered the following alternatives to the proposed project:

- Alternative 1: Reduced Height with No Change in Density
- Alternative 2: Reduced Density and Stepped-back Façade
- Alternative 3: Reduced Height and Reduced Density
- Alternative 4: No Project Alternative

Table 1 Key Features of the Alternatives to the Proposed Project

	Alternative 1 Reduced Height with No Change in Density	Alternative 2 Reduced Density and Stepped-back Façade	Alternative 3 Reduced Height and Reduced Density
No. of Stories	4	5	4
Height to top of the parapet	46 feet 8 inches	56 feet 8 inches	46 feet 8 inches
Unit Count	29	26	21
Total Building Square Footage	23,600	25,200	23,600[1]
Parking Spaces	31	29	24

[1] The square footage was estimated based on the Alternative 1, with the unit mix estimated to match the lesser number of parking spaces provided; however, units would be larger.

The No Project Alternative was also considered to allow decision makers to compare the impacts of approving the project with the impacts of not approving the project. The No Project Alternative considers what might reasonably occur on the proposed project sites if the proposed project did not occur. The No Project Alternative assumes that the single-family houses and the 4-unit apartment complex would remain, and minor exterior and interior renovations would occur.

Comparison of Development Alternatives

Alternative 1 and Alternative 3 would reduce the significant impacts of aesthetics. Alternative 1 and Alternative 3 have similar less than significant impacts but Alternative 3 has a mix of apartments that would generate less construction activity and a potentially shorter construction period and reduced construction noise impacts; and a smaller population resulting in reduced operational noise and transportation and traffic impacts than Alternative 1. Alternative 2 would have significant impacts to aesthetics similar to the proposed project. All three development alternatives would have reduced noise impacts compared to the proposed project due to a shorter construction duration for the reduced size of the apartment building.

Environmentally Superior Alternative

Alternative 3, the reduced height (4-story) and reduced density option, is considered the environmentally superior alternative because it would reduce the impacts of the proposed project to the greatest extent compared to the other development alternatives. The reduced height of Alternative 3 would reduce the significant impacts Aesthetics-2 and Aesthetics-3 related to visibility from scenic roadways and the visual character of the project area. Alternative 3 would have many similar impacts to the proposed project, but because it is smaller in square footage and would result in a smaller new population, the less-than-significant impacts identified for other impact areas would occur to a lesser degree. Alternative 3 would require a conditional use permit for height, and variances for the setback encroachment and for driveway width. It would be consistent with the goals of the Downtown Specific Plan by preserving a historic resource and providing multi-family housing close to the Downtown core and transit options, as would the proposed project.

Consistency with Project Objectives

The alternatives were developed to reduce the significant impacts of the proposed project as well as to feasibly accomplish most of the basic objectives of the proposed project (CEQA Guidelines Section 15126.6[c]). The proposed project objectives were generally to meet the goals of the Downtown Specific Plan by providing a variety of residential housing options close to the Downtown core and increase density near the El Camino Real and Caltrain transit corridors. All three development alternatives to the proposed project would be consistent with the goals of the Downtown Specific Plan.

AREAS OF CONTROVERSY

Public comments on the proposed project were heard at the March 23 and May 11, 2015 Planning Commission meetings. The Notice of Preparation (NOP) was published on June 15, 2015 and comments were accepted through July 20, 2015.

Comments generally focused on the following topics:

- **Building Size**–size of the proposed new building, shadow cast on neighboring properties, change to the visual character of the neighborhood
- **Parking**–availability of street parking for guests and deliveries
- **Traffic and Circulation**–additional traffic in the project area, impact on visibility pulling out of driveways and garages
- **Services**–strain on services with additional people
- **Utilities**–lower level of service for water, power, and sewer with additional population in the project area
- **Construction**–noise and air pollution from construction activities, construction traffic
- **Preservation**–preservation of historic trees and former home of the Murphy family

Table 2 Summary of Impacts and Mitigation Measures

Impact	Mitigation Measures	Level of Significance after Application of Mitigation Measures
3.1 Aesthetics		
Impact Aesthetics-1: Would the proposed project have a substantial adverse effect on a scenic vista?	N/A	No Impact
Impact Aesthetics-2: Would the proposed project substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway or scenic route as designated by the City of Burlingame?	**MM AES-1: Design Review of the Proposed Project** The applicant shall submit revised plans for the proposed building at 1128-1132 Douglas Avenue to the City of Burlingame for design review. The Planning Commission as the responsible body for design review shall review the proposed project for compatibility with the City's guidelines for a residential apartment building in the Downtown Specific Plan R-4 Base District.	Less than Significant
Impact Aesthetics-3: Would the proposed project substantially degrade the existing visual character or quality of the site and its surroundings?	**MM AES-1: Design Review of the Proposed Project**	Less than Significant
Impact Aesthetics-4: Would the proposed project create a new source of substantial light or glare that would adversely affect day or nighttime views in the area?	**MM AES-2: Exterior Lighting Plan** Prior to issuance of a building permit, a detailed Exterior Lighting Plan shall be provided to the City of Burlingame for design review. The lighting plan shall utilize the following standards: a) Control stray light through use of low-brightness fixtures with optical controls. b) Fully block all exterior light sources from off-site views. c) Do not permit any uplighting from any outdoor light fixture. d) Employ on-demand exterior lighting systems where feasible. Area lighting and security lighting shall be	Less than Significant

Impact	Mitigation Measures	Level of Significance after Application of Mitigation Measures
	controlled by the use of timed switches and/or motion detectors. e) Use tinted windows in all buildings to reduce glare from interior lights. **MM AES-3: Use of Non-reflective Exterior Paint** Flat, non-reflective paint or integrated coloring shall be used in all exterior building materials throughout the project.	
3.2 Air Quality		
Impact Air-1: Violate any air quality standard or contribute substantially to an existing or projected air quality violation—*Construction*	None required	Less than Significant
Impact Air-1: Violate any air quality standard or contribute substantially to an existing or projected air quality violation—*Operation*	None required	Less than Significant
Impact Air-2: Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)	None required	Less than Significant
Impact Air-3: Expose sensitive receptors to substantial pollutant concentrations—*Construction*	**MM AIR-1: Construction Equipment Emissions Reduction** The construction contractor shall implement the BAAQMD *Enhanced Exhaust Emissions Reduction Measures for Project Construction Equipment* measure that requires project off-road equipment greater than 25 horsepower (hp) that operates for more than 20 total hours over the entire duration of construction activities to meet the following requirements: • All backhoes engines shall meet CARB Tier 4 off-road emission standards.	Less than Significant

Impact	Mitigation Measures	Level of Significance after Application of Mitigation Measures
	• All other equipment engines shall meet or exceed CARB Tier 3 off-road emission standards or be retrofitted with a CARB Level 2 diesel particulate filter (DPF).	
Impact Air-3: Expose sensitive receptors to substantial pollutant concentrations—*Operation*	**MM AIR-2: Air Filtration** A standard house heating, ventilation, and air conditioning (HVAC) system with a permanent filter of a minimum efficiency reporting value (MERV) of 13 or greater shall be installed at the relocated residence at 524 Oak Grove Avenue. The MERV13 filter shall provide one air exchange per hour if the air source is outside/unfiltered air or four air exchanges per hour if the air source is inside/recirculated air to provide an 80 percent or greater reduction of outdoor fine particulate matter (including DPM).	Less than Significant
Impact Air-4: Conflict with or obstruct implementation of the applicable air quality plan—*Construction*	**MM AIR-1 Construction Equipment**	Less than Significant
Impact Air-4: Conflict with or obstruct implementation of the applicable air quality plan—*Operation*	**MM AIR-2: Air Filtration**	Less than Significant
Impact Air-5: Create objectionable odors affecting a substantial number of people—*Construction*	None required	Less than Significant
Impact Air-5: Create objectionable odors affecting a substantial number of people—*Operation*	None required	Less than Significant
3.3 Biological Resources		
Impact Biology-1: Would the proposed project 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	**MM BIO-1: Pre-construction Bat Surveys** The applicant shall implement the following measures during demolition of structures and tree removal or tree pruning. ***Structures.*** Before demolition of existing structures, a qualified bat specialist shall conduct a day time search for potential roosting habitat and evening emergence surveys to	Less than Significant

Impact	Mitigation Measures	Level of Significance after Application of Mitigation Measures
California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?	determine if the structure is being used as a roost. Biologists conducting surveys for roost sites shall use naked eye, binoculars, and a high power spotlight to inspect buildings features that could house bats. The surfaces of the structure and the ground around the structure shall be surveyed for bat signs, such as guano, staining, and prey remains. Evening (i.e., dusk) emergence surveys shall consist of at least one bat specialist positioned at different vantage points from the structure, watching for emerging bats from a half hour before sunset to 1 to 2 hours after sunset for a minimum of 2 nights within the season that construction will be taking place. Night vision goggles or full spectrum acoustic detectors should be used during emergence surveys to assist in species identification. All emergence surveys shall be conducted during favorable weather conditions (i.e., calm nights with temperatures conducive to bat activity [55° F and above] and no precipitation predicted). If roosting, special-status bats are present, measures developed by the bat specialist shall be implemented, as needed. Measures to protect the bats may include postponing demolition until after the May 1st through October 1st roosting period. Measures may include monitoring roosting to determine if the roost site is a maternal roost by either a visual inspection of the roost bat pups, or monitoring the roost after the adults leave for the night and listening for bat pups. Eviction of a maternal roost cannot occur because bat pups are not mature enough to leave the roost. If a roost is determined not to be a maternal roost, eviction of bats shall be conducted using bat exclusion techniques developed by Bat Conservation International and in consultation with CDFW that allow the bats to exit the roosting site, but prevent re-entry to the site. This work shall be completed by a BCI-recommended exclusion professional. The exclusion of bats shall be timed and carried out concurrently with any scheduled bird exclusion activities. Each roost lost (if any) shall be replaced in consultation with the CDFW and may include construction and installation of	

Impact	Mitigation Measures	Level of Significance after Application of Mitigation Measures
	BCI-approved bat boxes suitable to the bat species and colony size excluded from the original roosting site. Roost replacement shall be implemented before bats are excluded from the original roost sites. Once the replacement roosts are constructed and it is confirmed that bats are not present in the original roost site, the structures may be removed or sealed. ***Tree Removal.*** A qualified bat specialist shall examine trees to be removed or trimmed for suitable bat roosting habitat. High quality habitat features (large tree cavities, basal hollows, loose or peeling bark, larger snags, etc.) shall be identified and the area around these features searched for bats and bat sign (guano, culled insect parts, staining, etc.). The qualified bat specialist shall conduct evening visual emergence surveys of the source habitat feature, from a half hour before sunset to 1 to 2 hours after sunset for a minimum of two nights within the season that construction will be taking place. If it is found that roosting, special-status bats are present, measures developed by the bat specialist shall be implemented, as needed.	
Impact Biology-2: Would the proposed project have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?	N/A	No Impact
Impact Biology-3: Would the proposed project have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	N/A	No Impact

Impact	Mitigation Measures	Level of Significance after Application of Mitigation Measures
Impact Biology-4: Would the proposed project 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?	N/A	No Impact
Impact Biology-5: Would the proposed project conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	**MM BIO-2: Tree Protection Measures** Tree protection specifications were developed by Mayne Tree Expert Company Inc. for the protected trees surveyed at the Douglas Avenue and Oak Grove Avenue project sites. The applicant shall implement the following tree protection measures developed by Mayne Tree Expert Company Inc. and approved by the Arborist for protected trees. The Mayne Tree Expert Company Inc. reports shall be included on the demolition and construction plans of the project. ***Mulching.*** A 6-inch layer of coarse mulch woodchips shall be placed beneath the dripline of protected trees. Mulch is to be kept 12 inches from the trunk. ***Protective Barrier.*** A protective barrier or 6-foot chain link fence shall be installed around the dripline of protected trees. The fencing can be moved within the dripline if authorized by the Project Arborist or the City Arborist, but no closer than 2 feet from the trunk of any tree. Fence posts shall be 1.5 inches in diameter and are to be driven 2 feet into the ground. The distance between posts shall not be more than 10 feet. This enclosed area is the Tree Protection Zone (TPZ). Moveable barriers or chain link fencing secured to cement blacks can be substituted for "fixed" fencing if the Project Arborist and City Arborist agree that the fencing would have to be moved to accommodate certain phases of construction. The applicant may not move the fence without authorization from the Project Arborist or City Arborist. ***Construction Restrictions.*** During construction, the following restrictions shall be implemented:	Less than Significant

Impact	Mitigation Measures	Level of Significance after Application of Mitigation Measures
	• Runoff or spillage of damaging materials to the area below any tree canopy shall not be allowed • Storing materials, stockpiling soils, or parking/driving vehicles within the TPZ is not allowed • Cutting, breaking, skinning, or bruising roots, branches, or trunks of protected trees is prohibited without first obtaining authorization from the City Arborist • Fires shall not be allowed under and adjacent to trees • Discharging exhaust into foliage shall be prohibited • Securing cables, chains, or ropes to trees or shrubs is prohibited • Trenching, digging, or excavating within the dripline of the TPZ of trees is prohibited without first obtaining authorization from the City Arborist • Applying soils sterilants under pavement near existing trees is prohibited • Machine trenching is prohibited within the driplines of trees, only excavation by hand or compressed air is allowed ***Avoiding injury to roots.*** When a ditching machine, which is being used outside of the dripline of trees, encounters roots smaller than 2 inches, the wall of the trench adjacent to the street shall be hand trimmed, making clear, clean cuts through the roots. All damaged, torn, and cut roots shall be given a clean cut to remove ragged edges, which promote decay. Trenches shall be filled within 24 hours, but, where, this is not possible, the side of the trench adjacent to the trees shall be shaded with four layers of dampened, untreated burlap, wetted as frequently as necessary to keep the burlap wet. Roots 2 inches or larger, when encountered, shall be reported immediately to the Project Arborist, who will decide whether the applicant may cut the roots as mentioned above or shall excavate by hand or with compressed air	

Impact	Mitigation Measures	Level of Significance after Application of Mitigation Measures
	under the root. The root is to be protected with dampened burlap. In addition, the top 2 feet of the foundation closest to trees shall be air spaded or hand dug under supervision of a licensed arborist to locate and evaluate any significant roots prior to mechanical excavation. The licensed arborist shall be required to submit a report to the City regarding the findings of the excavation and recommend any additional actions needed to protect the roots to preserve the health and structure of both the redwood and oak trees. ***Routing pipes.*** To avoid conflict with routes, pipes shall be routed outside of an area, ten times the diameter of a protected tree. In addition, where it is not possible to reroute pipes or trenches, the applicant shall bore beneath the dripline of the tree. The boring shall take place not less than 3 feet below the surface of the soil in order to avoid encountering feeder roots. ***Reporting.*** Any damage due to construction activities shall be reported to the Project Arborist or City Arborist within 6 hours. If a protected tree is damaged, the applicant shall follow any remedial actions deemed necessary by the City Arborist, such as planting additional trees, consistent with Chapter 11.06.090.	
Impact Biology-6: Would the proposed project conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	N/A	No Impact
3.4 Cultural Resources		
Impact Cultural-1: Would the project cause a substantial adverse change in the significance	**MM CUL-1: Compatible Cladding for Historic House** New construction on the relocated historic house shall be differentiated from the old and shall be compatible with the	Less than Significant

Impact	Mitigation Measures	Level of Significance after Application of Mitigation Measures
of a historical resource as defined in Section 15064.5?	historic materials, features, size, scale and proportion, to protect the integrity of the property and its environment consistent with the Secretary of Interior's standards for rehabilitation. The choice of materials shall be submitted to the City for approval as part of the design review process.	
Impact Cultural-2: Would the proposed project cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5?	None required	Less than Significant
Impact Cultural-3: Would the proposed project directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	None required	Less than Significant
Impact Cultural-4: Would the proposed project disturb any human remains, including those interred outside of formal cemeteries?	None required	Less than Significant
3.5 Geology and Soils		
Impact Geology-1: Would the project expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:		
(i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault (refer to Division of Mines and Geology Special Publication 42)	N/A	No Impact
(ii) Strong seismic ground shaking?	None required	Less than Significant

Impact	Mitigation Measures	Level of Significance after Application of Mitigation Measures
(iii) Seismic-related ground failure, including liquefaction?	None required	Less than Significant
(iv) Landslides?	N/A	No Impact
Impact Geology-2: Would the project result in substantial soil erosion or the loss of topsoil?	None required	Less than Significant
Impact Geology-3: Would the project be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?	**MM GEO-1: Implementation of Geotechnical Recommendations** The Applicant and their contractors shall implement the measures outlined and recommended in the Geotechnical Investigation Report Chapters 5 through 10 for the proposed construction at 1128-1132 Douglas Avenue.	Less than Significant
Impact Geology-4: Would the project be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?	**MM GEO-1: Implementation of Geotechnical Recommendations**	Less than Significant
Impact Geology-5: Would the project have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?	N/A	No Impact
3.6 Greenhouse Gas Emissions		
Impact GHG-1: Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment	None required	Less than Significant
Impact GHG-2: Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases	None required	Less than Significant

Impact	Mitigation Measures	Level of Significance after Application of Mitigation Measures
3.7 Hazards and Hazardous Materials		
Impact Hazards-1: Would the proposed project create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	**MM HAZ-1: Preparation of a Site-specific Spill Prevention, Control and Countermeasure Plan** The applicant shall prepare a site-specific Spill Prevention, Control, and Countermeasure (SPCC) Plan that will identify spill prevention and response measures and Best Management Practices (BMPs). The plan will emphasize site-specific physical conditions to improve hazard prevention (e.g., identification of flow paths to nearest drains) and reduce effects of accidental spills if they occur. The Applicant shall designate a representative to ensure that all hazardous materials and safety plans are followed throughout the construction period. BMPs identified in SPCC Plan shall be implemented during project construction to minimize the risk of an accidental release and to provide the necessary information for emergency response. A copy of the project SPCC shall be submitted to the City for approval at least 30 days prior to construction. All construction personnel shall be required to attend SPCC training prior to conducting any work on the project site.	Less than Significant
Impact Hazards-2: Would the proposed project create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	**MM HAZ-1: Preparation of a Site-specific Spill Prevention, Control and Countermeasure Plan** **MM HAZ-2: Soils Test** Prior to construction, the applicant shall evaluate shallow soils at the structure locations for the possible presence of lead and pesticides. If lead or pesticides are found within the tested soils, the applicant shall dispose of the soils, consistent with federal, state and local laws regarding disposal of hazardous materials.	Less than Significant
Impact Hazards-3: Would the proposed project emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	**MM HAZ-1: Prepare and Implement a Site-specific Spill Prevention, Control and Countermeasure Plan** **MM AIR-1: Construction Equipment**	Less than Significant

Impact	Mitigation Measures	Level of Significance after Application of Mitigation Measures
Impact Hazards-4: Would the proposed project 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?	None required	Less than Significant
Impact Hazards-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?	None required	Less than Significant
Impact Hazards-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?	N/A	No Impact
Impact Hazards-7: Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	**MM HAZ-3: Project-specific Emergency Access Plan** The Applicant shall develop and implement a Project-specific Emergency Access Plan. The applicant shall submit the plan to the City and all emergency services within the city, including the fire department and police department, at least 30 days prior to construction. The Emergency Access Plan shall require provisions for the: a. Implementation of standard safety practices, including installation of appropriate barriers between work zones and transportation facilities, placement of appropriate signage, and use of traffic control devices. b. Use of flaggers and/or signage to guide vehicles through or around construction zones using proper techniques for construction activities, including staging yard entrance and exit. c. Traffic detours for any road or lane closures with appropriate signage marking the detours.	Less than Significant

Impact	Mitigation Measures	Level of Significance after Application of Mitigation Measures
	d. Timing of worker commutes and material deliveries to avoid peak commuting hours. e. Timing of lane and road closures. f. Plans for construction worker parking and transportation to work sites. g. Methods for keeping roadways clean. h. Storage of all equipment and materials in designated work areas in a manner that minimizes traffic obstructions and maximizes traffic sign visibility. i. Limiting vehicles to safe speed levels according to posted speed limits, road conditions, and weather conditions. j. Coordination with public transit providers. k. Repair of asphalt and other road damage (e.g., curb and gutter damage, rutting in unpaved roads) caused by construction vehicles. l. Detours for cyclists and pedestrians when bike lanes or sidewalks must be closed. The Emergency Access Plan must at a minimum comply with the requirements of the City and must be submitted to the City for approval prior to commencing construction activities.	
Impact Hazards-8: 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?	N/A	No Impact
3.8 Hydrology and Water Quality		
Impact Hydrology-1: Would the proposed project violate any water quality standards or waste discharge requirements?	**MM HYDRO-1: Stormwater Pollution Prevention Best Management Practices**	Less than Significant

Impact	Mitigation Measures	Level of Significance after Application of Mitigation Measures
	The applicant will implement the following best management practices during construction of the proposed project: • Preserve existing vegetation where feasible • Limit disturbance to the work site • Install silt fences around the perimeter of the project site **MM HAZ-1: Prepare and Implement a Site-specific Spill Prevention, Control and Countermeasure Plan**	
Impact Hydrology-2: Would the proposed project 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 (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?	None required	Less than Significant
Impact Hydrology-3: Would the proposed project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site?	None required	Less than Significant
Impact Hydrology-4: Would the proposed project substantially alter the existing drainage pattern of the site or area, including through the alteration of a 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?	None required	Less than Significant

Impact	Mitigation Measures	Level of Significance after Application of Mitigation Measures
Impact Hydrology-5: Would the proposed project create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?	None required	Less than Significant
Impact Hydrology-6: Would the proposed project otherwise substantially degrade water quality?	**MM HAZ-1: Preparation of a Site-specific Spill Prevention, Control and Countermeasure Plan**	Less than Significant
Impact Hydrology-7: Would the proposed project 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?	N/A	No Impact
Impact Hydrology-8: Would the proposed project place within a 100-year flood hazard area structures which would impede or redirect flood flows?	N/A	No Impact
Impact Hydrology-9: Would the proposed project 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?	None required	Less than Significant
Impact Hydrology-10: Would the proposed project expose people or structures to inundation by seiche, tsunami, or mudflow?	None required	Less than Significant
3.9 Land Use and Planning		
Impact Land Use-1: Would the proposed project physically divide an established community?	N/A	No Impact

Impact	Mitigation Measures	Level of Significance after Application of Mitigation Measures
Impact Land Use-2: Would the proposed project 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?	**MM TRAFFIC-2: Driveway Safety Enhancements** (see Impact Transportation 4, below)	Less than Significant
Impact Land Use-3: Would the proposed project conflict with any applicable habitat conservation plan or natural community conservation plan?	N/A	No Impact
3.10 Noise		
Impact Noise-1: Would the proposed project expose persons to, or generate noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	**MM NOISE-1: Prepare a Relocation Plan and Obtain Approval from the City for Historic House Relocation Outside of Permitted Construction Hours** The Applicant shall prepare a Relocation Plan and obtain approval from the City under Municipal Code Section 18.07.110 for historic house relocation. The Relocation Plan shall include: 1. Exact procedure for cutting and dismantling the historic house, and loading on trucks 2. Specific routes for movement of the historic house from its existing location to 524 Oak Grove Avenue 3. Exact procedure for setting the house in its new location 4. Estimated duration for the various activities involved in the cutting, dismantling, loading, and setting of the house 5. Coordination procedures with utilities, Caltrain, and appropriate City Departments 6. Advance Notice to residents at each project site and along the route regarding the start and duration of power interruption	Less than Significant

Impact	Mitigation Measures	Level of Significance after Application of Mitigation Measures
	7. Measures to reduce impacts of power outage on residents such as: a. Power interruption phasing to reduce amount of time houses are affected b. Offering affected parties dry ice for freezers and refrigerators c. Offering generators for life support equipment d. Security lighting Approval from the City for relocating the historic house outside of permitted construction hours would be contingent on abiding by all the best management practices required under Condition of Approval 19, and the measures included in the Noise Management Plan for the project. **MM NOISE-2: Compliance with Title 24** Prior to issuance of a building permit, a qualified acoustical consultant shall review the final building plans to calculate expected interior noise levels. The building permit shall not be issued until the qualified acoustical consultant has reviewed the acoustical test report of all sound rated windows and doors and confirmed that the proposed building treatments will adequately reduce interior noise levels to 45 dBA or below.	
Impact Noise-2: Would the proposed project expose persons to, or generate excessive groundborne vibration or groundborne noise levels?	None Required	Less than Significant
Impact Noise-3: Would the proposed project result in substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?	None required	Less than Significant
Impact Noise-4: Would the proposed project result in substantial temporary or periodic increase in ambient noise levels in the project	**MM NOISE-1: Prepare a Relocation Plan and Obtain Approval from the City for Historic House Relocation Outside of Permitted Construction Hours**	Less than Significant

Impact	Mitigation Measures	Level of Significance after Application of Mitigation Measures
vicinity above levels existing without the project?	**MM NOISE-3: Noise Management Plan** The applicant shall prepare a noise management plan that includes: a. Identified routes for movement of construction-related vehicles and equipment developed in conjunction with the Burlingame Community Development Department so that noise-sensitive areas, including residences and schools, are avoided as much as possible. b. A designated "Community Liaison" for construction activities. The Community Liaison would be responsible for responding to any local complaints regarding construction noise and vibration. The Community Liaison would determine the cause of the noise or vibration complaint and would implement reasonable measures to correct the problem. c. Sending advance notice to neighborhood residents within 50 feet of the project site regarding the construction schedule and including the phone number for the disturbance coordinator. A notice with the name and phone number of the Community Liaison shall be posted at the project site. In the event that construction noise complaints are not resolved by scheduling, the applicant shall install temporary sound absorption barriers, such as noise control blankets, in addition to the standard noise barriers around the construction site required under Condition of Approval 19, best management practices. These additional barriers would be specifically designed for exterior use and would reduce the noise level beyond the fence line by at least 3 dBA. If noise complaints continue, the applicant shall install a temporary sound absorption barrier that would reduce the noise level beyond the fence line an additional 2 dBA, for a total noise reduction of 5 dBA beyond the fence line.	

Impact	Mitigation Measures	Level of Significance after Application of Mitigation Measures
	MM NOISE-4: Restricted Construction Hours Construction hours for exterior construction activities shall be limited to the hours of 7:00 a.m. to 6:00 p.m. Monday through Friday, and the hours of 9:00 a.m. and 6:00 p.m. on Saturdays, unless a special permit is obtained in advance from the City for specified activities. No construction shall occur on Sundays or holidays. This construction noise restriction shall not apply to work done within the building after it is fully enclosed.	
Impact Noise-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 proposed project expose people residing or working in the project area to excessive noise levels?	N/A	No Impact
Impact Noise-6: For a project within the vicinity of a private airstrip, would the proposed project expose people residing or working in the project area to excessive noise levels?	N/A	No Impact
3.11 Population and Housing		
Impact Population-1: Would the proposed project 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)?	None required	Less than Significant
Impact Population-2: Would the proposed project displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?	None required	Less than Significant

Impact	Mitigation Measures	Level of Significance after Application of Mitigation Measures
Impact Population-3: Would the proposed project displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?	None required	Less than Significant
3.12 Public Services and Recreation		
Impact Public Services-1: Would the proposed project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services: Fire protection; Police protection; Schools; Parks; or Other public facilities?	None required	Less than Significant
Impact Recreation-1: Would the proposed project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	None required	Less than Significant
Impact Recreation-2: Would the proposed project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?	N/A	No Impact
3.13 Transportation and Traffic		
Impact Transportation-1: Would the project conflict with an applicable plan, ordinance, or policy establishing measures of effectiveness for the performance of the circulation system,	**MM TRAFFIC-1: Construction Management Plan** The project applicant and its construction contractor(s) shall develop a construction management plan for review and	Less than Significant

Impact	Mitigation Measures	Level of Significance after Application of Mitigation Measures
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?	approval by the City of Burlingame. The plan must include at least the following items and requirements to reduce, to the maximum extent feasible, traffic and parking congestion during construction: a. A set of comprehensive traffic control measures, including scheduling of major truck trips and deliveries to avoid peak traffic hours, detour signs if required, lane closure procedures, signs, cones for drivers, and designated construction access routes; b. Identification of haul routes for movement of construction vehicles that would minimize impacts on motor vehicular, bicycle and pedestrian traffic, circulation and safety, and specifically to minimize impacts to the greatest extent possible on streets in the project area; c. Notification procedures for adjacent property owners and public safety personnel regarding when major deliveries, detours, and lane closures would occur; d. Provisions for monitoring surface streets used for haul routes so that any damage and debris attributable to the haul trucks can be identified and corrected by the project applicant.; e. A construction parking plan to provide worker parking off site and generally off neighborhood streets, with shuttles or other transportation as needed to transport workers to the site; and f. Designation of a readily available contact person for construction activities who would be responsible for responding to any local complaints regarding traffic or parking. This coordinator would determine the cause of the complaint and, where necessary, would implement reasonable measures to correct the problem.	

Impact	Mitigation Measures	Level of Significance after Application of Mitigation Measures
	MM HAZ-3: Project-specific Emergency Access Plan	
Impact Transportation-2: Would the project 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?	None required	Less than Significant
Impact Transportation-3: Would the project 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?	N/A	No Impact
Impact Transportation-4: Would the project substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	**MM TRAFFIC-2: Driveway Safety Enhancements** The project applicant and its construction contractor(s) shall implement the following safety enhancements: a. Flashing light sensors shall be placed within the project parking garage and rear surface parking areas to alert motorists outbound from the project parking areas that vehicles are inbound from Douglas Avenue (these could be video or loop detected); b. Signs shall be placed at the proposed project's Douglas Avenue entrances that indicate: "Caution—Watch For Outbound Vehicles"; and c. The project design shall be modified to allow for 12-foot access on the eastern-most driveway, except as necessary to avoid impact to the two significant trees. Toward the rear of the lot, that would require either loss of landscaping, further setback for the building (at least on the first floor), and/or loss of a parking space.	Less than Significant
Impact Transportation-5: Would the project result in inadequate emergency access?	**MM HAZ-3: Project-specific Emergency Access Plan**	Less than Significant Impact

Impact	Mitigation Measures	Level of Significance after Application of Mitigation Measures
Impact Transportation-6: Would the project conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?	N/A	No Impact
3.14 Utilities and Service Systems		
Impact Utilities-1: Would the proposed project exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?	None required	Less than Significant
Impact Utilities-2: Would the proposed project require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	None required	Less than Significant
Impact Utilities-3: Would the proposed project require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	N/A	No Impact
Impact Utilities-4: Would the proposed project have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?	None required	Less than Significant
Impact Utilities-5: Would the proposed project result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in	None required	Less than Significant

Impact	Mitigation Measures	Level of Significance after Application of Mitigation Measures
addition to the provider's existing commitments?		
Impact Utilities-6: Would the proposed project be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?	None required	Less than Significant
Impact Utilities-7: Would the proposed project comply with federal, state, and local statutes and regulations related to solid waste?	N/A	No Impact
Impact Utilities-8: Would the proposed project impact residents through shutoff of electrical utilities?	**MM NOISE-1: Prepare a Relocation Plan and Obtain Approval from the City for Historic House Relocation Outside of Permitted Construction Hours**	Less than Significant
3.15 Energy Use		
Impact Energy Use-1: Would the proposed project result in a wasteful, inefficient, and unnecessary consumption of energy?	None required	Less than Significant
Impact Energy Use-2: Would the proposed project result in a substantial increase in demand upon energy resources in relation to projected supplies?	None required	Less than Significant
Impact Energy Use-3: Would the proposed project result in longer overall distances between jobs and housing?	None required	Less than Significant

LS = less than significant
LSM = less than significant with mitigation
N = no impact
↑ = impact is greater than for the proposed project
↓ = impact is less than for the proposed project

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1 INTRODUCTION

1.1 USE OF THIS EIR

This Environmental Impact Report (EIR) is an informational document prepared under the California Environmental Quality Act (CEQA) and the Guidelines for Implementing the California Environmental Quality Act (CEQA Guidelines) to inform decision makers and the general public of the significant impacts of the Douglas Avenue Multi-Family Residential Development project. The document identifies measures that would minimize significant effects and describes reasonable and feasible alternatives to the proposed project. The City of Burlingame (City) is the Lead Agency for preparing this EIR. The City and other responsible agencies will use the findings of this EIR to determine whether or not to approve this project.

1.2 EIR PROCESS

Figure 1.2-1 illustrates the EIR process for the proposed project. The orange highlighted box on the figure shows where the proposed project is now in the environmental review process: the public review of the Draft EIR. The activities that have taken place prior to this time and the activities that are forthcoming are outlined below.

1.2.1 Preliminary Design Review and Scoping

Public Meetings

On March 23, 2015, the Planning Commission considered the Application for Design Review for the proposed project. The Planning Commission accepted comments from the public regarding the proposed project. The meeting minutes, including the public comments, are included in Appendix A, Scoping. The public comments are summarized in Table 1.2-1 below.

On May 11, 2015, the Planning Commission conducted a scoping meeting to consider issues to be addressed in this EIR. The public was presented with an overview of the proposed project and the preliminary issues identified by City staff and consultants. The meeting minutes and the public comments are included in Appendix A. The public comments are summarized in Table 1.2-2 below.

Figure 1.2-1 EIR Process

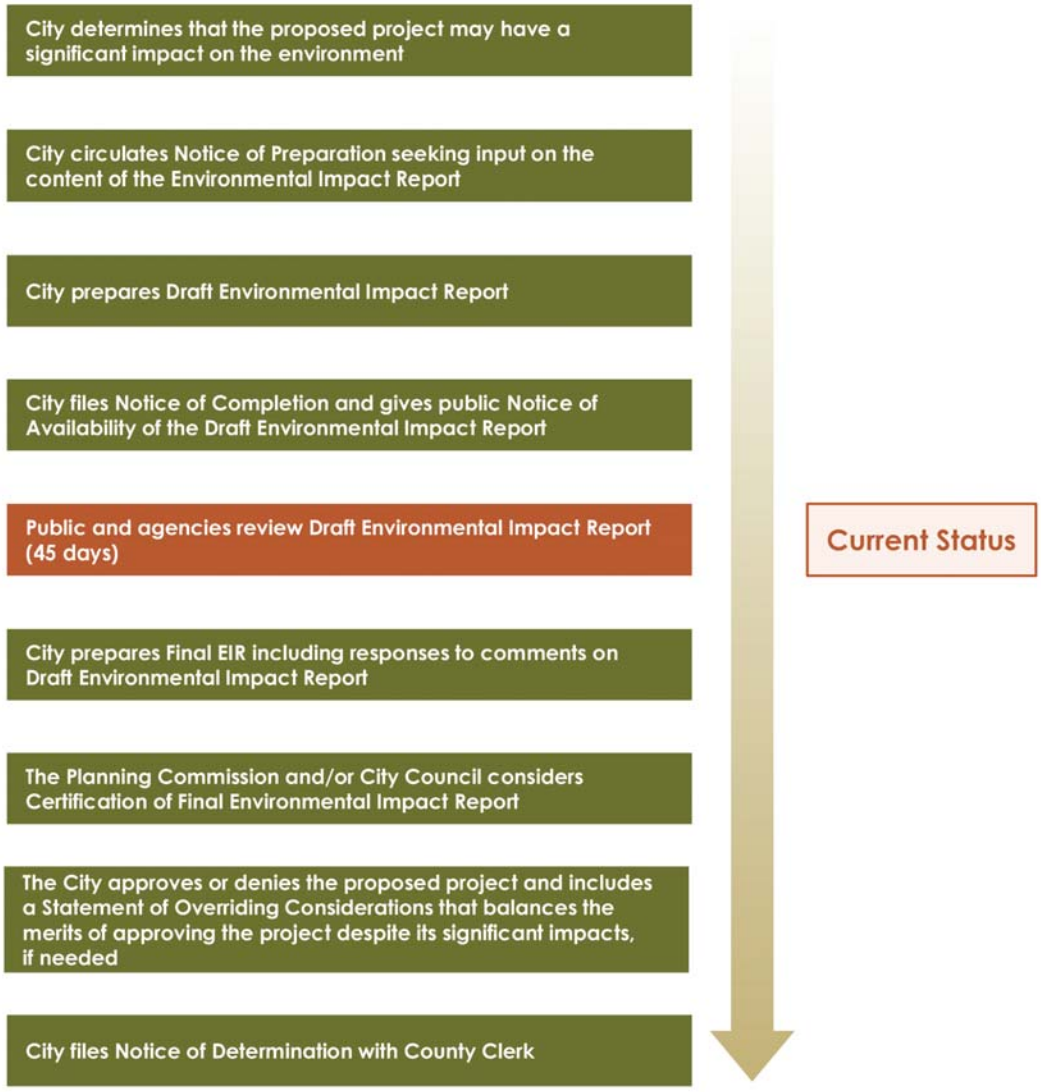

Table 1.2-1 Summary of Comments during March 23, 2015 Planning Commission Hearing

Commenter	Topic
Carolyn Root	• Height, density and mass are not compatible with rest of the block; Douglas Avenue has 2 and 3 story buildings • Downtown Specific Plan has policies and guidelines for compatibility; project does not meet requirements as well as it could • Building should make more of a statement; the project will set a tone for the entire street and influence future buildings • No provision for visitor parking or drop-offs; neighborhood has parking impacts • Douglas Avenue seems to be a preferred route to reach California Drive from downtown and El Camino Real • Suggest independent parking and traffic specialist evaluate potential impact of the project • Designing structure with less height and well managed parking and traffic mitigation will go a long way to making the development a welcome addition to the neighborhood and Burlingame
Linda Taylor	• Building height must fit the neighborhood; proposed structure is inconsistent with neighboring buildings and neighborhood. Height and width yields a mass far beyond anything nearby • Downtown Specific Plan Policy 5.3.1 discusses Architectural Diversity; pay attention to massing of building to ensure appropriate transitions to surrounding development • Residential scale of neighborhood needs to be respected, cannot support Conditional Use Permit
John Taylor	• Nice elements of the building such as façade treatment, setbacks, mix of materials; glass-enclosed stairwells are attractive however, it would be a 5-story building
Danielle Rienks	• Traffic has doubled in the past 15 years • Douglas Avenue is used as a throughway • Believes 29 units equates to at least 58 people • Five stories is too tall • Request historical review of 1124 [sic] Douglas if it hasn't already been done • Expects health risk to existing trees • Do sewage, water, and gas lines have capacity • 1225 Floribunda has been under construction since April 2014 • There are too many apartment buildings already • Building will displace 10 current working families and individuals
Clark Silva	• Height is not compatible with surrounding houses and buildings • Units are facing City Hall and railroad. Side of building faces Douglas. The tree will cover much of the glasswork • From front, only a high wall with small square windows will be visible • 34 parking spaces for 29 units are not enough spaces. 20 cars will be left on the street

Commenter	Topic
Julie Serranova	• Not enough parking • Will impact view from building across the street • Does not seem typical for Burlingame • 5 stories is too tall
Vince Campinelli	• Neighborhood has parking issues • Water and sewage system is struggling; street was dug up last year to replace water pipes • People park on Douglas Avenue to have lunch on Burlingame Avenue
Alex Goldstein	• California is in a drought. By building apartments and condos, not conserving water • Parking on Douglas Avenue is unconscionable; can't park my own car in front of apartment • Can walk to Burlingame Avenue but can't find a parking space in downtown • Assumes post office building will have same issues with more units

Table 1.2-2 Summary of Comments during May 11, 2015 Planning Commission Environmental Scoping Session

Commenter	Topic
Linda Taylor	• Currently there are residents, library patrons, dentist office customers and Burlingame Avenue shoppers parking on Douglas Avenue; to determine impact on parking from the proposed development would like to know how many vehicles are likely to be owned by the residents in the proposed apartment and how many guest vehicles there are likely to be. • Concerned with the parking capacity on the street, so need to know the total number of parking spaces and number of unoccupied parking spaces on the street on weekdays and weekends • Need to know if the overflow of vehicles from this development could be accommodated by street parking on Douglas Avenue • Would like shadow impact to be studies based on existing conditions and from the proposed development on different times of the day and year • EIR should address effect of open spaces and privacy for future residents and neighbors

Commenter	Topic
John Taylor	• Concerned about traffic impacts from the proposed development • Douglas Avenue carries more traffic than the typical quiet street due to its proximity to downtown • See a large number of delivery trucks delivering goods to Mollie Stones in the early morning hours • Street has problematic intersections at both ends of Douglas Avenue; confusing intersection at Douglas Avenue and Primrose Road and cars waiting to turn onto California Drive • EIR should include the average number of vehicle trips per day on weekdays and weekends under existing and proposed conditions • EIR should also look at delivery stops, see an increasing number of trucks making deliveries to residents on this street, they block one lane of traffic and cars queue up behind the truck waiting to get around. EIR should look at how many delivery stops there are under the existing and proposed conditions. Suspect there would be more delivery stops under the proposed development

Notice of Preparation

In accordance with Section 15082 of the CEQA Guidelines, the City prepared a Notice of Preparation (NOP) for this EIR (see Appendix A). The NOP was mailed to the State Clearinghouse on June 15, 2015, and to neighboring property owners on June 18, 2015. The comment period was extended to July 20, 2015 to give all parties 30 days to provide comments on the scope and content of the EIR. Agency and public comments received in response to the NOP are included in Appendix A. The NOP commenters and their topics of concern are summarized in Table 1.2-3 below.

Table 1.2-3 Summary of Comments received during EIR Scoping

Date	Commenter	Topics
Agencies		
July 2, 2015	Department of Transportation (Caltrans)	• Use the Caltrans Guide for preparing the Traffic Impact Study • Develop Travel Demand Management policies to encourage use of public transit • Identify any traffic impact fees • Consider active transportation when evaluating mitigation measures and tradeoffs • Obtain a transportation permit for any oversize or excessive load vehicles that would traverse State Route 82 or US Highway 101
Members of the Public		
June 22, 2015	Irina Zjuzina and Bruce Taverna	• Parking on Douglas Avenue • Suitability of relocating the 1128 Douglas Avenue house to Oak Grove Avenue • Water supply for construction dust control • Size of the new building on Douglas Avenue

Date	Commenter	Topics
June 26, 2015	Cal Fugitt	• Size of the new building on Douglas Avenue • Impact of the new building on light and views • Parking needs for the new units • Impact of the increase in population on neighborhood traffic, water, and sewer
June 27, 2015	Linda Taylor	• Timing of the traffic counts
July 3, 2015	Dorothy Kearney	• 34 parking spaces is not enough for 29 units in this age of 2 cars per family • Parking is already a problem; higher density will exacerbate the problem • A 5-story building would add 50 or more cars needing to park on Douglas Avenue • The neighborhood cannot support a residential building this large without causing hardship on the neighbors
July 4, 2015	Danielle Rienks	• Daylight planes, setbacks, and limits on percentage of lot usage to accommodate neighbors • Changes to neighborhood character in terms of design and economic class • Adequacy of off-street parking • Fairness and legality of zoning accommodations that City gives Developer • Developer breaks up development into smaller projects to avoid low-cost housing requirements • Larger buildings currently under construction strain water resources • Ongoing construction has created enormous amount of noise and air pollution • PG&E has not addressed daily power interruptions experienced in neighborhood • New building will exacerbate the power problem • Neighbors are losing natural light from the newer larger buildings • Difficulty pulling in and out of existing garages • One-way drive between properties is not feasible • Traffic growth has doubled on Douglas Avenue and more units will bring more traffic
July 4, 2015 (2)	Danielle Rienks	• Excessive development of multi-family housing in and around downtown Burlingame • Failure to adequately address the need for low-cost housing • Sheer size of the proposed structure, especially taken together with a recent massive project • Loss of homes by current long term community members • Insufficient attention to preservation of existing established trees, demands on water and sewage services, and to green building processes

Date	Commenter	Topics
		• Loss of daylight to adjoining properties, probably in violation of planning requirements for daylight planes • Probable additional degradation of existing electrical service already subject to periodic losses and reduction of power that PG&E has investigated but has not been able to correct • Additional parking and traffic volume problems on roads already subject to excessive traffic at high use period, particularly difficulties entering the roadway • The project understates the number of likely inhabitants in the 29 units to be constructed. If, as seems likely, there will be far more than the estimated number of inhabitants, all the problems cited above will be even worse • Noise and air pollution during construction • Additional disruptions to neighbors from ongoing construction • Proposed movement of the historical structure would add even more disruption
July 13, 2015	Margaret (Peggy) Kennedy Roby and Robert D. Roby	• Lack of parking is currently an issue; 34 parking spaces for 29 units is inadequate • A 4-5-story building would cut out afternoon sunshine • Increasing density would encourage people to move out • Speeding on Douglas is currently an issue; additional cars on the street will add to the problem • Permit parking and two-hour parking restriction does not seem to work
July 14, 2015	Carolyn L. Root	• New building is out of scale and does not blend in • Redesign with a drop off area for guests and deliveries to relieve traffic congestion on the street • Strike a better balance between additional housing and ease of living
July 17, 2015	Danielle Rienks	• Don't want a 5-story building • Can't tolerate another 2 years of noise pollution • 10 families will lose their housing • Project is not helpful socially or culturally • Trees on the project site should be protected
July 17, 2015	Helen F. & John M. Canon Jeffrey & June Kaufman	• Parking on Douglas Avenue is challenging; 34 parking spaces for a building that could accommodate 60 adults is not adequate • Water usage by additional tenants would have a dramatic negative effect on the Burlingame Water District • There is a stream that runs beneath Douglas Avenue. Will excavation destabilize the earth through which the stream flows • A 5-story building would affect the aesthetics of the street. It would be too tall

Date	Commenter	Topics
July 17, 2015	Gerald Weisl	• Water allotments during a drought • 34 parking spaces does not seem adequate for 29 units with some 3-bedroom apartments • Parking spaces should be at least equate the number of bedrooms • Burlingame has been a nice little town with numerous single-family homes and modest number of apartment buildings • Don't allow Burlingame to become a densely populated urban area • Burlingame has a history as "small town America"
July 17, 2015	Eric Clausen	• Recently completed high-rise changed the natural lighting • Parking congestion is a nightmare • Currently experienced strain on the sewer system • Legacy trees are present in the area
July 17, 2015	Julia Sergunova	• Douglas Avenue is a main thoroughfare for getting to City Hall, the main Library, and downtown; adding 29 units would increase traffic and cause delays resulting in a potentially stressful and dangerous environment • Dirt and dust from construction would affect air quality and exacerbate medical conditions • Construction noise and vibration, water issues, unnecessary gas emissions, destroying green flora will create a negative impact for neighbors and local Burlingame
July 17, 2015	Dion Heffran	• Provide ample parking for the project • Street parking is currently an issue • Architects did a nice job

Some of the topics identified by the public above are not related to physical effects on the environmental and are there not usually considered in the CEQA document. These topics are, however, briefly addressed at the end of the section considered most appropriate.

1.2.2 Public Hearing on the Draft EIR

The City will conduct a public hearing on the Draft EIR for the proposed project during a Planning Commission meeting. The public will have the opportunity to present oral comments

and written comments on the adequacy of the EIR during this hearing. Written comments will also be accepted during the 45-day public review period. Comments should be submitted to:

Mr. Ruben Hurin
Senior Planner
Community Development Department—Planning Division
City of Burlingame
501 Primrose Road
Burlingame, CA 94010-3997

1.2.3 Final EIR

The City will evaluate the comments received on the Draft EIR and will prepare written responses that will be included in the Final EIR. When a response to a comment changes the text of a Draft EIR, the revisions will presented in an Errata section of the Final EIR. The Final EIR will also list all persons, organizations, and public agencies that comment on the Draft EIR.

1.2.4 Certification of the Final EIR

Certification of the Final EIR is the within the purview of the City's Planning Commission. The Planning Commission must consider whether to certify that the Final EIR has been completed in compliance with CEQA, and that the Planning Commission has reviewed and considered the information contained in the Final EIR prior to approving the proposed project, and that the Final EIR reflects the City's independent judgment and analysis. CEQA Guidelines Section 15090 allows appeals on the Certification to the City's elected decision-making body (in this case the City Council) when the EIR is certified by a non-elected decision-making body within a local lead agency (in this case the Planning Commission). The City Council would determine whether to certify the EIR if there is an appeal.

1.2.5 Findings

CEQA Guidelines Section 15091 states that the City may not carry out a project for which an EIR has been certified, which identifies one or more significant environmental effects of the project without a written finding for each significant effect accompanied by a brief explanation of the rationale for each finding, and substantial evidence in the record in support of each finding. The possible findings are:

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

infeasible the mitigation measures or project alternatives identified in the Final EIR.

When making the finding in option (1) above, the City will also adopt a program for reporting on or monitoring the changes which it has either required in the project or made a condition of approval to avoid or substantially lessen significant environmental effects. These measures would be fully enforceable through permit conditions, agreements, or other measures.

The City must specify the location and custodian of the document or other material which constitute the record of the proceedings upon which its decision is based.

These findings will be separate from the Statement of Overriding Considerations discussed below.

1.2.6 Approval and Statement of Overriding Considerations

After considering the Final EIR and making findings as discussed above, the City will decide whether or not to approve the proposed project. The City may approve the project if it determines the project as approved will not have a significant effect on the environment, or that any unavoidable significant effects on the environment are acceptable due to overriding concerns. The City may not reduce the proposed number of housing units as a mitigation measure unless the City determines that there is no other feasible specific mitigation measure available that will provide a comparable level of mitigation (CEQA Guidelines Section 15092(c)).

The City will balance the economic, legal, social, technological, or other benefits, including region-wide or statewide environmental benefits of the proposed project against any unavoidable environmental impacts when determining whether to approve the proposed project.

If the City approves a project that would result in significant impacts that are identified in the Final EIR but are not avoided or substantially lessened, the City will state in writing the specific reasons to support its action based on the Final EIR and/or other information in the record. This Statement of Overriding Considerations must be supported by substantial evidence in the record. All significant impacts of this project have been reduced to a less than significant level. No Statement of Overriding Considerations is required.

1.3 EIR ORGANIZATION

This EIR has been organized into the following sections:

- **Executive Summary:** Provides a summary of the proposed project, required permits, environmental setting, impacts of the proposed project, and a table that lists each impact and the mitigation measures and alternatives identified to reduce or eliminate the potential significant impacts of the proposed project.

- **Chapter 1. Introduction:** Presents the use of the EIR, outlines the EIR process, and organization of this EIR.
- **Chapter 2. Project Description:** Provides the location, description, and objectives of the proposed project, construction activities, and post-construction operation of the proposed project, and lists the permits and approvals required to implement the proposed project.
- **Chapter 3. Environmental Setting, Impacts, and Mitigation:** Provides descriptions of the physical environmental conditions of the project site and vicinity at the time the NOP was published (known as the environmental baseline), the thresholds used to determine the level of significance of the impacts, and a list of past, present and reasonably foreseeable future projects that are considered in the cumulative analysis. Each environmental topic is discussed and analyzed in terms of the proposed project's regional and local setting, applicable laws and regulations, and consistency with applicable adopted plans. For each potential significant environmental impact of the proposed project, mitigation measures are identified that would be required to lessen the impact to less-than-significant levels, or if no feasible mitigation would do so, identifies the impact as "significant and unavoidable." This section also includes a discussion of the proposed project's contribution to the cumulative impact for each environmental topic. A references section is included at the end of each resource section.
- **Chapter 4. Alternatives:** Provides a reasonable range of feasible alternatives to the project, which would feasibly attain most of the basic objectives of the project, but would avoid or substantially lessen any of the significant effects of the project. This section will also discuss the no project alternative, and evaluate the comparative merits of all the alternatives.
- **Chapter 5. Other CEQA Topics:** Provides a discussion of significant impacts of the proposed project, significant irreversible environmental changes which may occur if the proposed project is implemented, and growth-inducing impacts of the proposed project, as well as a brief discussion of impacts not found to be significant, such as agriculture and forestry resources and mineral resources.
- **Chapter 6. Report Preparers and Agencies Contacted:** Provides a list of all persons and firms preparing the Draft EIR, by contract or other authorization, and agencies contacted during preparation of the EIR.
- **Appendices:** The following appendices are included in a CD and attached to the back cover of this document:
  - **Appendix A:** Notice of Preparation (NOP) and Scoping Comments
  - **Appendix B:** Shadow Study
  - **Appendix C:** Air Quality Data and Health Risk Assessment
  - **Appendix D:** Tree Survey and Arborist's Report
  - **Appendix E:** Historical Resources Technical Report
  - **Appendix F:** Geotechnical Investigation
  - **Appendix G:** Phase 1 Environmental Site Assessment
  - **Appendix H:** Focused Transportation and Parking Analysis

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2 PROJECT DESCRIPTION

2.1 INTRODUCTION

Dreiling Terrones Architecture, Inc., representing the owner (collectively "the Applicant"), has submitted an application to the City of Burlingame (City) Department of Community Development to demolish two single family houses and a 4-unit apartment building on two adjacent lots, and construct a 29-unit apartment building. The project also includes moving a historic house from the project site and relocating it to another location in the City, where the existing house would be demolished.

2.2 PROJECT OBJECTIVES

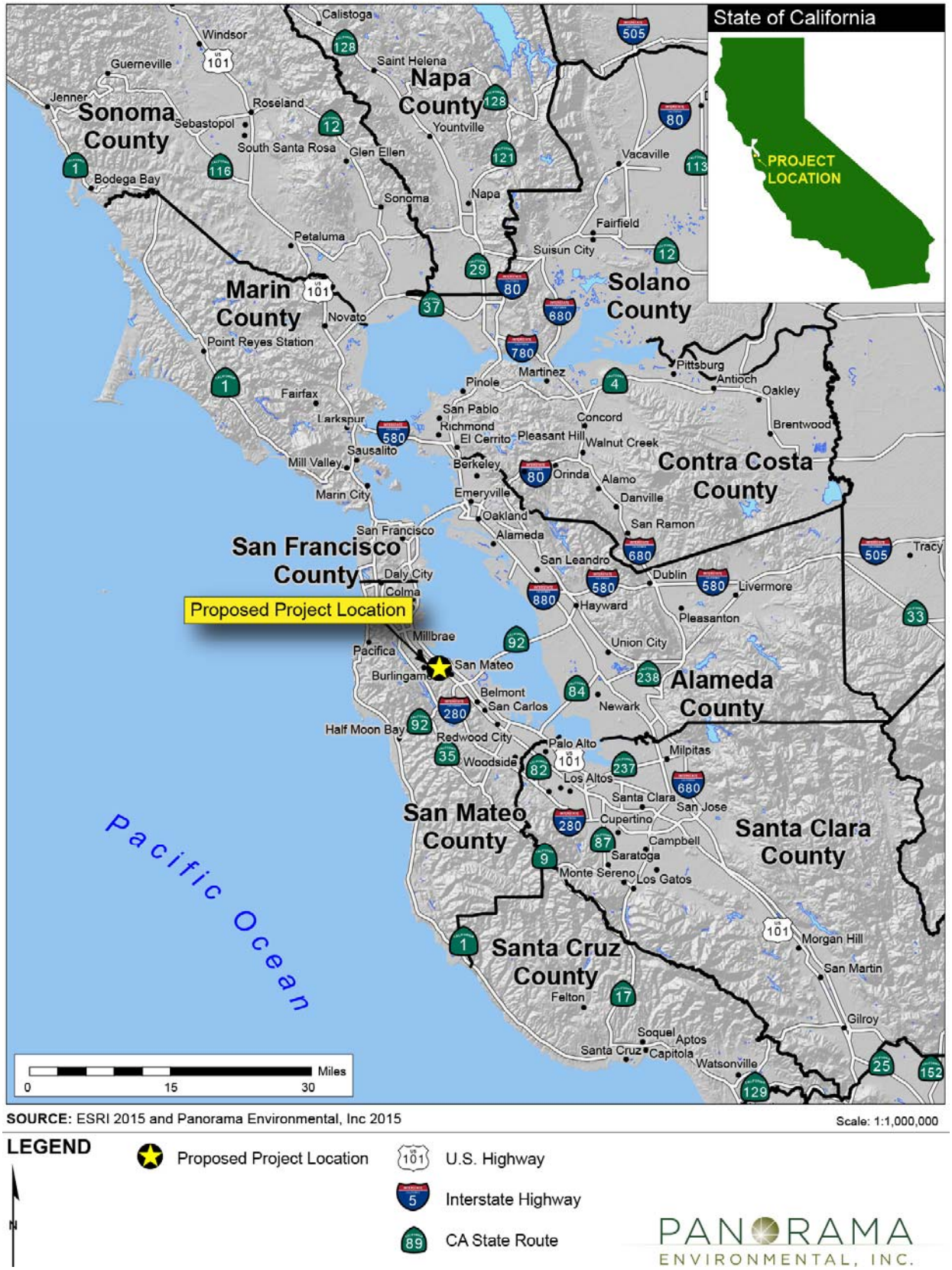
The objectives of the proposed project are to allow for new infill residential development that:

- Is compatible with the surrounding land uses
- Is walkable to the Downtown business district
- Increases density near the El Camino Real and Caltrain transit corridors
- Supports the Downtown business district and the goals of the Downtown Specific Plan
- Preserves residential character by encouraging maintenance, improvement, and rehabilitation of the City's neighborhoods and housing stock
- Provides variety and choice of housing by promoting housing opportunities for all persons
- Promotes development of rental housing that is attractive to prospective residents
- Reduces residential energy use by constructing new housing to CALGreen (California Green Building Code, Part 11 of Title 24) standards
- Helps meet the City's housing element objectives in the General Plan

2.3 PROJECT LOCATION

The proposed project is located in the City of Burlingame, in San Mateo County, California (see Figures 2.3-1 and 2.3-2). The proposed apartment building would be located on two adjoining parcels at 1128 and 1132 Douglas Avenue, less than one block south of California Drive and the Caltrain tracks, and two blocks west of downtown Burlingame. The historic house would be relocated to 524 Oak Grove Avenue, one block south of Rollins Road and US Highway 101 (see Figures 2.3-3 and 2.3-4).

Figure 2.3-1 Regional Map



SOURCE: ESRI 2015 and Panorama Environmental, Inc 2015

Scale: 1:1,000,000

LEGEND

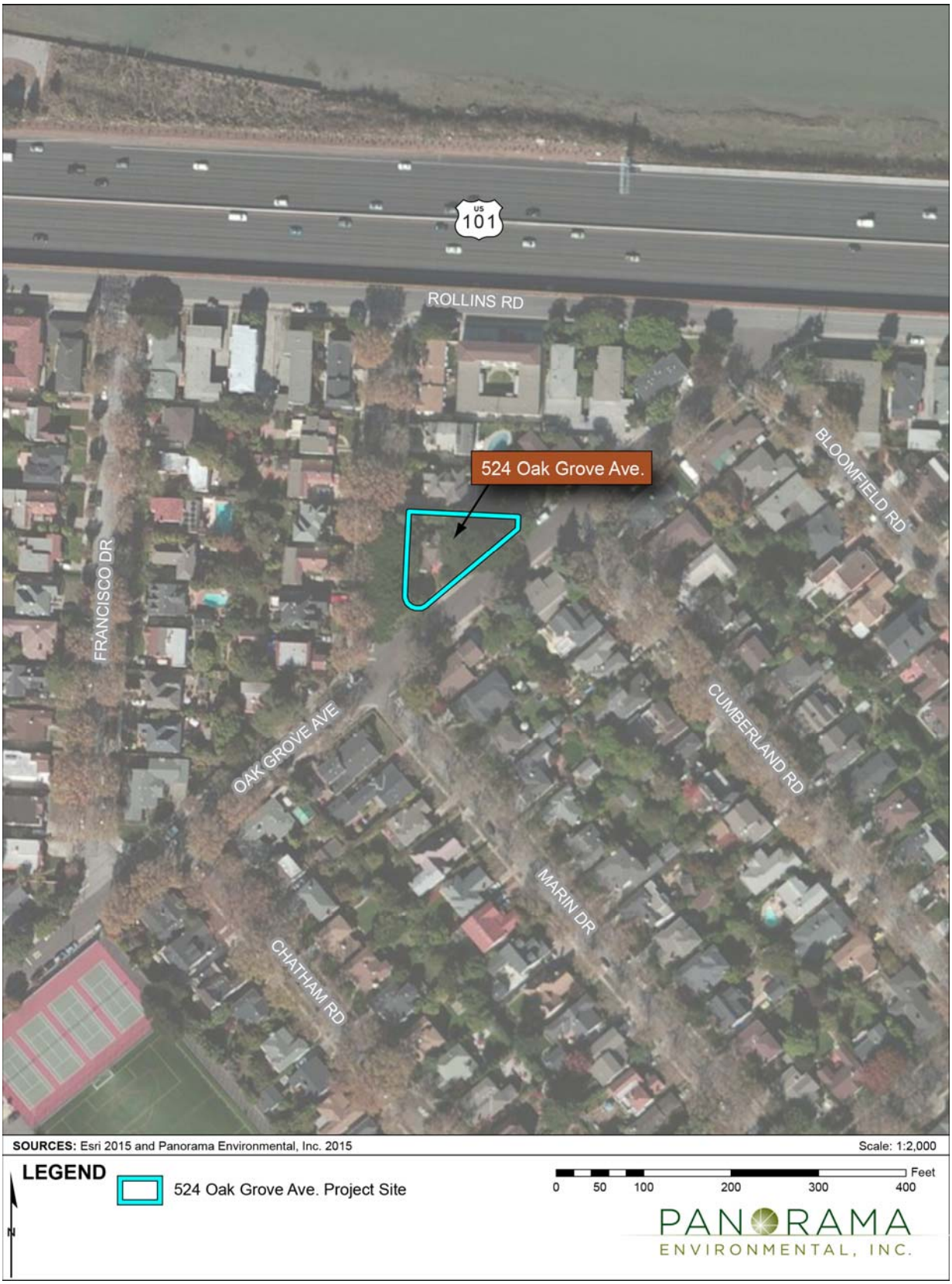
- Proposed Project Location
- U.S. Highway
- Interstate Highway
- CA State Route

PANORAMA ENVIRONMENTAL, INC.

Figure 2.3-2 Project Location Map

Figure 2.3-3 1128 and 1132 Douglas Avenue Project Site

Figure 2.3-4 524 Oak Grove Avenue Project Site



2.4 GENERAL PLAN AND ZONING DESIGNATIONS

The County Assessor's Parcel Number (APN), General Plan Designation, and Zoning Designations for the properties included in the proposed project are shown in Table 2.4-1 below. The Douglas Avenue properties are within the Downtown Specific Plan area.

Table 2.4-1 Downtown Specific Plan/General Plan and Zoning Designations

Address	APN	Downtown Specific Plan/General Plan Designation	Zoning Designation
1128 Douglas Avenue	029-132-180	High Density Residential	R-4 District
1132 Douglas Avenue	029-132-190	High Density Residential	R-4 District
524 Oak Grove Avenue	029-083-010	Low Density Residential	R-1 District

The R-4 District zoning designation permits higher density multi-family residential uses. The R-1 District zoning designation permits single-family dwellings.

2.5 PROPOSED PROJECT

The proposed project would include demolition, relocation of an historic house, and new construction activities. The Douglas Avenue project site lot area is 15,492 square feet, and the Oak Grove Avenue project site lot area is 8,788 square feet.

2.5.1 Demolition

The 524 Oak Grove Avenue parcel is currently occupied by a single-family house and a detached shed. These structures would be demolished.

The 1128 Douglas Avenue parcel is currently occupied by a two-story, single-family house and a two-story, four-unit apartment building. The 1128 Douglas Avenue house was evaluated for historical significance under the California Department of Parks and Recreation guidelines. This house meets historic significance criteria to be listed on the California Register for its association with early settlement patterns in Burlingame, and its long association with James R. and Jessie N. Murphy who played a role in the development of the City. A portion of this house that retains most of the original structure would be relocated to 524 Oak Grove Avenue. The 4-unit apartment building would be demolished.

The 1132 Douglas Avenue parcel is currently occupied by a two-story, single-family house, a detached garage, and a storage shed. These structures would be demolished.

The houses at 1132 Douglas Avenue and 524 Oak Grove Avenue were also evaluated and found to have no historic significance under the criteria for listing on the National or California Register of Historic Resources.

2.5.2 Relocation

Relocation activities would include excavation, power interruptions, tree trimming, hydraulic jacking systems, large cranes, and semi-trailer trucks. Intermittent street closures and detours are anticipated at Douglas Avenue for one day and during the overnight hours. A specific traffic plan would be coordinated with the City and local residents prior to start of work.

Loading and setting the house would take three days. The house at 1128 Douglas Avenue would be separated into four sections—two upper sections and two lower sections. A 225-ton crane (11 feet wide and 45 feet long, with 3 trailers for counterweights and a spreader bar) would be used to load each section onto a 72-foot semi-trailer truck. The four semi-trailer trucks would transport the sections to 524 Oak Grove Avenue. The four semi-trailer trucks with the upper sections of the house would be stored in the immediate vicinity of the Oak Grove Avenue location, possibly in the Caltrain parking lot, while the lower sections of the house are set.

Power would be shut down for approximately 8 hours while loading the four sections at 1128 Douglas Avenue. Power would also be shut down for approximately 8 hours while setting the four sections at 524 Oak Grove Avenue. The power interruption would be localized to properties along the truck route and the project sites at 1128 Douglas Avenue and 524 Oak Grove Avenue.

These activities would be coordinated with utility companies, Caltrain, and the City. Neighbors and businesses in the vicinity would be notified in advance.

2.5.3 New Construction

The proposed apartment building would have 5 stories and 29 dwelling units in a mix of studio, 1-bedroom, 2-bedroom, and 3-bedroom apartments. The anticipated occupancy of the building is 67 persons. The total building square footage is shown below:

Area	Square Footage
Garage	11,150
1st Floor	4,281
2nd – 4th Floors	22,755
5th Floor	7,584
Building Total	**45,770**

The square footage of the proposed units is shown below:

Area (square feet)	No. of Units	Subtotals (square feet)
751	1	751
793	1	793
1,116	4	4,464
892	4	3,568
797	4	3,188
781	4	3,124
890	4	3,560
503	3	1,509
1,159	3	3,477
1,654	1	1,654
Total	**29**	**26,088**
	Average Unit Size	**900**

The maximum height of the proposed new apartment building would be 56 feet 10 inches (to the top of the parapet as measured from the top of curb), which is below the conditionally allowable height of 75 feet. The City's Zoning Ordinance 25.29.060 for the R-4 District requires a Conditional Use Permit, however, for any building over 35 feet in height.

The proposed project would have an 18.4-foot front setback, which is less than the block average of 19.9 feet, and a minimum 9-foot-wide driveway, which is less than the required width of 12 feet. Variances to the front setback distance and the driveway width are required to allow for the ordinance deviations and are intended by the applicant to accommodate two existing protected trees (one oak and one redwood) located at the north east corner of the site.

The project would include 34 full-size parking spaces on-site. Most of those spaces would be in an underground garage. Twelve at-grade spaces would be located at the rear of the building. As allowed by the Downtown Specific Plan, no guest spaces would be provided on-site.

The site would be landscaped with drought-tolerant plantings. Three existing street trees that would be removed during construction would be replaced with three new street trees. Four of the existing protected trees on the site would be replaced with 10 new trees.

The proposed project would be required to implement the standard conditions of approval which apply to all projects within the Burlingame Downtown Specific Plan Area. These conditions are assumed to be incorporated into the proposed project, and are called out in each impact discussion.

2.6 PROJECT CONSTRUCTION METHODS

2.6.1 Staging

Construction staging would occur on the street directly in front of and on each of the project site locations. Some staging that would occur on the project sites.

2.6.2 Demolition

Demolition activities would be conducted in accordance with the City's building code. Salvageable and recyclable materials would be recovered prior to demolition and either sold, given away, or recycled (Municipal Code 8.17, Recycling and Diversion of Debris from Construction and Demolition). Demolition debris would be hauled to a diversion center for sorting and separating for recycling and reuse, before any unusable materials are sent to a landfill.

2.6.3 Hours of Construction

Construction activities are proposed to occur between the hours of 7:00 a.m. and 7:00 p.m. Monday through Friday. Construction may also occur from 9:00 a.m. to 6:00 p.m. on Saturday, and 10:00 a.m. to 6:00 p.m. on Sundays and holidays, as specified in City of Burlingame Municipal Code 18.07.110, to reduce the construction period.

2.6.4 Construction Workforce

Depending upon the level of construction activity, the number of construction workers at the project sites would vary. There would be a maximum number of 25 workers at the Douglas Avenue site and 10 workers at the Oak Grove Avenue site at any one time. Bottled potable water and portable toilets would be provided on-site for construction workers. Construction worker parking would be identified with other construction details before building permits are issued. A construction management plan would be prepared for the proposed project.

2.6.5 Construction Equipment

The types of equipment that would be required for the construction of the proposed project at each site are likely to include, but are not limited to:

- Excavator
- Backhoe
- Grade-all
- Drill rig
- Forklift
- Generator
- Tower crane
- Paver
- Welder
- Roller
- Cement and mortar mixer
- Electric (airless) sprayer
- Chainsaw
- Chipper and bucket

It is estimated that there would be up to 10 pickup trucks at the project sites at various times during the construction period. Pickup trucks would be used for transportation of workers and delivery of construction materials. As outlined previously, four semi-trailers would be used at the project sites during the brief relocation phase of the proposed project.

2.6.6 Truck Trips for Excavated Material

Roughly 6,000 cubic yards of soil would be excavated and trucked off site. It is estimated that approximately 500 dump truck trips (roughly 32 tons per load) would be required for the proposed project. Construction debris would be taken to Zanker Recycling for sorting and diversion, or to Ox Mountain Landfill for disposal. Construction vehicles would access the site from US Highway 101 at Broadway and through California Drive to Douglas Avenue.

2.7 PROJECT SCHEDULE

The proposed project demolition and construction is expected to take approximately 14 to 15 months. Demolition at 524 Oak Grove Avenue would start first and construction would continue for a period of about 12 months. Construction activities at 1128 and 1132 Douglas Avenue would start a few weeks later and continue for a period of about 14 months. Table 2.7-1 shows the duration of major construction activities.

Table 2.7-1 Proposed Construction Activity Duration

Construction Activities	Estimated Duration
Demolition, grading, and foundation work at Oak Grove Avenue project site	2 weeks
Partial demolition at the Douglas Avenue site to isolate historic part of the house and cutting the house	1 week
Transporting house to Oak Grove Avenue project site[1]	1 day
Demolition at Douglas Avenue project site	2 weeks
Site preparation and vegetation removal at Douglas Avenue project site	2 weeks
Grading at Douglas Avenue project site	2 weeks
Building construction at both project site locations including interior construction	11 months
Paving	2 weeks

[1] Interior and exterior construction at the Oak Grove Avenue project site would occur concurrently with the activities at the Douglas Avenue project site.

2.8 PERMITS AND APPROVALS

The proposed project would require approvals from City Departments as well as other agencies. The required permits, variances, and approvals are shown in Table 2.8-1.

Table 2.8-1 Required Permits and Approvals

Permit or Approval	Agency	Function
Design Review (Burlingame Municipal Code, Title 25, Chapter 25.57.010)	City of Burlingame Community Development	The City ensures that development is consistent with all adopted City guidelines and regulations.
Conditional Use Permit for building height above 35 feet (56'-10" proposed) (Burlingame Municipal Code, Title 25, Chapter 25.29.060)		
Variance for front setback distance (18.4 feet instead of the block average of 19.9 feet)		
Variance for driveway width (9 feet instead of 12 feet)		
Building permits (Burlingame Municipal Code, Title 25, Chapter 25.20.010)		
Permit to remove or prune protected trees (Burlingame Municipal Code, Title 11, Chapter 11.06.060)		
Permit to replace street trees (Burlingame Municipal Code, Title 11, Chapter 11.04.035)		
Permit to move a building over streets (Burlingame Municipal Code, Title 10, Chapter 10.28)		
Authority to Construct/Permit to Operate/Approval Letter for Asbestos for Demolition/Renovation	Bay Area Air Quality Management District (BAAQMD)	The BAAQMD regulates emissions from construction equipment; as well as asbestos, and other controls.
Encroachment Permit for parking semi-trucks with historic house sections on Caltrain parking lot during setting.	Caltrain	This permit allows third parties access to Caltrain-owned property for a specific purpose when a lease is not appropriate.

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3 ENVIRONMENTAL SETTING, IMPACTS, AND MITIGATION

ENVIRONMENTAL BASELINE AND SETTING

This chapter of the EIR includes a description of the physical environmental conditions at the proposed project sites and the vicinities as they exist at the time of publication of the Notice of Preparation (NOP). These environmental setting descriptions form the baseline conditions by which it is determined whether an impact is significant (CEQA Guidelines at Section 15125(a)). The NOP for this EIR was published on June 15, 2015. The physical conditions extant at the site on June 15, 2015 serve as the baseline for the analysis against which the proposed project impacts are measured.

The effect of the proposed project on environmental resources that are unique or rare to the region must be analyzed in this EIR. The environmental setting section for each environmental topic will have a discussion of the regional setting as it pertains to the individual topic. The proposed project is analyzed in relation to applicable general, specific, and regional plans.

ENVIRONMENTAL TOPICS

The following environmental resource topics are discussed in detail in sections of this chapter:

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

The proposed project would not have significant effects on agriculture and forestry resources and mineral resources because of the developed nature of the proposed project sites and their surroundings. Headings are used when the impacts differ at the Oak Grove Avenue and

Douglas Avenue sites. In some cases, the impacts are largely similar and the titles Construction and Operation, or no headings are used. These resources are discussed briefly in Chapter 5, Other CEQA Topics, Section 5.3, Effects Found Not to Be Significant.

THRESHOLDS OF SIGNIFICANCE

CEQA Guidelines at Section 15064.7 defines a threshold of significance as an identifiable, quantitative, qualitative or performance level of a particular environmental impact. Compliance with the threshold indicates that the impact is determined to be less than significant, and non-compliance with the threshold indicates that the impact is determined to be significant.

The City of Burlingame has not adopted its own significance criteria for environmental review. The City uses the questions presented in Appendix G of the CEQA Guidelines to establish the thresholds of significance for evaluating the environmental impacts of the proposed project. These thresholds are listed at the beginning of each environmental topic that is evaluated in this EIR.

IMPACT CLASSIFICATIONS

Analysis of the proposed project must evaluate all project actions including on-site and off-site, direct and indirect, as well as construction and operational impacts. All impact determinations must be supported by adequate analysis. Impacts are classified as one the following:

- **Significant and Unavoidable Impact:** An impact exceeds the thresholds of significance and even though mitigation measures will reduce the impact, the impact still exceeds the thresholds of significance.
- **Significant Impact:** An initial impact that exceeds the thresholds of significance, but that may be lowered to less-than-significant levels by implementing mitigation measures, or may remain a significant and unavoidable impact even after implementing mitigation measures.
- **Less than Significant Impact:** An impact is less than significant if the proposed project is below the identified threshold of significance, or as indicated above, a significant impact can be lowered to below the significance threshold with implementation of one or more mitigation measures.
- **No Impact:** An impact does not result from the proposed project.

CUMULATIVE IMPACTS

This EIR must evaluate whether the incremental effect of the proposed project is significant when viewed with the effects of past, current, and probable future projects (CEQA Guidelines Section 15065(a)(3). A cumulative impact is caused by the individually minor, but collectively significant impact of several projects, resulting in a significant change in the environment.

Cumulative impacts can also occur when two or more individual effects of the proposed project are significant when considered together, or which compound or increase other environmental impacts (CEQA Guidelines Section 15355).

Approach to Cumulative Analysis

The City has chosen to use a list of past, present, and probable future projects for the cumulative analysis of the proposed project. A subset of this list may be used when considering the cumulative impact of each environmental resource, depending upon the location, the type of project, or the timing of activities. The geographic scope is defined at the beginning of the cumulative discussion for each environmental topic.

List of Cumulative Projects

Table 3-1 below provides a list of projects (as of the June 2015 NOP) that were considered in the cumulative discussion for each environmental topic that is discussed in detail in this EIR.

Table 3-1 List of Cumulative Projects

Project	Approximate Distance from 1128-1132 Douglas Avenue	Approximate Distance from 524 Oak Grove Avenue	Current Status	Description
Proposed Projects				
556 El Camino Real	0.3 mile	0.7 mile	Environmental scoping and design review.	Demolition of 14-unit apartment building and new construction of 25-unit residential condominium with below-grade parking
21 Park Road	0.5 mile	0.8 mile	Environmental scoping and design review.	Demolition of 1 single-family home and detached garage and new construction of 3-story, 8-unit residential condominium with partially submerged parking
1509 El Camino Real	1.5 miles	1.6 miles	Environmental review.	Demolition of a total 11 units on two parcels and construction of a new 3-story, 10-unit condominium with at-grade parking

Project	Approximate Distance from 1128-1132 Douglas Avenue	Approximate Distance from 524 Oak Grove Avenue	Current Status	Description
1491-1493 Oak Grove Avenue	0.4 mile	0.7 mile	Environmental review.	Demolition of 2 residential units and construction of a new 5-story, 10-unit condominium building with below grade parking
988 Howard Avenue	0.4 mile	0.5 mile	The project was approved by the Planning Commission in March 2016. Building permit has not yet been issued.	Construction of a new 3-story mixed-use commercial/ office building with enclosed at-grade and below grade parking
225 California Drive	0.3 mile	0.5 mile	The project was approved by the Planning Commission in April 2016. Building permit has not yet been issued.	Demolition of retail and commercial space and construction of new 4-story mixed-use commercial/ office building with at-grade and below grade parking 1,820 square feet of ground-floor retail, 43,235 square feet of office space, and 130 parking spaces
1214 Donnelly Avenue	0.1 mile	0.5 mile	Environmental scoping and design review.	Demolition of 2 two-story buildings and construction of a new 3-story mixed-use building with at-grade parking 5,000 square feet of ground floor retail, 12 two- bedroom units, 2 one-bedroom units and 23 parking spaces
Approved Commercial Projects				
60 Edwards Court	1.3 miles	1.3 miles	Construction completed in May 2015.	Demolition of a vacant parking lot and construction of a 61,700 square foot tennis facility

Project	Approximate Distance from 1128-1132 Douglas Avenue	Approximate Distance from 524 Oak Grove Avenue	Current Status	Description
300 Airport Boulevard	1 mile	0.7 mile	City Council approved Planning entitlements in June 2012. Building permit has not yet been issued.	Vacant site, 18.13 acres New construction of 2 3-story buildings, 1 7-story building and 1 8-story building Total of 767,000 square feet of floor area Realignment of Airport Boulevard
Approved Residential Projects				
1600 Trousdale Drive	2 miles	2.2 miles	Under construction.	124-unit assisted living facility 6 stories
1800 Trousdale Drive	2 miles	2.3 miles	Construction completed in October 2015.	Demolition of a single-story office building and construction of a new 5-story, 25-unit condominium
1818 Trousdale Drive	2 miles	2.3 miles	Construction completed in May 2015.	Demolition of a one-story office building and construction of a new 4-story, 79-unit assisted living facility
Carolan Avenue/ Rollins Road Multi-Family	0.6 mile	0.6 mile	EIR was certified and City Council approved project. Building permit has not yet been issued.	Construction of a 5-story, 268-unit rental apartment building and structured parking 22 two-story for-sale townhomes with attached garages
1225 Floribunda Avenue	200 feet	0.4 mile	Construction completed in June 2015.	Demolition of 3 residential units and construction of new 3-story 6-unit residential condominium
1433 Floribunda Avenue	0.2 mile	0.6 mile	Under construction.	Demolition of 5 residential units and construction of new 4-story, 10-unit condominium with below grade parking

Project	Approximate Distance from 1128-1132 Douglas Avenue	Approximate Distance from 524 Oak Grove Avenue	Current Status	Description
904 Bayswater Avenue	0.5 mile	0.6 mile	Completed in March 2015.	Demolition of 5 residential units and construction of new 2-story, 6-unit residential condominium with below grade parking
Project Application submitted after the NOP was published, and included for completeness				
103 El Camino Real	0.5 mile	1.4 miles	Environmental scoping and design review	Demolition of 2 single-family homes and detached garages and new construction of 11-unit residential condominium with below-grade parking

Source: City of Burlingame 2015 and 2016

Impacts and Mitigation

A pertinent discussion of cumulative impacts contained in one or more previously certified EIRs may be incorporated pursuant to the provisions for tiering and program EIRs. No further cumulative impacts analysis is required if the project is consistent with a general, specific, master or comparable programmatic plan where the lead agency determines that the regional or area-wide cumulative impacts of the proposed project have already been adequately addressed in a certified EIR for that plan. The EIR shall examine reasonable, feasible options for mitigating or avoiding the proposed project's contribution to any significant cumulative effects. (CEQA Guidelines Section 15130).

DOWNTOWN SPECIFIC PLAN CONDITIONS OF APPROVAL

The Burlingame Downtown Specific Plan (City of Burlingame 2011) includes Conditions of Approval that all projects in the Downtown Specific Plan area would be required to incorporate as part of the project. These Conditions of Approval were derived from mitigation measures that were identified as part of the environmental document for the Downtown Specific Plan (City of Burlingame 2010). These Conditions of Approval would apply to all activities for the proposed project at the Douglas Avenue project site. The Oak Grove Avenue project site is outside the Downtown Specific Plan area. Because activities at this site location are part of the larger project, the Downtown Specific Plan Conditions of Approval would apply at this location as well. However, not all the Conditions of Approval would be appropriate at the Oak Grove Avenue location. Any Conditions of Approval that would not apply to the Oak Grove Avenue location are called out in the analysis of each resource topic.

REFERENCES

City of Burlingame. 2010. *Burlingame Downtown Specific Plan Initial Study/Mitigated Negative Declaration*, May 27, 2010.

_____. 2011. *Burlingame Downtown Specific Plan*, Resolution No. 73-2010 adopted by the Burlingame City Council October 4, 2010; amended by Resolution No. 66-2011, adopted September 19, 2011.

_____. 2015. Major Projects, *Major Projects List, July 2015*, available at https://www.burlingame.org/index.aspx?page=153, accessed July 23, 2015.

_____. 2016. Major Projects, *Major Projects List, May 2016*, available at https://www.burlingame.org/index.aspx?page=153, accessed June 20, 2016.

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3.1 AESTHETICS

This section presents an analysis of the impacts of the proposed project on scenic vistas and designated scenic resources as seen from public viewpoints. The impacts of light and glare from the proposed project on nighttime views are also described. A shadow study has been completed for the proposed project and is included in Appendix B, Shadow Study.

Comments received during the EIR scoping process included the following issues related to aesthetics:

- Compatibility of the proposed project with neighborhood
- Height of the proposed project
- Mass of the proposed project
- View impacts to neighboring properties
- Shadow impacts to adjoining properties
- Impact of the proposed project on open space and neighbors' privacy

These topics are addressed in the impact analysis below.

3.1.1 Environmental Setting

The City of Burlingame is situated in San Mateo County, approximately 10 miles south of San Francisco. The Santa Cruz Mountains are to the west of the City and the San Francisco Bay borders the east. The cities of Millbrae and San Mateo border the City to the north and south, respectively. The City is densely populated with mostly built-up, urban/suburban areas.

Vista Points

There are no designated vista points within the project area.

524 Oak Grove Avenue Project Site

Landscape Character

The project site and surrounding area are essentially level. The project area consists of a moderately distinctive urban residential environment with a moderate to low degree of scenic integrity. Vegetation consists of mature street trees and a wide variety of mixed ornamental landscapes around individual properties.

The dominant visual features of the project area are mature trees, including street trees along both Marin Drive and Oak Grove Avenue and trees within the project site.

General Visibility

The project site is not readily noticeable from more than one block away because of the existing residential development and mature trees and landscaping within the area.

Scenic Resources
There are no scenic rock outcroppings at the site. There is a mature oak tree at the project site, although it is not designated by the City as a scenic resource. The existing house on the site is not a historic structure.

The Scenic Highway Element of the Burlingame General Plan identifies the following scenic routes within 0.5 mile of the proposed project site:

- **Local Scenic Route:**
  - Burlingame Avenue, East Lane, North Lane,
  - Bellevue Avenue
  - Occidental Avenue from the Bayshore Freeway to Ralston Avenue
- **Local Scenic Connector:** California Drive extending north of North Lane
- **Local Scenic Connector:** Airport Boulevard

1128–1132 Douglas Avenue Project Site

Landscape Character
The project area consists of a moderately distinctive urban residential environment with a moderate to low degree of scenic integrity. The project site and surrounding area is essentially level. Vegetation consists of mature street trees and a wide variety of mixed ornamental landscapes around individual properties.

The buildings on the block and immediately surrounding the project area predominantly consist of a mixture of single-family and multi-family residential structures that are generally two to three stories in height. Two multi-family structures on Primrose Road are four stories in height. One- and two-story commercial properties at the intersection of Douglas Avenue and California Drive face California Drive.

Half a block away and west of the project site is a municipal complex consisting of City Hall and the Library. The complex is surrounded by park-like landscaping that includes landscaped islands on Primrose Road and mature palm trees.

Dominant visual features of the project area include:

- Street trees complemented with some mature trees on adjacent private properties
- The City Hall/Library/Primrose Road complex landscapes and structures
- The west-facing side of the multi-family structure along Primrose Road across from City Hall with relatively vivid architectural fenestration

General Visibility
The project site is not readily noticeable from Primrose Road to the west or California Drive to the east because it is located in the middle of the block and surrounded by homes and multi-family structures. Direct views to the project site are limited to the immediate area along Douglas Avenue and an alley-like view between buildings along Floribunda Avenue.

Scenic Resources
There are no scenic rock outcroppings at the site. There are mature trees on the site with historic value to the City. Douglas Avenue has some single-family homes that are more than 50 years old, including the house at 1128 Douglas Avenue. The Scenic Highway Element of the Burlingame General Plan identifies the following scenic routes within 0.5 mile of the proposed project site:

- **County Scenic Route:** El Camino Real
- **Local Scenic Route:**
  - Burlingame Avenue, East Lane, North Lane,
  - Bellevue Avenue
  - Occidental Avenue from the Bayshore Freeway to Ralston Avenue
- **Local Scenic Route:** Ralston Avenue from El Camino Real to Pepper Avenue
- **Local Scenic Connector:** California Drive extending north of North Lane

3.1.2 Regulatory Setting

Federal
There are no federal laws related to aesthetics that pertain to the proposed project.

State

California Scenic Highway Program
California's Scenic Highway Program was created by the Legislature in 1963 for the purpose of protecting and enhancing the natural scenic beauty of California highways and adjacent corridors, through special conservation treatment. The state laws governing the Scenic Highway Program are found in the Streets and Highways Code, Section 260–263.

There are no designated State Scenic Highways in the immediate project area.

Local
The following City of Burlingame plans and policies are applicable to the proposed project:

City of Burlingame General Plan
The following General Plan goals and implementation objectives apply to the proposed project.

- **Community Development Goal II:** To maintain and enhance the identity of the City and encourage a maximum sense of identification by residents with the City.

  Implementing Objectives

  c. Establish a pattern of dominance and subordination in important visual features; create harmony with diversity.
  d. Create distinctive visual qualities – a Burlingame image (analyze existing visual qualities and build on the best of these).
  f. Use trees of appropriate size and character as a design framework to enhance a sense of identity.

Burlingame Downtown Specific Plan

The Douglas Avenue project site is located within the R-4 base district of the Downtown Specific Plan. It includes design standards for residential areas, some of which are related to aesthetics and visual quality.

The following Downtown Specific Plan goals and implementation objectives apply to the visual quality of the Douglas Avenue project site related to line, plane, texture, form, color, scale, and bulk.

Streetscape

Goal S-1: Improve the streetscape, particularly at the pedestrian scale.

Policy S-1.3: Streetscapes should reflect Burlingame's designation as a "tree city." Trees should be planted throughout the downtown as an integral part of the streetscape, and mature street trees should be preserved whenever possible.

Design & Character

Goal D-1: Protect and preserve historic character.

Policy D-1.1: Ensure that new construction fits into the context and scale of the existing downtown.

Goal D-3: Preserve and enhance small-town scale with walkable, pedestrian-scaled, landscaped streets.

Policy D-3.2: Evaluate development in the Downtown Area that is proposed to be taller than surrounding structures (i.e., over 40 feet) for potential to create new shadows or shade on public and/or quasi-public open spaces and major pedestrian routes.

The following Downtown Specific Plan design standards for residential areas (Section 5.3) and Land Use transitions (Section 5.4) are applicable to the visual quality of the proposed project.

5.3.1. Architectural Diversity:

- Design buildings to maintain general compatibility with the neighborhood.
- Respect the mass and fine scale of adjacent buildings even when using differing architectural styles.
- Maintain the tradition of architectural diversity, but with human scale regardless of the architectural style used.

5.3.2 Pedestrian Use and Character

5.3.2.1 Entrances

- Primary pedestrian access to all ground-level uses should be from the sidewalk along the public street. Entrances should be clearly defined features of front facades.

5.3.2.2 Ground Level Treatment

- Residential development may have a finished floor elevation up to 5 feet above sidewalk level to provide more interior privacy for residents. Entry porches or stoops along the street are encouraged to bridge this change in elevation and connect these units to the sidewalk to minimize any physical separation from the street level. The street-level frontage should be visually interesting with frequent unit entrances and clear orientation to the street.

5.3.3 Architectural Compatibility

5.3.3.1 Development Massing

- Massing and street facades shall be designed to create a residential scale.
- Articulation, setbacks, and materials should minimize massing, break down the scale of buildings, and provide visual interest.

5.3.4 Architectural Design Consistency

5.3.4.1 Facade

- Facades should include projecting eaves and overhangs, porches, and other architectural elements that provide human scale and help break up building mass. All exposed sides of a building should be designed with the same level of care and integrity. Facades should have a variation of both positive space (massing) and negative space (plazas, inset doorways, and windows).

5.3.4.2 Windows

- Building walls should be accented by well-proportioned openings that provide relief, detail and variation on the facade.
- Windows should be inset generously from the building wall to create shade and shadow detail.
- Reflective glass is undesirable because of its tendency to create uncomfortable glare conditions and a visual barrier.
- Where residential uses are adjacent to each other, windows should be placed with regard to any open spaces or windows on neighboring buildings so as to protect the privacy of residents.

5.3.4.3 Materials

- Building materials should be richly detailed to provide visual interest. The use of materials that are reflected in the historic architecture present is encouraged. Metal siding and large expanses of stucco or wood siding are also to be avoided. Roofing materials and accenting features such as canopies, cornices, tile accents, etc. should also offer color variation. Residential building materials should be made of quality details such as wrought iron, wood framed windows, wood brackets and tile roofs.

5.4.1 Land Use Transitions

5.4.1.1 Massing and Scale Transitions

- Transitions of development intensity from higher density development building types to lower can be done through different building sizes or massing treatments that are compatible with the lower intensity surrounding uses. Massing and orientation of new buildings should respect the massing of neighboring structures by varying the massing within a project, stepping back upper stories, reducing mass by composition of solids and voids, and varying sizes of elements to transition to smaller scale buildings.

5.4.1.2 Privacy

- Privacy of neighboring structures should be maintained with windows and upper floor balconies positioned so they minimize views into neighboring properties, minimizing sight lines into and from neighboring properties, and limiting sun and shade impacts on abutting properties.

Urban Forest Management Plan
The Urban Forest Management Plan is a compilation of information, statistics, policies and procedures to manage the community's urban forest to enhance the quality of life. The plan includes a background of the City's vision and tree philosophy, shows the benefits of an urban forest, and outlines the existing City tree ordinances and policies, including the City's Beautification Commission's ordinance and rules of procedure. Attachments include numerous street tree lists for City "themed blocks." The theme tree for Douglas Avenue is a sycamore.

Zoning Regulations: Chapter 25.29, R-4 Residential District
The zoning standards that most affect the aesthetics of the area are:

- No building or structure shall be constructed in an R-4 district which exceeds six (6) stories or seventy-five (75) feet in height. The maximum lot coverage for all buildings and structures, including balconies, stairs, roof overhangs exceeding twenty-four (24) inches, trellises and improvements which exceed thirty (30) inches in height, shall be fifty (50) percent for interior lots and sixty (60) percent for corner lots.

3.1.3 Thresholds of Significance

The proposed project would result in a significant impact if it would:

a) Have a substantial adverse effect on a scenic vista
b) Substantially damage 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

3.1.4 Approach to Analysis

In addition to field observations conducted in July 2015, the visual impact analysis is based on review of the following information: ground-level photographs of the project site from representative viewing locations in the immediate area; project plans and drawings for the proposed new apartment building on Douglas Avenue (dated January 21, 2015); and relevant City of Burlingame plans and policies as contained in the Burlingame General Plan and Downtown Specific Plan.

The assessment employed a line-of-sight analysis to consider the net visual presence that could result from development as seen from the local street system and other public lands.

Because of the emphasis on effects as seen from the local street system, this visual analysis employs a method for assessing visual impacts based on the criteria identified by the California Department of Transportation, the U.S. Department of Transportation, and the Federal Highway Administration. Three visual traits that are evaluated are:

1. **Scenic Integrity:** the overall impression retained after driving through, walking through, or flying over an area of land
2. **Vividness:** The memorability of the visual impression received from contrasting landscape elements as they combine to form a striking and distinctive visual pattern
3. **Unity:** The degree to which the visual resources of the landscape join together to form a coherent, harmonious visual pattern. Unity refers to the compositional harmony or inter-compatibility between landscape elements.

These visual traits describe how the cumulative effects of the form, line, color, and texture of proposed project facilities interact with surrounding elements of the natural or built landscape where the project would be constructed. This method prescribes that visual impacts are a function of physical change weighed against the viewer's exposure and level of concern to that change. This evaluation includes the City of Burlingame plans, policies, and guidelines related to visual and scenic resources. These plans, policies, and guidelines both govern the use of the land and provide a guide about viewer concern for scenic quality of the landscape.

Visual simulations were created to present a reasonably accurate depiction of overall project visibility and the general impact of the proposed building mass and scale. Key Observation Points (KOPs), where views of the project site are most prominent, were used as viewpoints for the visual simulations. Elevation drawings and renderings provided by the Applicant were used in the simulations as the basis of the building design.

3.1.5 Impacts and Mitigation

Table 3.1-1 provides a summary of the significance of potential aesthetics impacts prior to application of mitigation measures and after the implementation of mitigation measures.

Table 3.1-1 Summary of Aesthetics Impacts

Significance Criteria	Project Phase	Significance Prior to Mitigation	Significance with Mitigation
Impact Aesthetics-1: Would the proposed project have a substantial adverse effect on a scenic vista?	Construction and Operation	No Impact	–
Impact Aesthetics-2: Would the proposed project substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway or scenic route as designated by the City of Burlingame?	Operation	Significant	Less than Significant with MM AES-1
Impact Aesthetics-3: Would the proposed project substantially degrade the existing visual character or quality of the site and its surroundings?	Operation	Significant	Less than Significant with MM AES-1
Impact Aesthetics-4: Would the proposed project create a new source of substantial light or glare that would adversely affect day or nighttime views in the area?	Operation	Significant	Less than Significant with MM AES-2 MM AES-3

The following description of potential impacts and mitigation measures for the proposed project assumes that all applicable requirements and guidelines contained in the Downtown Specific Plan are incorporated into the project plans. The City's Design Review Process as outlined in Section 25.57 of the Burlingame Municipal Code includes checks of all development applications for consistency with all applicable Downtown Specific Plan and General Plan provisions, and applicable City ordinances and standards. A building permit shall not be granted until the proposed project has been through the Design Review approval process.

The effects to historic structures are addressed in Section 3.4: Cultural Resources. The historic structures are addressed here as they relate to the visual character of the neighborhood.

Impact Aesthetics-1: Would the proposed project have a substantial adverse effect on a scenic vista? *(No Impact)*

There are no designated scenic vistas within the immediate project areas. The proposed project would have no impact on scenic vistas.

Impact Aesthetics-2: Would the proposed project substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway or scenic route as designated by the City of Burlingame? *(Less than Significant Impact with Mitigation)*

There are no scenic rock outcroppings in the project area.

524 Oak Grove Avenue Project Site

There is a redwood tree, a coast live oak, a tallow tree and a sweetgum tree on the property, as well as one mature Monterey pine and two specimen Italian stone pine street trees abutting the property that are protected under the City's Urban Reforestation and Tree Protection ordinance.

Most of the original historically-significant building at 1128 Douglas Avenue would be relocated to the Oak Grove Avenue site. The scale of the house to be relocated would be consistent with that of the overall Oak Grove Manor neighborhood. The relocated house would complement the neighborhood. The relocation of the historic house at 524 Oak Grove Avenue would therefore not have a significant impact on the visual character of the area. No mitigation would be required for this project site location.

1128–1132 Douglas Avenue Project Site

Trees

The proposed project would remove virtually all site vegetation with the exception of two mature trees on the southeast corner of the site (coast live oak and redwood) and one mature street tree (sycamore). Three street trees are proposed to be installed by the Applicant to meet City Standards. Species are not identified.

The significant coast live oak and redwood trees could be impacted by the project, but would be protected by implementation of Mitigation Measure BIO-3, Tree Protection Measure, to assure their survival. Discussion of tree health and protection is included in Section 3.3. Biological Resources.

Key Observation Points and Simulations

Figure 3.1-1 illustrates the KOPs for the project. KOP #1 is located near City Hall at the roundabout at the convergence point of Primrose Road and Bellevue Avenue. KOP #2 is located on Douglas Avenue approaching the project site from California Drive.

Figure 3.1-2 presents the existing view looking northeast to the project site as seen from Bellevue Avenue (at the roundabout), a local scenic route. Figure 3.1-3 presents a simulation from the same location of the project after completion and without mitigation.

Figure 3.1-4 presents the existing view looking southwest to the project site as seen from Douglas Avenue. Figure 3.1-5 presents a simulation of the project after completion from the same location of the project after completion and without mitigation.

Figure 3.1-1 Douglas Avenue Project Site and Key Observation Points

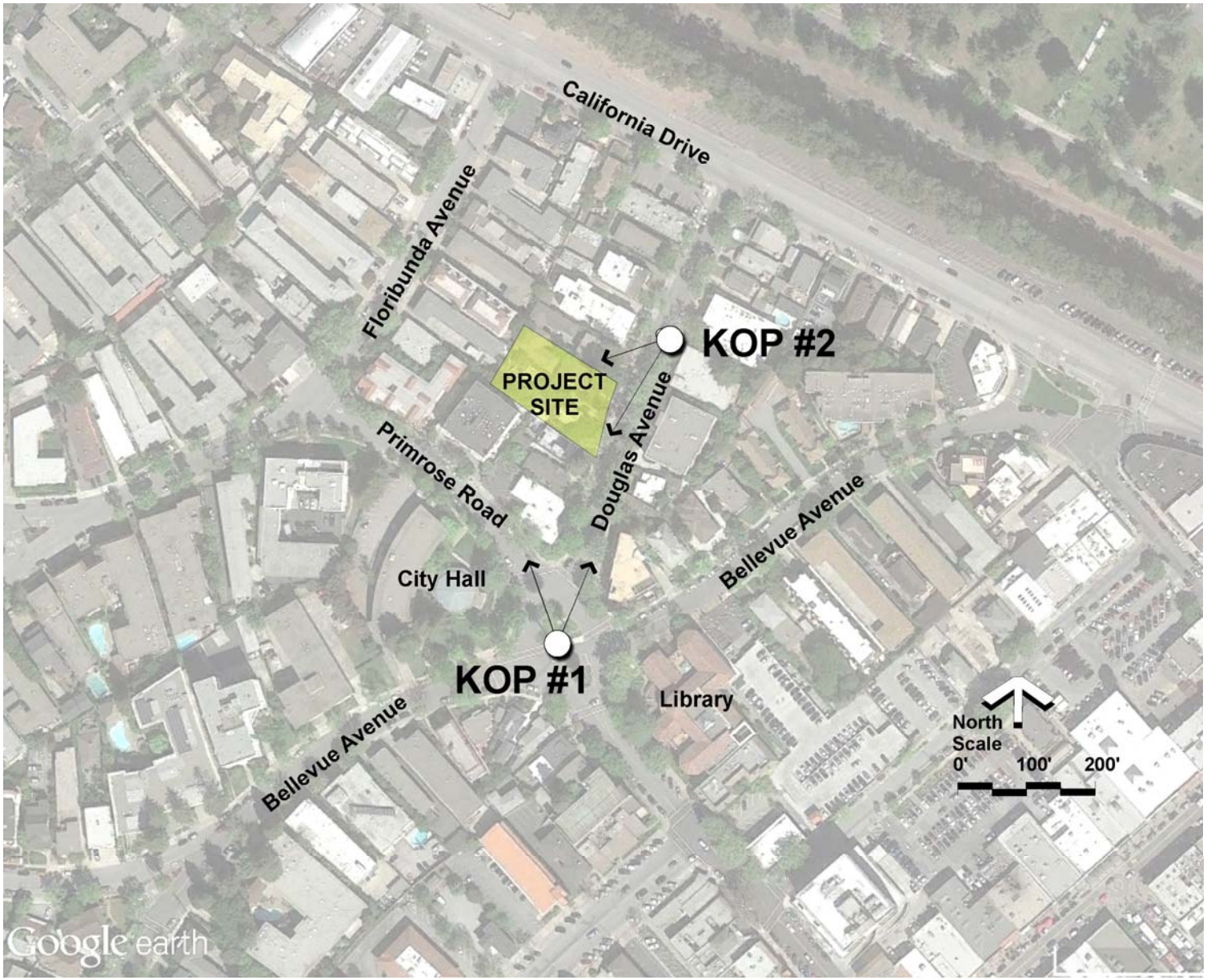

Figure 3.1-2 KOP #1: Existing View Looking Northeast from Bellevue Avenue along Douglas Avenue

Figure 3.1-3 KOP #1: Photo-simulation of View Looking Northeast from Bellevue Avenue along Douglas Avenue after Project Construction without Mitigation

Figure 3.1-4 KOP #2: Existing view Looking Southwest from Douglas Avenue along Douglas Avenue to Project Site

Figure 3.1-5 KOP #2: Photo-simulation of View Looking Southwest from Douglas Avenue along Douglas Avenue after Project Construction without Mitigation

View from Scenic Route

Bellevue Avenue is identified as a local scenic route. As illustrated in Figure 3.1-2, the project site is partially visible when traveling east along Bellevue Avenue as it crosses between the Burlingame City Hall and Library. As simulated in Figure 3.1-3, the height and bulk of the proposed building would be highly visible from Bellevue Avenue.

The length of time the project would be seen by a motorist traveling east (toward the project site) would generally be shorter than approximately 30 seconds. Views from Bellevue Avenue are at an approximate distance of 300 feet with a perspective of the full height of the broad side of the apartment building. With the building height of 57 feet and equipment screening exceeding that height, the structure may be perceived as the equivalent of a 6-story building. This would be the tallest building in view from Bellevue Avenue. The building would not be unified with the overall scale of the immediate area and with its fairly simple façade detail would reduce the existing scenic integrity of the scenic route. The project as proposed would therefore result in a significant impact.

The City has established a design review process to ensure that new development is compatible with the surrounding neighborhood. The Planning Commission performs design review for development projects for the City. The criteria for design review as established in Ordinance No. 1591 adopted by the City Council on April 20, 1998 are as follows:

1. Compatibility of the architectural style with that of the existing character of the neighborhood;
2. Respect for the parking and garage patterns in the neighborhood
3. Architectural style and mass and bulk of structure
4. Interface of the proposed structure with the structures on adjacent properties; and
5. Landscaping and its proportion to mass and bulk of structural components.

The project applicant would be required to submit revised plans to the City for design review approval before the project would be approved. The changes made in the Design Review process would ensure that the project is consistent with the neighborhood and reduce the impact to a less than significant level. The changes may include reduced mass and/or modification of the façade to be consistent with the existing character of the neighborhood. Mitigation Measure AES-1 would ensure that the proposed project goes through the design review process.

Mitigation: Mitigation Measure AES-1

MM AES-1: Design Review of the Proposed Project

The applicant shall submit revised plans for the proposed building at 1128-1132 Douglas Avenue to the City of Burlingame for design review. The Planning Commission as the responsible body for design review shall review the proposed project for compatibility with the City's guidelines for a residential apartment building in the Downtown Specific Plan R-4 Base District.

The proposed mitigation would ensure that the design of the structure would not result in a large mass visible from a designated scenic roadway. The project would result in a less than significant impact.

Significance after Mitigation: Less than Significant

Impact Aesthetics-3: Would the proposed project substantially degrade the existing visual character or quality of the site and its surroundings? *(Less than Significant Impact with Mitigation)*

524 Oak Grove Avenue Project Site

The relocated historic house is a single-family house that would replace an existing single-family house. It would blend into the single-family Oak Grove Manor neighborhood and would not degrade the existing visual character or quality of the site or its surroundings. The impact would be less than significant.

1128–1132 Douglas Avenue Project Site

The project would be most visible to the general public from Bellevue Avenue and Douglas Avenue. Limited views would exist from Floribunda Avenue. The length of time the project would be seen by motorists would generally be approximately 30 seconds.

As illustrated in Figures 3.1-3 and 3.1-5, the height of the building is highlighted when seen traveling along Douglas Avenue, as compared to Bellevue Avenue where the mass of the building is more dominant. This perception occurs because

1. The narrow side of the building fronts Douglas Avenue
2. The presence of existing and proposed vegetation screens the site
3. The close proximity of the building to viewpoints along Douglas Avenue.

The elements of the planned landscape, including proposed street trees, accent plantings, and planters, fences, and walls in close proximity to the street, would generally be vivid elements as compared with the existing setting.

Table 3.1-2 identifies the consistency of the project with the visual goals, objectives, policies, and implementation actions of the City of Burlingame. There are numerous design features of the proposed project that are potentially or partially inconsistent with City policies. These inconsistencies would affect the visual integrity of the neighborhood.

Table 3.1-2 Proposed Project Consistency with City of Burlingame Plans and Policies

Plans and Policies	Consistency
General Plan	
Community Development Goal II: To maintain and enhance the identity of the City and encourage a maximum sense of identification by residents with the City.	
c. Establish a pattern of dominance and subordination in important visual features; create harmony with diversity.	Potentially Inconsistent. The height and bulk of the structure as proposed dominate the site, and adds one multistory, dominant type of structure on the street and removes two subordinate, single-family structures.
d. Create distinctive visual qualities - a Burlingame image (analyze existing visual qualities and build on the best of these).	Partially Inconsistent. While the structure has some architectural fenestration, individual floor patterns are repeated above the second story.
f. Use trees of appropriate size and character as a design framework to enhance a sense of identity.	Consistent. Street trees will conform to City specifications.
Downtown Specific Plan	
Goal S-1: Improve the streetscape, particularly at the pedestrian scale.	Inconsistent. Ground level treatment with entrance walks, benches, and water features would add diversity to existing street experience. Height of building would dominate a sense of pedestrian scale.
Policy S-1.3: Streetscapes should reflect Burlingame's designation as a "tree city." Trees should be planted throughout the downtown as an integral part of the streetscape, and mature street trees should be preserved whenever possible.	Consistent. The existing trees will be protected and new trees will be planted.
Goal D-1: Protect and preserve historic character.	
Policy D-1.1: Ensure that new construction fits into the context and scale of the existing downtown.	Consistent. Height and bulk of building are similar to other structures on the street and the Downtown Specific Plan anticipates similar heights.
Goal D-3: Preserve and enhance small-town scale with walkable, pedestrian-scaled, landscaped streets.	Consistent. Height of building may dominate a sense of pedestrian scale but will maintain the walkable, landscaped street.
Policy D-3.2: Evaluate development in the Downtown Area that is proposed to be taller than surrounding structures (i.e., over 40 feet) for potential to create new shadows or shade on public and/or quasi-public open spaces and major pedestrian routes.	Consistent. Shadow study provided in Appendix B.
5.3.1. Architectural Diversity	
Design buildings to maintain general compatibility with the neighborhood.	Consistent. The existing neighborhood is generally composed of two- to four-story structures below 50 feet in height, but is generally compatible with the surrounding structures.

Plans and Policies	Consistency
Respect the mass and fine scale of adjacent buildings even when using differing architectural styles.	Inconsistent. The existing building is approximately 20-25 feet taller than any other building in the block.
Maintain the tradition of architectural diversity, but with human scale regardless of the architectural style used.	Inconsistent. At a height of 57 feet, plus rooftop appurtenances and with repetitive design elements, the building exceeds a human scale as seen from the immediate neighborhood.
5.3.2.1 Entrances: Primary pedestrian access to all ground-level uses should be from the sidewalk along the public street. Entrances should be clearly defined features of front facades.	Consistent.
5.3.2.1 Architectural Compatibility	
Massing and street facades shall be designed to create a residential scale.	Inconsistent. Continuous repetition of elements on the upper stories not consistent with enhancing visual interest and creating a sense of human scale.
Articulation, setbacks, and materials should minimize massing, break down the scale of buildings, and provide visual interest.	Inconsistent. The design of the upper stories is repetitive of the lower levels and on a single plane, with no variation in setbacks.
5.3.2.1 Architectural Design Consistency: Facades should include projecting eaves and overhangs, porches, and other architectural elements that provide human scale and help break up building mass. All exposed sides of a building should be designed with the same level of care and integrity. Facades should have a variation of both positive space (massing) and negative space (plazas, inset doorways, and windows).	Consistent.
5.3.2.2 Ground Level Treatment: Residential development may have a finished floor elevation up to 5 feet above sidewalk level to provide more interior privacy for residents. Entry porches or stoops along the street are encouraged to bridge this change in elevation and connect these units to the sidewalk to minimize any physical separation from the street level. The street-level frontage should be visually interesting with frequent unit entrances and clear orientation to the street.	Consistent.
5.3.4.2 Windows	
Building walls should be accented by well-proportioned openings that provide relief, detail and variation on the facade.	Inconsistent. Window patterns not varied within facades.
Windows should be inset generously from the building wall to create shade and shadow detail.	Inconsistent. Aluminum window systems flush with building walls.
Reflective glass is undesirable because of its tendency to create uncomfortable glare conditions and a visual barrier.	Consistent.
Where residential uses are adjacent to each other, windows should be placed with regard to any open spaces or windows on neighboring buildings so as to protect the privacy of residents	Consistent. The building would be separated from the neighboring residences by driveways, walkways, and landscaping.

Plans and Policies	Consistency
5.3.4.3 Materials: Building materials should be richly detailed to provide visual interest. The use of materials that are reflected in the historic architecture present is encouraged. Metal siding and large expanses of stucco or wood siding are also to be avoided. Roofing materials and accenting features such as canopies, cornices, tile accents, etc. should also offer color variation. Residential building materials should be made of quality details such as wrought iron, wood framed windows, wood brackets and tile roofs.	Inconsistent. Large expanses of stucco and wood siding proposed. No wood framed windows. Flat roof. No roof accenting features such as canopies, cornices, tile accents.
5.4.1.1 Massing and Scale Transitions: Transitions of development intensity from higher density development building types to lower can be done through different building sizes or massing treatments that are compatible with the lower intensity surrounding uses. Massing and orientation of new buildings should respect the massing of neighboring structures by varying the massing within a project, stepping back upper stories, reducing mass by composition of solids and voids, and varying sizes of elements to transition to smaller scale buildings.	Inconsistent. Massing does not step back upper stories, has only moderate composition of solids and voids and does not vary sizes of upper floor elements to transition to smaller scale buildings.
5.4.1.1 Privacy: Privacy of neighboring structures should be maintained with windows and upper floor balconies positioned so they minimize views into neighboring properties, minimizing sight lines into and from neighboring properties, and limiting sun and shade impacts on abutting properties.	Inconsistent. Windows and upper floor balconies not reflective of minimizing sight lines into surrounding neighboring properties. The proposed 5-story building would shade an approximately 80 percent greater area than existing structures on the properties.
Burlingame Urban Forest Master Plan	
Sycamore theme tree.	Consistent.
Burlingame Zoning Regulations: Chapter 25.29 R-4 Residential District	
No building or structure shall be constructed in an R-4 district which exceeds six (6) stories or seventy-five (75) feet in height	Consistent.
The maximum lot coverage for all buildings and structures, including balconies, stairs, roof overhangs exceeding twenty-four (24) inches, trellises and improvements which exceed thirty (30) inches in height, shall be fifty (50) percent for interior lots and sixty (60) percent for corner lots.	Consistent.

As described above, the project has the potential to substantially degrade the existing visual character or quality of the site and its surroundings, based on the building design and inconsistencies with the City's plans and policies, and would result in a significant impact to aesthetics. Implementation of Mitigation Measure AES-1 would ensure that the proposed project goes through the City's design review process to address aesthetic impacts from a designated scenic road and would also ensure that the proposed project design conforms to the City's Downtown Specific Plan standards for a residential apartment building in the Downtown Specific Plan R-4 Base District.

Mitigation: Mitigation Measure AES-1 Design Review of the Proposed Project

Significance after Mitigation: Less than Significant

Impact Aesthetics-4: Would the proposed project create a new source of substantial light or glare that would adversely affect day or nighttime views in the area? *(Less than Significant Impact with Mitigation)*

Light

Direct or intermittent nighttime lighting, such as from lighted windows and exterior building lighting, would be seen in foreground views from the nearby streets and adjacent residences; this would be a new source of nighttime lighting which could be considered a significant visual impact. Implementation of Mitigation Measure AES-2 cannot eliminate the new light sources but would reduce project nighttime glare to a less than significant level.

Mitigation: Mitigation Measure AES-2

MM AES-2: Exterior Lighting Plan

Prior to issuance of a building permit, a detailed Exterior Lighting Plan shall be provided to the City of Burlingame for design review. The lighting plan shall utilize the following standards:

a) Control stray light through use of low-brightness fixtures with optical controls.

b) Fully block all exterior light sources from off-site views.

c) Do not permit any uplighting from any outdoor light fixture.

d) Employ on-demand exterior lighting systems where feasible. Area lighting and security lighting shall be controlled by the use of timed switches and/or motion detectors. Use tinted windows in all buildings to reduce glare from interior lights.

Glare

As seen from the surrounding streets, there is a potential for sun reflection from the proposed structure to create glare due to the height of the proposed building. The design projections proposed at the top of each windows would reduce the glare from the reflection of light on the glass. The building could cause a substantial source of glare if the paint is reflective; substantial glare would be a significant impact.

Mitigation Measure AES-3 would help reduce potential glare as seen from the nearby street system and adjacent residences to a less than significant level.

Mitigation: Mitigation Measure AES-3

MM AES-3: Use of Non-reflective Exterior Paint

Flat, non-reflective paint or integrated coloring shall be used in all exterior building materials throughout the project.

Significance after Mitigation: Less than Significant

Shadow

The Downtown Specific Plan specifies that new development in the Specific Plan Area that is proposed to be taller than existing surrounding structures (such as the proposed project) should be evaluated for potential to create new shadows/shade on public and/or quasi-public open spaces and major pedestrian routes. However, the City of Burlingame has not established a community standard for shadow impacts, and does not have criteria for impact significance. A shadow study was prepared for the proposed project in accordance with the guidance provided in the Downtown Specific Plan and included in Appendix B, Shadow Study.

Overall, the proposed 5-story building on Douglas Avenue would shade an approximately 80 percent greater area than existing structures on the properties; however, there are no public or quasi-public open spaces adjacent to the proposed project site, and the adjacent pedestrian sidewalk on Douglas Avenue would only experience new shading during the late afternoon and evening hours. Shade from the proposed building on the Douglas Avenue sidewalk would be comparable to surrounding buildings. Based on the established criteria in the Downtown Specific Plan, the proposed 5-story building would not create significant new shadows/shade on public and/or quasi-public open spaces and major pedestrian routes. Therefore, the proposed project would not be considered to have significant shadow impacts.

3.1.6 Cumulative Aesthetics Impacts

Cumulative Context

The cumulative context for aesthetics impacts includes past, present and reasonably foreseeable future development within a 0.25 mile radius. A 0.25-mile radius is selected because it is highly unlikely in the built-up environment surrounding the proposed project sites, that other development would be visible to and from the proposed project development. Within this radius for the Douglas Avenue project site there are two approved projects at 1225 Floribunda Avenue and 1433 Floribunda Avenue, and one proposed project at 1214 Donnelly Avenue. There are no proposed or approved projects within 0.25 mile of the 524 Oak Grove Avenue project site.

Cumulative Analysis

The relocated house to the 524 Oak Grove Avenue project site is similar in mass and height to the house it would replace. The relocated house would be consistent with the other single-family homes in the area.

Recently completed projects in the 0.25-mile radius area of the 1128-1132 Douglas Avenue project site are consistent with the City's adopted plans. Reasonably foreseeable development would also be required to be consistent with the adopted plans and the vision for the Downtown Specific Plan area. Projects would also be subject to the design review process. New development could change the overall character of the project area; however, all new development, including the proposed project, would have to be consistent with the guidelines adopted in the Downtown Specific Plan for the City's vision of the plan area. The proposed project's contribution to the cumulative aesthetics impact would be less than significant.

3.1.7 References

City of Burlingame. 1969. *General Plan.* Adopted October 20, 1969 by Resolution 87-69.

_____. 2011. *Burlingame Downtown Specific Plan.* Adopted October 4, 2010, amended September 19, 2011.

_____. 2014. *Urban Forest Management Plan.* Approved August 20, 2007, revisions approved May 19, 2014.

Dreiling Terrones Architecture Inc. 2015. *New Apartment Building Douglas Avenue – Planning Review Package.* Revised January 21, 2015.

State of California, Business Transportation and Housing Agency, Department of Transportation. 1998. *Guidelines for Official Designation of Scenic Highways*. March 1998.

U.S. Department of Transportation, Federal Highway Administration, Office of Environmental Policy. 1983. *Visual Impact Assessment for Highway Projects* (FHWA-HI-88-054), Washington, D.C.

3.2 AIR QUALITY

This section describes existing air quality conditions in the proposed project region and vicinity, air quality regulations applicable to the proposed project, and presents an analysis of potential air quality impacts from construction and operation of the proposed project. Information presented in this section is derived from air emission models that predict regional emissions and pollutant concentrations. Air quality and the chemical components in the air affect other environmental resources, including plants and wildlife. Air quality also affects human health. As a resource, air is essential to humans, wildlife, and plants.

Comments received during the EIR scoping process included the following issues related to aesthetics:

- Air quality impacts from construction
- Impact of construction emissions on medical conditions
- Cumulative air quality impacts from construction of other projects nearby

These topics are addressed in the impact analysis below.

3.2.1 Environmental Setting

Air Basin

The proposed project is located in the San Francisco Bay Area Air Basin (SFBAAB). The basin covers roughly 5,340 square miles and consists of Napa, Marin, San Francisco, Contra Costa, Alameda, San Mateo, and Santa Clara counties, the southern portion of Sonoma County, and the western portion of Solano County.

Climate and Meteorology

Meteorological and climatological conditions influence ambient air quality. The proposed project's proximity to both the Pacific Ocean and the San Francisco Bay has a moderating influence on its climate. The City of Burlingame generally experiences moderate temperature swings and mild seasonal temperature variation.

Climatological data is recorded at the San Francisco International Airport located approximately 2.5 miles northwest of the proposed project site. According to the Western Regional Climate Center (WRCC) Climate Data Summary, the average maximum temperature is 73.4 degrees Fahrenheit (°F) in September, and the average minimum temperature is 42.6 °F in January (WRCC 2015). The average precipitation is 19.9 inches annually (WRCC 2015).

Existing Air Quality Conditions

Air Pollutants

The U.S. Environmental Protection Agency (EPA) and the California Air Resources Board (CARB) designate air basins according to federal and state air quality standards for criteria air pollutants and toxic air contaminants (TAC) (refer to Section 3.2.2 for discussion of the

regulations). EPA standards are set to protect public health. EPA has set National Ambient Air Quality Standards (NAAQS) for seven criteria pollutants:

1. Ozone (O_3)
2. Sulfur dioxide (SO_2)
3. Carbon monoxide (CO)
4. Nitrogen dioxide (NO_2)
5. Lead (Pb)
6. Respirable particulate matter less than 10 micrometers in diameter (PM_{10})
7. Fine particulate matter less than 2.5 micrometers in diameter ($PM_{2.5}$)

CARB has set California Ambient Air Quality Standards (CAAQS) for three pollutants in addition to the seven NAAQS criteria pollutants:

1. Sulfates
2. Hydrogen sulfide (H_2S)
3. Visibility reducing particles

Table 3.2-1 presents the NAAQS and CAAQS for the criteria air pollutants at different averaging periods.

The BAAQMD set emissions thresholds for pollutants which are of most concern to air quality planning and regulation in the Bay Area. SFBAAB is currently in nonattainment for state and national ozone standards and national particulate matter ambient air quality standards (see Section 3.2.1). A discussion of each criteria pollutant for which the BAAQMD has set emissions thresholds is provided below, including their sources and health effects.

Ozone

O_3 is found in the upper atmosphere (as the ozone layer) as well as at ground level. At ground level, ozone is considered a pollutant. O_3 forms when ozone precursors (reactive organic gases [ROGs], CO, nitrogen oxides [NO_x]) react with sunlight in the atmosphere. Sources of these precursors include fuel combustion in vehicles and industrial processes, gasoline vapors, and chemical solvents. O_3 can cause respiratory problems (i.e., chest pain, coughing, throat irritation) as well as exacerbate existing respiratory problems, such as asthma and bronchitis. Ozone emissions have steadily decreased in the Bay Area; on average, the SFBAAB exceeded the NAAQS and CAAQS on 5 days between 2010 and 2014 compared to 38 days between 1980 and 1984 (BAAQMD 2015a).

Nitrogen Dioxide

NO_2 is formed during combustion of fossil fuels from vehicles and industrial processes. NO_2 is an ozone precursor and can also cause acid rain and acid snow. Health effects of NO_2 include airway inflammation and exacerbation of preexisting asthma (BAAQMD 2015a).

Carbon Monoxide

CO is a colorless, odorless gas produced by the incomplete combustion of fuels. CO concentrations tend to be the highest in the winter morning when surface-based inversions trap

the pollutant at ground levels. Because CO is emitted directly from internal combustion engines and motor vehicles operating at slow speeds are the primary source of CO in the Bay Area, the highest ambient CO concentrations are generally found near congested transportation corridors and intersections.

Respirable Particulate Matter (PM_{10})

Particulate matter is a combination of liquid or solid particles suspended in the air. PM_{10} particles are smaller than 10 micrometers in diameter—typically dust, pollen, and mold. Liquid particles include those from sprays and other toxic chemical compounds. PM_{10} particles are a threat to health because they can enter the lungs and are small enough that the respiratory system cannot naturally filter them out. PM_{10} can exacerbate asthma and bronchitis and potentially contribute to premature death. The SFBAAB exceeded the state standard for PM_{10} on 2 days during 2014 (BAAQMD 2015a).

Fine Particulate Matter ($PM_{2.5}$)

Particulate matter is a combination of liquid or solid particles suspended in the air. $PM_{2.5}$ particles are smaller than 2.5 micrometers in diameter—typically combustion particles, organic compounds, and metal particles. $PM_{2.5}$ is considered more hazardous to human health than PM_{10} because it can contain a larger variety of dangerous components than PM_{10} and can travel farther into the lungs, potentially causing scarring of lung tissue and reduced lung capacity. In 2014, the BAAQMD exceeded the national standard for $PM_{2.5}$ on 3 days (BAAQMD 2015a).

Toxic Air Contaminants

TACs (also referred to as hazardous air pollutants or air toxics) are air pollutants that may pose a present or potential hazard to human health. TACs can cause long-term health effects, including but not limited to cancer and neurological damage. Diesel exhaust is the predominant TAC in urban air and is estimated to represent about three-quarters of the cancer risk from TACs (based on the Bay Area average). TACs are substances that are listed in Section 112 of the Clean Air Act (CAA) or identified pursuant to the Assembly Bill (AB) 1807 Program.

EPA regulates hazardous air pollutant emissions for mobile sources through Section 202(l) of the CAA and the Control of Hazardous Air Pollutants from Mobile Sources (Final Rule). The rule regulates fuel, reducing mobile source air toxics emissions (EPA 2013). CARB has also promulgated regulations, as Airborne Toxic Control Measures (ATCMs), to reduce airborne toxics emissions, including measures that apply to mobile sources (CARB 2013a).

Odors

Land use around the proposed project is primarily residential and commercial (i.e., business space and retail). There are no stationary odor-producing land uses (e.g., landfills, refineries, confined animal feeding operations) in the proposed project vicinity.

Table 3.2-1 National and California Ambient Air Quality Standards

Pollutant	Averaging Time	California Standards[1]	National Standards[2]	
			Primary	Secondary
O_3	1 Hour	0.09 ppm (180 µg/m³)	–	–
	8 Hours	0.070 ppm (137 µg/m³)	0.075 ppm (147 µg/m³)[3]	0.075 ppm (147 µg/m³)[3]
CO	1 Hour	20 ppm (23 mg/m³)	35 ppm (40 mg/m³)	–
	8 Hours	9.0 ppm (10 mg/m³)	9 ppm (10 mg/m³)	–
NO_2	1 Hour	0.18 ppm (339 µg/m³)	100 ppb (188 µg/m³)	–
	Annual Arithmetic Mean	0.030 ppm (57 µg/m³)	0.053 ppm (100 µg/m³)	0.053 ppm (100 µg/m³)
SO_2	1 Hour	0.25 ppm (655 µg/m³)	75 ppb (196 µg/m³)	–
	3 Hours	–	–	0.5 ppm (1,300 µg/m³)
	24 Hours	0.04 ppm (105 µg/m³)	0.14 ppm (for certain areas)	–
	Annual Arithmetic Mean	–	0.030 ppm (for certain areas)	–
PM_{10}	24 Hours	50 µg/m³	150 µg/m³[4]	150 µg/m³[4]
	Annual Arithmetic Mean	20 µg/m³	–	–
$PM_{2.5}$	24 Hours	–[5]	35 µg/m³	35 µg/m³
	Annual Arithmetic Mean	12 µg/m³	12.0 µg/m³	15 µg/m³
Pb	30-Day Average	1.5 µg/m³	–	–
	Calendar Quarter	–	1.5 µg/m³ (for certain areas)	1.5 µg/m³ (for certain areas)
	Rolling 3-Month Average	–	0.15 µg/m³	0.15 µg/m³

Pollutant	Averaging Time	California Standards[1]	National Standards[2]	
			Primary	Secondary
Sulfates	24 Hours	25 µg/m^3	–	–
H_2S	1 Hour	0.03 ppm (42 µg/m^3)	–	–
C_2H_3Cl (Vinyl Chloride)	24 Hours	0.01 ppm (26 µg/m^3)	–	–
Visibility Reducing Particles	8 Hours	Extinction coefficient of 0.23 per kilometer; visibility of 10 miles or more due to particles when the relative humidity is less than 70 percent.	–	–

Notes:

1 Pollutant concentrations should not exceed California standards for O_3, CO, SO_2 (1- and 24-hour), NO_2, and particulate matter (PM_{10}, $PM_{2.5}$, and visibility reducing particles). Pollutant concentrations shall not equal or exceed any other concentrations.

2 Pollutant concentrations should not exceed national standards (other than O_3, particulate matter, and those based on annual arithmetic mean) more than once per year. The annual standards should never be exceeded.

3 An area achieves the O_3 standard when the fourth-highest 8-hour concentration measured at each site in a year, averaged over 3 years, is equal to or less than the standard.

4 An area achieves the PM_{10} 24-hour standard when the expected number of days per calendar year with a 24-hour average concentration greater than 150 µg/m^3 is equal to or less than one.

5 An area achieves the $PM_{2.5}$ 24-hour standard when 98 percent of the daily concentrations, averaged over 3 years, are equal to or less than the standard.

mg/m^3: Milligrams per cubic meter

ppb: Parts per billion

Source: CARB 2013b

Sensitive Receptors

The BAAQMD defines a sensitive receptor as a facility where sensitive population groups (i.e., children, the elderly, and those with pre-existing acute or chronic health problems affected by air quality) are likely to be located (BAAQMD 2011). Sensitive receptors include:

- Schools, playgrounds, and childcare centers
- Parks or community centers
- Medical facilities (hospitals, convalescent homes, health clinics, long-term health care facilities, rehabilitation centers)
- Residences (houses, apartments, retirement homes)

The area around and including the proposed project is a mix of residential and commercial uses. Sensitive receptors in the proposed project vicinity include residences, schools, parks, childcare facilities, and athletic facilities. The BAAQMD recommends identification of sensitive receptors within 1,000 feet of the proposed project site (BAAQMD 2011). Sensitive receptors within 1,000 feet of the proposed project are identified in Table 3.2-2.

Table 3.2-2 Sensitive Receptors within 1,000 feet of the Proposed Project Area

Type of Receptor by Project Component	Name	Minimum Distance from Project Area
524 Oak Grove Avenue		
Residential	Oak Grove Manor Community	10 feet
School	Burlingame High School	500 feet to tennis courts 770 feet to nearest building
Park	Trenton Park	930 feet
1128-1132 Douglas Avenue		
Residential	Downtown Burlingame Community	10 feet
School	Burlingame Montessori Preschool and Kindergarten	315 feet
	Burlingame High School	625 feet to baseball field 915 feet to nearest building
Library	Burlingame Main Library	300 feet
Park	Washington Park	1,040 feet
Medical Facility	One Medical Group	775 feet

Source: Google, Inc. 2015

Air Quality Attainment Status

Table 3.2-3 presents a summary of the air quality attainment designations by EPA and CARB for SFBAAB. An attainment area is a geographic area identified to have air quality as good as or better than the NAAQS/CAAQS. Areas with air quality that are worse than adopted air quality

standards are designated as "nonattainment" areas for the relevant air pollutants. Nonattainment areas are sometimes further classified by degree (i.e., marginal, moderate, serious, severe, and extreme) or status (i.e., nonattainment-transitional). Once a nonattainment area meets the standards and additional redesignation requirements in the CAA, the area will be designated as a maintenance area. Unclassified areas are those with insufficient air quality monitoring data to support a designation of attainment or nonattainment, but are generally presumed to comply with the ambient air quality standard.

Table 3.2-3 San Francisco Bay Area Air Basin Air Quality Attainment Designations

Pollutant	Federal Designation	State Designation
O_3	Marginal nonattainment	Nonattainment
CO	Attainment	Attainment
NO_2	Attainment	Attainment
SO_2	Attainment	Attainment
Pb	Attainment	Attainment
PM_{10}	Unclassified	Nonattainment
$PM_{2.5}$	Moderate nonattainment	Nonattainment
Sulfates	No federal standard	Attainment
H_2S	No federal standard	Unclassified
Visibility Reducing Particles	No federal standard	Unclassified

Sources: AQPSD 2013a, AQPSD 2013b, EPA 2015

3.2.2 Regulatory Setting

Federal

National Ambient Air Quality Standards

The NAAQS were established by the federal CAA of 1970 and amended in 1977 and 1990. National primary standards are "the levels of air quality necessary, with an adequate margin of safety, to protect the public health" (CARB 2013b). National secondary standards are "the levels of air quality necessary to protect the public welfare from any known or anticipated adverse effects of a pollutant" (CARB 2013b). Table 3.2-1 presents the NAAQS for the criteria air pollutants at different averaging periods.

State

California Ambient Air Quality Standards

CARB is responsible for setting CAAQS under California Health and Safety Code Section 39606. The CAAQS listed in Table 3.2-1 are intended to protect public health, safety, and welfare. CARB is also responsible for establishing and reviewing state standards, compiling the California State Implementation Plan (SIP) and securing approval of the SIP from EPA, conducting research and planning, and identifying TACs. CARB regulates mobile sources of

emissions in California, such as construction equipment, trucks, and automobiles, and oversees the activities of California's air quality management districts, which are organized at the county or regional level.

Local

City of Burlingame General Plan

The Burlingame General Plan was adopted by the City of Burlingame in the late 1960s and early 1970s in a series of nine elements. The Conservation Element (City of Burlingame 1973) contains the following goal pertinent to air quality:

Goal IVa Insure levels of air quality compatible with the preservation of public health, including prevention of irritation to the senses, interference with visibility, and damage to vegetation

Burlingame Downtown Specific Plan

The City of Burlingame adopted the Downtown Specific Plan in 2010, which includes goals and policies for the development of areas within Downtown Burlingame (City of Burlingame 2010). The Downtown Specific Plan also includes conditions that the Applicant must fulfill in order to receive approval for the construction of the proposed project. The policies and conditions of approval in the Downtown Specific Plan would apply to both of the proposed project sites. The conditions of approval related to air quality are listed in Table 3.2-4 below.

BAAQMD 2010 Clean Air Plan

County and regional air quality management districts and air pollution control districts are responsible primarily for regulating stationary sources at industrial and commercial facilities within their geographic areas. These districts are also responsible for preparing the air quality plans that are required under the federal CAA and the California Clean Air Act.

The BAAQMD has jurisdiction over air quality programs in San Mateo County. It regulates most air pollution sources in the county, except for motor vehicles, marine vessels, aircraft, agricultural equipment, and other sources regulated by CARB or EPA.

The BAAQMD is primarily responsible for assuring that the federal and state ambient air quality standards are maintained in the San Francisco Bay Area. Regional air quality management districts, such as the BAAQMD, must prepare air quality plans specifying how state standards would be met. The BAAQMD's most recently adopted Clean Air Plan is the Bay Area 2010 Clean Air Plan (2010 CAP). The 2010 CAP provides an updated comprehensive plan to improve the Bay Area's air quality and protect public health, taking into account future growth projections to 2035 (BAAQMD 2010). The 2010 CAP serves as an update to the Bay Area 2005 Ozone Strategy and is aimed at reducing one-hour ozone emissions to meet California CAA requirements. The 2010 CAP also includes control strategies to reduce fine particulate matter ($PM_{2.5}$) emissions in anticipation of future planning requirements as the BAAQMD is also in nonattainment of $PM_{2.5}$ state standards (BAAQMD 2010).

Table 3.2-4 Downtown Specific Plan Conditions of Approval

Condition of Approval	Description
Condition of Approval 2 – Current Air Quality Plan (AQP) Control Measures	Ongoing during project construction: The project sponsor shall implement all appropriate control measures from the most currently adopted air quality plan at the time of project construction.
Condition of Approval 3 – Control Measures for Construction Emissions of Criteria Pollutants	Ongoing during project construction: The project sponsor shall ensure implementation of the following mitigation measures during project construction, in accordance with BAAQMD standard mitigation requirements: • All exposed surfaces (e.g., parking areas, staging areas, soil piles, graded areas, and unpaved access roads) shall be watered two times per day. • All haul trucks transporting soil, sand, or other loose material offsite shall be covered. • 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 sweeping is prohibited. • All vehicle speeds on unpaved roads shall be limited to 15 mph. • All roadways, driveways, 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. • Idling times shall be minimized either by shutting off equipment 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 the California Code of Regulations [CCR]). Clear signage shall be provided for construction workers at all access points. • 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. Post a publicly visible sign with the telephone number and person to contact at the Lead Agency regarding dust complaints. This person shall respond and take corrective action within 48 hours. The Air District's phone number shall also be visible to ensure compliance with applicable regulations.

Source: City of Burlingame 2011

The BAAQMD is currently in the process of updating the 2010 CAP and developing a Climate Protection Strategy; drafts of these plans are expected to become publicly available later in 2016 (BAAQMD 2015b). The updated Clean Air Plan and Climate Protection Strategy may include strategies or control measures in addition to those contained in the 2010 CAP.

3.2.3 Thresholds of Significance

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

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 pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)
d) Expose sensitive receptors to substantial pollutant concentrations, or
e) Create objectionable odors affecting a substantial number of people

3.2.4 Approach to Analysis

Thresholds

In June 2010, BAAQMD adopted the *2011 CEQA Air Quality Guidelines*, which contain thresholds of significance for projects analyzed under CEQA.[1] The significance thresholds were designed to establish the emission level at which BAAQMD has determined significant air quality impacts would occur under CEQA. The significance thresholds identified by BAAQMD and used in this analysis are summarized in Table 3.2-5 below.

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[1] The BAAQMD's adoption of significance thresholds contained in the 2011 CEQA Air Quality Guidelines was called into question by an order issued March 5, 2012, in *California Building Industry Association (CBIA) v. BAAQMD* (Alameda Superior Court Case No. RGI0548693). The order requires the BAAQMD to set aside its approval of the thresholds until it has conducted environmental review under CEQA. The ruling made in the case concerned the environmental impacts of adopting the thresholds and how the thresholds would indirectly affect land use development patterns. In August 2013, the Appellate Court struck down the lower court's order to set aside the thresholds. This litigation, however, remains pending; the California Supreme Court recently accepted a portion of CBIA's petition to review the appellate court's decision to uphold BAAQMD's adoption of the thresholds. The specific portion of the argument to be considered is in regard to whether CEQA requires consideration of the effects of the environment on a project (as contrasted to the effects of a proposed project on the environment). Therefore, the significance thresholds contained in the 2011 CEQA Air Quality Guidelines are applied to this project.

Table 3.2-5 BAAQMD Air Quality Significance Thresholds

Pollutant	Construction Threshold	Operation Threshold	
	Average Daily Emissions (pounds per day)	Average Daily Emissions (pounds per day)	Average Annual Emissions (tons per year)
Criteria Air Pollutants			
ROG	54	54	10
NO_x	54	54	10
PM_{10}	82	82	15
$PM_{2.5}$	54	54	10
Localized CO	None	9.0 ppm (8-hour avg.) or 20.0 ppm (1-hour avg.)	
Fugitive Dust (PM_{10}/$PM_{2.5}$)	Construction dust ordinance or other BMPs	None	
Health Risks and Hazards for New Sources (individual project)			
Excess Cancer Risk	Same as operation	10 per one million	
Chronic or Acute Hazard Index	Same as operation	1.0	
Ambient increase of $PM_{2.5}$	Same as operation	0.3 µg/m^3	
Health Risks and Hazards for New Sources (cumulative threshold)			
Excess Cancer Risk	Same as operation	100 per one million	
Chronic Hazard Index	Same as operation	10.0	
Annual Average $PM_{2.5}$	Same as operation	0.8 µg/m^3	
Odors			
Odor from project	None	5 confirmed complaints per year averaged over three years	

Source: BAAQMD 2011

Carbon Monoxide Emissions

BAAQMD provides a preliminary screening methodology that provides a conservative indication of whether the implementation of the proposed project would result in CO emissions that exceed the threshold of significance. The screening criteria do not apply to proposed stationary source projects.

The proposed project would result in a less-than-significant impact to localized CO concentrations if the following screening criteria are met:

- The project is consistent with an applicable congestion management program established by the county for designated roads or highways, regional transportation plan, and local congestion management agency plans.

- The project traffic would not increase traffic volumes at affected intersections to more than 44,000 vehicles per hour.
- The project traffic would not increase traffic volumes at affected intersections to more than 24,000 vehicles per hour where vertical and/or horizontal mixing is substantially limited (e.g., tunnel, parking garage, bridge underpass, natural or urban street canyon, below-grade roadway).

Air Quality Modeling

Criteria Air Pollutants

This analysis of air quality impacts used the California Emissions Estimator Model (CalEEMod) to estimate air quality emissions resulting from construction and operation of the proposed project. Construction was assumed to begin in mid-2017 and end in mid-2018, lasting a total of 14 months. Construction of the project would occur in phases (see Chapter 2 Project Description), including:

- Demolition of existing structures
- Site preparation
- Grading/excavation
- Construction of the new buildings
- Paving
- Architectural coating

Approximately 6,000 cubic yards of soil and materials would be exported from the project site during site preparation and grading, and 1,350 cubic yards of cement and 210 cubic yards of asphalt would be imported for building construction and paving. The following additional assumptions were used in the model:

- Off-road vehicles move at a mean speed of 5 miles per hour during construction
- Maximum of 25 workers per day
- Architectural coating ROG emissions conform to the BAAQMD Regulation 8, Rule 3 standard of a maximum of 150 grams per liter
- Construction will only occur on weekdays[2]
- During operation of the proposed project, vehicle trips between work and home was increased to 13.9 miles (up from the state average of 12.4 miles) to reflect the average in San Mateo County (Bay Area Council Economic Institute 2012)

[2] Construction may occur on weekends in effort to shorten the construction schedule. However, construction would not occur on every weekend. In effort to accommodate potential work on weekends, the model lengthened the overall construction schedule to account for additional construction days in order to present a conservative estimate of emissions.

Health Risk

Project emissions of diesel particulate matter (DPM) were estimated using a CalEEMod output conducted using conservative assumptions. The CalEEMod default assumptions for residential construction projects was supplemented with the project-specific equipment and phase schedule. A revised construction schedule was used to accurately reflect the level of activity for each piece of equipment. The DPM concentrations at sensitive receptor locations were modeled using SCREEN3, a screening model recommended by the *CEQA Guidelines*. Following *CEQA Guidelines* methodology, incremental cancer risks from DPM emissions generated by construction equipment were estimated by applying established DPM toxicity factors to modeled DPM concentrations at the closest sensitive receptor. Additional details regarding the methodology for the Health Risk Assessment are provided in Appendix C.

3.2.5 Impacts and Mitigation

Table 3.2-6 presents a summary of the significance of potential air quality impacts of the proposed project prior to application of mitigation measures and after the implementation of mitigation measures.

Table 3.2-6 Summary of Air Quality Impacts

Significance Criteria	Project Phase	Significance Prior to Mitigation	Significance with Mitigation
Impact Air-1: Violate any air quality standard or contribute substantially to an existing or projected air quality violation	Construction	Less than Significant	Less than Significant
	Operation	Less than Significant	Less than Significant
Impact Air-2: Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)	Construction	Less than Significant	Less than Significant
	Operation	Less than Significant	Less than Significant
Impact Air-3: Expose sensitive receptors to substantial pollutant concentrations	Construction	Significant	Less than Significant with MM AIR-1
	Operation	Significant	Less than Significant with MM AIR-2
Impact Air-4: Conflict with or obstruct implementation of the applicable air quality plan	Construction	Significant	Less than Significant with MM AIR-1
	Operation	Significant	Less than Significant with MM AIR-2
Impact Air-5: Create objectionable odors affecting a substantial number of people	Construction	Less than Significant	Less than Significant
	Operation	Less than Significant	Less than Significant

Impact Air-1: Would the proposed project violate any air quality standard or contribute substantially to an existing or projected air quality violation? (*Less than Significant Impact*)

Construction

Construction vehicles and equipment would generate criteria air pollutant emissions during construction of the proposed project at both project site locations. Emissions-generating activities proposed as part of the project would include:

- Tree removal
- Demolition of buildings
- Grading
- Excavation for building foundation and the parking garage
- Vehicle traffic
- Equipment and material transport
- Paving
- Architectural coatings

Fugitive dust emissions (PM_{10} and $PM_{2.5}$) would result from operation of construction vehicles and equipment off-road as well as soil disturbing activities during site preparation, grading, and excavation. ROG and NO_x pollutant emissions would result from construction vehicle trips, truck hauling trips, and use of heavy-duty machinery. Paving and architectural coatings would also release ROGs.

Table 3.2-7 provides a summary of unmitigated construction emissions for the proposed project. The calculations and results from the air emissions modeling used to estimate the construction emissions are provided in Appendix C. As shown in Table 3.2-7, the estimated unmitigated construction emissions would not exceed significance thresholds; the impact would be less than significant.

Table 3.2-7 Unmitigated Proposed Project Construction Emissions

Emission Type	Estimated Average Daily Pollutant Emissions (pounds/day)			
	ROG	NO_X	PM_{10}	$PM_{2.5}$
2017				
Construction Emissions[1]	0.21	1.84	0.15	0.12
BAAQMD Emissions Threshold	54	54	82	54
Threshold Exceeded?	No	No	No	No
2018				
Construction Emissions[1]	0.31	0.14	0.01	0.00
BAAQMD Emissions Threshold	54	54	82	54
Threshold Exceeded?	No	No	No	No

Note:
[1] Calculated assuming 294 construction days.

The Applicant would be required to implement the control measures listed in the conditions for approval in the Burlingame Downtown Specific Plan. Control measures would decrease fugitive dust emissions through regular watering of the construction site and covering trucks

that haul loose dirt or other materials. Emissions from construction vehicles and equipment would be further reduced through restrictions on idling times and the use of at least 15 percent of alternative-fueled (e.g., biodiesel, electric) vehicles or equipment (see Section 3.6 Greenhouse Gas Emissions). The Applicant would also be required to implement all appropriate control measures from the most currently adopted air quality plan at the time of project construction, which is currently the 2010 CAP.

Impacts would be reduced and remain less than significant after control measures are implemented.

Mitigation: None required

Operation

The proposed project would involve operation of a 29-unit apartment complex on the Douglas Avenue project site and a refurbished single-family house on the Oak Grove Avenue project site. For purposes of this analysis, the proposed project is anticipated to be built out and operational by 2018. Operational emissions would result from vehicle trips to and from both sites as well as from stationary sources on the sites such as burning of natural gas for water heaters or the fireplace at the Oak Grove Avenue project site. Maintenance activities, such as repair of the elevator or appliances at the apartment complex on Douglas Avenue, may generate operational emissions as well.

Table 3.2-8 provides a summary of operational emissions for the proposed project. The estimated construction emissions would not exceed significance thresholds. Impacts would be less than significant.

Table 3.2-8 Unmitigated Proposed Project Operational Emissions

Emission Type	Estimated Pollutant Emissions			
	ROG	NO_X	PM_{10}	$PM_{2.5}$
Maximum Annual Emissions (tons/year)	0.31	0.23	0.18	0.05
BAAQMD Emissions Threshold (tons/year)	10	10	15	10
Threshold Exceeded?	No	No	No	No
Average Daily Emissions (pounds/day)	1.70	1.26	0.99	0.27
BAAQMD Emissions Threshold (pounds/day)	54	54	82	54
Threshold Exceeded?	No	No	No	No

Mitigation: None required

Impact Air-2: Would the proposed project result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)? (*Less than Significant Impact)*

Construction and Operation

Emissions from the proposed project were evaluated for their contribution to the cumulative increase in pollutants for which SFBAAB is designated as nonattainment for the CAAQS and NAAQS. CARB designates SFBAAB as nonattainment for the state O_3, PM_{10}, and $PM_{2.5}$ standards (AQPSD 2013b).

As discussed in Impact Air-1, above, emissions generated by the proposed project during construction and operation would not exceed the significance thresholds adopted by the BAAQMD for emissions of ozone precursors and particulate matter (PM_{10} and $PM_{2.5}$), the pollutants for which the SFBAAB is in nonattainment. Consequently, the proposed project's emissions would not substantially contribute to an existing or projected violation of the NAAQS or CAAQS. The impact would be less than significant.

Mitigation: None required

Impact Air-3: Would the proposed project expose sensitive receptors to substantial pollutant concentrations? (*Less than Significant Impact with Mitigation*)

CO Hotspot Analysis

The primary emissions generated by the proposed project would be from motor vehicle traffic. Vehicle combustion produces the greatest quantities of CO, which is generally concentrated at or near ground level in a localized area. Congested roadways and intersections with numerous vehicles have the potential to generate localized high levels of CO. Localized areas where ambient CO concentrations exceed state and/or federal ambient air quality standards are termed CO "hotspots." These hotspots have the potential to impact sensitive receptors. Consequently, an analysis of localized CO concentrations at intersections is used to determine the potential impact to sensitive receptors.

The BAAQMD *2011 CEQA Air Quality Guidelines* indicated that projects that contribute to a decrease in Level of Service (LOS) at signalized intersections to a LOS of E or F represent a potential to worsen air quality and result in a CO concentration exceedance over state or federal standards.

524 Oak Grove Avenue Project Site

The traffic at the Oak Grove Avenue project site is assumed to not change as the existing single-family house would be replaced by the relocated single-family house. Therefore, the proposed project would not result in a decrease in LOS resulting in the need for a CO analysis.

1128-1132 Douglas Avenue Project Site

None of the three closest intersections to the Douglas Avenue project site would decrease to a LOS of E or F after buildout of the Downtown Specific Plan (Omni Means 2015). The

construction of the apartment complex at the Douglas Avenue project site is reasonably assumed to be included in the analysis of Downtown Specific Plan buildout.

Buildout on the Douglas Avenue project site is anticipated to produce 147 net new vehicle trips per day, with net peak rates of up to 13 vehicles per hour. This increase in vehicle trips is relatively small (Omni Means 2015). As described above, vehicle trips are not anticipated to increase at the Oak Grove Avenue project site. The proposed project would not result in an increase that would exceed the threshold of 44,000 vehicle trips per hour nor the threshold of intersection traffic volume increase of up to 24,000 vehicles per hour.

Based on the analysis above, vehicle trips as a result of the proposed project would not result in exceedances of CO air quality standards at roadway intersections in the area, and a CO hotspot analysis is not required. The impact would be less than significant.

Toxic Air Contaminants

The BAAQMD *2011 CEQA Air Quality Guidelines* has established thresholds for TACs, which are presented in Table 3.2-5. A Screening-Level Health Risk Assessment, presented in Appendix C, analyzed the impacts of TAC emissions on adjacent sensitive receptors during construction and to future residents during operation of the proposed project.

Construction TAC Impacts

524 Oak Grove Avenue Project Site

Construction activities on the Oak Grove Avenue project site would include demolition of the existing single-family house, preparation of a foundation for and the placement on-site of one single-family residence. There would be no excavation or construction of new structures on this site. The activities proposed for the site would use substantially less diesel-powered construction equipment (i.e., a concrete truck and backhoe for foundation preparation, a crane to place the house on the new foundation) than the Douglas Avenue project site (i.e., excavators, graders, and backhoes for excavation and drill rigs, cranes, and generators for building construction). Additionally, construction would be limited (e.g., few days to a few weeks) in comparison to the longer duration proposed for the Douglas Avenue project site (e.g., 14 months). As the number of diesel-powered equipment would be substantially less and in use for a far reduced time than the Douglas Avenue project site, the DPM emissions generated by Oak Grove Avenue project construction would be comparably smaller. Therefore, the cancer risk, chronic non-cancer hazard, and maximum annual $PM_{2.5}$ concentration impacts at the nearest sensitive receptor to the Oak Grove Avenue project site would be less than significant. No mitigation is required.

1128-1132 Douglas Avenue Project Site

Construction on the Douglas Avenue project site would occur over approximately 14 months and include demolition, excavation, grading, building construction, paving, and architectural coatings. TAC emissions would be generated during construction from airborne dust, diesel-powered equipment, and coatings. Diesel-powered construction equipment (such as dozers, excavators, and cranes) would be used during each construction phase.

The cancer risk, Hazard Index (HI), and maximum annual $PM_{2.5}$ concentration caused by TAC emissions generated by project construction at the nearest sensitive receptor are displayed below in Table 3.2-9.

Table 3.2-9 Unmitigated TAC Impacts at the Nearest Sensitive Receptor to the Douglas Avenue Project Site

Source	Cancer Risk (ppm)	Hazard Index	Max. Annual $PM_{2.5}$ Concentration ($\mu g/m^3$)
Project Construction[1]	5.2	0.13	0.67
BAAQMD Individual Project Significance Threshold	10	1.0	0.3
Exceedance?	No	No	**Yes**

[1] The unmitigated cancer risk, hazard index, and $PM_{2.5}$ concentration from project construction are estimated at the nearest sensitive receptor 10 feet to the north of the project site.

Source: Northgate 2016

As shown in Table 3.2-9, maximum annual $PM_{2.5}$ concentration would exceed the BAAQMD significance threshold. This exceedance would be a significant impact.

Mitigation Measure AIR-1 would require the use of construction equipment with specific engines that meet or exceed specific emission standards. With implementation of Mitigation Measure AIR-1, the proposed project's maximum annual $PM_{2.5}$ concentration would be reduced to 0.18 $\mu g/m^3$, which is below the BAAQMD threshold. Therefore, the impact from project construction on the nearest sensitive receptor would be less than significant with implementation of Mitigation Measure AIR-1.

Mitigation: Mitigation Measure AIR-1

MM AIR-1: Construction Equipment Emissions Reduction

The construction contractor shall implement the BAAQMD *Enhanced Exhaust Emissions Reduction Measures for Project Construction Equipment* measure that requires project off-road equipment greater than 25 horsepower (hp) that operates for more than 20 total hours over the entire duration of construction activities to meet the following requirements:

- All backhoes engines shall meet CARB Tier 4 off-road emission standards.
- All other equipment engines shall meet or exceed CARB Tier 3 off-road emission standards or be retrofitted with a CARB Level 2 diesel particulate filter (DPF).

Significance after Mitigation: Less than Significant

Cumulative TAC Emissions

US Highway 101 and El Camino Real (State Highway 82) are substantial sources of TAC emissions from motor vehicle travel, but are not located within the BAAQMD zone of influence (1,000 feet radius) around the project site. The Caltrain rail line passes within about 500 feet of the Douglas Avenue project site; however, the line is outside the 200-foot railway screening distance established by the BAAQMD. As such, TAC emissions from vehicles traversing US Highway 101 and El Camino Real and Caltrain diesel locomotives do not pose a substantial risk to the future residents of the project site or the nearest sensitive receptor to the project site.

Five stationary sources that generated TAC emissions were identified within 1,000 feet of the Douglas Avenue project site. The cancer risk, Hazard Index (HI), and $PM_{2.5}$ concentration data at each of the five stationary sources was collected from a reference location. California Drive is located within 1,000 feet of the project site and has a 24-hour traffic volume greater than 10,000 vehicles. The cancer risk and $PM_{2.5}$ concentration from TAC generated by vehicles traversing California Drive was estimated at the location of the sensitive receptor located closest to the project site.

The cumulative cancer risk, HI, and maximum annual $PM_{2.5}$ concentration caused by TAC emissions generated by sources of TAC emissions at the nearest sensitive receptor to the Douglas Avenue project site are displayed below in Table 3.2-10.

Table 3.2-10 Cumulative TAC Impacts at the Nearest Sensitive Receptor to the Douglas Avenue Project Site

Source		Cancer Risk (ppm)	Hazard Index	Max. Annual $PM_{2.5}$ Concentration ($\mu g/m^3$)
Facility	Address			
Permitted Stationary TAC Sources[1]				
Burlingame One-Hour Cleaners	507 California Drive	< 10.0	< 0.028	0.000
City of Burlingame (Emergency Generator)	425 California Drive	0.60	< 0.005	0.000
City of Burlingame (Emergency Generator)	501 Primrose Road	0.50	< 0.001	0.000
Valero (Gasoline Dispensing Facility)	601 California Drive	0.34	< 0.013	–
Georges Holiday Cleaners	741 California Drive	0.00	0.000	0.000
Major Roadways[2]				
California Drive		1.56	–	0.038
Project Emission Source[3]				
Project Construction		5.2	0.13	0.67
Total Cumulative Impacts		< 18.20	< 0.18	0.71

Source		Cancer Risk (ppm)	Hazard Index	Max. Annual $PM_{2.5}$ Concentration ($\mu g/m^3$)
Facility	Address			
BAAQMD Cumulative Significance Threshold		100	10	0.8
Exceedance?		No	No	No

[1] The tabulated stationary source cancer risks, hazard indexes, and $PM_{2.5}$ concentrations have been adjusted from the maximum values to account for the association between dispersal of TAC emissions and distance from the sources.

[2] The BAAQMD Roadway Screening Analysis Calculator provides the tabulated cancer risk, hazard index, and $PM_{2.5}$ concentration from California Drive at the nearest sensitive receptor 10 feet to the north of the project site which is about 300 feet to the south of California Drive.

[3] The unmitigated cancer risk, hazard index, and $PM_{2.5}$ concentration from project construction are estimated at the nearest sensitive receptor 10 feet to the north of the project site.

Source: Northgate 2016

As shown in Table 3.2-10, the cumulative cancer risk, HI, and $PM_{2.5}$ concentrations at the nearest sensitive receptor are below the BAAQMD cumulative significance thresholds. Therefore, cumulative TAC impacts at the Douglas Avenue project site would be less than significant. No mitigation is required.

Operational TAC Impacts

The residential land uses associated with the proposed project are anticipated to emit negligible TAC emissions. Sources of TAC emissions from residential land uses may emanate from household solvents and cleaners and motor vehicle emissions. However, as discussed below, the increase in emissions from vehicles would not be substantial, and the use of other TAC-generating sources would be negligible. Accordingly, the proposed project would not generate quantities of TAC emissions that would exceed the BAAQMD thresholds. The impact would be less than significant.

524 Oak Grove Avenue Project Site

US Highway 101 is a major source of TAC emissions from the motor vehicles it carries and is the only substantial source of TACs that that could have an impact on the single-family residence that is proposed to be moved to the Oak Grove Avenue project site from Douglas Avenue. This residence would be located about 300 feet south of the closest traveled lanes of US Highway 101. The cancer risk, HI, and $PM_{2.5}$ concentration caused by TAC emissions generated by the only substantial source of TAC emissions (US Highway 101) at the single family home proposed for Oak Grove Avenue project site are displayed below in Table 3.2-11.

Table 3.2-11 Unmitigated TAC Impacts on Proposed Receptors at the Oak Grove Avenue Project Site

Source	Cancer Risk (ppm)	Hazard Index	Max. Annual $PM_{2.5}$ Concentration ($\mu g/m^3$)
US Highway 101[1]	32.9	0.03	0.31
BAAQMD Individual Project Significance Threshold	10	1.0	0.3
Exceedance?	**Yes**	No	**Yes**
BAAQMD Cumulative Significance Threshold	100	10	0.8
Exceeds Thresholds	No	No	No

[1]The BAAQMD Roadway Screening Analysis Calculator provides the tabulated cancer risk, hazard index, and $PM_{2.5}$ concentration from US Highway 101 at the proposed sensitive receptor on 524 Oak Grove Avenue project site which is about 300 feet to the south of US Highway 101.

Source: Northgate 2016

Although none of these values exceed the CEQA cumulative significance thresholds, the single-source cancer risk and maximum annual $PM_{2.5}$ concentration from US Highway 101 exceed the CEQA project-level significance thresholds. This exceedance would be a significant impact.

Mitigation Measure AIR-2 would reduce the cancer risk and maximum annual $PM_{2.5}$ concentration inside the relocated residence to approximately 6.58 ppm and 0.06 $\mu g/m^3$, respectively which would be below the BAAQMD thresholds. Therefore, the impact would be less than significant with implementation of Mitigation Measure AIR-2.

Mitigation: Mitigation Measure AIR-2

MM AIR-2: Air Filtration

A standard house heating, ventilation, and air conditioning (HVAC) system with a permanent filter of a minimum efficiency reporting value (MERV) of 13 or greater shall be installed at the relocated residence at 524 Oak Grove Avenue. The MERV13 filter shall provide one air exchange per hour if the air source is outside/unfiltered air or four air exchanges per hour if the air source is inside/recirculated air to provide an 80 percent or greater reduction of outdoor fine particulate matter (including DPM).

Significance after Mitigation: Less than Significant

1128-1132 Douglas Avenue Project Site

The largest source of TAC emissions within 1,000 feet of the Douglas Avenue project site is the Burlingame One-Hour Cleaners. The cancer risk, HI, and $PM_{2.5}$ concentration caused by TAC emissions generated by the most substantial source of TAC emissions at the multi-unit building proposed for Douglas Avenue project site are displayed below in Table 3.2-12.

Table 3.2-12 Unmitigated TAC Impacts on Proposed Receptors at the Douglas Avenue Project Site

Source	Cancer Risk (ppm)	Hazard Index	Max. Annual $PM_{2.5}$ Concentration ($\mu g/m^3$)
Burlingame One-Hour Cleaners	< 10.0	< 0.028	0.000
BAAQMD Individual Project Significance Threshold	10	1.0	0.3
Exceedance?	No	No	No

Source: Northgate 2016

As shown in Table 3.2-12, none of these values exceed the CEQA individual project significance thresholds. Therefore, the impact from TAC emissions on future residents at the Douglas Avenue project site would be less than significant.

Impact Air-4: Would the proposed project conflict with or obstruct implementation of the applicable air quality plan? (*Less than Significant Impact with Mitigation*)

The applicable air quality plan for the proposed project is the Bay Area 2010 CAP. Based on the *2011 CEQA Air Quality Guidelines*, consistency with the 2010 CAP is determined by assessing whether criteria air pollutants are below applicable BAAQMD significance thresholds and would not expose the public to levels of pollutants that could impact public health (BAAQMD 2010). Estimates of criteria air pollutants that are below significance thresholds support the region's goals of achieving state and federal attainment of criteria air pollutant standards.

Construction

Criteria Air Pollutants

Construction emissions of the proposed project would not exceed BAAQMD significance thresholds as shown in Table 3.2-7. The impact from construction criteria air pollutant emissions would be less than significant.

Public Health

As discussed in detail under Impact Air-4, the impact from construction at the Oak Grove Avenue project site on sensitive receptors would be less than significant. Construction of the proposed project on the Douglas Avenue project site could pose significant health risks to sensitive receptors which would be potentially significant. Impacts from construction of the proposed project on residents located adjacent to the Douglas Avenue project site would be reduced to less than significant with implementation of Mitigation Measure AIR-1.

Operation

Criteria Air Pollutants

Long-term operation of the proposed project would not generate emissions that would exceed BAAQMD significance thresholds as shown in Table 3.2-8. The impact from operational criteria air pollutant emissions would be less than significant.

Public Health

As discussed in detail under Impact Air-4, the impact from TAC emissions on future residents at the Douglas Avenue project site would be less than significant. Impacts from TAC emissions generated by vehicles traveling along US Highway 101 on future residents proposed for the Oak Grove Avenue project site would be potentially significant. Implementation of Mitigation Measure AIR-2 would reduce the impact to future Oak Grove Avenue project site residents to less than significant. The proposed residential land uses would not generate pollutants that would place sensitive receptors at risk. The impact from operational TAC emissions would be less than significant.

Implementation of control measures improve air quality and protect public health. The proposed project would be consistent with several 2010 CAP control measures, including measures TCM-3, ECM-1, and ECM-4. Measure TCM-3 promotes land use patterns, policies, and infrastructure investments that support mixed-use, transit-oriented development that reduce motor vehicle dependence and facilitate walking, bicycling, and transit use. The project would be consistent with measure TCM-3 because both sites (Douglas Avenue and Oak Grove Avenue) are within 0.5 mile of the Burlingame Caltrain Station, which would encourage use of public transportation. Additionally, both sites are within 0.5 mile of an elementary school and high school. The Douglas Avenue project site is located within 0.5 mile of commercial areas. The close proximity to Caltrain, schools, and commercial areas would encourage alternative forms of transit to and from the residences, which would also decrease fossil fuel use consistent with measure ECM-1. Measure ECM-4 promotes planting of low-VOC-emitting shade trees to reduce urban heat island effects, save energy, and absorb CO_2 and other air pollutants. As part of the project, nine trees would be removed from the two sites. The project would plant 17 new trees (eight net new trees), reducing the urban heat island effect consistent with measure ECM-4.

Conclusion

The population growth associated with buildout of the proposed project would be within the projected population growth anticipated for the City of Burlingame and was therefore accounted for in the 2010 CAP. The project would not generate construction or operational criteria air pollutant emissions that would exceed BAAQMD significance thresholds and would not pose a health risk to the public. Based on the above analysis, the proposed project would not conflict with or obstruct implementation of the 2010 CAP. The impact to the Bay Area 2010 CAP would be less than significant.

Mitigation: Mitigation Measures AIR-1 and AIR-2

Significance after Mitigation: Less than Significant

Impact Air-5: Would the proposed project create objectionable odors affecting a substantial number of people? (*Less than Significant Impact*)

Construction

During construction, the proposed project would generate localized diesel exhaust emissions from use of construction vehicles and equipment. There would be additional temporary occurrences of diesel emission odors from the transport trucks along the route to relocate the single-family house. These emissions may be noticeable from time to time by adjacent sensitive receptors. However, diesel emission odors would be temporary and would be localized to the two sites. Odors from diesel emissions would not likely adversely affect sensitive receptors off-site. The impact from construction-related odors would be less than significant. No mitigation is required.

Operation

The land uses associated with the proposed project are residential. The proposed project would not be a substantial source of odors that would affect nearby residents and result in confirmed odor complaints. The impact from operational odors would be less than significant. No mitigation is required.

Mitigation: None required

3.2.6 Cumulative Air Quality Impacts

Cumulative Context

The cumulative study area for air quality primarily focuses on the SFBAAB; however, air quality is a regional resource and is not defined by jurisdictional, political, or project boundaries. Some specific pollutants, such as CO hotspots and fugitive dust conditions, can result in localized impacts.

Past, present, and future projects contribute to the region's adverse air quality impacts on a cumulative basis. By its very nature, air pollution is largely a cumulative impact. No single project is sufficient in size to, by itself, result in nonattainment of ambient air quality standards. Instead, a project's individual emissions contribute to existing cumulatively significant adverse air quality impacts. In developing thresholds of significance for air pollutants, BAAQMD considered the emission levels for which a project's individual emissions would be cumulatively considerable. If a project exceeds the identified significance thresholds, its emissions would be cumulatively considerable, resulting in significant adverse air quality impacts to the region's existing air quality conditions.

Cumulative Analysis

As discussed in Impact Air-2, the proposed project would not result in significant operation emissions of criteria pollutants. Therefore, the project would not have a considerable contribution to significant cumulative regional criteria air pollutant emissions. Impacts would be less than significant.

Given the localized effects from CO hotspots and fugitive dust emissions, the cumulative project at 1225 Floribunda Avenue would be the only project close enough to the proposed project to result in cumulative impacts from CO hotspots or fugitive dust conditions. Construction of the project at 1225 Floribunda Avenue ended in June 2015, and operation of the apartment complex would not significantly contribute CO or fugitive dust emissions. Therefore, impacts from the proposed project would not combine with impacts from the project at 1225 Floribunda Avenue to result in a cumulatively considerable impact. Air quality impacts from the proposed project would be less than significant.

3.2.7 References

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3.3 BIOLOGICAL RESOURCES

This section analyzes the proposed project's consistency with applicable plans, policies, and regulations adopted for avoiding impacts to sensitive plants and animal species, sensitive natural communities, or protected wetlands. It also addresses the proposed project's consistency with tree preservation policies and ordinances.

Comments received during the EIR scoping process included the following topics related to biological resources:

- Preservation of legacy trees
- Health risks to existing trees

These topics are addressed in the impact analysis below.

3.3.1 Environmental Setting

The proposed project is located in a suburban/urban area that is surrounded by development. The Oak Grove Avenue project site and the Douglas Avenue project site are surrounded by residential homes, commercial areas, the Burlingame Caltrain Station, residential roads, and the US Highway 101. There are no sensitive habitats, preserves, wildlife corridors, or jurisdictional waters/wetlands located within or adjacent to the proposed project site locations.

Trees

Landscaping vegetation, including trees, exists within and around the two proposed project sites. Two tree surveys were conducted by Mayne Tree Expert Company, Inc. in July 2014, one for the Oak Grove Avenue project site and another for the Douglas Avenue project site (Mayne Tree Expert Company Inc. 2014a and 2014b; see Appendix D). Table 3.3-1 summarizes the trees that were identified in the tree surveys. The tree number corresponds to the number used in the tree surveys to identify each tree.

A total of 22 trees were identified on or adjacent to the project sites, 19 of which are considered protected trees under the City of Burlingame Municipal Code Section 11.06.020. There are additional trees located within both project sites that have trunk diameters that measure less than 12 inches, which are not considered protected trees under the City of Burlingame Municipal Code Section 11.06.020.

Table 3.3-1 Trees in the Immediate Vicinity of the Project Sites

Tree Number	Common Name	Trunk Diameter (inches)	Height (feet)	Condition	Location of Tree	Protected (Y/N)
524 Oak Grove Avenue						
1	Olive	13.1	15	Poor	Oak Grove Avenue (street tree)	N
2	Coast Live Oak	20.9	20	Poor	Project site	Y
3	Coast Live Oak	40.7	40	Fair	Project site	Y
4	Monterey Pine	52.0	90	Fair	Project site	Y
5	Olive	19.3	15	Poor	Project site	Y
6	Spanish Fir	18.5	70	Fair	Project site	Y
7	Olive	17.8	15	Poor	Project site	Y
8	Italian Stone Pine	60.4	40	Fair	Marin Drive (street tree)	Y
9	Italian Stone Pine	54.3	35	Fair	Corner of Marin Drive and Oak Grove Avenue (street tree)	Y
1128-1132 Douglas Avenue						
1	Redwood	39	85	Good	Project site	Y
2	Coast Live Oak	27.8	36	Fair	Project site	Y
3	Chinese Tallow Tree	20.0	30	Poor	Project site	Y
4	Coast Live Oak	26.0	35	Fair	Outside of project site (adjacent property)	Y
5	Liquid Amber	18.1	30	Poor	Project site	Y
6	Sycamore Maple	18	25	Poor	Douglas Avenue (street tree)	Y
7	Hawthorne	18	30	Fair	Outside of project site (adjacent property)	Y
8	Coast Live Oak	25	35	Fair	Outside of project site (adjacent property)	Y
9	Apple	16.3	20	Poor	Project site	Y
10	Stone Pine	12.3	20	Poor	Project site	N
11	Plum	13.3	15	Poor	Project site	N
12	Cottonwood	21.2	30	Poor	Project site	Y

Tree Number	Common Name	Trunk Diameter (inches)	Height (feet)	Condition	Location of Tree	Protected (Y/N)
13	Coast Live Oak	20.0	35	Fair	Project site	Y

Source: Mayne Tree Expert Company Inc. 2014a and 2014b

Special-Status Plant and Wildlife Species

The California Natural Diversity Database (CNDDB) was reviewed to identify special-status species that occur near the proposed project area. Species are considered to be special-status if they meet any of the following criteria:

1. Plant and wildlife species listed as endangered, threatened, or candidates for listing under the federal Endangered Species Act (FESA)
2. Plant species listed as endangered, threatened, rare, or candidates for listing under the California Endangered Species Act (CESA)
3. Wildlife species listed as endangered, threatened, or candidates for listing under CESA
4. Wildlife species designated as Fully Protected, as defined in California Fish and Game Code sections 3511, 4700, 5050, and 5515
5. Wildlife species designated as Species of Special Concern by California Department of Fish and Wildlife (CDFW)
6. Birds species on the CDFW watch list
7. Plant species with a California Native Plant Society (CNPS) California Rare Plant Rank (CRPR) of 1A, 1B, 2A, 2B, 3, or 4

The proposed project is located in a built-up environment without habitat or sensitive vegetation communities; therefore, a 1-mile buffer around the site locations is sufficient to identify the special-status species within the vicinity of the proposed project site locations.

The results of the CNDDB query are shown in Figure 3.3-1. Figure 3.3-1 shows the areas where special-status species have historically been observed within the 1-mile buffer of the proposed project sites. The ranges depicted in Figure 3.3-1 represent areas where the special-status species has some potential to be observed. Note that the American peregrine falcon and the San Francisco garter snake have some potential to be observed throughout the entire 1-mile buffer area.

A total of 11 special-status species (2 plants, 3 invertebrates, 1 fish, 1 reptile 3 birds and 1 bat) were identified within the 1-mile buffer of the proposed project site locations. Table 3.3-2 lists these species and identifies the potential for these species to occur in the proposed project site locations.

Figure 3.3-1 CNDDB Map

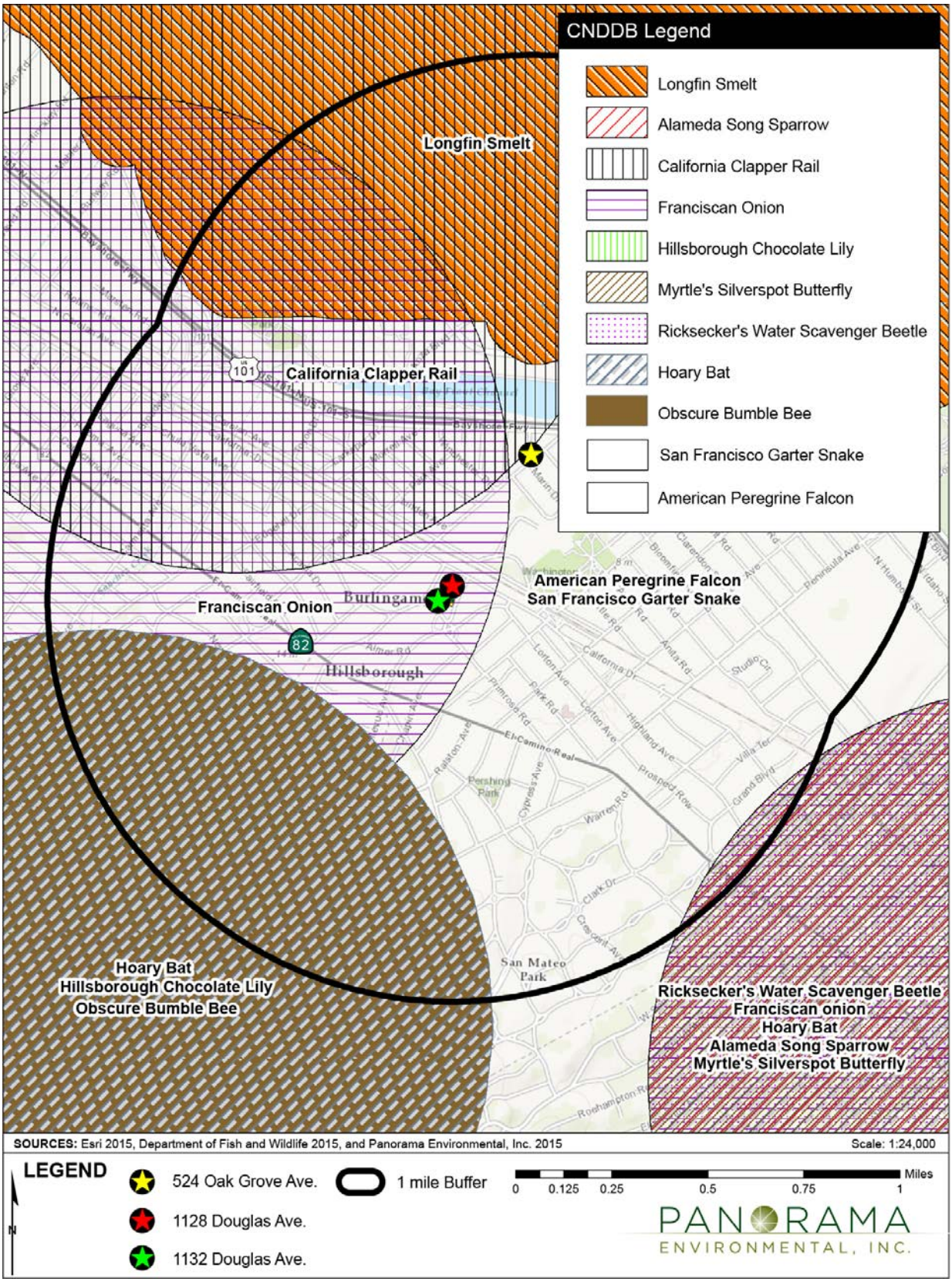

Table 3.3-2 Special-Status Species with Potential to Occur in the Project Area

Scientific Name	Common Name	Status	Potential to Occur	Rationale for Potential to Occur
Plants				
Allium peninsulare var. franciscanum	Franciscan onion	1B.2	Absent	These species are both found in cismontane woodland and valley and foothill grassland (CNPS 2015). The proposed project is located in a developed area without grassland habitat; therefore, these species are considered absent from the proposed project site locations.
Fritillaria biflora var. ineziana	Hillsborough chocolate lily	1B.1	Absent	
Invertebrates				
Bombus calignosus	Obscure bumble bee	SSC	Low potential	This species is found in open grassy coastal prairies and coast range meadow habitat. This species nests underground in abandoned rodent nests, or above ground in tufts of grass, old bird nests, rock piles, or cavities in dead trees. The main food plants for this species include *Ceanothus, Cirsium, Clarkia, Keckiella, Lathyrus, Lotus, Lupinus, Rhododendron, Rubus, Trifolium,* and *Vaccinium* (Hatfield et al. 2014). The habitats for these species and the abandoned rodent nests would not be present at the proposed project site; however, some of the plants that this species use may be found in residential areas. A survey of bumble bees in 2003-2004 found this species in urban parks within San Francisco; however, it is still unclear how this species uses urban areas. (McFrederick et al. 2005). Due to the lack of habitat but the presence of suitable plants, there is a low potential for this species to occur in the proposed project site locations.
*Hydrochara ricksecker*i	Ricksecker's water scavenger beetle	SSC	Absent	This species is known to occur in pond habitats throughout the San Francisco Bay area (Essig Museum of Entomology 2015). There are no ponds in the proposed project areas; therefore, this species would not occur in the proposed project site locations.
Speyeria zerene myrtleae	Myrtle's silverspot butterfly	FE	Absent	This species inhabits coastal dunes, prairies, and scrublands up to 1,000 feet above sea level (NPS 2007). This species is absent from the proposed project site locations because there is no suitable habitat present.
Fish				
Spirinchus thaleichthys	Longfin Smelt	FC, ST, SSC	Absent	There are no bodies of water in the proposed project site locations that this species could use as habitat.

Scientific Name	Common Name	Status	Potential to Occur	Rationale for Potential to Occur
Reptiles				
Thamnophis sirtalis tetrataenia	San Francisco garter snake	FE, SE, FP	Absent	This species uses densely vegetated ponds near open hillsides, ephemeral and permanent aquatic habitat, and south or west facing upland slopes with vegetation (EPA 2010). The proposed project site locations do not have aquatic or upland habitat; therefore, this species would not occur on the project site.
Birds				
Falco peregrinus anatum	American peregrine falcon	FP	Moderate Potential	These bird species could potentially use the trees located at the proposed project site locations for nesting.
Melospiza melodia pusillula	Alameda song sparrow	SSC	Moderate Potential	
Rallus longirostris obsoletus	California clapper rail	FE, SE, FP	Absent	This species is found in marshes and tidal habitats and would be found in the marshes located north of the project site on the coast. There is no marsh or tidal habitat at the proposed project site locations; therefore, this species would be absent from the proposed project site locations.
Mammals (Bats)				
Lasiurus cinerus	Hoary bat	SSC	Moderate Potential	This species could potentially roost in the attics of the houses or in the trees at the proposed project site locations.

Special-Status

Federal/State Listed:

FE: Federally listed as endangered

FC: Federal candidate species

SE: State-listed as endangered

ST: State candidate as threatened

CDFW Status

FP: Fully protected

SSC: Species of special concern

California Rare Plant Ranks:

1B: Plants Rare, Threatened, or Endangered in California and Elsewhere

0.1: Seriously threatened in California (over 80% of occurrences threatened/high degree and immediacy of threat)

0.2: Fairly threatened in California (20–80% occurrences threatened/moderate degree and immediacy of threat)

3.3.2 Regulatory Setting

Federal

Endangered Species Act
The federal ESA provides protection for plants and animals listed by the U.S. Fish and Wildlife Service (USFWS) and the National Marine Fisheries Service (NMFS) as threatened or endangered. Section 9 of the ESA (16 U.S. Code [USC] § 1538) prohibits the take, possession, sale, or transport of any ESA-listed species. Take is defined as "to harass, harm, pursue, hunt, shoot, wound, kill, capture, collect, or attempt to engage in any such conduct" (16 USC Sections 1532(19), 1538). Take may also include modification of a species' habitat. For plants, this statute governs removing, possessing, maliciously damaging, or destroying any listed plant on federal land, and removing, cutting, digging up, damaging, or destroying any listed plant on land under federal jurisdictions, and on non-federal land in knowing violation of state law (16 USC Section 1538(a)(2)).

Migratory Bird Treaty Act
The Migratory Bird Treaty Act (MBTA) provides protection for migratory birds. Conditions for permits to "take" migratory birds (as defined in the MBTA) are set forth in 50 CFR Part 13 [General Permit Procedures] and 50 CFR Part 21 [Migratory Bird Permits]). Activities such as hunting, pursuing, capturing, killing, selling, and shipping, unless expressly authorized in the regulations, or by permit are prohibited. The MBTA allows USFWS to issue permits to qualified applicants for the following types of activities:

- Falconry
- Raptor propagation
- Scientific collecting
- Special purposes (rehabilitation, education, migratory game bird propagation, and salvage)
- Take of predatory birds, taxidermy, and waterfowl sale and disposal

This protection extends to all migratory birds, parts, nests, and eggs. The full list of species protected under this act is found in 50 CFR 10.13.

Bald and Golden Eagle Protection Act
The Bald and Golden Eagle Protection Act (16 USC Section 668–668d) provides protection for bald and golden eagles. This protection extends to eagles, nests, and their eggs. It prohibits anyone, without a permit issued by the Secretary of the Interior, from "taking" bald or golden eagles, including their parts, nests, or eggs. The Act also covers impacts that result from human-induced alterations initiated around a previously used nest site during a time when eagles are not present, if, upon the eagle's return, such alterations agitate or bother an eagle to a degree that interferes with or interrupts normal breeding, feeding, or sheltering habits, and causes injury, death, or nest abandonment.

State

California Endangered Species Act

The CESA provides legal protection for plants or wildlife species listed as threatened or endangered. The CESA prohibits the take of endangered and threatened species; however, California case law has not interpreted habitat destruction, alone, as included in the state's definition of take. Under CESA, take is defined as "hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill" (California Fish and Game Code §86). CDFW administers the CESA and authorizes take through Section 2081 agreements, Section 2080.1 consistency determinations (for species that are also listed under the federal Endangered Species Act), or Natural Community Conservation Plans (NCCPs).

Native Plant Protection Act

The Native Plant Protection Act of 1977 prohibits importing of rare and endangered plants into California, taking of rare and endangered plants, and selling of rare and endangered plants. Beginning January 1, 2015, the Native Plant Protection Act (NPPA) allows CDFW to permit the take of state-listed rare plants using the same procedures and under the same conditions as incidental take permits, voluntary local programs, NCCPs, safe harbor agreements, and scientific/educational/management permits. Removal of rare plants by publicly or privately owned public utilities may occur in compliance with certain provisions of the NPPA (Fish and Game Code §1913, 14 CCR §786.9(d).

California Fish and Game Code

The California Fish and Game Code includes regulations to protect:

- Wetland and riparian habitats – requires a streambed and/or lake alteration agreement for activities that impact these habitats
- Raptor protection – prohibits killing or raptor species and destruction of raptor nests
- Furbearing mammals – regulates trapping and hunting
- Fully protected species – designates certain species as "fully protected" and regulates take of these species
- Protection for birds – makes it unlawful to take, possess, or needlessly destroy the nest or eggs of any bird; it is also unlawful to take possess or destroy birds of prey or their nests or eggs

Porter-Cologne Water Quality Control Act and Clean Water Act Section 401

The State Water Resources Control Board (SWRCB) administers the Porter-Cologne Water Quality Control Act and Section 401 of the CWA, typically through its Regional Water Quality Control Boards (RWQCBs). The Porter-Cologne Water Quality Control Act, Water Code Section 13260, requires that, "any person discharging waste, or proposing to discharge waste, within any region that could affect the waters of the state" to file a report of discharge with the RWQCB. Waters of the State are defined in the Porter-Cologne Act (Water Code Section 13050 (e)) as "any surface water or groundwater, including saline waters, within the boundaries of the state."

Local

Burlingame Municipal Code

Chapter 11.04 Street Trees

Chapter 11.04 of the City's Municipal Code establishes restrictions for the pruning or removal of trees on public streets.

Chapter 11.04.035 Action by Others

Chapter 11.04.035 of the City's Municipal Code makes it unlawful to trim, prune, plant, remove, injure, or destroy any tree, shrub, or plant in or upon any street or public place without a permit. In addition, this code makes it unlawful to fasten any sign, wire, rope, or any device to any street tree.

Chapter 11.06 Urban Reforestation and Tree Protection

Chapter 11.06 of the City's Municipal Code, Urban Reforestation and Tree Protection, establishes conditions and regulations for the removal and replacement of existing trees and the installation of new trees in new construction and development.

Chapter 11.06.020 Definitions

A "protected tree" is defined as:

- Any tree with a circumference of 48 inches or more (or diameter of 15 inches or more) when measured at 54 inches above natural grade
- A tree or stand of trees so designated by the City Council based upon findings that it is unique and of importance to the public due to its unusual appearance, location, historical significance or other factor
- A stand of trees in which the Parks and Recreation Director has determined each tree is dependent upon the others for survival [Municipal Code, Chapter 11.06, Section 11.06.020(f)]

Chapter 11.06.050 Prohibitions and Protections

A permit is required for the removal (and heavy pruning) of a protected tree. In addition, this ordinance requires that the following conditions be followed during construction:

- Protected trees are to be protected by a fence which is to be maintained at all times
- Protected trees that have been damaged or destroyed by construction shall be replaced or the city shall be reimbursed, as provided in Section 11.06.090
- Chemicals or other construction materials shall not be stored within the drip line of protected trees;
- Drains shall be provided as required by the director whenever soil fill is placed around protected trees
- Signs, wires or similar devices shall not be attached to protected trees

Chapter 11.06.060 Notices and permits required for the removal of work significant affecting protected trees and Chapter 11.06.090 Tree requirements and reforestation

The permit process involves a formal inspection by the City Arborist to determine the tree's health, structure, and impacts to neighboring properties, as well as replacement requirements (Municipal Code, Chapter 11.06, Section 11.06.090). Permits for removal of protected trees shall include replanting conditions with the following guidelines:

- Replacement trees shall be three 15-gallon, one 24-inch box, or one 36-inch box size landscape tree(s) for each tree removed.
- Size and number of the replacement tree(s) shall be determined by the Director and shall be based on the species, location, and value of the tree(s) removed.
- If replacement trees cannot be planted on the property, payment of equal value shall be made to the City. The payment shall then be deposited in the tree planting fund to be drawn upon for public tree planting. The replacement of a tree can be waived by the Parks and Recreation Department Director if a sufficient number of trees exist on the property to meet all other requirements of the Code.

City of Burlingame Urban Forest Management Plan

The City Urban Forest Management Plan is a comprehensive management plan for the urban forest, established to enhance the quality of life in the City (City of Burlingame 2007). The City Urban Forest Management Plan establishes policies for tree protection, consistent with the City municipal code, including obtaining a permit for tree removal.

In addition, the Urban Forest Management Plan establishes a policy for tree protection during construction. The policy requires the following:

- **Erect Barriers**. Erect barriers as early as possible, a physical barrier should be established around the trees that are to be preserved. This fence can be made out of wood, plastic, wire or a combination and placed as far out from the trunks of the tree as possible. As a guideline, allow 1 foot from the trunk for each inch of trunk diameter. The intent is to protect not only the overhead branches but also the root system. The area inside the barrier must be kept clear and not used for storage of materials, parking, waste accumulation, or travel of trucks and heavy equipment.
- **Limit Access**. If possible allow only one access route on and off property.
- **Reduce Compaction.** Soil compaction caused by heavy equipment will close the air spaces in the soil. Without air and moisture, roots will die and cause dieback in the canopy. To reduce compaction, spread a thick layer (about 6 -12 inches) of mulch around the base of trees, and to obtain addition additional weight dispersal place large sheets of plywood over the mulch.
- **Avoid Grade Changes**. Changes in grade can be devastating to trees. If the grade is to be raised, the addition of only a few inches of soil around a tree could suffocate the roots and kill some species. Tree wells and aeration systems could be installed to preserve the tree. If the grade must be lowered, terracing or tree islands can be constructed to increase tree survival.

Burlingame Downtown Specific Plan

The City of Burlingame adopted the Downtown Specific Plan in 2010. The Downtown Specific Plan includes goals and policies for the development of areas within the Downtown Specific Plan Area. The Douglas Avenue project site is located within the Downtown Specific Plan Area; therefore, the policies in the Downtown Specific Plan would apply to the Douglas Avenue parcels. Listed below are the pertinent policies that would apply to the Douglas Avenue parcels.

Policy S.1.3 Streetscapes should reflect Burlingame's destination as a "tree city." Trees should be planted through downtown as an integral part of the streetscape, and mature street trees should be preserved whenever possible.

In addition, the Downtown Specific Plan includes conditions that the applicant must fulfill in order to receive approval for the construction of the proposed project. The conditions for approval would be required for both project sites. These conditions for approval are listed in Table 3.3-3 below.

Table 3.3-3 Downtown Specific Plan Conditions of Approval

Condition of Approval	Description
Condition of Approval 14 – Pre-construction Nesting Bird Survey	Construction under the Downtown Specific Plan shall avoid the March 15 through August 31 avian nesting period to the extent feasible. If it is not feasible to avoid the nesting period, a survey for nesting birds shall be conducted by a qualified wildlife biologist no earlier than 7 days prior to construction. The area surveyed shall include all clearing/construction areas, as well as areas within 250 ft. of the boundaries of these areas, or as otherwise determined by the biologist. In the event that an active nest is discovered, clearing/construction shall be postponed within 250 ft. of the nest, until the young have fledged (left the nest), the nest is vacated, and there is no evidence of second nesting attempts.
Condition of Approval 15 – Protection of Street Trees and Protected Trees	Prior to the removal of any protected tree associated with development under the Downtown Specific Plan, an application shall be submitted to the City's Parks and Recreation Department for a tree removal permit, meeting the regulations of the City's Municipal Code, Chapter 11.06 (Urban Reforestation and Tree Protection) and Chapter 11.04 (Street Trees), including any tree replacement requirements. Included with the permit application shall be a landscaping plan that illustrates species, numbers, and sizes of replacement trees. The City's General Plan – Conservation Element, encourages the planting of "indigenous materials." While the planting of non-native, ornamental species in landscaping the Plan Area would not violate any policies, preference shall be given to planting species native to the Plan Area.

Source: City of Burlingame 2011

3.3.3 Thresholds of Significance

The proposed project would result in a significant impact on biological resources if it would:

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, regulations or by the California Department of Fish and Wildlife or U.S. 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, marsh, vernal pool, coastal, 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

3.3.4 Approach to Analysis

Impacts to sensitive biological resources were analyzed conducting site visits and a desktop survey of the CDFW, California Native Plant Society, CNDDB search results, and the USFWS websites. The data on these websites, the site visits, and review of Google Earth were used to identify the presence and absence of special-status species, sensitive habitats, jurisdictional waters, and protected trees near or in the proposed project area. A biological survey was not conducted because of the built-up nature of the project site and surroundings. The presence of protected trees was determined by tree surveys performed at the proposed project sites (Mayne Tree Expert Company, Inc. 2014a and 2014b). The recommendations of the Mayne Tree Expert Company, Inc. arborist as well as the City Arborist's review were also used to determine impacts and appropriate mitigation measures.

3.3.5 Impacts and Mitigation

Table 3.3-4 provides a summary of the significance of potential biological resources impacts of the proposed project prior to application of mitigation measures and after the implementation of mitigation measures.

Table 3.3-4 Summary of Biological Resources Impacts

Significance Criteria	Project Phase	Significance Prior to Mitigation	Significance with Mitigation
Impact Biology-1: Would the proposed project 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?	Construction	Significant	Less than Significant with MM BIO-1
Impact Biology-2: Would the proposed project have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?	Construction	No impact	–
Impact Biology-3: Would the proposed project have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	Construction	No impact	–
Impact Biology-4: Would the proposed project 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?	Construction	No impact	–
Impact Biology-5: Would the proposed project conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	Construction	Significant	Less than Significant with MM BIO-2
Impact Biology-6: Would the proposed project conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	Construction	No impact	–

Impact Biology-1: Would the proposed project 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? *(Less than Significant Impact with Mitigation)*

Special-Status Plants, Amphibians, Fish, Reptiles, or Non-Bat Mammals

The proposed project is located in an urban/suburban environment that has been previously disturbed by human development. Table 3.3-2 demonstrates that there is no habitat in the proposed project area that would support any special-status plants, amphibians, fish, reptiles, or non-bat mammals. The proposed project would not impact these special-status species.

Special Status Invertebrates
Suitable habitat for two species of special-status invertebrates (Ricksecker's water scavenger beetle and Myrtle's silverspot butterfly) is not present at the proposed project sites. There would be no impact to these species.

The obscure bumble bee is a special-status invertebrate species that has a low potential to occur at the proposed project sites. Although the project sites do not contain suitable habitat for this invertebrate, plants that provide food for the bee may be found at the project sites. Thus, there is a low potential for this species to occur, and there is a low potential to affect this species during construction of the proposed project. Project impacts to the obscure bumble bee are unlikely to occur because the sites do not contain suitable habitat. Impacts, if they were to occur, would not cause a substantial adverse effect, either directly or through habitat modifications on the species. Impacts would be less than significant.

Birds
There is potential for nesting birds, including special-status birds (American peregrine falcon and Alameda song sparrow) and non-special-status birds to occur on or in the trees within the proposed project sites (see Table 3.3-2). The proposed project would require the removal 3 protected trees at the Oak Grove Avenue project site, 4 protected trees at the Douglas Avenue project site, as well as other non-protected trees. In addition, the proposed project would require weight reduction and limb removal for 4 protected trees at the Oak Grove Avenue project site.

There is potential for nesting birds to be injured or killed, or for nesting birds' eggs or nests to be destroyed during tree removal, weight reduction, or limb removal, which would be a significant impact. As a condition for approval, the Downtown Specific Plan Condition of Approval 14 would be applied to both project sites. The Condition requires that construction at the sites avoid the March 15 to August 31 avian nesting period, perform pre-construction surveys, and use nesting buffers if a nest is found. The impacts to nesting birds at the Oak Grove Avenue and Douglas Avenue project sites would be less than significant with implementation of this condition.

Special-status Bats
There is one special-status bat species (hoary bat) that could potentially roost in the mature trees located in the Oak Grove Avenue and Douglas Avenue project sites, or the buildings that would be demolished during construction. There is potential for the hoary bat to be injured or killed during tree removal, weight reduction, limb removal, or demolition. This impact would be significant. Mitigation Measure BIO-1 requires pre-construction surveys prior to tree removal, tree pruning, or demolition of existing structures. In addition, Mitigation Measure BIO-1 would require the Applicant to implement minimization measures developed by a bat specialist if special-status bats are found roosting in the existing structures to be demolished or the mature trees to be removed or pruned. Impacts would be less than significant after implementation of Mitigation Measure BIO-1.

Mitigation: Mitigation Measure BIO-1

MM BIO-1: Pre-construction Bat Surveys

The applicant shall implement the following measures during demolition of structures and tree removal or tree pruning.

Structures. Before demolition of existing structures, a qualified bat specialist shall conduct a day time search for potential roosting habitat and evening emergence surveys to determine if the structure is being used as a roost. Biologists conducting surveys for roost sites shall use naked eye, binoculars, and a high power spotlight to inspect buildings features that could house bats. The surfaces of the structure and the ground around the structure shall be surveyed for bat signs, such as guano, staining, and prey remains.

Evening (i.e., dusk) emergence surveys shall consist of at least one bat specialist positioned at different vantage points from the structure, watching for emerging bats from a half hour before sunset to 1 to 2 hours after sunset for a minimum of 2 nights within the season that construction will be taking place. Night vision goggles or full-spectrum acoustic detectors should be used during emergence surveys to assist in species identification. All emergence surveys shall be conducted during favorable weather conditions (i.e., calm nights with temperatures conducive to bat activity [55° F and above] and no precipitation predicted).

If roosting, special-status bats are present, measures developed by the bat specialist shall be implemented, as needed. Measures to protect the bats may include postponing demolition until after the May 1st through October 1st roosting period. Measures may include monitoring roosting to determine if the roost site is a maternal roost by either a visual inspection of the roost bat pups, or monitoring the roost after the adults leave for the night and listening for bat pups. Eviction of a maternal roost cannot occur because bat pups are not mature enough to leave the roost. If a roost is determined not to be a maternal roost, eviction of bats shall be conducted using bat exclusion techniques developed by Bat Conservation International and in consultation with CDFW that allow the bats to exit the roosting site, but prevent re-entry to the site. This work shall be completed by a BCI-recommended exclusion professional. The exclusion of bats shall be timed and carried out concurrently with any scheduled bird exclusion activities. Each roost lost (if any) shall be replaced in consultation with the CDFW and may include construction and installation of BCI-approved bat boxes suitable to the bat species and colony size excluded from the original roosting site. Roost replacement shall be implemented before bats are excluded from the original roost sites. Once the replacement roosts are constructed and it is confirmed that bats are not present in the original roost site, the structures may be removed or sealed.

Tree Removal. A qualified bat specialist shall examine trees to be removed or trimmed for suitable bat roosting habitat. High quality habitat features (large tree cavities, basal hollows, loose or peeling bark, larger snags, etc.) shall be identified and the area around these features searched for bats and bat sign (guano, culled insect parts, staining, etc.).

The qualified bat specialist shall conduct evening visual emergence surveys of the source habitat feature, from a half hour before sunset to 1 to 2 hours after sunset for a minimum of two nights within the season that construction will be taking place. If it is found that roosting, special-status bats are present, measures developed by the bat specialist shall be implemented, as needed (see above for types of measures).

Significance after Mitigation: Less than Significant

Impact Biology-2: Would the proposed project have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service? *(No Impact)*

The proposed project is located in an urban/suburban environment. There is no riparian habitat or other sensitive natural communities located within or adjacent to the two project sites. The proposed project would not impact any riparian habitat or other sensitive vegetation communities.

Impact Biology-3: Would the proposed project have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means? *(No Impact)*

The proposed project is located in an urban/suburban environment. There are no federally protected wetlands located within or adjacent to the two project sites. The proposed project would not impact federally protected waters.

Impact Biology-4: Would the proposed project 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? *(No Impact)*

There are no wildlife movement corridors located within or near the proposed project sites. The proposed project would not have an impact on wildlife corridors or the movement of any resident or migratory wildlife species.

Impact Biology-5: Would the proposed project conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance? *(Less than Significant Impact with Mitigation)*

City of Burlingame Municipal Code

Chapter 11.04 Street Trees

Chapter 11.04.035 of the City's Municipal Code makes it unlawful to trim, prune, plant, remove, injure, destroy, or place any sign, write, rope, or device to any tree, shrub, or plant in or upon any street or public place without a permit.

The proposed project would require the removal and replacement of an Olive tree (Tree #1 in Table 3.3-1), which is a street tree located on Oak Grove Avenue. Construction at the Oak Grove Avenue project site would require pruning of two Italian Stone Pine street trees (Tree #8 and #9 in Table 3.3-1) located on Marin Drive and Oak Grove Avenue. The project application states that as part of the proposed project, the Applicant would submit a permit application to the City identifying the street trees to be pruned, removed, and replaced, which would be consistent with this ordinance. The proposed project would not be in conflict with this ordinance and there would be no impact. There are four street trees in front of the Douglas Avenue project site, including three small Purple Leaf Plum trees and one mature Sycamore Maple tree. Construction for the proposed project at the Douglas Avenue project site would require the removal of the three Purple Leaf Plum trees. These trees will be replaced with three new street trees at the end of construction, with a species recommended by the City Arborist. Construction would be located near the Sycamore Maple tree (Tree #6 in Table 3.3-1). This tree may potentially be injured by equipment during construction activities resulting in a conflict with this municipal code. This conflict would be a significant impact. Mitigation Measure BIO-2 would include tree protection measures, including fencing, to avoid impacts to this tree and other protected trees. Impacts would be less than significant after mitigation.

Chapter 11.06 Urban Reforestation and Tree Protection

Chapter 11.06 of the City of Burlingame Municipal Code establishes procedures for tree removal and tree pruning for protected trees. The proposed project would require the removal of seven protected trees and limb removal of four protected trees. Table 3.3-5 provides a summary of the protected trees that would be removed or pruned during construction. The municipal code (Chapter 11.06.060) requires that a tree removal and pruning application be submitted to the City. The applicant would submit this application to the City as part of the proposed project. The proposed project would comply with Chapter 11.06.060 and there would be no impact.

Table 3.3-5 Protected Trees to be Removed or Pruned during Construction

Tree Number	Common Name	Trunk Diameter (inches)	Height (feet)	Condition	Location of Tree	Activities during Construction
524 Oak Grove Avenue						
2	Coast Live Oak	20.9	20	Poor	Project site	Weight reduction, limb removal
3	Coast Live Oak	40.7	40	Fair	Project site	Weight reduction, limb removal
5	Olive	19.3	15	Poor	Project site	Remove
6	Spanish Fir	18.5	70	Fair	Project site	Remove
7	Olive	17.8	15	Poor	Project site	Remove
8	Italian Stone Pine	60.4	40	Fair	Marin Drive (street tree)	Weight reduction, limb removal
9	Italian Stone Pine	54.3	35	Fair	Corner of Marin Drive and Oak Grove Avenue (street tree)	Weight reduction, limb removal
1128-1132 Douglas Avenue						
3	Chinese Tallow Tree	20.0	30	Poor	Project site	Remove
5	Liquid Amber	18.1	30	Poor	Project site	Remove
9	Apple	16.3	20	Poor	Project site	Remove
12	Cottonwood	21.2	30	Poor	Project site	Remove

The City requires that protected trees that are removed be replaced by three 15-gallon size trees or one 24-inch box size tree, or one 36-inch box size tree for each protected tree removed (Chapter 11.06.090). The applicant would be required to plant at a minimum 27 15-gallon size trees or 9 24-inch or 36-inch box size trees. The applicant would plant trees for landscaping. Table 3.3-6 summarizes the trees that would be planted for landscaping as part of the proposed project. A total of 13 24-inch box size trees would be planted as part of the proposed project. These plantings are consistent with the requirement to plant at least 9 24-inch box size trees. The proposed project would be consistent with Chapter 11.06.090; there would be no impact.

Chapter 11.06.050 of the City of Burlingame Municipal Code requires certain measures be implemented during construction to minimize impacts to protected trees. At the Oak Grove Avenue project site 2 of the 8 protected trees are street trees. At the Douglas Avenue project site only 1 of the 11 protected trees is a street tree. There are a total of 12 protected trees that would remain on the proposed project site locations, including the 3 protected street trees. Chapter 11.06.050 of the Municipal Code requires the following during construction:

- Fencing around protected trees
- Replacement of any protected trees that have been damaged or destroyed, or reimbursement to the City
- Chemicals or other construction materials shall not be stored within the drip line of protected trees
- Drains shall be provided as required by the director whenever soil fill is placed around protected trees
- Signs, wires or similar devices shall not be attached to protected trees

Table 3.3-6 Trees to be Planted as Part of the Proposed Project

Common Name	Quantity	Size
524 Oak Grove Avenue		
Forest Pansy	1	24-inch box
Japanese Maple	2	24-inch box
Dogwood	1	24-inch box
Golden Full Moon Apple	1	5 gallon
1128-1132 Douglas Avenue		
Magnolia (“Yellow Bird”)	4	24-inch box
Forest Pansy	1	24-inch box
Golden Full Moon Apple	2	5 gallon
Loquat	1	5 gallon
Japanese Maple	2	24-inch box

The project could potentially conflict with this ordinance, if the measures in Chapter 11.06.050 were not followed, resulting in a significant impact. Mitigation Measure BIO-2 requires that the applicant follow the tree protection specifications in the two tree surveys prepared for the two project sites. Mitigation Measure BIO-2 requires that fencing be placed around protected trees requires remedial action in the situation where a protected tree is damaged, restricts storage of chemicals and construction materials along the driplines, restricts stockpiling of soils around trees and restricts attaching signs, wires, or other devices to trees. The proposed project would be in compliance with the City ordinance (Chapter 11.06.050) after implementation of Mitigation Measure BIO-2. Impacts would be less than significant after mitigation.

Oak Tree and Redwood Tree at 1128-1132 Douglas Avenue

Project construction has the potential to cause significant effects to the oak tree and redwood tree at 1128-1132 Douglas Avenue. These two historic trees at the Douglas Avenue project site require specific measures to ensure they are not compromised in any way during construction and especially excavation activities. Mitigation Measure BIO-2 includes the protection of roots to minimize impacts to protected trees which was recommended by the Mayne Tree Company,

Inc. arborist and approved by the City Arborist. The root protection measure in Mitigation Measure BIO-2 requires a licensed arborist to locate and evaluate any significant roots prior to mechanical excavation and implement recommendations made after the root evaluation to preserve the health and structure of both the redwood and oak trees. This mitigation measure would ensure the protection of these historic trees during construction. The impact would be less than significant after implementation of Mitigation Measure BIO-2.

City of Burlingame Urban Forest Management Plan

The City Urban Forest Management Plan includes a policy that requires erecting barriers, limiting access, reducing compaction, and avoiding grade changes to minimize damage to protected trees. Impacts to protected trees could be potentially significant if these measures were not implemented. These measures would be implemented through Mitigation Measure BIO-2 and would be consistent with this policy after implementation of mitigation. Impacts would be less than significant after mitigation.

City of Burlingame Downtown Specific Plan

Policy S.1.3

Policy S.1.3 requires that mature street trees be preserved when possible. No mature street trees would be removed from the proposed project site. There is one mature street tree, Sycamore Maple (Tree No. 6), located on Douglas Avenue. The proposed project could potentially be in conflict with Policy S.1.3 if construction activities were to damage this tree. Mitigation Measure BIO-2 identifies measures to protect this tree, including fencing. The proposed project would be consistent with Policy S.1.3 after implementation of Mitigation Measure BIO-2. Impacts would be less than significant after mitigation.

Mitigation: Mitigation Measure BIO-2

MM BIO-2: Tree Protection Measures

Tree protection specifications were developed by Mayne Tree Expert Company Inc. for the protected trees surveyed at the Douglas Avenue and Oak Grove Avenue project sites. The applicant shall implement the following tree protection measures developed by Mayne Tree Expert Company Inc. and approved by the Arborist for protected trees. The Mayne Tree Expert Company Inc. reports shall be included on the demolition and construction plans of the project.

Mulching. A 6-inch layer of coarse mulch woodchips shall be placed beneath the dripline of protected trees. Mulch is to be kept 12 inches from the trunk.

Protective Barrier. A protective barrier or 6-foot chain link fence shall be installed around the dripline of protected trees. The fencing can be moved within the dripline if authorized by the Project Arborist or the City Arborist, but no closer than 2 feet from the trunk of any tree. Fence posts shall be 1.5 inches in diameter and are to be driven 2 feet into the ground. The distance between posts shall not be more than 10 feet. This enclosed area is the Tree Protection Zone (TPZ).

Moveable barriers or chain link fencing secured to cement blacks can be substituted for "fixed" fencing if the Project Arborist and City Arborist agree that the fencing would have to be moved to accommodate certain phases of construction. The applicant may not move the fence without authorization from the Project Arborist or City Arborist.

Construction Restrictions. During construction, the following restrictions shall be implemented:

- Runoff or spillage of damaging materials to the area below any tree canopy shall not be allowed
- Storing materials, stockpiling soils, or parking/driving vehicles within the TPZ is not allowed
- Cutting, breaking, skinning, or bruising roots, branches, or trunks of protected trees is prohibited without first obtaining authorization from the City Arborist
- Fires shall not be allowed under and adjacent to trees
- Discharging exhaust into foliage shall be prohibited
- Securing cables, chains, or ropes to trees or shrubs is prohibited
- Trenching, digging, or excavating within the dripline of the TPZ of trees is prohibited without first obtaining authorization from the City Arborist
- Applying soils sterilants under pavement near existing trees is prohibited
- Machine trenching is prohibited within the driplines of trees, only excavation by hand or compressed air is allowed

Avoiding injury to roots. When a ditching machine, which is being used outside of the dripline of trees, encounters roots smaller than 2 inches, the wall of the trench adjacent to the street shall be hand trimmed, making clear, clean cuts through the roots. All damaged, torn, and cut roots shall be given a clean cut to remove ragged edges, which promote decay. Trenches shall be filled within 24 hours, but, where, this is not possible, the side of the trench adjacent to the trees shall be shaded with four layers of dampened, untreated burlap, wetted as frequently as necessary to keep the burlap wet. Roots 2 inches or larger, when encountered, shall be reported immediately to the Project Arborist, who will decide whether the applicant may cut the roots as mentioned above or shall excavate by hand or with compressed air under the root. The root is to be protected with dampened burlap.

In addition, the top 2 feet of the foundation closest to trees shall be air spaded or hand dug under supervision of a licensed arborist to locate and evaluate any significant roots prior to mechanical excavation. The licensed arborist shall be required to submit a report to the City regarding the findings of the excavation

and recommend any additional actions needed to protect the roots to preserve the health and structure of both the redwood and oak trees.

Routing pipes. To avoid conflict with routes, pipes shall be routed outside of an area, ten times the diameter of a protected tree. In addition, where it is not possible to reroute pipes or trenches, the applicant shall bore beneath the dripline of the tree. The boring shall take place not less than 3 feet below the surface of the soil in order to avoid encountering feeder roots.

Reporting. Any damage due to construction activities shall be reported to the Project Arborist or City Arborist within 6 hours. If a protected tree is damaged, the applicant shall follow any remedial actions deemed necessary by the City Arborist, such as planting additional trees, consistent with Chapter 11.06.090.

Significance after Mitigation: Less than Significant

Impact Biology-6: Would the proposed project conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan? *(No Impact)*

The proposed project is not located within an area with an adopted Habitat Conservation Plan (HCP), NCCP, or other approved local, regional, or state habitat conservation plan. The proposed project would, therefore, not conflict with any policies or ordinances in any HCPs or NCCPs. There would be no impact.

3.3.6 Cumulative Biological Resources Impacts

Cumulative Context

The geographic scope of cumulative impacts to special-status species is a 1-mile radius around the project sites. The projects within 1 mile of the proposed project, as shown in Table 3-1, were considered in the cumulative analysis.

The City of Burlingame protects trees throughout the entire city. The geographic scope for cumulative impacts to protected trees includes the entire City. All the projects identified in Table 3-1 could potentially impact protected trees during construction, and were therefore considered in the cumulative analysis.

Cumulative Biological Resources Analysis

Removal of trees as part of the proposed project and other projects could potentially result in a cumulative impact. The City's municipal code Chapters 11.04 and 11.06 prohibits damaging street trees and protected trees and establishes conditions and regulations for the removal and replacement of street trees and protected trees. All projects including the proposed project would be required to comply with the City's municipal code. Compliance with the municipal code would ensure that the cumulative impact on trees is less than significant.

Development projects including the proposed project could potentially result in a cumulative impact to roosting bats. Bats roost in trees and in undisturbed buildings. Demolition of unused buildings and the removal of trees would contribute to a loss of roosting locations. The City ensures that there is no cumulative tree loss as described above. Therefore, bats would have abundant roosting habitat within the City. The cumulative impact on roosting bats would be less than significant.

3.3.7 References

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3.4 CULTURAL RESOURCES

This section relates to the impacts of the proposed project on cultural resources. The impact of the proposed project on human remains, prehistoric and historic structures and objects, buried artifacts, fossils, and geologic features are considered, as well as tribal cultural resources that are of importance to Native American heritage.

Comments received during the EIR scoping process included the following topics related to cultural resources:

- Suitability of relocating the 1128 Douglas Avenue house to Oak Grove Avenue
- Request for historical review of 1132 Douglas Avenue

These topics are addressed in the impact analysis below.

3.4.1 Environmental Setting

The proposed project sites are located in primarily residential areas within the Downtown Specific Plan area. The project sites are surrounded by built-out areas consisting of residential land uses.

Pre-history

The Downtown Specific Plan area and the greater San Francisco Bay Area was inhabited by the many discrete tribes of Native American people known collectively as the Ohlone. The Ohlone are believed to have inhabited the area since at least 500 AD. The Ohlone were a hunter-gatherer society. They did not have a written language or build permanent structures. They are known to have used bows and arrows, cordage, bone tools, and twined basketry. They settled in communities that the Spanish called "Rancherias," small villages of unrelated family groups that collaborated in hunting, harvesting, and religious practices. Ohlone shell mounds were once located along Mills, Easton, Sanchez, and Burlingame Creeks in Burlingame (Carey & Co., Inc. 2008).

Spanish Period

In 1765, Visitor-General Jose de Galvez convinced the Spanish crown to fund an expedition to establish missions in California, whereby natives would be converted to Christianity, would divest themselves of their indigenous ways, and would be more amenable to imperial rule. In 1769 Captain Gaspar de Portola together with Franciscan priest Junipero Serra arrived in California and a year later built a presidio and mission at Monterey Bay. Civilian settlement occurred in 1776 with the De Anza expedition. The settlers included men, women, and children of mostly peasant-class Spanish citizens many of whom were of mixed Spanish, Mexican, and indigenous heritage. The first recorded expedition in the area of present-day Burlingame is the intersection of Burlingame Avenue and El Camino Real. The Ohlone in the Burlingame area came under the purview of the Spanish stronghold at Mission San Francisco de Asis, known as Mission Dolores, north of Burlingame in San Francisco. The missionaries developed the San Mateo/Burlingame area as a farm (Carey & Co., Inc. 2008).

Mexican Period

The shift in power from Spanish to Mexican rule occurred in 1833 with the Secularization Act. This act transferred the mission lands from the Catholic Church and made them available for private ownership of Mexican citizens. The City of Burlingame straddles two ranchos granted to private landowners following the Secularization Act: Rancho San Mateo to the south and Buri Buri Rancho to the north. Rancho San Mateo was eventually sold to Howard & Mellus, a San Francisco Based mercantile company, and Buri Buri Rancho was granted to Jose Antonio Sanchez, a soldier from Mexico (Carey & Co., Inc. 2008).

Mexico ceded California after the war with the United States and the signing of the Treaty of Guadalupe Hidalgo in 1848.

The Gold Rush and Early Burlingame

Gold was discovered in the California foothills in 1848 and the population of California exploded with migrants from the East Coast and immigrants from Europe, Central and South America, and Asia. These settlers regularly squatted on already claimed land, despite the Treaty of Guadalupe Hidalgo, and resulted in protracted legal battles to control land which frequently proved futile. The Sanchez family lost control to their lands after it was divided among several landowners. The Howards were able to retain their land holdings in Rancho San Mateo. A portion of the Howards' land holdings became the City of Burlingame, which was incorporated in 1908 (Carey & Co., Inc. 2008).

Historic Resources

524 Oak Grove Avenue Project Site

The house at 524 Oak Grove Avenue was evaluated to determine the building's eligibility for the National Register of Historic Places (NRHP), California Register of Historical Resources (CRHR), and/or local designation (Brandi 2015).

NRHP Evaluation

A structure must usually be more than 50 years old, must have historic significance, and must retain its physical integrity to be potentially eligible for individual listing on the NRHP. The building at 524 Oak Grove Avenue was constructed more than 50 years ago and therefore meets the age requirement to be considered for the NRHP. The structure does not, however, meet any of the criteria for listing:

> *Criterion A (Event)*—Archival research has not revealed that the house has any association with a historically significant event.
>
> *Criterion B (Person)*—Archival research has not revealed the association of any historically significant person with the building.
>
> *Criterion C (Design/Construction)*—Properties may qualify for listing if they: 1) embody the distinctive characteristics of a type, period or method of construction; 2) represent the work of a master; or 3) possess high artistic values, or represent a significant and distinguishable entity whose components may lack individual distinction.

The building is undistinguished and has no discernible architectural style. The house does not embody the distinctive characteristics of a type, period, or method of construction. The designers or architects (if any) are not known, and the building does not possess high artistic values or distinction.

Criterion D (Information Potential)—Archival research provided no indication that the building has the potential to yield information important to prehistory or history.

CRHR Evaluation

The CRHR evaluates a resource's historic significance based on criteria that are very similar to the NRHP. For the reasons outlined above under the discussion for the NRHP, the building is not eligible for listing under the CRHR.

Integrity—The evaluation of historic significance is a two-step process. First, the historic significance of the property must be established. If the property appears to possess historic significance, then a determination is made of its physical integrity, that is, its authenticity as evidenced by the survival of characteristics that existed during the resource's period of significance. Since the building does not possess historic significance, there is no need to evaluate its physical integrity.

Local

The City of Burlingame does not have a register of historic properties. The City has surveyed the Downtown Specific Plan area for buildings of historic value in the Plan area; however, the 524 Oak Grove Avenue location is outside the Plan area and was not included as part of that survey.

Conclusion

The building at 524 Oak Grove Avenue is not eligible for listing on the NRHP, the CRHR, or for local designation. The City of Burlingame does not have a register of historic properties, and therefore the property cannot be listed locally.

1128 Douglas Avenue Project Site

Page & Turnbull Inc. (2013a, 2013b) conducted evaluations of the historic significance of 1128 Douglas Avenue and 1132 Douglas Avenue. These historical evaluations are contained on State of California Department of Parks and Recreation 523 forms dated May 26, 2013 and May 15, 2013, respectively.

NRHP Evaluation

The Page & Turnbull (2013a) analysis found 1128 Douglas Avenue to be ineligible for listing on the NRHP under any criterion.

CRHR Evaluation

The Page & Turnbull analysis found 1128 Douglas Avenue to be individually eligible for listing in the CRHR under Criteria 1 and 2 because the house retained its historic integrity. The findings are summarized below.

Criterion 1 (Events)—"1128 Douglas Avenue appears to be individually eligible for listing in the California Register under Criterion 1 (Events) for its association with early settlement patterns in the town of Burlingame. The period of significance for this context is 1885–1915. Constructed in 1903, the house is one of the very oldest extant residential structures in Burlingame, the seventh constructed in the town according to owner family recollection. It was originally located at 1206 Burlingame Avenue, which was where many of the town's earliest middle-class and upper-class families built their homes, and moved in 1914 to its present location… (Its) relocation does not negatively affect this property's eligibility for register inclusion because it was undertaken nearly 100 years ago and undertaken as part of a local development trend for property owners around the same time. Thus, the move itself was associated with a significant aspect of physical development for the city."

Criterion 2 (Persons)—"1128 Douglas Avenue also appears to be individually eligible for listing in the California Register under Criterion 2 (Persons) due to its association with James R. and Jessie N. Murphy. The period of significance for this association is 1903–1940, the period in which both Murphys were alive, contributing actively to the city, and living in the house….The Murphys' role in the development of Burlingame as well as their long association with the property meet the threshold for significance for listing in the California Register under Criterion 2 (Persons)."

Integrity—"… The building retains integrity of location because its tenure at its original location was 11 years, and its tenure at its current location has been 99 years. Integrity of setting is fair because the surrounding residential neighborhood has shifted from an area characterized by single family homes to one that is increasingly characterized by larger multi-unit apartment buildings and condominiums. However, a few other homes from this era of early settlement are extant in the area…which bolsters integrity of setting.

With regard to integrity of design, materials, and workmanship, integrity…has been somewhat compromised due to alterations to the primary façade, including the enclosure of part of the front porch and the reconfiguration of openings at the primary façade…

Therefore, integrity of design, materials, and workmanship in relation to the association with the Murphy Family period of significance (1903–1940) remains high because the majority of porch and fenestration changes appear to have taken place during this period. Larger alterations to the rear are not easily visible from the street and do not compromise overall integrity of design, materials, and workmanship. 1138 Douglas Avenue [typo on DPR form, should be 1128] retains integrity of feeling and association because the house retains its original use as a residence."

Additional research (Brandi 2015) since the Page and Turnbull study indicates that the original house was smaller. The original house was nearly doubled in size between 1905 and 1921, based

on authentic photographs of the house. The photographs show that the rear additions, including the one that doubled the size of the house, are not a part of the house's historic fabric, as detailed in Brandi (2015) included in Appendix E.

Conclusion

The building at 1128 Douglas Avenue does not meet any of the criteria for listing on the NRHP. The house at 1128 Douglas Avenue is eligible for listing on the CRHR under Criteria 1 and 2. The City of Burlingame does not have a register of historic properties, and therefore the property cannot be listed locally.

1132 Douglas Avenue Project Site

The Page & Turnbull analysis (2013b) found that 1132 Douglas Avenue does not appear to be individually eligible for listing in the CRHR and assigned a California Historical Resource Status Code (CHRSC) of "6Z," meaning that it was "found ineligible for National Register, California Register, or Local designation through survey evaluation."

> *Criterion A/1 (Events)*—"Constructed in 1910, 1132 Douglas Avenue does not appear to be individually eligible for listing in the National or California Registers under Criterion A/1 (Events) … The house was built relatively early in Burlingame's suburban development, but was one of a number of buildings constructed by the early 1910s…The house does convey contextual significance in association with the development of the Burlingame Land Co. subdivision, but it does not appear significant or influential in the development of the neighborhood."
>
> *Criterion B/2 (Persons)*—"1132 Douglas Avenue does not appear to be individually eligible for listing in the National or California Register under Criterion B/2. The property is associated with its long-time owner and occupant Everett J. Savill. Although Savill is remembered as an early resident of Burlingame, his contributions to the history of Burlingame do not meet the threshold of significance for register inclusion. Esther and Marvin Joe Savill similarly do not garner significance for the property."
>
> *Criterion C/3 (Architecture)*—"1132 Douglas Avenue does not appear to be individually eligible for listing in the National or California Registers under Criterion C/3...The Queen Anne–style building is relatively well preserved and had undergone moderate alterations, but displays little in the way of characteristic period style or detailing. It is a modest example of the style and does not appear to be an influential or noteworthy example of residential construction in the neighborhood. The architect and builder are unknown and cannot be considered masters."

Conclusion

The building at 1132 Douglas Avenue is not eligible for listing on the NRHP, the CRHR, or for local designation. The City of Burlingame does not have a register of historic properties, and therefore the property cannot be listed locally.

Tribal and Prehistoric Resources

A Sacred Land Database Search by the Native American Heritage Commission was conducted for the Downtown Specific Plan Initial Study analysis. The search did not identify any Native American cultural resources in the Plan area. A Records Search conducted by the Northwest Information Center (NWIC) of the California Historical Resources Information System also failed to identify any prehistoric or historic archaeological resources within the Plan area or within a quarter mile radius of the Plan area.

There are several known areas of prehistoric shell mounds in the vicinity of San Mateo Creek in San Mateo County. Most of the mounds have been graded over the years and much of the surface material has been hauled away to construct roads, sidewalks, and tennis courts. Despite the surface destruction, the potential remains for intact buried archaeological resources to be discovered during construction (City of Burlingame 2010).

3.4.2 Regulatory Setting

Federal

National Historic Preservation Act

The National Historic Preservation Act (NHPA) of 1966, as amended (16 USC 470 et seq.), establishes the NRHP as the authoritative list of significant historical resources, including districts, sites, buildings, structures and objects. For a property to be eligible for listing in the NRHP, it must be significant in American history, architecture, archaeology, engineering or culture, and must retain several of the seven aspects of integrity: location, design, setting, materials, workmanship, feeling and association. Resources less than 50 years of age, unless of exceptional importance, are not eligible for the NRHP. Listing in the NRHP does not prohibit demolition or alteration of that property, but Project effects on properties listed in or eligible for the NRHP must be evaluated under applicable federal and state environmental regulations. Resources of potential significance must meet one or more of the following four criteria (36 CFR 60.4) to establish eligibility for the NRHP. Eligible resources are those that:

a. Are associated with events that have made a significant contribution to the broad patterns of our history;
b. Are associated with the lives of persons significant in our past;
c. Embody the distinctive characteristics of a type, period, or method of construction or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction; or
d. Have yielded, or may be likely to yield, information important in prehistory or history.

State

The California Department of Parks and Recreation (DPR) California Office of Historic Preservation (OHP) implements the policies of the NHPA for the State of California. The OHP also maintains the California Historical Resources Inventory. The State Historic Preservation

Officer (SHPO) is an appointed official who implements historic preservation programs within the state.

California Environmental Quality Act

The California Environmental Quality Act CEQA, as codified in Public Resources Code (PRC) Sections 21000 et seq., is the principal statute governing the environmental review of projects in the state. CEQA requires lead agencies to determine if a proposed project would have a significant effect on historical resources, including archaeological resources. The CEQA Guidelines define a historical resource as: (1) a resource in the CRHR; (2) a resource included in a local register of historical resources, as defined in PRC Section 5020.1(k) or identified as significant in a historical resource survey meeting the requirements of PRC Section 5024.1(g); or (3) any object, building, structure, site, area, place, record, or manuscript that a lead agency determines to be historically significant or significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural annals of California, provided the lead agency's determination is supported by substantial evidence in light of the whole record. If a lead agency determines that an archaeological site is a historical resource, the provisions of PRC Section 21084.1 and CEQA Guidelines Section 15064.5 would apply. If an archaeological site does not meet the CEQA Guidelines criteria for a historical resource, then the site may meet the threshold of PRC Section 21083 regarding unique archaeological resources. A unique archaeological resource is "an archaeological artifact, object, or site about which it can be clearly demonstrated that, without merely adding to the current body of knowledge, there is a high probability that it meets any of the following criteria:

1) Contains information needed to answer important scientific research questions and that there is a demonstrable public interest in that information.
2) Has a special and particular quality such as being the oldest of its type or the best available example of its type.
3) Is directly associated with a scientifically recognized important prehistoric or historic event or person" (PRC Section 21083.2 [g]).

The CEQA Guidelines note that if a resource is neither a unique archaeological resource nor a historical resource, the effects of the project on that resource shall not be considered a significant effect on the environment (CEQA Guidelines Section 15064[c][4]).

Assembly Bill 52

On September 25, 2014, Governor Edmund G. Brown, Jr., signed Assembly Bill No. 52 ("AB 52") into law. The law expands the California Environmental Quality Act ("CEQA") to provide that any public or private "project with an effect that may cause a substantial adverse change in the significance of a tribal cultural resource is a project that may have a significant effect on the environment."

Public Resources Code 21074 defines

(a) "Tribal Cultural Resources" as any of the following:

(1) Sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American tribe that are either of the following:

(A) Included or determined to be eligible for inclusion in the California Register of Historical Resources.

(B) Included in a local register of historical resources as defined in subdivision (k) of Section 5020.1.

(2) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Section 5024.1. In applying the criteria set forth in subdivision (c) of Section 5024.1 for the purposes of this paragraph, the lead agency shall consider the significance of the resource to a California Native American tribe.

(b) A cultural landscape that meets the criteria of subdivision (a) is a tribal cultural resource to the extent that the landscape is geographically defined in terms of the size and scope of the landscape.

(c) A historical resource described in Section 21084.1, a unique archaeological resource as defined in subdivision (g) of Section 21083.2, or a "nonunique archaeological resource" as defined in subdivision (h) of Section 21083.2 may also be a tribal cultural resource if it conforms to the criteria of subdivision (a).

Section 21080.3.1 is added to the Public Resources Code, to read:

21080.3.1.

(a) The Legislature finds and declares that California Native American tribes traditionally and culturally affiliated with a geographic area may have expertise concerning their tribal cultural resources.

(b) Prior to the release of a negative declaration, mitigated negative declaration, or environmental impact report for a project, the lead agency shall begin consultation with a California Native American tribe that is traditionally and culturally affiliated with the geographic area of the proposed project if: (1) the California Native American tribe requested to the lead agency, in writing, to be informed by the lead agency through formal notification of proposed projects in the geographic area that is traditionally and culturally affiliated with the tribe, and (2) the California Native American tribe responds, in writing, within 30 days of receipt of the formal notification, and requests the consultation. When responding to the lead agency, the California Native American tribe shall designate a lead contact person. If the California Native American tribe does not designate a lead contact person, or designates multiple lead contact people, the lead agency shall defer to the individual listed on the contact list maintained by the Native American Heritage Commission for the purposes of Chapter 905 of the Statutes of 2004. For purposes of this

section and Section 21080.3.2, "consultation" shall have the same meaning as provided in Section 65352.4 of the Government Code.

(c) To expedite the requirements of this section, the Native American Heritage Commission shall assist the lead agency in identifying the California Native American tribes that are traditionally and culturally affiliated with the project area.

(d) Within 14 days of determining that an application for a project is complete or a decision by a public agency to undertake a project, the lead agency shall provide formal notification to the designated contact of, or a tribal representative of, traditionally and culturally affiliated California Native American tribes that have requested notice, which shall be accomplished by means of at least one written notification that includes a brief description of the proposed project and its location, the lead agency contact information, and a notification that the California Native American tribe has 30 days to request consultation pursuant to this section.

(e) The lead agency shall begin the consultation process within 30 days of receiving a California Native American tribe's request for consultation.

California Register of Historical Resources

The CRHR is "an authoritative listing and guide to be used by state and local agencies, private groups, and citizens in identifying the existing historical resources of the state and to indicate which resources deserve to be protected, to the extent prudent and feasible, from substantial adverse change" (PRC Section 5024.1[a]). The criteria for eligibility to the CRHR are based on NRHP criteria (PRC Section 5024.1[b]). Certain resources are determined by the statute to be automatically included in the CRHR, including California properties formally determined eligible for or listed in the NRHP. To be eligible for the CRHR a historical resource must be significant at the local, state, and/or federal level under one or more of the following criteria:

1) Is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage;
2) Is associated with the lives of persons important in our past;
3) Embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values; or,
4) Has yielded, or may be likely to yield, information important in prehistory or history (PRC Section 5024.1[c]).

For a resource to be eligible for the CRHR, it must also retain enough integrity to be recognizable as a historical resource and to convey its significance. There are seven aspects or qualities of integrity, defined as location, design, setting, materials, workmanship, feeling, and association. Forty-five years is the standard age threshold used by OHP for determining potential historical significance. As such, any property located on the Project Site built prior to 1966 could be eligible for listing in the CRHR if it meets any one of the four criteria listed above and retains sufficient integrity to convey its historical significance.

Local

The City of Burlingame's General Plan Open Space Element, the Downtown Specific Plan, and the City's Municipal Code all provide guidance regarding historical and cultural resources.

City of Burlingame General Plan
The Open Space Element includes the following relevant policy:

Policy OS(D): Provide open space for recreational needs and for the preservation of sites of historical and cultural significance.

Burlingame Downtown Specific Plan
Goal D-1: Protect and preserve historic character.

> **Policy D-1.1** Ensure that new construction fits into the context and scale of the existing downtown.
>
> **Policy D-1.2** Require design review for all new downtown buildings and for changes to existing downtown buildings, and integrate historic review into the design review process.

Goal D-2: Develop policies and provide incentives for the restoration, preservation, and adaptive re-use of historic structures.

The Downtown Specific Plan includes conditions that the applicant must fulfill in order to receive approval for the construction of the proposed project. These conditions for approval would be required for the proposed project. The conditions for approval relevant to cultural resources are listed in Table 3.4-1 below.

Table 3.4-1 Downtown Specific Plan Conditions of Approval

Condition of Approval	Description
Condition of Approval 25: Undiscovered Cultural Resources	*Ongoing during project construction* If evidence of an archeological site or other suspected cultural resource as defined by CEQA Guidelines Section 15064.5, including darkened soil representing past human activity ("midden"), that could conceal material remains (e.g., worked stone, worked bone, fired clay vessels, faunal bone, hearths, storage pits, or burials) is discovered during construction-related earth-moving activities, all ground-disturbing activity within 100 feet of the resources shall be halted and the City of Burlingame shall be notified. The project sponsor shall hire a qualified archaeologist to conduct a field investigation. The City of Burlingame shall consult with the archeologist to assess the significance of the find. Impacts to any significant resources shall be mitigated to a less-than significant level through data recovery or other methods determined adequate by a qualified archaeologist and that are consistent with the Secretary of the Interior's Standards for Archeological Documentation. Any identified cultural resources shall be recorded on the appropriate DPR 523 (A-J) form and filed with the NWIC.

Condition of Approval	Description
Condition of Approval 26: Unique Paleontological/Geological Features	*Ongoing during project construction* Should a unique paleontological resource or site or unique geological feature be identified at the project construction site during any phase of construction, the project manager shall cease all construction activities at the site of the discovery and immediately notify the City of Burlingame. The project sponsor shall retain a qualified paleontologist to provide an evaluation of the find and to prescribe mitigation measures to reduce impacts to a less-than-significant level. Work may proceed on other parts of the project site while mitigation for paleontological resources or geologic features is carried out. The project sponsor shall be responsible for implementing any additional mitigation measures prescribed by the paleontologist and approved by the City
Condition of Approval 27: Human Remains	*Ongoing during project construction* If human remains are discovered at any project construction site during any phase of construction, all ground-disturbing activity within 100 feet of the resources shall be halted and the City of Burlingame and the County coroner shall be notified immediately, according to Section 5097.98 of the State Public Resources Code and Section 7050.5 of California's Health and Safety Code. If the remains are determined by the County coroner to be Native American, the Native American Heritage Commission (NAHC) shall be notified within 24 hours, and the guidelines of the NAHC shall be adhered to in the treatment and disposition of the remains. The project sponsor shall also retain a professional archaeologist with Native American burial experience to conduct a field investigation of the specific site and consult with the Most Likely Descendant, if any, identified by the NAHC. As necessary, the archaeologist may provide professional assistance to the Most Likely Descendant, including the excavation and removal of the human remains. The City of Burlingame shall be responsible for approval of recommended mitigation as it deems appropriate, taking account of the provisions of State law, as set forth in CEQA Guidelines section 15064.5(e) and Public Resources Code section 5097.98. The project sponsor shall implement approved mitigation, to be verified by the City of Burlingame, before the resumption of ground-disturbing activities within 100 feet of where the remains were discovered.

Source: City of Burlingame 2011

Burlingame Municipal Code

Title 21 of the Burlingame Municipal Code pertains to historic resource preservation. Downtown Burlingame includes buildings from a wide range of periods and styles which is unique to the City. The City recognizes that renovation and adaptive reuse of these historic buildings is often a benefit to the community. Section 21.04 of the Municipal Code provides the structure for implementing the policies contained in the Downtown Specific Plan by providing property owners with fiscal benefits or zoning and code incentives to preserve historic properties in the Specific Plan area.

3.4.3 Thresholds of Significance

The proposed project would have a significant impact on the environment if it would:

a) Cause a substantial adverse change in the significance of a historical resource as defined in Section 15064.5
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5
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

3.4.4 Approach to Analysis

The historical analysis was based on the Historic Resources Technical Report for the Douglas Avenue Redevelopment Project that was prepared by Richard Brandi (2015), a qualified historian recognized by the California Historical Resources Information System. The Historic Resources Technical Report is included in Appendix E of this EIR.

The City's General Plan, Downtown Specific Plan, and prior CEQA documents were consulted for information regarding the potential for prehistoric cultural and paleontological resources at the project site locations.

3.4.5 Impacts and Mitigation

Table 3.4-2 provides a summary of the significance of potential cultural resources impacts of the proposed project prior to application of mitigation measures and after the implementation of mitigation measures.

Table 3.4-2 Summary of Cultural Resources Impacts

Significance Criteria	Project Phase	Significance Prior to Mitigation	Significance with Mitigation
Impact Cultural-1: Would the project cause a substantial adverse change in the significance of a historical resource as defined in Section 15064.5?	Construction	Significant	Less than Significant with MM CUL-1
Impact Cultural-2: Would the proposed project cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5?	Construction	Less than Significant	–
Impact Cultural-3: Would the proposed project directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	Construction	Less than Significant	–

Significance Criteria	Project Phase	Significance Prior to Mitigation	Significance with Mitigation
Impact Cultural-4: Would the proposed project disturb any human remains, including those interred outside of formal cemeteries?	Construction	Less than Significant	–

Impact Cultural-1: Would the project cause a substantial adverse change in the significance of a historical resource as defined in Section 15064.5? *(Less than Significant Impact with Mitigation)*

The proposed project would not cause a substantial adverse change in the significance of a historical resource as discussed below, and as outlined in more detail in the Historical Resources Technical Report (Brandi 2015) included in Appendix E.

524 Oak Grove Avenue Project Site

The house at 524 Oak Grove Avenue was evaluated for historical significance and was determined not to be a historic resource. The demolition of this house would therefore not represent a significant effect on an historic resource.

1128 Douglas Avenue Project Site

The 1128 Douglas Avenue house was found to be eligible for listing in the California Register under Criterion 1 (Events) and Criterion 2 (Persons). The project proposes to move the house according to the Department of Interior requirements (DOI 1992). Brandi evaluated the proposed plan to move the portion of the house that maintains the most integrity to the Oak Grove Avenue project site. The suitability of the 524 Oak Grove Avenue Site and the proposed rehabilitation is analyzed below.

1132 Douglas Avenue Project Site

The house at 1132 Douglas Avenue was evaluated for historical significance and was determined not to be a historic resource (Carey & Co., Inc. 2008; Brandi 2015). The demolition of this house would therefore not represent a significant effect on a historic resource.

Suitability of the Site at 524 Oak Grove Avenue as a Location for Moving the House Now at 1128 Douglas Avenue

The property at 1128 Douglas Avenue has been evaluated as being eligible for listing on the CRHR and is therefore considered to be a historic resource that is proposed to be relocated. Brandi (2015) analyzed whether the relocation would result in a loss of historic integrity such that it makes the house no longer eligible for listing on the CRHR.

The NRHP provides guidance for moving historic resources including the required characteristics of the new location. According to the NRHP:

> "…moved properties must still have an orientation, setting, and general environment that are comparable to those of the historic location and that are compatible with the property's significance."

The current orientation, setting, and general environment of 1128 Douglas Avenue is a residential neighborhood with a mix of multiple-story, multiple-family buildings built during the 1960s and later, along with single story buildings with residential or commercial uses. The street has large trees.

As Page & Turnbull (2013a) noted in the DPR forms:

> "Integrity of setting [of 1128 Douglas Avenue] has been compromised to an extent because the surrounding residential neighborhood has shifted from an area characterized by single family homes to one that is increasingly characterized by larger multi-unit apartment buildings and condominiums."

The proposed location at 524 Oak Grove Avenue is a residential neighborhood and is similar in that regard to present-day Douglas Avenue. Oak Grove Avenue has large trees as does Douglas Avenue. Additionally, 524 Oak Grove Avenue is characterized by single-family houses and is, in fact, more similar to the historic setting of 1128 Douglas Avenue than its current location. For these reasons, the proposed relocation site at 524 Oak Grove Avenue meets National Register Criterion B for moved properties, that they be "comparable to those of the historic location." Moving the structure to this location would not result in a significant impact to the historic resource.

Proposed Rehabilitation

The Applicant proposes to relocate that portion of the Murphy house at 1128 Douglas Avenue that retains the most integrity of its original construction to 524 Oak Grove Avenue and to rehabilitate it.

When a proposed project has the potential to affect a historic resource, *The Secretary of the Interior's Standards for Rehabilitation & Illustrated Guidelines for Rehabilitating Historic Buildings* (Department of Interior 1992) (Standards) is used to provide guidance to review the potential impacts on the historic structure. There are four standards for the treatment of historic properties:

1. Preserving,
2. Rehabilitation,
3. Restoring, and
4. Reconstructing.

The Applicant is not attempting to preserve or restore the building, but to reorganize and reprogram the interior spaces while preserving the exterior of the building. Therefore, the Rehabilitation Standard is appropriate for this project. The proposed project was evaluated by Richard Brandi through the application of the Rehabilitation standard.

> **Rehabilitation** is defined as the act or process of making possible a compatible use for a property through repair, alterations, and additions while preserving those portions or features which convey its historical, cultural or architectural heritage (DOI 1992).

The proposed project's consistency with the Rehabilitation Standards is shown in Table 3.4-3 below.

Table 3.4-3 Proposed Project Consistency with Rehabilitation Standards

	Rehabilitation Standard	Proposed Project
1	A property will be used as it was historically or be given a new use that requires minimal change to its distinctive materials, features, spaces, and spatial relationships.	Consistent. The building would be used as it was historically, for residential use.
2	The historic character of a property will be retained and preserved. The removal of distinctive materials or alteration of features, spaces, and spatial relationships that characterize a property will be avoided.	Consistent. The project removes the rear section of the historic house that was added after the house was moved from Burlingame Avenue to Douglas Avenue circa 1914. Although this addition may have been done when the Murphys owned the house, a shed roof addition on the rear was made after their tenure, thus degrading the historic integrity of the Murphys' addition. The loss of integrity of the Murphys' addition means that it is not part of the historic character of the house. Thus, it does not contain distinctive materials. The proposed project does not envision the removal of distinctive materials or alter features, spaces, and spatial relationships that characterize the property.
3	Each property will be recognized as a physical record of its time, place, and use. Changes that create a false sense of historical development, such as adding conjectural features or elements from other historic properties, will not be undertaken.	Consistent. The proposed project would not add conjectural features.
4	Changes to a property that have acquired historic significance in their own right will be retained and preserved.	Consistent. No documented changes to the property have achieved historic significance.
5	Distinctive materials, features, finishes, and construction techniques or examples of craftsmanship that characterize a property will be preserved.	Consistent. The proposed project proposes to remove the window and door from the porch but does not propose to remove any other distinctive materials, features, finishes, and construction techniques or examples of craftsmanship. The window and door on the porch were added when the Murphys owned the house and are considered to be historic fabric. However, since the house originally did not have these features, their removal restores the look of the porch to its pre-1914 era.
6	Deteriorated historic features will be repaired rather than replaced. Where the severity of deterioration requires replacement of a distinctive feature, the new feature will match the old in design, color, texture, and, where	Consistent. The project proposes to retain the siding and windows of the historic house.

	Rehabilitation Standard	Proposed Project
	possible, materials. Replacement of missing features will be substantiated by documentary and physical evidence.	
7	Chemical or physical treatments, if appropriate, will be undertaken using the gentlest means possible. Treatments that cause damage to historic materials will not be used.	Consistent. The project should use the gentlest means possible.
8	Archeological resources will be protected and preserved in place. If such resources must be disturbed, mitigation measures will be undertaken.	Consistent. The proposed project includes a condition of approval that would will ensure that if any archaeological resources are discovered, they would be protected and preserved.
9	New additions, exterior alterations, or related new construction will not destroy historic materials, features, and spatial relationships that characterize the property. The new work shall be differentiated from the old and will be compatible with the historic materials, features, size, scale and proportion, and massing to protect the integrity of the property and its environment.	Consistent. The proposed project proposes to replace the rear section of the house, consisting of the post-1914 addition and a later shed roof addition, with new construction. The part of the house to be removed does not contain historic material or features. Inconsistent. The new construction is proposed to be clad in shingles matching those on the historic house. Such cladding is not sufficiently different to be consistent with this Standard. Mitigation Measure CUL-1, Compatible Cladding for Historic House, would ensure that the proposed project would be consistent.
10	New additions and adjacent or related new construction will be undertaken in such a manner that, if removed in the future, the essential form and integrity of the historic property and its environment would be unimpaired.	Consistent. The new construction could be removed and not impair the form and integrity of the building.

The majority of project would be consistent with historic standards and impacts would be less than significant. The shingle cladding would be inconsistent with the rehabilitation standard and would be a significant impact. Mitigation Measure CUL-1 would ensure the new construction on the historic house is consistent with the rehabilitation standard and reduce the impact to less than significant.

Mitigation: Mitigation Measure CUL-1

MM CUL-1: Compatible Cladding for Historic House

New construction on the relocated historic house shall be differentiated from the old and shall be compatible with the historic materials, features, size, scale and proportion, to protect the integrity of the property and its environment consistent with the Secretary of Interior's standards for rehabilitation. The choice of materials shall be submitted to the City for approval as part of the design review process.

Significance after Mitigation: Less than Significant

Impact Cultural-2: Would the proposed project cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5? (*Less than Significant Impact)*

524 Oak Grove Avenue Project Site

Construction activities at the 524 Oak Grove Avenue project site would disturb the ground surface to a depth of no more than 3 feet. The area is former bay fill and is not expected to contain archaeological resources; however, damage to previously undiscovered, buried archaeological resources would be a significant effect.

1128-1132 Douglas Avenue Project Site

Construction activities at the Douglas Avenue project site would require excavation to a depth of at least 15 feet. Buried archaeological resources have been found in the region, and are known to exist in the vicinity of the downtown area (City of Burlingame 2010). The ground disturbance during construction of the proposed project has the potential to impact unknown buried archaeological resources.

The proposed project would be required to implement Downtown Specific Plan Condition of Approval 25, Undiscovered Cultural Resources, as described in the regulatory setting above. Implementation of this condition of approval would ensure that impacts to archaeological resources would be less than significant.

Mitigation: None required

Impact Cultural-3: Would the proposed project directly or indirectly destroy a unique paleontological resource or site or unique geologic feature? (*Less than Significant Impact)*

Paleontological resources and prehistoric fossils have been discovered throughout San Mateo County. No known paleontological resources have been recorded in the City of Burlingame. The nearest known fossil-bearing area is in the City of South San Francisco.

The Oak Grove Avenue project site would have minimal ground disturbance. It is unlikely that construction activities at this project site would impact previously unknown paleontological resources. The excavation activities of the proposed project at the Douglas Avenue project site have the potential to impact previously unknown paleontological during construction.

The sediment below the fill in the Downtown Specific Plan Area, which includes the Douglas Avenue project site, may contain Pleistocene alluvial fan and fluvial deposits, which are known to contain fresh water mollusk and vertebrate fossils (City of Burlingame 2010).

The proposed project would be required to implement Downtown Specific Plan Condition of Approval 26, Unique Paleontological/Geological Features, as described in the regulatory setting above. Implementation of this condition of approval would ensure that impacts to unique paleontological resources or geologic features is less than significant.

There are no known unique geologic features in the relatively flat, developed project sites. The project would have no impact on unique geologic features.

Mitigation: None required

Impact Cultural-4: Would the proposed project disturb any human remains, including those interred outside of formal cemeteries? (*Less than Significant Impact)*

Human remains have not been found during previous ground-disturbing activities in the Oak Grove Avenue area or in the Downtown Specific Plan area, which includes the Douglas Avenue project site (City of Burlingame 2010). Because San Mateo County area is known to have been inhabited since at least 500 AD, it is reasonable to assume that human remains could be uncovered during excavation activities at the Douglas Avenue project site. The proposed project has the potential to disturb human remains.

The proposed project would be required to implement Downtown Specific Plan Condition of Approval 27, Human Remains, as described in the regulatory setting above. Implementation of this condition of approval would ensure that impacts to human remains is less than significant.

Mitigation: None required

3.4.6 Cumulative Cultural Resources Impacts

Cumulative Context

The geographic context for cultural resources cumulative analysis includes the entire City. Thus, all the projects included in Table 3-1, List of Cumulative Projects, are included in this analysis.

Cumulative Analysis

The majority of the projects in the cumulative projects list include ground disturbing activities that can impact previously unknown cultural resources or human remains. Because the City of Burlingame is built-out, new development invariably includes demolition of existing buildings. Some of these existing buildings slated for demolition could be more than 45 years old and are considered to be historic resources under CEQA Guidelines Section 15064.5.

Implementation of the policies of the City's General Plan and the Downtown Specific Plan, together with federal, state, and local laws are designed to protect historic and cultural resources. It is reasonable to assume that all approved and proposed development projects on the cumulative projects list would be required to abide by these policies and regulations similar to the proposed project, and to develop mitigation measures to keep impacts to historic and cultural resources to less-than-significant levels.

The proposed project's impact on cultural resources would be less than significant with implementation of Downtown Specific Plan Conditions of Approval 25 through 27 and

Mitigation Measure CUL-1, as discussed above. Thus, the proposed project's contribution to the cumulative impact would be less than significant.

3.4.7 References

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3.5 GEOLOGY AND SOILS

This section presents an analysis the geology and seismic conditions at the proposed project sites and the potential for geologic and seismic hazards at the proposed project sites and surrounding area.

Comments received during the EIR scoping process included the following topic related to geology and soils:

- Ground stability for the proposed project

This topic is addressed in the impact analysis below.

3.5.1 Environmental Setting

The City of Burlingame is located in the area between the San Francisco Bay and the Santa Cruz Mountains. The most densely populated areas of the city, including the area east of El Camino Real and portions of the City west of El Camino Real, are flat, and the western part of the City is in the foothills of the Santa Cruz Mountains and are less densely populated.

Geologic Hazards

The proposed project sites are in the flat part of the City. The surface of the project sites are covered with structures, landscaped areas, and asphalt paved and gravel driveways.

Expansive Soils

Expansive soils are prone to swelling and shrinking depending upon their moisture content. They expand in volume with moisture and shrink when moisture content is low, leaving large voids in the soil. Buildings constructed on expansive soils can result in considerable damage by the shrinking and swelling actions of the surrounding soil.

The soils at the Oak Grove Avenue project site are classified as Holocene Basin deposits. These soils are composed of very fine silty clay to clay deposits occupying flat-floored basins at the distal edge of alluvial fans adjacent to the bay mud. These soils also contain unconsolidated, locally organic, plastic silt and silty clay deposited in very flat valley floors. These soils have low expansion potential.

A geotechnical investigation conducted for the 1128-1132 Douglas Avenue project site found "stiff to very stiff lean clays with variable amounts of sand to depths of 7.5 and 10.5 feet below the surface" (Cornerstone Earth Group 2015). Alternating layers of medium dense to very dense clayey sands and very stiff clays with variable amounts of sand were found extending below the surface layers to depths of 18.5 feet and 35 feet. The geotechnical investigation results indicated that surficial soils at the Douglas Avenue project site have moderate to high expansion potential to wetting and drying cycles, and the soils anticipated to be exposed at the basement level of the proposed project are clayey sands with low expansion potential.

Corrosive Soils

Corrosive soils contain chemicals that can react with construction materials, such as concrete and metals, and can damage foundations. Corrosive characteristics of these soils are electrical resistivity, chloride content, and pH level. The geotechnical investigation conducted for the 1128-1132 Douglas Avenue project site found that the soils at the site may be considered mildly to severely corrosive to metals.

Regional Seismicity

The City of Burlingame is located in the seismically active San Francisco Bay Area. Figure 3.5-1 shows the regional faults in the vicinity of the project area. The U.S. Geological Survey (USGS) Working Group on California Earthquake Probabilities estimates that there is a 72 percent chance of at least one 6.7 magnitude or greater earthquake occurring in the San Francisco Bay Area region in the next 30 years (starting in 2014) (USGS 2015a). The magnitude of an earthquake is a number that characterizes the relative size of an earthquake. Magnitude is based on measurement of the maximum motion recorded by a seismograph. Several scales have been defined, but the moment magnitude (Mw) scale is uniformly applicable to all sizes of earthquakes.

Faults

Faults occur where tectonic plates meet. Plates may collide, pull apart, or scrape past each other resulting in stress and strain on the earth's crust causing a fracture that is called a fault. There are several faults in the vicinity of the proposed project sites that could result in seismic risks to people and property. Active faults are those that have moved one or more times in the last 10,000 years, and are likely to experience another earthquake sometime in the future. The active faults within 15 miles of the project sites are listed in Table 3.5-1 below.

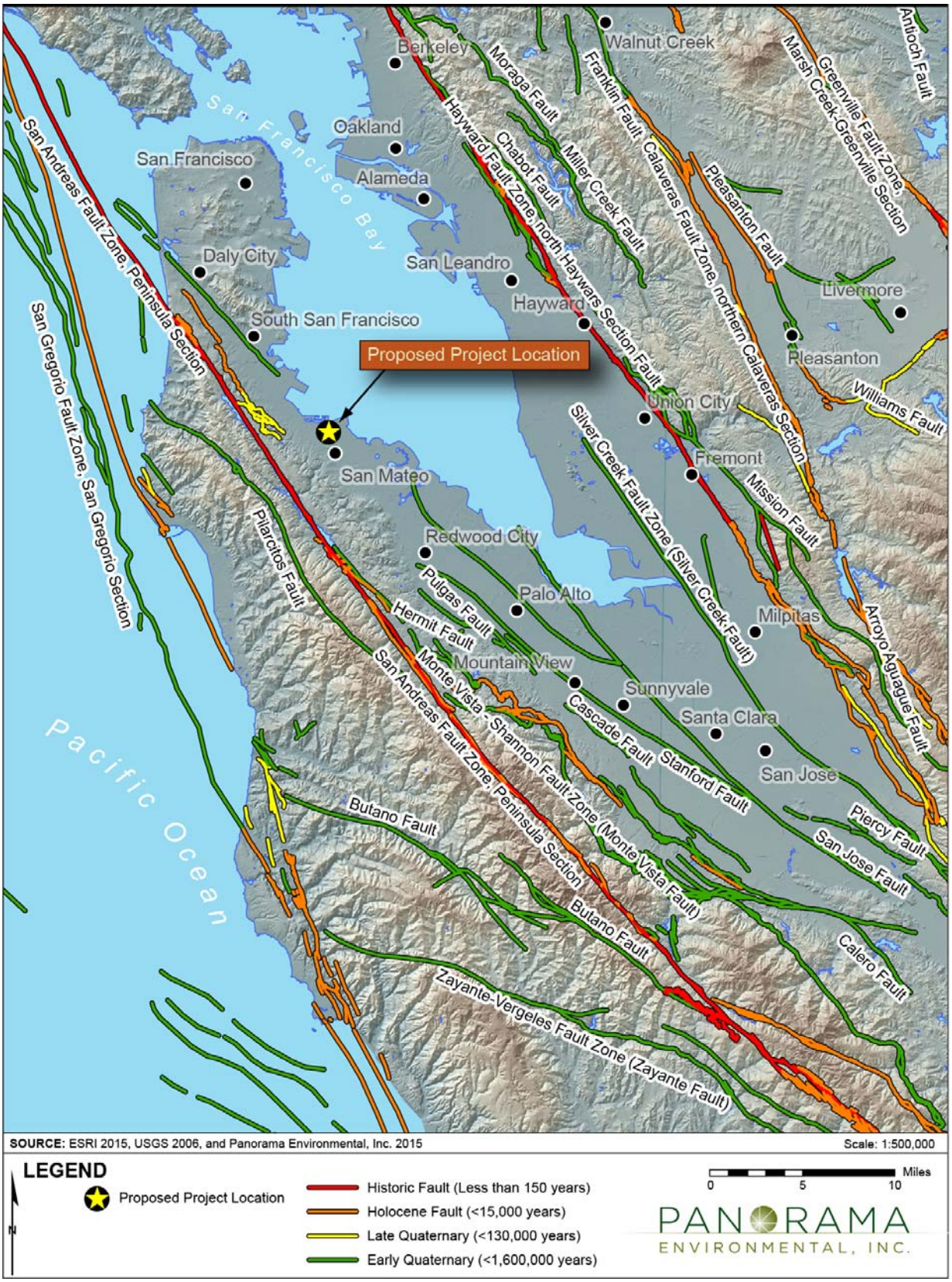
Table 3.5-1 Active Faults within 15 miles of the Proposed Project Sites

Fault Name	Distance from Project Sites
San Andreas Fault	2.7 miles
San Gregorio Fault	9.2 miles
Monte Vista-Shannon Fault	11.2 miles
Hayward Fault	15 miles

San Andreas Fault Zone

The boundary between the North American and Pacific tectonic plates form the San Andreas fault zone that extends from the Salton Sea in southern California near the border with Mexico to north of Point Arena where the fault trace extends into the Pacific Ocean. The San Andreas Fault extends through the San Francisco Bay Area northwest through the Santa Cruz mountains and the western side of the San Francisco peninsula. Within the City, the San Andreas Fault runs north to south through the western edge, roughly 2 to 3 miles west of the proposed project sites.

Figure 3.5-1 Regional Faults in the Vicinity of the Project Area



San Gregorio Fault Zone
The San Gregorio Fault Zone is located off the northern California coastline. The southern end of the fault is in southern Monterey Bay and the northern end is about 20 kilometers northwest of San Francisco near Bolinas Bay. Most of the fault trace is located beneath the waters of Monterey Bay, Half Moon Bay, and the Pacific Ocean briefly touching the shoreline of the San Mateo County coastline at Point Año Nuevo and Pillar Point. This fault is about 9 miles west of the proposed project sites.

Monte Vista-Shannon Fault Zone
The Monte Vista-Shannon Fault Zone is relatively short and is located between the San Andreas and Hayward fault zones. It runs northwest along the eastern foothills of the Santa Cruz Mountains. The Monte-Vista-Shannon Fault is approximately 11 miles south of the proposed project sites.

The Hayward Fault Zone
The boundary defined by the San Andreas Fault is not perfectly straight and the motion of the North American plate is not entirely parallel to the plate boundary. Movement along the boundary creates stresses in the crust on either side of the boundary, resulting in additional faulting on both sides of the San Andreas Fault. One of the larger faults created this way is the Hayward Fault. The Hayward Fault is approximately 15 miles east of the proposed project sites.

Seismic Hazards

Surface Fault Rupture
Surface Fault Rupture occurs when a large magnitude earthquake reaches and displaces the ground surface, forming a break or offset in the ground. Fault ruptures typically occur on the surface trace of active faults. There are no active faults at or near the project sites (California Department of Conservation 2015).

Ground Shaking
An earthquake can result in ground shaking of varying intensities depending upon the magnitude and distance from the epicenter of the earthquake, and the composition of underlying soils. The Modified Mercalli Intensity Scale is commonly used to determine the damage that would be experienced based on the intensity of an earthquake as shown in Table 3.5-2, below. (This intensity scale is not to be confused with the magnitude of an earthquake which measures the energy released by an earthquake and is measured by moment magnitude or Richter magnitude.)

Liquefaction
Liquefaction is the process by which the strength and stiffness of a soil is reduced by earthquake shaking. Liquefaction occurs when earthquake shaking triggers an increase in water pressure that causes the space between individual soil particles to fill with water, saturating the soil. Water saturated soil loses the ability to support foundations for structures and can result in collapsed buildings, bridges and other structures. The soils at the site are predominantly stiff to

Table 3.5-2 Modified Mercalli Intensity Scale

Intensity	Shaking	Description/Damage
I	Not felt	Not felt except by a very few under especially favorable conditions.
II	Weak	Felt only by a few persons at rest, especially on upper floors of buildings.
III	Weak	Felt quite noticeably by persons indoors, especially on upper floors of buildings. Many people do not recognize it as an earthquake. Standing motor cars may rock slightly. Vibrations similar to the passing of a truck. Duration estimated.
IV	Light	Felt indoors by many, outdoors by a few during the day. At night, some awakened. Dishes, windows, doors disturbed; walls make cracking sound. Sensation like heavy truck striking building. Standing motor cars rocked noticeably.
V	Moderate	Felt by nearly everyone; many awakened. Some dishes, windows broken. Unstable objects overturned. Pendulum clocks may stop.
VI	Strong	Felt by all, many frightened. Some heavy furniture moved; a few instances of fallen plaster. Damage slight.
VII	Very Strong	Damage negligible in buildings of good design and construction; slight to moderate in well-built ordinary structure; considerable damage in poorly built or badly designed structures; some chimneys broken.
VIII	Severe	Damage slight in specially designed structures; considerable damage in ordinary substantial buildings with partial collapse. Damage great in poorly built structures. Fall of chimneys, factory stacks, columns, monuments, walls. Heavy furniture overturned.
IX	Violent	Damage considerable in specially designed structures; well-designed frame structures thrown out of plumb. Damage great in substantial buildings, with partial collapse. Buildings shifted off foundations.
X	Extreme	Some well-built wooden structures destroyed; most masonry and frame structures destroyed with foundations. Rails bent.

Source: USGS 2015b

very stiff clays and medium dense to dense sands. These soils have a low potential for liquefaction (Cornerstone Earth Group 2015).

Lateral Spreading

Lateral spreading is horizontal/lateral ground movement of relatively flat-lying soil deposits toward a free face such as an excavation, channel, or open body of water. Lateral spreading is associated with liquefaction of one or more subsurface layers near the bottom of an exposed slope. There are no open faces around the project sites or at a distance considered susceptible to lateral spreading.

Landslides

Landslides include ground movement such as rock falls, deep failure of slopes, and shallow debris flows, and typically occur on sloping ground. The project sites and their surroundings are on relative flat ground with no landslides in the vicinity.

3.5.2 Regulatory Setting

Federal

There are no federal regulations that pertain to geology and soils for the proposed project.

State

California Building Code

The California Building Code (CBC) is contained in Title 24 of the California Building Standards Code and is the basis for the design and construction of buildings in California. The CBC is updated and published in their entirety every three years. The 2013 CBC is currently in effect. The purpose of the CBC is to establish minimum standards to ensure the public health and safety by regulating the design, construction, and quality of buildings and structures. The CBC includes design and construction standards to resist the effects of earthquake motions in accordance with the American Society of Civil Engineers American Society of Civil Engineers (ASCE) 7 Standards. The code also includes standards for other localized hazards depending upon the soil types and geology underlying building sites. The City of Burlingame has adopted the CBC for construction within the City (Burlingame Municipal Code, Title 18.08.010).

Alquist-Priolo Earthquake Fault Zoning Act

The Alquist-Priolo Earthquake Fault Zoning Act was passed in 1972 by the California legislature to mitigate the hazard of surface faulting to structures for human occupancy. This act provides policies and criteria to assist cities and counties, and state agencies in their responsibility to ensure that developments and structures for human occupancy does not occur across the trace of active faults. The Act requires the State Geologist to delineate earthquake fault zones along active faults within the state and to issue appropriate maps. Setbacks from the fault and special studies are required within the specified zones. The City of Burlingame is not located within an Alquist-Priolo Earthquake Fault Zone (California Department of Conservation 2015).

Local

City of Burlingame General Plan

General Plan policy related to geology and soils that is relevant to the proposed project is listed below:

> **Seismic Safety Element**
>
> **Policy SS(B):** Require that new development incorporate seismic hazard mitigation measures to reduce risk to an acceptable level.

3.5.3 Thresholds of Significance

The proposed project would have a significant impact on geology and soils if it would:

a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:

i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault (refer to Division of Mines and Geology Special Publication 42)
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 project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property
e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water

3.5.4 Approach to Analysis

The geotechnical report for the property at 1128-1132 Douglas Avenue, available California Geological Survey maps, the California Department of Conservation website, and the City's General Plan were consulted in order to determine the potential for proposed project related geologic and seismic hazards.

3.5.5 Impacts and Mitigation

Table 3.5-3 provides a summary of the significance of potential geology and soils impacts of the proposed project prior to application of mitigation measures and after the implementation of mitigation measures.

Table 3.5-3 Summary of Geology and Soils Impacts

Significance Criteria	Project Phase	Significance Prior to Mitigation	Significance with Mitigation
Impact Geology-1: Would the project expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving: i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault (refer to Division of Mines and Geology Special Publication 42)	Operation	No Impact	–
ii) Strong seismic ground shaking?	Operation	Less than Significant	–

Significance Criteria	Project Phase	Significance Prior to Mitigation	Significance with Mitigation
iii) Seismic-related ground failure, including liquefaction?	Operation	Less than Significant	–
iv) Landslides?	Operation	No Impact	–
Impact Geology-2: Would the project result in substantial soil erosion or the loss of topsoil?	Construction	Less than Significant	–
Impact Geology-3: Would the project be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?	Construction and Operation	Significant	Less than Significant with MM GEO-1
Impact Geology-4: Would the project be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?	Construction and Operation	Significant	Less than Significant with MM GEO-1
Impact Geology-5: Would the project have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?	Operation	No Impact	–

Impact Geology-1: Would the project expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:

i) rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault

iv) landslides

(*No Impact*)

i) The project sites are not located within a State-designated Alquist-Priolo Earthquake Fault Zone. There are no active faults that cross the proposed project sites (California Department of Conservation 2015). The nearest active fault is the San Andreas Fault approximately 2 miles to the west. The project would not expose people or property to adverse effects from rupture of a known earthquake fault.

iv) The project sites are on flat land. There are no slopes or hillsides in the area surrounding the proposed project sites. There would be no impact to people or property from landslides.

Impact Geology-1: Would the project expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:

ii) strong seismic ground shaking

iii) Seismic-related ground failure, including liquefaction

(Less than Significant Impact)

ii) The USGS Working Group on California Earthquake Probabilities estimates that there is a 72 percent chance of at least one 6.7 magnitude or greater earthquake occurring in the San Francisco Bay Area region in the next 30 years (starting in 2014). The intensity of such an earthquake would depend upon the location, magnitude, and duration of the shaking and the characteristics of the underlying geology. However, groundshaking of a magnitude 6.7 or greater earthquake could cause significant damage in buildings and structures. This would be a significant impact. The damage from groundshaking would be reduced through the application of current industry standard geotechnical practices and seismic structural design in accordance with the CBC, which has been adopted by the City of Burlingame for its building code, and is a condition of approval of the project. The impact would be less than significant.

iii) *524 Oak Grove Avenue Project Site:* The Oak Grove Avenue project site is within a zone mapped as having a low to very low liquefaction potential by the Association of Bay Area Governments (ABAG) (County of San Mateo 2015).

1128-1132 Douglas Avenue Project Site: The site is within a zone mapped as having a moderate liquefaction potential by ABAG. The geotechnical investigation for the Douglas Avenue project site found that the site is underlain by clayey sands. The sand layers at the site would not be expected to experience liquefaction. The report concluded that the liquefaction potential is very low at this site (Cornerstone Earth Group 2015). The impact to people and property from liquefaction would be less than significant.

Mitigation: None required

Impact Geology-2: Would the project result in substantial soil erosion or the loss of topsoil? *(Less than Significant Impact)*

Construction activities that involve land disturbance, such as clearing, grading, and excavation, could result in soil erosion and the loss of topsoil from the effects of wind and water on the exposed soils. Because of the relatively small size (0.3 acre) and flat topography of the project sites, soil erosion would not be substantial. The proposed project would comply with the City's building code which requires that a permit be obtained before any grading or excavation activities can take place. The permit would include protection measures that would ensure that any soil erosion and topsoil loss is minimized. The NPDES General Permit compliance would also minimize erosion. The impact would be less than significant.

Mitigation: None required

Impact Geology-3: Would the project be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse? (*Less than Significant Impact with Mitigation)*

524 Oak Grove Avenue Project Site

Minimal soil disturbance would occur at the Oak Grove project site. As described above, the activities at this project site location would not result in landslide, lateral spreading, subsidence, or collapse. The project plans include over-excavating the soils, adding new soils and recompacting the site, which would mitigate any impacts from unstable soils.

1128-1132 Douglas Avenue Project Site

The geotechnical investigation report (Cornerstone Earth Group 2015) for the 1128-1132 Douglas Avenue project site location presents an evaluation of construction of the proposed building based on the soil types at the site. Excavation for the underground parking garage and surface paving could potentially result in foundation issues if the underlying soil types are not taken into consideration and could result in instability at the site, which would be a significant impact. The geotechnical investigation report defines many recommended measures that would ensure that the project would not result in lateral spreading, subsidence, or collapse. The measures include reinforced concrete mat foundations, restrained walls and a subdrain system for the basement level, permanent post-grouted tieback anchors, dewatering the basement garage area, installing non-expansive fill, limiting landscape watering, directing drainage away from buildings, and treating excavated soils (scarifying and drying, removal and replacement, or chemical treatment). The report includes recommendations for earthwork, foundations, concrete slabs and pavements, and retaining walls. With implementation of Mitigation Measure GEO-1 below, this impact would be less than significant.

Mitigation: Mitigation Measure GEO-1

> **MM GEO-1: Implementation of Geotechnical Recommendations**
>
> The Applicant and their contractors shall implement the measures outlined and recommended in the Geotechnical Investigation Report Chapters 5 through 10 for the proposed construction at 1128-1132 Douglas Avenue.

Significance after Mitigation: Less than Significant

Impact Geology-4: Would the project be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property? (*Less than Significant Impact with Mitigation)*

524 Oak Grove Avenue Project Site

Expansive soils are known to be present at this project site. The project plans show that a minimum of 18 inches of sub-grade soil in the new building area would be scraped and re-

compacted to remove the expansive soils, which would avoid a significant impact related to expansive soils. The proposed project would be required to obtain a building permit before construction can occur. The conditions of the building permit would ensure that construction techniques address the soil conditions at the project site. The Applicant would be required to comply with the conditions of the building permit. The impact would be less than significant.

1128-1132 Douglas Avenue Project Site

Moderately to highly expansive surficial soils are present at this project site and could result in a significant impact. Implementing the geotechnical report recommendations, such as scarifying and drying, removal and recompaction, or chemical treatment, would mitigate the hazard of expansive soils. Implementation of Mitigation Measure GEO-1 would ensure that impacts would be less than significant.

Mitigation: MM GEO-1: Implementation of Geotechnical Recommendations

Significance after Mitigation: Less than Significant

Impact Geology-5: Would the project have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water? *(No Impact)*

The project sites would be served by the City's sewer system and would not require septic tanks or alternative waste water disposal systems. There would be no impact.

3.5.6 Cumulative Geology and Soils Impacts

Cumulative Context

The San Francisco Bay Area and the City of Burlingame have a wide range of geologic and soil conditions that can vary widely within short distances. Thus, geological impacts are typically confined to discrete spatial locations and do not combine to create an extensive cumulative impact. The exception would be the presence of a large geologic feature such as fault zone or large landslide, which could potentially impact an extensive area. There are no such features in the vicinity of the proposed project sites. The cumulative context for geology and soils is confined to the proposed project site locations.

Cumulative Analysis

The construction activities at the project sites would be conducted under the requirements of the conditions of the geotechnical report. The impacts related to site stability would be reduced by implementation of Mitigation Measure GEO-1. This impact would not combine with other impacts to create a cumulatively significant impact related to site stability.

The proposed project would result in an increase in the number of residents in an area susceptible to seismic and geologic hazards. The current California Building Code requires that renovated buildings be seismically retrofitted and new buildings be constructed to stricter codes to reduce the potential for hazards from ground failure and seismic hazards. It is reasonable to assume that other recently completed, approved, and future projects would also

be subject to the same building codes. Implementation of these standards for redevelopment and development projects, including the proposed project, would ensure that the proposed project's contribution to cumulative impacts from geologic and seismic hazards are less than significant.

3.5.7 References

California Department of Conservation. 2015. California Geological Survey, Alquist-Priolo Earthquake Fault Zones, *Table 4: Cities and Counties Affected by Alquist-Priolo Earthquake Fault Zones as of January 2010*. Accessed August 12, 2015 at http://www.conservation.ca.gov/cgs/rghm/ap/Pages/affected.aspx.

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3.6 GREENHOUSE GAS EMISSIONS

This section describes existing greenhouse gas (GHG) emission conditions in the proposed project region and vicinity, GHG regulations applicable to the proposed project, and potential impacts from GHG emissions from construction and operation of the proposed project. Information presented in this section is derived from air emission models that predict regional emissions. GHGs are of global concern because they cause global climate change.

The EIR scoping did not identify any issues related to GHGs.

3.6.1 Environmental Setting

GHGs contribute to climate change by "absorb[ing] and re-emit[ting] most of the energy that radiates upward from the Earth's surface, adding the heat back to the lower atmosphere and warming the Earth's surface" (EPA 2012a). Scientific research indicates that observed global climate change is very likely a result of increased GHG emissions associated with industrial-era human activities. The principal GHGs contributing to global climate change are carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O), and fluorinated compounds, such as hydrofluorocarbons (HFCs) and perfluorocarbons (PFCs) (U.S. Energy Information Administration 2014). Fossil fuel combustion is the main source of CO_2 emissions. Fossil-based fuel production, agriculture, and landfills emit CH_4. Agricultural activities, industrial activities, fossil fuel combustion, and solid waste combustion produce N_2O. Industrial processes and various household and commercial uses emit fluorinated compounds (EPA 2012a).

Global climate change results in several effects, such as increased temperatures, changes in snow and rainfall patterns, and an increase in droughts, tropical storms, and heavy rain events. These effects have positive and negative ramifications. Warmer temperatures may reduce demand for heating and may result in favorable conditions for certain crops. Conversely, increased temperatures can be disadvantageous for vulnerable populations and can damage certain crops. Precipitation can increase water supplies, but concentrated precipitation can cause death and infrastructure damage (EPA 2012a).

Measuring Greenhouse Gas Emissions

GHG emissions are often measured using a single, consistent GHG emission unit called the carbon dioxide equivalent (CO_2e). Each GHG has an estimated global warming potential (GWP), which is a function of its atmospheric lifetime and its ability to absorb and radiate infrared energy emitted from the Earth's surface. The GWP provides a comparison of the warming influence of different GHGs relative to CO_2 (the predominant GHG), which allows for the calculation of CO_2e.

Existing Greenhouse Gas Emissions

In 2010, the City of Burlingame prepared a city-wide GHG inventory to evaluate progress made since the baseline inventory was taken in 2005 and to continue to track sources and quantify the

relative weight of GHG emissions from each source (City of Burlingame 2014). Table 3.6-1 shows the City of Burlingame GHG inventory and emissions projects.

Table 3.6-1 City of Burlingame Greenhouse Gas Inventory

Emissions Source	Greenhouse Gas Emissions (MT CO_2e)		Increase or Decrease in Emissions (MT CO_2e)
	2005	2010	
Residential	47,523	47,232	-291
Commercial/Industrial	74,466	73,759	-707
Transportation – Local roads	60,935	58,151	-2,784
Transportation – State Highways	142,279	122,520	-19,759
Transportation – Off-road Equipment	17,674	18,111	+437
Solid Waste – Generated Waste	11,742	5,523	-6,219
Solid Waste- Landfills[1]	265	204	-61
Wastewater[1]	338	495	+181
City-owned Stationary Sources	Not inventoried	3	Not applicable
Water	Not inventoried	530	Not applicable
Transportation – Caltrain	Not inventoried	2,410	Not applicable
TOTAL	**355,221**	**328,937**	**-26,284 (-7%)**

Note:

[1] Emissions from landfills and wastewater were included in the 2005 Burlingame Municipal Operations Inventory, but not in the community-wide inventory. These sources have been added to the 2010 Community-wide inventory due to the new U.S. Community GHG Protocol, and so have been added to the 2005 inventory total to allow for a better comparison between 2005 and 2010 emissions. Off-road emissions were also added to the 2005 inventory total to allow for a better comparison. It is considered standard practice to include off-road emissions in a community-wide inventory, and the methodology for estimating these emissions was readily available.

Source: City of Burlingame 2014

3.6.2 Regulatory Setting

International Actions

The Intergovernmental Panel on Climate Change (IPCC) was established in 1988 by the World Meteorological Organization and the United Nations Environment Program to provide world governments with a clear scientific view of changes to the world's climate.

In 1992, countries joined an international treaty, the United Nations Framework Convention on Climate Change (UNFCCC), to consider what actions they could cooperatively perform to limit average global temperature increases and the resulting climate change (UNFCCC 2014). The UNFCCC developed the Kyoto Protocol, an international agreement that sets binding targets for 37 industrialized countries and the European community for reducing GHG emissions

(UNFCCC 2014). In 2015, the UNFCCC developed the Paris Agreement which developed a framework for to limit global average temperature increases and GHG emissions (UNFCCC 2015).

Federal

Clean Air Act

On December 7, 2009, the EPA Administrator signed two distinct findings regarding GHGs under Section 202(a) of the Clean Air Act (CAA):

- **Endangerment Finding:** The current and projected concentrations of the six key well-mixed GHGs – CO_2, CH_4, N_2O, HFCs, PFCs, and SF_6 – in the atmosphere threaten the public health and welfare of current and future generations.
- **Cause or Contribute Finding:** The combined emissions of these well-mixed greenhouse gases from new motor vehicles and new motor vehicle engines contribute to the GHG pollution that threatens public health and welfare.

These findings do not themselves impose any requirements on industry or other entities. This action, however, is a prerequisite for implementing GHG emissions standards for vehicles.

Light-Duty Vehicle Standards

In collaboration with the National Highway Traffic Safety Administration (NHTSA), EPA finalized the program to reduce GHG emissions and improve fuel economy for light-duty vehicles (model years [MY] 2012-2016) in May 2010 which was extended in 2012 (EPA 2012b). Standards to reduce GHG emissions include fuel economy targets and improvements in vehicle technologies including improved vehicle aerodynamics, reduced vehicle weight, lower tire rolling resistance, and expanded production of electric and hybrid vehicles.

Heavy-Duty Truck and Bus Standards

In August 2011, EPA and NHTSA announced the first-ever program to reduce GHG emissions and improve the fuel efficiency of heavy-duty trucks and buses. The final combined standards of the program will reduce CO_2 emissions by about 270 million metric tons and save about 530 million barrels of oil over the life of MY 2014-2018 heavy-duty vehicles (EPA 2011).

State

Executive Order S-3-05

Executive Order S-3-05, signed in June 2005 by Governor Arnold Schwarzenegger, asserts that California is vulnerable to the impacts of climate change and that increased temperatures could reduce the Sierra snowpack, further exacerbate California's air quality problems, and potentially cause a rise in sea levels. To combat those concerns, the Execute Order established the state's first GHG emissions targets:

- Reduce GHG emissions to 2000 levels by 2010;
- Reduce GHG emissions to 1990 levels by 2020; and
- Reduce GHG emissions to 80 percent below 1990 levels by 2050.

This Executive Order requires biannual reports on progress made toward meeting these targets and the global warming impact on California.

Global Warming Solutions Act of 2006 (Assembly Bill 32)

In September 2006, the state legislature passed and Governor Schwarzenegger signed Assembly Bill (AB) 32 (Chapter 488, States of 2006), the Global Warming Solutions Act of 2006, which set the 2020 GHG emissions reduction goal into law. AB 32 directed CARB to begin developing discrete early actions to reduce GHG emissions while also preparing the Climate Change Scoping Plan, which outlines a framework of measures that would eventually be adopted and implemented to reach AB 32 goals (CARB 2014). The Climate Change Scoping Plan was originally approved in 2008 and updated in May 2014. Regulations are being phased in over time. Adopted regulations include the 33 percent Renewable Portfolio Standard, the Cap-and-Trade Program, and the Low Carbon Fuel Standard. Relevant recommended actions of the updated Climate Change Scoping Plan are generally related to transportation/goods movement and high-global warming potential gases. These actions are listed in Table 3.6-2.

Table 3.6-2 Climate Change Scoping Plan Actions

Action	Expected Completion Date
Propose "Phase 2" heavy-duty truck GHG standards (CARB)	2016
Begin compliance actions for working toward the elimination of disposal of organic waste in landfills if the legislature does not act in 2014 (CalRecycle, CARB)	2016
Continue diesel controls that will reduce black carbon emissions by 95 percent from the late 1960s to 2020 (CARB)	2020
Reduce emissions of smog-forming pollutants by about 90 percent below 2010 levels by 2032 to meet the National Ambient Air Quality Standards (NAAQS) for O_3 (CARB)	2032

Source: CARB 2014

Assembly Bill 1826

Governor Brown signed AB 1826 (Chapter 727, Statutes of 2014) in October 2014. AB 1826 requires businesses to recycle their organic waste on and after April 1, 2016, depending on the amount of waste they generate per week. The law also requires local jurisdictions across California to implement organic waste recycling programs to divert organic waste generated by businesses, including multifamily residential buildings that consist of five or more units. AB 1826 was enacted to reduce the disposal of organic waste in landfills in an effort to reduce GHG emissions from landfills, which is a part of the CARB Climate Change Scoping Plan.

Senate Bill 375

Senate Bill (SB) 375, known as the Sustainable Communities Strategy and Climate Protection Act, was signed into law in September 2008. SB 375 required CARB to develop regional GHG reduction targets for the automobile and light truck sectors for 2020 and 2035. The per capita reduction targets for passenger vehicles in the San Francisco Bay Area include a seven percent

reduction by 2020 and a 15 percent reduction by 2035 compared to 2005 emissions. The four major requirements of SB 375 are:

1. Metropolitan Planning Organizations (MPOs) must meet greenhouse gas emission reduction targets for automobiles and light trucks through land use and transportation strategies.
2. MPOs must create a Sustainable Communities Strategy, to provide an integrated land use/transportation plan for meeting regional targets, consistent with the Regional Transportation Plan.
3. Regional housing elements and transportation plans must be synchronized on eight-year schedules, with Regional Housing Needs Assessment allocation numbers conforming to the Sustainable Community Strategy.
4. MPOs must use transportation and air emissions modeling techniques consistent with guidelines prepared by the California Transportation Commission.

In response to SB 375, the Metropolitan Transportation Commission and Association of Bay Area Governments adopted Plan Bay Area in July 2013. Strategies in the plan are intended to promote compact, mixed-use development close to public transit, jobs, schools, shopping, parks, recreation, and other amenities, particularly within Priority Development Areas (PDA) identified by local jurisdictions. The proposed project Douglas Avenue site is located within a PDA; the Oak Grove Avenue site is located outside of a PDA.

Executive Order B-16-2012

Executive Order B-16-2012, signed in March 2012 by Governor Brown, ordered CARB, the California Energy Commission, the California Public Utilities Commission (CPUC), and other relevant agencies to establish benchmarks to achieve a myriad of goals set for 2015, 2020, and 2025 to reduce GHG emissions in California. Governor Brown also set a target such that GHG emissions from the transportation sector would be reduced to 80 percent less than 1990 levels by 2050.

Executive Order B-30-15

In April 2015, Governor Brown signed Executive Order B-30-15, establishing a new interim GHG emission reduction target of 40 percent below 1990 levels by 2030. The interim reduction target was established in order to ensure California meets its goal of reducing GHG emissions to 80 percent below 1990 levels by 2050. Executive Order B-30-15 requires state agencies to consider climate change in their planning and investment decisions, giving priority to actions that reduce GHG emissions.

2013 California Green Building Standards

The 2013 California Green Building Standards became effective in January 2014 (CBSC 2013). New residential buildings must be designed to include, among others, energy efficiency, recycling, construction waste reduction, and pollutant control Green Building mandatory measures. Energy efficient construction reduces how much electricity and natural gas must be used in new buildings which correlates to reductions in GHGs.

Regional and Local

Bay Area 2010 Clean Air Plan

The Bay Area 2010 Clean Air Plan (2010 CAP) addresses air emissions in the San Francisco Bay Area Air Basin (SFBAAB). One of the key objectives in the CAP is climate protection. The 2010 CAP includes emission control measures and performance objectives, consistent with the state's climate protection goals under AB 32 and SB 375, designed to reduce GHG emissions to 1990 levels by 2020 and 40 percent below 1990 levels by 2035 (BAAQMD 2010).

City of Burlingame Municipal Code

Chapter 8.17 Recycling and Diversion of Debris from Construction and Demolition

All buildings planned for demolition or any building planned for alteration where the alteration has a total value of $50,000 or more are subject to Chapter 8.17 of the Burlingame Municipal Code. Chapter 8.17 requires applicable projects to recycle at least 60 percent of total waste during demolition or construction.

Chapter 18.30 Green Building Code

Chapter 18.30 of the Burlingame Municipal Code requires all residential projects with a construction value of $50,000 or more to exceed the 2008 Building Energy Efficiency Standards (California Building Code Title 24, Part 6) by 15 percent. Compliance with the Green Building Code requires the submittal of a GreenPoint checklist, or equivalent, with a minimum rating of 50 points to the Planning Division or Building Division, depending on whether Planning Commission approval is required. Projects must show verification of energy savings which exceed the 2008 Building Energy Efficiency Standards by 15 percent.

City of Burlingame General Plan

The Housing Element of the Burlingame General Plan (City of Burlingame 2010) contains policies, recommendations, and actions to promote energy conservation, which reduces GHG emissions. The Housing Element contains the following policy relevant to GHG emissions:

Policy H (E-1) Promote the use of energy conservation in residential construction.

Burlingame Downtown Specific Plan

The City of Burlingame adopted the Downtown Specific Plan in 2010, which includes goals and policies for the development of areas within Downtown Burlingame (City of Burlingame 2011). The Downtown Specific Plan also includes conditions that the Applicant must fulfill in order to receive approval for the construction of the proposed project. These conditions of approval apply to both project sites. The condition for approval relevant to greenhouse gas emissions are listed in Table 3.6-3 below.

Table 3.6-3 Downtown Specific Plan Condition of Approval

Condition of Approval	Description
Condition of Approval 2: Implement Construction Period Reduction Measures	*Ongoing during project construction:* The project sponsor shall implement the following GHG reduction measures during construction activities: Alternative-Fueled (e.g., biodiesel, electric) construction vehicles/equipment shall make up at least 15 percent of the fleet; Use at least 10 percent local building materials; and Recycle at least 50 percent of construction waste or demolition materials.

Source: City of Burlingame 2011

City of Burlingame Climate Action Plan

Adopted in 2009, the City of Burlingame's Climate Action Plan (2009) serves as a guide to identify methods that the City and community can implement to significantly reduce GHG emissions. The Climate Action Plan is a first step toward meeting the requirements mandated by AB 32 and provides a statement of intent for long- and short-term GHG reduction priorities and policies. In addition, it provides baseline emissions; sets emissions reduction targets stipulated by AB 32; and recommends steps to be taken to reduce emissions, increase sustainability, and improve quality of life.

3.6.3 Thresholds of Significance

For the purposes of this EIR, an impact from greenhouse gas emissions is considered significant if the project would:

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

GHG emissions worldwide cumulatively contribute to the significant adverse environmental impacts of global climate change. No single land use project could generate sufficient GHG emissions on its own to noticeably change the global average temperature. The combination of GHG emissions from past, present, and future projects in Burlingame, the entire state of California, across the nation, and around the world cumulatively contribute to the phenomenon of global climate change and its associated environmental impacts.

BAAQMD Threshold of Significance

The BAAQMD's approach to developing thresholds of significance for GHG emissions identifies the "emissions level for which a project would not be expected to substantially conflict with existing California legislation adopted to reduce statewide GHG emissions" (BAAQMD 2011). A project would substantially contribute to a cumulative impact if the project would generate GHG emissions above the threshold level that would constitute a significant impact. The GHG emission thresholds are expressed in metric tons (MT) CO_2e per year. The

BAAQMD 2011 CEQA Guidelines do not include a threshold for GHG emissions from project construction; however, the BAAQMD indicates that a lead agency should quantify and disclose GHG emissions from construction and make a significance determination in relation to meeting AB 32 GHG reduction goals (BAAQMD 2011).

The threshold for GHG emissions from project operation is 1,100 MT CO_2e per year (MT CO_2e/year) or 4.6 MT CO_2e per capita per year (MT CO_2e/capita/year) for land-use type projects and 10,000 MT CO_2e/year for stationary sources (BAAQMD 2011).

3.6.4 Impacts and Mitigation

Table 3.6-4 provides a summary of the significance of greenhouse gas emissions impacts of the proposed project prior to application of mitigation measures and after the implementation of mitigation measures.

Table 3.6-4 Summary of Greenhouse Gas Emissions Impacts

Significance Criteria	Project Phase	Significance Prior to Mitigation	Significance with Mitigation
Impact GHG-1: Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment	Construction	Less than Significant	–
	Operation	Less than Significant	–
Impact GHG-2: Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases	Construction	Less than Significant	–
	Operation	Less than Significant	–

Impact GHG-1: Would the proposed project generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment? (*Less than Significant Impact*)

As discussed in Section 3.2.4 Air Quality, the CalEEMod model was used to predict GHG emissions from construction and operation of the proposed project. Details and assumptions regarding the model are summarized in Section 3.2.4 and presented in Appendix C.

Construction

Greenhouse gases would be emitted during the following activities:

- Tree removal
- Demolition of buildings
- Grading
- Excavation for building foundation and the parking garage
- Vehicle traffic
- Architectural coatings
- Paving
- Equipment and material transport

Estimated GHG emissions from construction of the proposed project would be up to 229.98 MT CO_2e, as shown in Table 3.6-5. While there is no adopted significance threshold for construction-related GHG emissions, total construction period emissions would be less than the BAAQMD operational threshold of 1,100 MT CO_2e per year. Impacts would be less than significant. No mitigation is required.

Table 3.6-5 Construction GHG Emissions

Construction Year	CO_2 Equivalent Emissions Per Year (MT CO_2e/year)
2017	212.16
2018	17.82
Total Construction Emissions	**229.98**
BAAQMD Significance Threshold	**1,100**
Exceeds Threshold?	**No**

Source: Panorama 2016

While impacts would be less than significant, the Applicant would be required to implement the control measures listed in the conditions of approval in the Burlingame Downtown Specific Plan, which would further decrease GHG emissions. At least 15 percent of the construction vehicle and equipment fleet would be required to use alternative fuels (e.g., biodiesel, electric), and vehicle idling time would be restricted to 5 minutes (see Section 3.2 Air Quality). To reduce emissions from vehicle transport of building materials, at least 10 percent of building materials must come from a local source.

Operation

Project operation would generate GHG emissions primarily through electricity use and vehicle trips for new residents. With a fully occupied apartment complex at the Douglas Avenue project site and a fully occupied single-family house at the Oak Grove Avenue project site, operational GHG emissions are estimated to be 240.61 MT CO_2e/year, as shown in Table 3.6-6. Operational GHG emissions would be below the significance threshold and impacts would be less than significant. No mitigation is required.

While impacts would be less than significant, the Applicant would be required to exceed the 2008 Building Energy Efficiency Standards (California Building Code Title 24, Park 6) by at least 15 percent pursuant to the Burlingame Municipal Code. Installation of energy efficient appliances would reduce GHG emissions through reduction of electricity use. The Applicant also proposes to install one electric vehicle charging station, which would promote the use of electric vehicles and reduce reliance on fossil fuels for vehicle trips. The apartment complex at the Douglas Avenue project site would be located within 0.5 mile of the Burlingame Caltrain Station as well as the downtown commercial area, both of which would encourage use of public transportation or walking in lieu of vehicle trips. Use of alternate forms of transportation would further reduce operational GHG emissions.

Table 3.6-6 Operational GHG Emissions

Emission Source	CO_2 Equivalent Emissions Per Year (MT CO_2e/year)
Area	0.37
Energy Usage	49.17
Mobile	177.46
Solid Waste Generation	6.83
Water Usage	6.77
Total Operational Emissions	**240.61**
BAAQMD Significance Threshold	**1,100**
Exceeds Threshold?	**No**

Source: Panorama 2016

Mitigation: None required

Impact GHG-2: Would the proposed project conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases? (*Less than Significant Impact*)

Construction

CARB Climate Change Scoping Plan

Construction of the Proposed Project would result in GHG emissions that are covered by the CARB Climate Change Scoping Plan. Conformity with relevant actions in the plan is summarized in Table 3.6-7.

Table 3.6-7 Proposed Project Conformity with CARB Scoping Plan Actions

Action	Expected Completion Date	Project Conflict?
Propose "Phase 2" heavy-duty truck GHG standards (CARB)	2016	The Applicant would utilize a construction fleet that meets the EMFAC2011 requirements, which meet and exceed "Phase 2" heavy-duty truck GHG standards. In addition, at least 15 percent of the construction vehicle and equipment fleet would be required to use alternative fuels (e.g., biodiesel, electric) in order to comply with the Burlingame Downtown Specific Plan conditions of approval. **The project would not conflict with this Scoping Plan action.**
Begin compliance actions for working toward the elimination of disposal of organic waste in landfills if the legislature does not act in 2014 (CalRecycle, CARB)	2016	The legislature enacted AB 1826 in October 2014. The proposed project would conflict with this action if the apartment complex at the Douglas Avenue project site did not comply with AB 1826. **Compliance with AB 1826 (discussed below) would ensure compliance with this CARB Scoping Plan action.**

Action	Expected Completion Date	Project Conflict?
Continue diesel controls that will reduce black carbon emissions by 95 percent from the late 1960s to 2020 (CARB)	2020	The project would use diesel-burning vehicles and equipment, which produce black carbon emissions. The Scoping Plan notes that regulating diesel particulate retrofits and turnover of legacy fleets would reduce black carbon emissions. It is unclear when or if these regulations will be implemented; however, idling restrictions, as required by the Burlingame Downtown Specific Plan conditions of approval, would reduce emissions. **The project would not conflict with this Scoping Plan action.**
Reduce emissions of smog-forming pollutants by about 90 percent below 2010 levels by 2032 to meet the NAAQS for O_3 (CARB)	2032	The project would use diesel-burning vehicles and equipment, which produce emissions that would contribute to smog formation. The project is consistent with the 2010 CAP, which was, in part, drafted to outline how the O_3 CAAQS will be met. The CAAQS for O_3 are more stringent than the NAAQS; therefore, consistency with the 2010 CAP would ensure emissions would meet the NAAQS for O_3. **The project would not conflict with this Scoping Plan action.**

AB 1826

AB 1826 requires jurisdictions to provide composting services to residences. Disposal of organic waste is defined in PRC Section 42649.8(c) as food waste, green waste, landscape and pruning waste, nonhazardous wood waste, and food-soiled paper waste that is mixed in with food waste. Recology provides residential waste pickup including solid waste, recycling, and composting within the City of Burlingame (City of Burlingame 2015). Therefore, composting services are available to the proposed residences and there would be no conflict with AB 1826.

Bay Area 2010 CAP

As discussed in Section 3.2.5: Air Quality, Impact Air-1, the proposed project would not conflict with the 2010 CAP because emissions would be below the BAAQMD significance threshold. Impacts would be less than significant. No mitigation is required.

Operation

CARB Climate Change Scoping Plan

Residents at the Douglas Avenue apartment complex would produce organic waste during operation of the proposed project. Disposal of organic waste that meets or exceeds four cubic yards of waste at a landfill after January 1, 2017 would be in conflict with the requirements in AB 1826, which would be a significant impact. Mitigation Measure GHG-1 would require the Applicant to dispose of organic waste consistent with subdivision (b) of AB 1826. Impacts would be less than significant with mitigation.

Bay Area 2010 CAP
Long-term operation of the proposed project would not generate GHG emissions that would exceed the significance threshold, as discussed in Impact GHG-1. Impacts would be less than significant. No mitigation is required.

While impacts would be less than significant, the Applicant would be required to exceed the 2008 Building Energy Efficiency Standards (California Building Code Title 24, Park 6) by at least 15 percent pursuant to the Burlingame Municipal Code. Installation of energy efficient appliances would reduce GHG emissions through reduction of electricity use. The Applicant also proposes to install one electric vehicle charging station, which would promote the use of electric vehicles and reduce reliance on fossil fuels for vehicle trips. The apartment complex at the Douglas Avenue project site would be located within 0.5 mile of the Burlingame Caltrain Station as well as the downtown commercial area, both of which would encourage use of public transportation, walking, or bicycling in lieu of vehicle trips. Use of alternate forms of transportation would further reduce operational GHG emissions.

Mitigation: None required

3.6.5 Cumulative Greenhouse Gas Emissions Impacts

Cumulative Context
Anthropogenic sources of GHG emissions have been linked to climate change on a global scale. Temperature, ocean currents, and weather patterns are all affected by the presence of GHG pollutants in the atmosphere. Thus, the cumulative study area for GHG emissions is the globe.

Past, present, and future projects around the world contribute to climate change. By its very nature, GHG emissions are largely a cumulative impact. No single project is sufficient in size to, by itself, significantly increase global GHG emissions. Instead, a project's individual emissions contribute to existing cumulatively significant adverse climate change impacts. In developing thresholds of significance for air pollutants, BAAQMD considered the emission levels for which a project's individual emissions would be cumulatively considerable. If a project exceeds the identified significance threshold, its emissions would be cumulatively considerable, resulting in significant adverse GHG emissions impacts to the region's existing GHG conditions.

Cumulative Analysis
As discussed in Impacts GHG-1 and GHG-2, the proposed project would not result in significant operational GHG emissions. Therefore, the project would not have a considerable contribution to significant cumulative regional GHG emissions. Impacts would be less than significant.

3.6.6 References

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3.7 HAZARDS AND HAZARDOUS MATERIALS

This section presents an analysis of the proposed project's potential for creating hazards or hazardous conditions during the construction and operation of the project. Specifically, it addresses the handling of hazardous materials, safety hazards for workers and people in the area, and physical interference with emergency evacuation plans.

No comments related to hazards and hazardous materials were received during the EIR scoping process.

3.7.1 Environmental Setting

Possible Sources of Contamination

The following state and federal databases were reviewed for hazardous materials sites within the project footprint and a 0.25-mile buffer area:

- EPA National Priorities List (NPL) (EPA 2015)
- California Department of Toxic Substances Control (DTSC) sites (EnviroStor database) (DTSC 2015)
- Leaking Underground Storage Tank, Department of Defense, and Site Cleanup Program sites – GeoTracker database (SWRCB 2015)

No open hazardous materials sites within 0.25 mile of the proposed project area were identified from the NPL or the GeoTracker database. The EnviroStor database, however, did identify one open hazardous site within 0.25 mile of the proposed project area. Details for that site are summarized in Table 3.7-1.

Table 3.7-1 Open Hazardous Site within 0.25 Mile of the Proposed Project

Site Name and Address	Approximate Distance and Direction from Project Site	Affected Medium	Chemical of Concern	Status
Burlingame High School 400 Carolan Avenue Burlingame, CA 94010-2708	1,075 feet northwest of the Douglas Avenue project site 1,000 feet southeast of the Oak Grove Avenue project site	Soil	Lead, arsenic, and polychlorinated biphenyl (PCB)	Certified/ Operation & Maintenance as of 08/04/2011

Source: DTSC 2015

Hazardous Building Materials

The single-family house located at the Douglas Avenue project site was constructed in 1910, the four-apartment building located at the Douglas Avenue project site was constructed in 1952, and the single-family house located at the Oak Grove Avenue project site was constructed in 1939. Prior to the 1970s, buildings were constructed using hazardous materials, including

asbestos for insulation, lead-based paint, and polychlorinated biphenyls (PCBs) for fluorescent light ballasts, electrical transformers, capacitors, and generators. The buildings at the project sites may have been constructed using these hazardous materials. Exposure to these three hazardous materials can cause severe health effects.

Soils

The soils within the proposed project sites may be contaminated with lead as a result of weather and/or peeling of painted surfaces. In addition, the soils within the proposed project sites may be contaminated by pesticides historically used to control termites (Cornerstone Earth Group 2015).

Airports and Airstrips

There are no public or private airports or airstrips immediately adjacent to the proposed project. The closest airport is San Francisco International (SFO) Airport. The proposed project falls within the SFO airport influence area and is subject to the SFO Airport Land Use Compatibility Plan (ALUCP). The Plan identifies the 65 dB CNEL noise contour is considered to be the threshold of exposure to excessive noise levels. Both the Oak Grove Avenue and Douglas Avenue project sites are located outside the 65 dB CNEL noise contour for SFO Airport, and are therefore compatible with the Comprehensive Airport Land Use Plan standards (City/County Association of Governments 2012). The pertinent policies, established by the ALUCP to reduce potential hazards are provided in Section 3.7.2.

Sensitive Receptors

The sensitive receptors within the vicinity of the proposed project are summarized in Table 3.2-2 in Section 3.2: Air Quality. There are three schools located within 0.25 mile of the Douglas Avenue Project site and there are two schools located within 0.25 mile of the Oak Grove Avenue project site.

3.7.2 Regulatory Setting

Federal

U.S. Environmental Protection Agency

The U.S. Environmental Protection Agency (EPA) was established in 1970 in response to the growing public demand for cleaner water, air, and land. EPA works to develop and enforce regulations that implement environmental laws enacted by Congress.

Federal Toxic Substances Control Act

The Federal Toxic Substances Control Act (1976) and Resource Conservation and Recovery Act (RCRA) of 1976 established a program administered by EPA for the regulation of the generation, transportation, treatment, storage, and disposal of hazardous waste. RCRA was amended in 1984 by the Hazardous and Solid Waste Act, which affirmed and extended the "cradle to grave" system of regulating hazardous wastes. Regulations for handling and disposal of asbestos, lead-based paint, and PCBs are described in 40 CFR Part 763, 745, 761, respectively.

Comprehensive Environmental Response, Compensation, and Liability Act
The Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), commonly known as Superfund, was enacted by Congress on December 11, 1980. This law (USC Title 42, Chapter 103) provides broad federal authority to respond directly to releases or threatened releases of hazardous substances that may endanger public health or the environment. CERCLA establishes requirements concerning closed and abandoned hazardous waste sites, provides for liability of persons responsible for releases of hazardous waste at these sites, and establishes a trust fund to provide for cleanup when no responsible party could be identified. CERCLA also enables the revision of the National Contingency Plan (NCP). The NCP (40 CFR Part 300) provides the guidelines and procedures needed to respond to releases and threatened releases of hazardous substances, pollutants, and/or contaminants. The NCP also established the NPL. CERCLA was amended by the Superfund Amendments and Reauthorization Act (SARA) on October 17, 1986.

Clean Water Act
As part of the Clean Water Act, EPA oversees and enforces the Oil Pollution Prevention regulation (40 CFR Part 112). The regulations describe the requirements for facilities to prepare, amend, and implement Spill Prevention, Control, and Countermeasure (SPCC) Plans. A facility is subject to SPCC regulations if a single oil storage tank has a capacity greater than 660 gallons, the total aboveground oil storage capacity exceeds 1,320 gallons, or the underground oil storage capacity exceeds 42,000 gallons, and if, due to its location, the facility could reasonably be expected to discharge oil into or upon the "Navigable Waters" of the U.S.

Other federal regulations relevant to hazardous materials and environmental contamination overseen by EPA include designation of hazardous substances under the Federal Water Pollution Control Act (40 CFR, Chapter I, Subchapter D Parts 116 and 117) and determination of quantities of designated hazardous substances that must be reported (40 CFR Part 116) or that may be discharged into waters of the U.S. (40 CFR Part 117).

National Emission Standards for Hazardous Air Pollutants
The EPA regulates the emissions of hazardous air pollutants, including asbestos, under 40 CFR Part 61. The EPA regulates the emission of asbestos by requiring that certain standards be followed during the demolition of a structure that contains asbestos. Ten days prior to the demolition of a structure with asbestos, a notification must be sent to the agency that has the authority to regulate airborne pollutants (40 CFR Part 61.145). For the proposed project, the BAAQMD has this authority.

Occupational Safety and Health Administration
Occupational Safety and Health Administration (OSHA) regulations contained in 29 CFR contain employee safety provisions that are designed to minimize the hazards for employees who may encounter hazardous materials in the workplace. The regulations require training, operating procedures, and protective equipment to be used at work sites where hazardous materials could be encountered. The purpose of 29 CFR Part 1910, Hazard Communication Standard, is to ensure that the hazards of all chemicals produced or imported are evaluated,

and that information concerning their hazards is transmitted to employers and employees. Information is to be communicated through comprehensive hazard communication programs, which are required to include container labeling and other forms of warning, Material Safety Data Sheets, and employee training.

OSHA regulations require adherence to general safety and health provisions (29 CFR Part 1926), including safety training and education (29 CFR Part 1926.21), use of personal protective equipment (29 CFR Part 1926.28), measures to minimize worker exposure to gases, vapors, fumes, dusts, and mists, including PCBs (29 CFR Part 1926.55), measures to minimize worker exposure to lead-based paints (29 CFR Part 1926.62), and measures to minimize worker exposure to asbestos (29 CFR Part 1926.1101).

Federal Aviation Administration

Navigable airspace regulations at 14 CFR Part 77 establish standards for determining obstructions in navigable airspace. The Federal Aviation Administration (FAA) issues the airspace hazard determinations.

State

California Environmental Protection Agency

The California Environmental Protection Agency (Cal-EPA) was created in 1991. Its creation centralized California's environmental authority, consolidating the Air Resources Board, SWRCB, Integrated Waste Management Board (IWMB), DTSC, Office of Environmental Health Hazard Assessment, and CDPR under one agency. These agencies were placed within Cal-EPA to create a cabinet-level advocate for the protection of human health and the environment and to ensure the coordinated deployment of state resources. CDPR, DTSC, IWMB, and SWRCB regulate hazardous materials and hazardous waste that have the potential to cause soil, water, and groundwater contamination.

Requirements for hazardous waste management in California implemented by DTSC are contained in both the California Health and Safety Code, Division 20, Chapter 6.5, Hazardous Waste Control Law and 22 CCR. Under Government Code Section 65962.5, the DTSC provides information to Cal-EPA on the lists of hazardous waste facilities, land designated as hazardous waste property, hazardous waste disposal sites and others, and the information in the Hazardous Waste and Substances Statement required under subdivision (f) of that section.

Hazardous Materials Transportation

California has adopted U.S. Department of Transportation regulations for the intrastate movement of hazardous materials (26 CCR). The two state agencies with primary responsibility for enforcing federal and state regulations and responding to hazardous materials transportation emergencies are the California Highway Patrol (CHP) and Caltrans. CHP enforces hazardous material and hazardous waste labeling and packing regulations to prevent leakage and spills of material in transit and to provide detailed information to cleanup crews in the event of an accident. Vehicle and equipment inspection, shipment preparation, container identification, and shipping documentation are the responsibility of CHP, which conducts

regular inspections of licensed transporters to assure regulatory compliance. Caltrans has emergency chemical spill identification teams at as many as 72 locations throughout the state that can respond quickly in the event of a spill.

California Occupational Safety and Health Administration
In California, the California Occupational Safety and Health Administration (Cal/OSHA) regulates worker safety similar to OSHA. Cal/OSHA assumes primary responsibility for developing and enforcing state regulations related to workplace safety. Because California has a federal OSHA program, it is required to adopt regulations that are at least as stringent as those found in 29 CFR. Cal/OSHA standards codified in 8 CCR are generally more stringent than federal regulations.

Title 8 CCR Section 1529 regulates asbestos exposure in construction work. Title 8 CCR Section 1532.1 regulates lead-based paint exposure in construction work. Title 8 CCR Section 5194 requires employee information and training on hazardous materials in the work area.

California Water Code
The California Water Code (CWC) includes provisions of the federal CWA and water quality programs specific to California. The CWC requires reporting, investigation, and cleanup of hazardous materials releases that could affect waters of the state, including stormwater.

California Health and Safety Code
The California Health and Safety Code includes provisions to protect the health and safety of the California public. Under the California Health and Safety Code Section 19827.5, a demolition permit cannot be issued by a local agency until the applicant has fulfilled the requirements for asbestos notification under federal regulations, pursuant to Part 61 of Title 40 of the CFR.

Local

Comprehensive Airport Land Use Compatibility Plan for the Environs of San Francisco International Airport
The purpose of the SFO ALUCP is to promote airport/land use compatibility, provide the orderly growth of SFO and the area surrounding SFO, and to safeguard the general welfare of the inhabitants within the vicinity of SFO. The ALUCP defines the airport influence area and provides compatibility policies and criteria that must be followed for development within the airport influence area. The ALUCP addresses four types of land use compatibility concerns: noise, safety, airspace protection, and overflight. The overflight policy is related to real estate transactions and is not an environmental issue. Overflight policies are not discussed further in this EIR.

The proposed project does not fall within the noise contours and safety zones defined in the ALUCP; therefore, the noise and safety policies in the ALUCP do not apply to the proposed project. The airspace protection policies are the only pertinent policies that would apply to the proposed project and are shown in Table 3.7-2.

Table 3.7-2 SFO Airport Land Use Compatibility Plan Policies

Policy	Description
Policy AP-1.1 Local Government Responsibility to Notify Project Sponsors	Local governments should notify sponsors of proposed projects at the earliest opportunity to file Form 7460-1, Notice of Proposed Construction or Alteration, with the FAA for any proposed project that would exceed the FAA notification heights, as shown approximately on Exhibit IV-10. Under Federal law, it is the responsibility of the project sponsor to comply with all notification and other requirements described in 14 CFR Part 77. This requirement applies independent of this ALUCP.
Policy AP-1.1 Local Government Responsibility to Notify Project Sponsors	The sponsor of a proposed project that would exceed the FAA notification heights, as shown approximately on Exhibit IV-10, shall present to the local government permitting agency with his or her application for a development permit, a copy of the findings of the FAA's aeronautical study, or evidence demonstrating that he or she is exempt from having to file an FAA Form 7460-1. It is the responsibility of the local agency to consider the FAA determination study findings as part of its review and decision on the proposed project.
Policy AP-3 Maximum Compatible Building Height	In order to be deemed consistent with the ALUCP, the maximum height of a new building must be the lower of (1) the height shown on the SFO critical aeronautical surfaces map (Exhibits IV-17 and IV-18), or (2) the maximum height determined not to be a "hazard to air navigation" by the FAA in an aeronautical study prepared pursuant to the filing of Form 7460-1. For the vast majority of parcels, the height limits established in local zoning ordinances are lower than the critical airspace surfaces. In those cases, the zoning district height regulations will control. Compliance with the zoning district height and the SFO critical aeronautical surfaces map, however, does not relieve the construction sponsor of the obligation to file a FAA Form 7460-1 Notice of Proposed Construction or Alteration, if required, and to comply with the determinations resulting from the FAA's aeronautical study. For a project to be consistent with this ALUCP, no local agency development permits shall be issued for any proposed structure that would penetrate the aeronautical surfaces shown on Exhibits IV-17 and IV-18 or the construction of which has not received a Determination of No Hazard from the FAA, or which would cause the FAA to increase the minimum visibility requirements for any instrument approach or departure procedure at the Airport.
Policy AP-4 Other Flight Hazards are Incompatible	Proposed land uses with characteristics that may cause visual, electronic, or wildlife hazards, particularly bird strike hazards, to aircraft taking off or landing at the Airport or in flight are incompatible in Area B of the Airport Influence Area. They may be permitted only if the uses are consistent with FAA rules and regulations. Proof of consistency with FAA rules and regulations and with any performance standards cited below must be provided to the Airport Land Use Commission (C/CAG Board) by the sponsor of the proposed land use action. Specific characteristics that may create hazards to aircraft in flight and which are incompatible include: a. Sources of glare, such as highly reflective buildings or building features, or bright lights, including search lights or laser displays, which would interfere with the vision of pilots making approaches to the Airport. b. Distracting lights that that could be mistaken by pilots on approach to the Airport for airport identification lighting, runway edge lighting, runway end identification lighting, or runway approach lighting. c. Sources of dust, smoke, or water vapor that may impair the vision of pilots making approaches to the Airport.

Policy	Description
	d. Sources of electrical interference with aircraft or air traffic control communications or navigation equipment, including radar. e. Land uses that, as a regular byproduct of their operations, produce thermal plumes with the potential to rise high enough and at sufficient velocities to interfere with the control of aircraft in flight. Upward velocities of 4.3 meters (14.1 feet) per second at altitudes above 200 feet above the ground shall be considered as potentially interfering with the control of aircraft in flight. f. Any use that creates an increased attraction for wildlife, particularly large flocks of birds, that is inconsistent with FAA rules and regulations, including, but not limited to, FAA Order 5200.5A, Waste Disposal Sites On or Near Airports, FAA Advisory Circular 150/5200-33B, Hazardous Wildlife Attractants On or Near Airports, and any successor or replacement orders or advisory circulars. Exceptions to this policy are acceptable for wetlands or other environmental mitigation projects required by ordinance, statute, court order, or Record of Decision issued by a federal agency under the National Environmental Policy Act.

Source: City/County Association of Governments of San Mateo County 2012

Burlingame Downtown Specific Plan

The Downtown Specific Plan includes conditions that the Applicant must fulfill in order to receive approval for the construction of the proposed project. The conditions related to hazards and hazardous materials are listed in Table 3.7-3, below. Conditions of Approval 17 and 18 would apply to both project sites. Condition of Approval 16 would not apply to the Oak Grove Avenue project site because there would be no basement level and would not need excavation.

Table 3.7-3 Downtown Specific Plan Conditions of Approval

Condition of Approval	Description
Condition of Approval 16 – Phase I and/or Phase II Assessment	For projects within the Plan Area that require excavation, a Phase I Environmental Site Assessment (and Phase II sampling where appropriate) would be required. For project sites that have the potential to contain underground storage tanks or contamination from previous use(s), as determined by a Phase I Environmental Site Assessment. If the Phase I Environmental Site Assessment determines that remediation is required, the project sponsor would be required to implement all remediation and abatement.
Condition of Approval 17 – Compliance with FAR Part 77 Height Limits and FAA Studies	For all development projects within the Plan Area, the City of Burlingame Community Development Department shall ensure that the project complies with the height limitations of the applicable FAR Part 77 airspace protections parameters for San Francisco International Airport and the federal notification process, via FAA Form 7460-1, "Notice of Proposed FAA Studies Construction or Alteration." The findings of all FAA aeronautical studies conducted by the FAA, per the federal notification process, shall be incorporated into the City's final approval of all new development in the planning area.

Condition of Approval	Description
Condition of Approval 18 – Compliance with Relevant FAA Standards for Overflight Safety	Future development in the Downtown Specific Plan area shall comply with all relevant FAA standards and criteria for the safe passage of aircraft in flight. The City of Burlingame Community Development Department shall ensure that the project does not include any of the following: 1. Glare, such as highly reflective buildings or building features or bright lights including search lights or laser displays, which would interfere with the vision of pilots controlling aircraft on final approach to a runway 2. Distracting lights that could be mistaken for airport identification lighting, runway edge lighting, runway end identification lighting, or runway approach lighting 3. Sources of dust, smoke, water vapor, or steam that may impair the visibility of pilots in control of an aircraft in flight 4. Sources of electrical interference that may affect aircraft communications or navigation equipment 5. Any use that creates an increased attraction for wildlife, particularly large flocks of birds, that is inconsistent with all relevant FAA rules and regulations, including but not limited to FAA Order 5200.5A, FAA Advisory Circular 150/5200-33B, and any successor replacement orders and/or advisory circulars.

Source: City of Burlingame 2011

3.7.3 Thresholds of Significance

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

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 reasonably 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 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 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 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; or

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.

3.7.4 Approach to Analysis

Impacts to hazards and hazardous materials were analyzed by identifying standard hazardous materials that would be used during construction, hazardous building materials that could be found in the home, open hazardous sites within 0.25 mile of the proposed project, and roads that could be used for emergency access that would be affected during construction. In addition, the results from the Phase I assessment (Cornerstone Earth Group 2015; see Appendix G) conducted for the Douglas Avenue project site were reviewed to identify any contaminated areas at that project site. The policies in the SFO ALUCP were reviewed to assess the compatibility of the proposed project with the safety policies established by the ALUCP.

3.7.5 Impacts and Mitigation

Table 3.7-4 provides a summary of the significance of potential hazards and hazardous materials impacts of the proposed project prior to application of mitigation measures and after the implementation of mitigation measures.

Table 3.7-4 Summary of Hazards and Hazardous Material Impacts

Significance Criteria	Project Phase	Significance Prior to Mitigation	Significance with Mitigation
Impact Hazards-1: Would the proposed project create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	Construction	Significant	Less than significant with MM HAZ-1
Impact Hazards-2: Would the proposed project create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	Construction	Significant	Less than significant with MM HAZ-1 MM HAZ-2
Impact Hazards-3: Would the proposed project emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	Construction	Significant	Less than significant with MM AIR-1 MM HAZ-1
Impact Hazards-4: Would the proposed project 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?	Construction and Operation	Less than significant	–

Significance Criteria	Project Phase	Significance Prior to Mitigation	Significance with Mitigation
Impact Hazards-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?	Construction and Operation	Less than significant	–
Impact Hazards-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?		No impact	–
Impact Hazards-7: Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	Construction	Significant	Less than significant with MM HAZ-3
Impact Hazards-8: 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?		No impact	–

Impact Hazards-1: Would the proposed project create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials? *(Less than Significant Impact with Mitigation)*

Construction

Construction of the proposed project would require the routine use of hazardous materials including gasoline, diesel, hydraulic oils, lubricants, equipment coolants, grease, and any generated wastes that may include these materials. Construction vehicles and equipment contain materials such as gasoline, diesel, antifreeze, and lubricants that, if accidentally released to the environment, could be hazardous to humans and the environment. The quantities of hazardous materials to be used for standard vehicle and equipment operation during project construction would be small and the area affected by an accidental release would be limited in size within most of the proposed project component work areas.

If a release were to occur, it would most likely result from an accidental spill or other unauthorized release during construction. A hazardous materials release could also occur during equipment and vehicle servicing and refueling. Although accidental spills would be unlikely, spilled or leaking hazardous materials would create a significant hazard to the public or the environment and would be a significant impact. Mitigation Measure HAZ-1 requires the preparation and implementation of a SPCC Plan, which would describe BMPs to be implemented during construction. Impacts would be less than significant after mitigation.

Mitigation: Mitigation Measure HAZ-1

MM HAZ-1: Preparation of a Site-specific Spill Prevention, Control and Countermeasure Plan

The applicant shall prepare a site-specific Spill Prevention, Control, and Countermeasure (SPCC) Plan that will identify spill prevention and response measures and Best Management Practices (BMPs). The plan will emphasize site-specific physical conditions to improve hazard prevention (e.g., identification of flow paths to nearest drains) and reduce effects of accidental spills if they occur.

The Applicant shall designate a representative to ensure that all hazardous materials and safety plans are followed throughout the construction period. BMPs identified in SPCC Plan shall be implemented during project construction to minimize the risk of an accidental release and to provide the necessary information for emergency response. A copy of the project SPCC shall be submitted to the City for approval at least 30 days prior to construction. All construction personnel shall be required to attend SPCC training prior to conducting any work on the project site.

Significance after Mitigation: Less than Significant

Operation

The occupancy of the apartment building at the Douglas Avenue project site would present a similar risk to the existing conditions. The impact at the single-family house at the Oak Grove project site would be the same as the existing condition. There would be no impact.

Impact Hazards-2: Would the proposed project create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment? (*Less than Significant Impact with Mitigation)*

Construction

Accidental Spills

As discussed in Impact Hazards-1, construction of the proposed project could potentially result in a significant hazard to the public or environment if there is an accidental spill of hazardous materials used during construction. Spills would be a significant impact. Mitigation Measure HAZ-1 would require the implementation of spill prevention BMPs in the SPCC Plan that the Applicant will develop. Impacts would be less than significant after mitigation.

Potential Exposure to Contaminated Coils or Groundwater

Results of the Phase I Environmental Site Assessment indicate that there is no contaminated groundwater in the proposed project area but that there is the potential for soil that has been contaminated by flaking of lead-based paint and/or pesticides historically used to control termites (Cornerstone Earth Group 2015). A significant impact to the public and the

environment could potentially occur if construction disrupts soils in the proposed project that are significantly contaminated with lead based paint or pesticides. Mitigation Measure HAZ-2 requires the Applicant to evaluate the soils at the proposed project sites for the presence of lead and pesticides and dispose of contaminated soils according to federal, state, and local regulations. Impacts would be less than significant after implementation of Mitigation Measure HAZ-2.

Potential Release of Asbestos, Lead-Based Paint, and PCB

Due to the old age of the two single-family homes and four apartments that will be demolished, asbestos, lead-based paint, and PCB could be present in the six units at the Douglas Avenue project site (Cornerstone Earth Group 2015). The house on Oak Grove Avenue that would be demolished was built in 1939 and is likely to have similar potential for asbestos, lead-based paint, and PCB. The Applicant would be required to follow federal and state laws to protect workers, the public, and the environment from being exposed to asbestos, lead-based paint, and PCB during the demolition of the homes and during the handling and transportation of debris. The impacts would be less than significant.

Asbestos

The Applicant is required to obtain a demolition approval prior to the demolition of the structures that may potentially contain asbestos; the structures to be demolished at 1128-1132 Douglas Avenue and 524 Oak Grove Avenue may both contain asbestos. The Applicant would notify the BAAQMD within 10 days of any proposed demolition or asbestos abatement work, pursuant to California Health and Safety Code Section 19827.5 and 40 CFR Part 61. The BAAQMD has the authority to regulate airborne pollutants, including asbestos. The applicant would follow the notification process required under state and federal regulations and implement any measures identified by BAAQMD. Impacts associated with the emission of asbestos would be less than significant after implementation of the notification process and compliance with required measures and regulations. Furthermore, the disposal of asbestos containing materials is regulated under the Toxic Substances Control Act of 1976, which requires the safe disposal of asbestos containing materials. Impacts associated with creating a hazard to the public from the release of asbestos would be less than significant.

Asbestos is regulated as a potential worker safety hazard under the authority of Cal-OSHA. Where there is 100 square feet or more of asbestos-containing material, construction is required to follow the regulations in 8 CCR 1529 and 8 CCR 341.6-341.14. These regulations include but are not limited to establishing a permissible exposure limits and methods to comply with regulations, including vacuum cleaners, wet methods to control exposure, and prompt cleanup. In addition, these regulations require respirators for workers, demarcation of the regulated area, exposure assessments, monitoring, protective clothing, and placement of warning signs. These regulations would protect workers, the public, and the environment from exposure to asbestos during demolition. Because the Applicant would follow all federal and state laws concerning safety precautions for demolition of homes with asbestos, impacts would be less than significant.

Lead-based Paint

There are both federal regulations (29 CFR 1926.62) and state regulations (Title 8, Section 1532.1) that establish safety precautions to protect workers from exposure to lead-based paint. These regulations include establishing a permissible exposure limit (50μg/m^3) and requiring protective work clothing and equipment, safety training, respiratory protection, medical surveillance, implementation of a written compliance program, and placement of warning signs of areas with lead exposure above the permissible exposure limit. The Applicant would follow all federal and state laws concerning safety precautions for demolition of homes with lead-based paints; therefore, impacts to workers would be less than significant. In addition, because the disposal of materials with lead-based paint is regulated under the Toxic Substances Control Act of 1976, impacts to the public would be less than significant.

Polychlorinated biphenyl

The Toxic Substances Control Act of 1976 requires the safe disposal of polychlorinated biphenyls (PCBs), consistent with 40 CFR Part 761.60. In addition, the State requires employee information and training about hazardous materials, including PCBs under Title 8 Section 5194 of the CCR. Because the Applicant would follow all federal and state laws concerning safety precautions for demolition of homes with PCBs, impacts would be less than significant.

Mitigation: Mitigation Measures HAZ-1 and HAZ-2

MM HAZ-2: Soils Test

Prior to construction, the applicant shall evaluate shallow soils at all structure locations for the possible presence of lead and pesticides. If lead or pesticides are found within the tested soils, the applicant shall dispose of the soils, consistent with federal, state and local laws regarding disposal of hazardous materials.

Significance after Mitigation: Less than Significant

Operation

The proposed project would result in residential structures similar to the residences currently on the proposed project sites. Small amounts of typical household hazardous wastes would be generated. There are no reasonably foreseeable upset and accident conditions that would release hazardous materials into the environment from residential uses. There would be no impact from operation of the proposed project.

Impact Hazards-3: Would the proposed project emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school? (*Less than Significant Impact with Mitigation)*

There are two schools located within 0.25 mile of the Douglas Avenue project site and there is one school located within 0.25 mile of the Oak Grove Avenue project site.

Air Pollutants

Impact Air-4 in Section 3.2: Air Quality describes the TAC emissions that would be generated during construction from airborne dust, diesel-powered equipment, and coatings. Maximum annual $PM_{2.5}$ concentrations would exceed the BAAQMD significance threshold, resulting in a significant impact. Mitigation Measure AIR-1 would require the use of construction equipment with specific engines that meet or exceed specific emission standards. Implementation of Mitigation Measure AIR-1 would reduce the concentration of $PM_{2.5}$ emissions below the BAAQMD thresholds (see Impact Air-4). Impacts would be less than significant after implementation of Mitigation Measure AIR-1.

Hazardous Materials for Construction

As discussed in Impact Hazards-1, construction of the proposed project would involve the routine use of hazardous materials for construction (e.g., fuels, lubricants, paint, etc.). The two construction sites are located within 0.25 mile of schools. A potentially significant impact would occur if there were an accidental spill of hazardous materials during construction. Mitigation Measure HAZ-1 would require the implementation of the SPCC Plan. Impacts would be less than significant with implementation of the SPCC Plan.

Asbestos, Lead-Based Paint, PCB

As discussed in Impact Hazards-2, the structures that would be moved and demolished for the proposed project have the potential to contain asbestos, lead-based paint, and PCBs. Construction of the proposed project could pose a potentially significant impact to schools if these materials were to be emitted during construction. The applicant is required to adhere to state and federal laws regarding abatement of these materials prior to demolition and proper disposal. Impacts would be less than significant.

Mitigation: Mitigation Measures HAZ-1 and AIR-1

Significance after Mitigation: Less than Significant

Impact Hazards-4: Would the proposed project 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? (*Less than Significant Impact)*

The proposed project area would not be located on a site that is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5. There is one listed hazardous material site with open cases within 0.25 mile of the Oak Grove Avenue and Douglas Avenue project sites (DTSC 2015).

Burlingame High School is considered a hazardous materials site. The soils in Burlingame High School have been contaminated by lead, arsenic, and PCB. Burlingame High School is located 1,075 feet northwest of the Douglas Avenue project site and 1,000 feet southeast of the Oak Grove Avenue project site. This open hazardous site is in the operation and maintenance phase of remediation, meaning that remediation activities have been conducted and that the site is

maintained to ensure that the remediation activities continue to be protective of human health and the environment.

There is no potential to encounter contaminated soils from this known site during construction of the proposed project because the site has been remediated. Impacts associated with the release of hazardous materials due to the proposed project's proximity to an open hazardous materials site would be less than significant because the project sites are over 1,000 feet away and the site has been remediated.

Mitigation: None required

Impact Hazards-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? (*Less than Significant Impact)*

The proposed project falls within the SFO airport influence area and is subject to the SFO ALUCP.

For safety planning purposes, the ALUCP defines five safety zones. The proposed project is not located within any of these zones; therefore, there would be no safety hazard for people residing or working in the proposed project areas as a result of not complying with ALUCP safety land use compatibility concerns. There would be no impact.

For airspace protection, the ALUCP requires evaluation of compatibility with airspace protection surfaces. The ALUCP establishes policies to ensure that no hazards are created from structures located within the airspace protection zones. Policies AP-1.1 and AP-3 require FAA notification for structures that exceed the FAA notification heights. Section 3.9: Land Use summarizes the proposed project's compatibility with these policies and concludes that the elevation of the relocated house at the Oak Grove Avenue project site and the proposed building at the Douglas Avenue project site are below the threshold for FAA notification. During relocation of the historic home, however, a crane would be used that would penetrate the 100:1 imaginary surface zone for SFO which is at a height of 110 feet for the 524 Oak Grove Avenue project site and 130 feet for the 1128 Douglas Avenue project site. As a condition of approval in the Downtown Specific Plan, the applicant would ensure that the proposed project complies with height restrictions by conducting the notification process with FAA prior to issuance of a building permit. The applicant would implement the recommendations made by FAA. Impacts to safety hazards from the use of the crane would be less than significant.

In addition, Policy AP-4 of the ALUCP summarizes other flight hazards that are incompatible with the ALUCP, including highly reflective buildings that create a source of glare and distracting lights. As a condition for approval under the Downtown Specific Plan and prior to issuance of a building permit, the proposed project will be required to comply with all relevant

FAA standards and criteria for the safe passage of aircraft in flight. There would be no impact from other flight hazards.

Mitigation: None required

Impact Hazards-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? (*No Impact)*

The proposed project is not located within the vicinity of a private airstrip. The proposed project would not result in a safety hazard associated with construction near a private airstrip. No impact would occur.

Impact Hazards-7: Would the proposed project impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan? (*Less than Significant Impact with Mitigation)*

It is anticipated that temporary road closures and detours would be necessary during the relocation of the historic home to ensure the safety of the public and workers. Temporary road closures could impair implementation of an emergency response plan, evacuation plan, or disrupt emergency vehicle traffic and access. This would be a significant impact. Mitigation Measure HAZ-3 would require the Applicant to implement an emergency access plan in coordination with the City, the City fire department, the City police department, and other emergency services. The Emergency Access Plan will implement safety practice standards to protect workers and the public and will also include detours during road closure to ensure that emergency access is maintained during construction. Impacts would be less than significant after implementation of mitigation.

Mitigation: Mitigation Measure HAZ-3

MM HAZ-3: Project-specific Emergency Access Plan

The Applicant shall develop and implement a Project-specific Emergency Access Plan. The applicant shall submit the plan to the City and all emergency services within the city, including the fire department and police department, at least 30 days prior to construction. The Emergency Access Plan shall require provisions for the:

a. Implementation of standard safety practices, including installation of appropriate barriers between work zones and transportation facilities, placement of appropriate signage, and use of traffic control devices.
b. Use of flaggers and/or signage to guide vehicles through or around construction zones using proper techniques for construction activities, including staging yard entrance and exit.
c. Traffic detours for any road or lane closures with appropriate signage marking the detours.

d. Timing of worker commutes and material deliveries to avoid peak commuting hours.
e. Timing of lane and road closures.
f. Plans for construction worker parking and transportation to work sites.
g. Methods for keeping roadways clean.
h. Storage of all equipment and materials in designated work areas in a manner that minimizes traffic obstructions and maximizes traffic sign visibility.
i. Limiting vehicles to safe speed levels according to posted speed limits, road conditions, and weather conditions.
j. Coordination with public transit providers.
k. Repair of asphalt and other road damage (e.g., curb and gutter damage, rutting in unpaved roads) caused by construction vehicles.
l. Detours for cyclists and pedestrians when bike lanes or sidewalks must be closed.

The Emergency Access Plan must at a minimum comply with the requirements of the City and must be submitted to the City for approval prior to commencing construction activities.

Significance after Mitigation: Less than Significant

Impact Hazards-8: Would the proposed project 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? (*No Impact)*

There are no wildlands located in or adjacent to the proposed project area. The proposed project would not expose people or structures to hazards associated with wildland fires. There would be no impact.

3.7.6 Cumulative Hazards and Hazardous Materials Impacts

Cumulative Context

The geographic scope of cumulative impacts from hazardous materials is 0.5 mile from the proposed project site. This geographic scope was selected to include the same roads that other projects would use. This geographic area could be impacted by an accidental spill, impact emergency access, and hazardous material emissions from one or more projects, including the proposed project, which could cumulatively result in a significant impact. Table 3-1, List of Cumulative Projects, lists seven cumulative projects located within 0.5 mile of the proposed project that have been proposed or are in the process of being constructed.

The geographic scope for cumulative impacts from compatibility with the SFO ALUCP would be larger than the geographic scope for cumulative hazardous materials impacts. All the projects listed in Table 3-1 and the proposed project are located within the Airport Influence Area (AIA) and are therefore considered in the cumulative discussion.

Cumulative Analysis

The proposed project, in combination with other projects in the area, could potentially create a cumulatively significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions, or the emissions of hazardous materials or substances. In compliance with state and federal regulations, all projects, including the proposed project, would be required to prepare a SPCC plan when transporting hazardous materials. It is very unlikely that accidental spills would occur simultaneously or travel far from the construction site. Individual spills, in accordance with the SPCC plan, would be contained and cleaned up as soon as any occur. Therefore, the impact would be less than significant and the proposed project's contribution would also be less than significant.

All projects in the AIA for San Francisco International Airport would be required to comply with FAA regulations for obstructions to air traffic. As with the proposed project, all projects with the potential to penetrate the FAA safety zone shall be required to consult with the FAA and implement the recommendations before a building permit would be issued. Because the FAA would be informed and consulted the cumulative impact to air traffic hazards would be less than significant and the proposed project's contribution would also be less than significant.

The potential for road closures during construction at the proposed project sites in combination with the other projects in the area could impact an emergency rescue plan or emergency evacuation plan. The proposed project would be required to prepare an Emergency Access Plan in coordination with the appropriate City departments and response agencies. Other projects that would require road closures would also be required to do the same. Because the response agencies would be consulted and informed about the potential road closures and the development of alternate routes during those times, the cumulative impact would be less than significant and the proposed project's contribution would therefore be less than significant.

3.7.7 References

City of Burlingame. 2011. *Burlingame Downtown Specific Plan.* Adopted October 4, 2010, amended September 19, 2011.

City/County Association of Governments of San Mateo County. 2012. *Comprehensive Airport Land Use Compatibility Plan for the Environs of San Francisco International Airport*, prepared by Ricondo & Associates in association with Jacobs Consultancy and Clarion Associates, November 2012.

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3.8 HYDROLOGY AND WATER QUALITY

This section presents and analysis of water quality, groundwater resources, drainage patterns, flood hazards, and inundation.

Comments received during the EIR scoping process include the following topics related to hydrology and water quality:

- Impact on streams within the vicinity of the proposed project

This topic is addressed in the impact analysis below.

3.8.1 Environmental Setting

Hydrology and Drainages

The proposed project sites are located within the Burlingame/Ralston Watershed that includes Ralston Creek. Stormwater in this watershed is directed and contained within a storm drain system. Stormwater or runoff from the Douglas Avenue project site would flow into a fluvial ditch that runs parallel to Caltrain (see Figure 3.8-1). Stormwater from the area eventually drains directly to the San Francisco Bay through a 90-inch subsurface drainage underneath Oak Grove Avenue. Stormwater from the Oak Grove Avenue project site would flow directly to the subsurface drainage on Oak Grove Avenue and drain into the San Francisco Bay.

Groundwater

The project geotechnical investigation measured groundwater at a depth of 15 feet below ground surface (bgs) at the Douglas Avenue project site (Cornerstone Earth Group 2015). In addition, groundwater levels were measured by identifying the groundwater levels at groundwater wells near 260 El Camino Real (approximately 1,250 feet southeast of the Douglas Avenue project site), near 215 California Drive (approximately 1,500 feet northeast of the Douglas Avenue project site), and near 1480 Broadway (approximately 4,900 feet northwest of the Douglas Avenue project site). The groundwater wells indicate that static groundwater levels range from 8 to 16 feet bgs.

Flooding and Inundation Hazards

The Federal Emergency Management Agency (FEMA) defines geographic areas that have varying levels of flood risk. FEMA identifies Special Flood Hazard Areas (SFHA) as those geographic areas that will be inundated by a flood event having a 1-percent chance of being equaled or exceeded in any given year. Another name for SFHAs are 100-year flood hazard areas.

The proposed project is not located in a 100-year flood hazard area. The proposed project is located in a 0.2-percent annual chance flood hazard, which is also known as a 500-year flood hazard area. Figure 3.8-2 shows a map of the flood hazards areas in the vicinity of the proposed project.

Figure 3.8-1 Regional Drainages

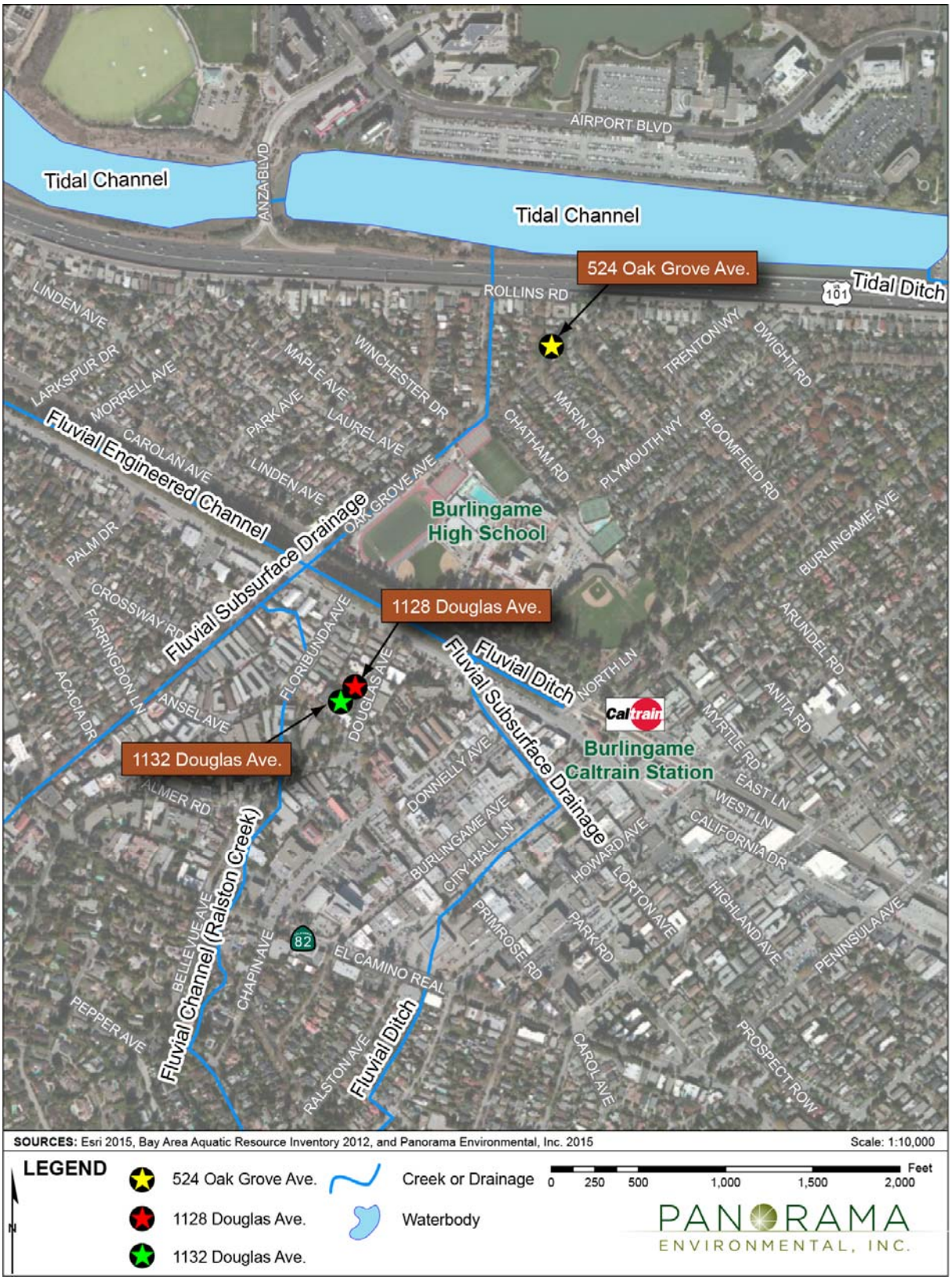
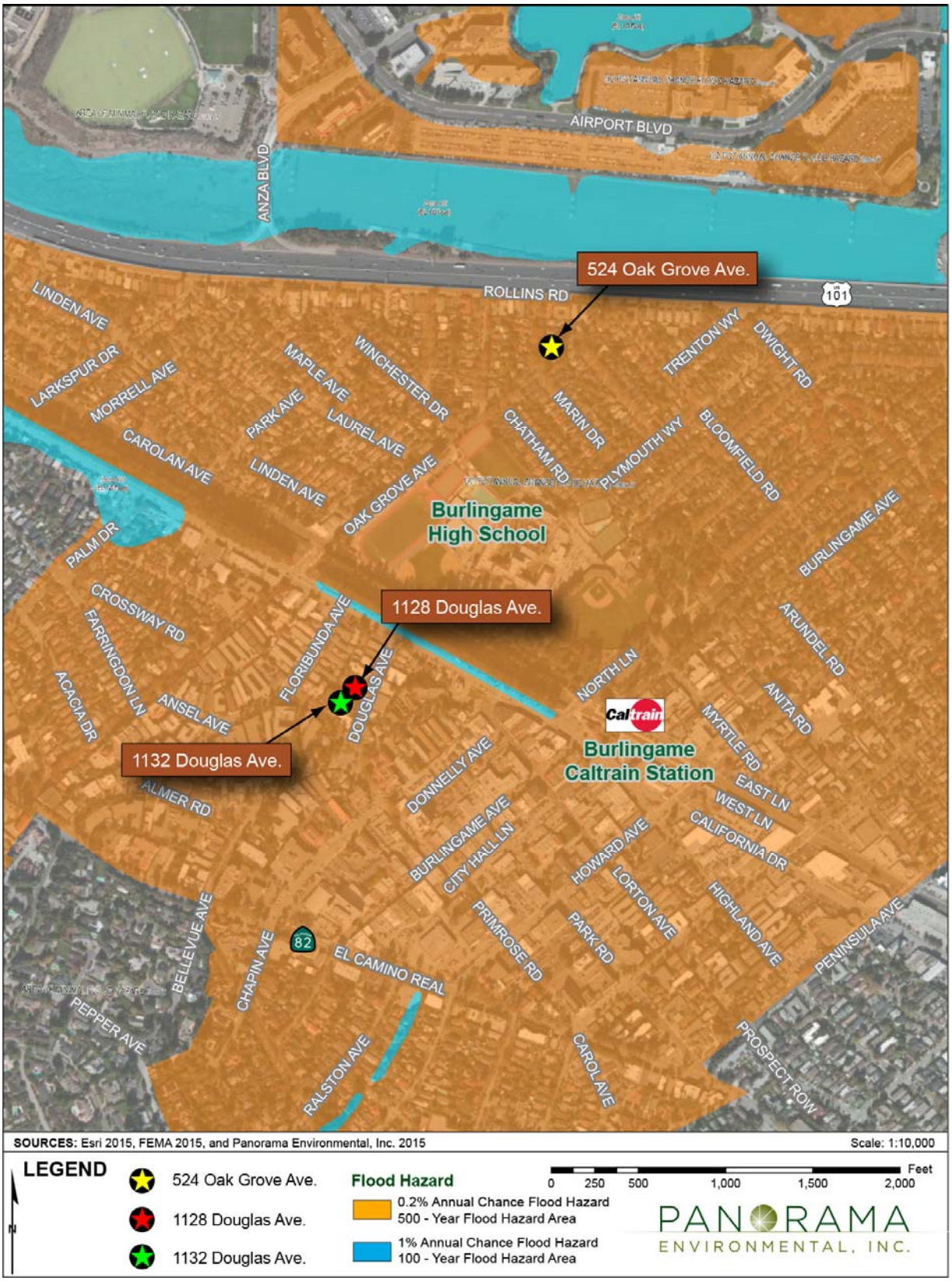


Figure 3.8-2 FEMA Flood Hazard Areas



The County of San Mateo identifies areas that could be inundated as a result of dam failures. Portions of the city are located in dam inundation areas; however, the proposed project sites are not located within one of these areas (County of San Mateo 2015). The closest dam failure inundation areas are from the Lower Crystal Springs dam and the dams used to create the Crocker and Spencer Lakes in the Town of Hillsborough. There are no leveed areas in the City.

Seiche and Tsunamis

Douglas Avenue project site and the Oak Grove Avenue project site are not shown as being within an inundation area on the State of California Tsunami Inundation Maps (State of California 2009).

Water Quality

The water quality of creeks, drainages, and other surface water bodies can be greatly affected by pollution carried in contaminated surface runoff. Pollutants from unidentified sources, known as "non-point" source pollutants, are washed from streets, construction sites, parking lots, and other exposed surfaces into storm drains. Surface runoff from the project area is collected in storm drains and discharged into the San Francisco Bay as described in Section 3.8.1.

Both the Douglas Avenue project site and Oak Grove Avenue project site are developed with residential homes. Current runoff from the site may contain contaminants used in homes, such as oil and grease, plant and debris (e.g., leaves, dust, and animal feces), pesticides, and litter.

3.8.2 Regulatory Setting

Federal

Environmental Protection Agency

Clean Water Act

The Clean Water Act (CWA) was enacted in 1972 to regulate the discharge of pollutants to waters of the United States. The CWA requires a permit to discharge from any point source to waters of the U.S. water resources, including wetlands, are subject to federal jurisdiction under Sections 401 and 404 of the CWA. Amendments to the CWA in 1987 added Section 402(p), which established a framework to regulate non-point source stormwater discharges under the NPDES stormwater program.

Drinking Water Standards

The National Primary Drinking Water Regulations maximum contaminant levels (MCLs) are derived from regulations set forth by EPA. The regulations are enforceable federal standards for public water systems. Secondary MCLs are derived from the National Secondary Drinking Water Regulations (NSDWR) and are not enforceable, but EPA recommends adherence to secondary standards. NSDWR act as a guideline to avoid contaminants that potentially lead to cosmetic or aesthetic effects.

FEMA

The National Flood Insurance Act (1968) provides federally subsidized flood insurance to owners of flood-prone properties. FEMA developed Flood Insurance Rate Maps to facilitate identifying areas with flood potential; these maps can also be used for planning purposes. Federal regulations governing development in a 100-year floodplain are set forth in CFR Title 44, Part 60, enabling FEMA to require municipalities that participate in the National Flood Insurance Program to adopt certain flood hazard reduction standards for construction and development in 100-year floodplains.

State

State Water Resource Control Board

Porter-Cologne Water Quality Control Act

The State Water Resources Control Board (SWRCB) administers the Porter-Cologne Water Quality Control Act and Section 401 of the CWA. The Porter-Cologne Water Quality Control Act, Water Code Section 13260, requires that "any person discharging waste, or proposing to discharge waste, within any region that could affect the 'waters of the State' file a report of discharge" with the appropriate Regional Water Quality Control Board. Waters of the State, as defined in the Porter-Cologne Act (Water Code Section 13050(e)), are "any surface water or groundwater, including saline waters, within the boundaries of the state."

Section 401 of the Clean Water Act

Pursuant to Section 401 of the CWA, SWRCB considers waters of the U.S. to include, but not be limited to, rivers, streams, lakes, bays, marshes, mudflats, unvegetated seasonally ponded areas, drainage swales, sloughs, wet meadows, natural ponds, vernal pools, diked bay lands, seasonal wetlands, and riparian woodlands. SWRCB has also claimed jurisdiction and exercised discretionary authority over "isolated waters" under the Porter-Cologne Act.

Section 303(d) of the Clean Water Act

Section 303(d) of the CWA requires states to identify water bodies that do not meet water quality objectives and are not supporting the beneficial uses of the water body. Each state must submit an updated list, called the 303(d) list, to EPA every two years. In addition to identifying the water bodies that are not supporting beneficial uses, the list also identifies the pollutant or stressor causing impairment and establishes a schedule for developing a control plan to address the impairment. States are required to prioritize impaired water bodies for development of TMDL levels.

NPDES Program

Runoff water quality is regulated by the National Pollutant Discharge Elimination System (NPDES) program (established through the CWA, as described above). The objective of the NPDES program is to control and reduce pollutant discharge to water bodies.

Projects disturbing more than 1 acre of land during construction are required to file a Notice of Intent and other permit registration documents with SWRCB to be covered under the state NPDES Construction General Permit (CGP) for discharges of stormwater associated with

construction. A Stormwater Pollution Prevention Plan (SWPPP) must be developed, submitted, and implemented for the project area covered by the CGP and include BMPs that would reduce impacts to surface water quality.

Local

San Francisco Regional Water Quality Control Board

Municipal Regional Stormwater NPDES Permit

The San Francisco Bay RWQCB has issued a Municipal Regional Stormwater NPDES Permit (Permit Number CAS612008). In an effort to standardize stormwater management requirements throughout the region, this permit replaces the formerly separate countywide municipal stormwater permits with a regional permit for 77 Bay Area municipalities, including the City of Burlingame. Under provisions of the Municipal Regional Stormwater NPDES Permit, redevelopment projects that add and/or replace more than 10,000 square feet of impervious surface are required to design and construct stormwater treatment controls to treat post-construction stormwater runoff. Redevelopment projects, such as the proposed project, are required to treat 100 percent post-construction runoff with Low Impact Development (LID) treatment controls, such as biotreatment facilities, unless a full or partial exemption applies.

Construction General Permit

In 1988, the SWRCB adopted the Non-Point Source (NPS) Program in an effort to control nonpoint source pollution in California. The NPS Program requires individual permits to control discharge associated with construction activities. The NPS Program is administered by RWQCB under the NPDES General Permit for Construction Activities. Projects must comply with the requirements of the NPS Program if:

- They disturb one acre or more of soil; or
- They disturb less than one acre of soil but are part of a larger development that, in total, disturbs one acre or more of soil.

The NPDES General Permit for Construction Activities requires the developer to submit a Notice of Intent (NOI) to the RWQCB and to develop a SWPPP to control discharge associated with construction activities.

Dewatering Permit

Minor construction dewatering would be covered under the statewide Construction General Permit. If substantial construction dewatering is required, a Report of Waste Discharge (ROWD) must be filed with the RWQCB to obtain a Waste Discharge Requirement (WDR). The WDR would describe the specific treatment (e.g., desedimentation, filtration, flocculation, and others) and discharge (e.g., maximum rate and volume of discharge) requirements, as needed, to ensure discharges do not cause or contribute to water quality degradation.

Burlingame Wastewater Treatment Facility Individual NPDES permit

The City of Burlingame Wastewater Treatment Facility is regulated under the individual NPDES permit (Permit Number CA00037788).

Burlingame Municipal Code

The City of Burlingame municipal code requires that stormwater best management practices shall be implemented into the landscape and grading design plans to minimize runoff and to increase on-site retention and infiltration and should be consistent with city, county, state and federal stormwater management requirements (18.17.120).

Burlingame Downtown Specific Plan

The City of Burlingame adopted the Downtown Specific Plan in 2010. The Downtown Specific Plan includes goals and policies for the development of areas within the Downtown Specific Plan Area. The conditions for approval would be required for both project sites. The conditions for approval relevant to hydrology and water quality are listed in Table 3.8-1 below. Condition of Approval 1 would not apply to the Oak Grove Avenue project site because no subgrade structures are proposed at that location.

Table 3.8-1 Downtown Specific Plan Conditions of Approval

Condition of Approval	Description
Condition of Approval 1 – Prohibit permanent groundwater dewatering	For development under the Downtown Specific Plan, if subgrade structures are proposed, the project sponsor shall prepare a Geotechnical Study identifying the depth to the seasonal high water table at the project site. No permanent groundwater dewatering would be allowed. Instead, all residential uses must be elevated to above the seasonal high water table and all areas for non-residential uses shall be flood-proofed and anchored, in accordance with floodplain development requirements, to the design depth as recommended by geotechnical engineer. Final design shall be prepared by a qualified professional engineer and approved by the Burlingame Department of Public Works prior to receiving a building permit.
Condition of Approval 10 – Incorporation of residential and commercial water efficiency measures such that water consumption is decreased by a minimum of 10 percent over current water demand factors	Ongoing during project construction.

Source: City of Burlingame 2011

3.8.3 Thresholds of Significance

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

a) Violate any water quality standards or waste discharge requirements
b) 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 (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)

c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site
d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of a 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
e) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff
f) Otherwise substantially degrade water quality
g) 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
h) Place within a 100-year flood hazard area structures which would impede or redirect flood flows
i) 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
j) Expose people or structures to inundation by seiche, tsunami, or mudflow

3.8.4 Approach to Analysis

Impacts to hydrology and water quality were analyzed by identifying the area of impervious surfaces that the proposed project would construct. In addition, impacts to hydrology and water quality were analyzed by identifying the potential for water quality to be affected by hazardous materials, the potential to generate wastewater during construction and post-construction, the potential to perform dewatering if groundwater is found, and the potential to be located in a 100-year flood hazard area, dam failure inundation area, and tsunami inundation zone. Federal, state, and local regulations were also reviewing to identify the requirements that would need to be implemented by the applicant during and post-construction.

3.8.5 Impacts and Mitigation

Table 3.8-2 provides a summary of the significance of potential hydrology and water quality impacts of the proposed project prior to application of mitigation measures and after the implementation of mitigation measures.

Table 3.8-2 Summary of Hydrology and Water Quality Impacts

Significance Criteria	Project Phase	Significance Prior to Mitigation	Significance with Mitigation
Impact Hydrology-1: Would the proposed project violate any water quality standards or waste discharge requirements?	Construction and Operation	Significant	Less than Significant with MM HYDRO-1 MM HAZ-1
Impact Hydrology-2: Would the proposed project 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 (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?	Construction and Operation	Less than significant	–
Impact Hydrology-3: Would the proposed project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site?	Construction and Operation	Less than significant	–
Impact Hydrology-4: Would the proposed project substantially alter the existing drainage pattern of the site or area, including through the alteration of a 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?	Construction and Operation	Less than significant	–
Impact Hydrology-5: Would the proposed project create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?	Construction and Operation	Less than significant	–
Impact Hydrology-6: Would the proposed project otherwise substantially degrade water quality?	Construction and Operation	Significant	Less than Significant with MM HAZ-1
Impact Hydrology-7: Would the proposed project 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?	Operation	No Impact	–
Impact Hydrology-8: Would the proposed project place within a 100-year flood hazard area structures which would impede or redirect flood flows?	Operation	No Impact	–

Significance Criteria	Project Phase	Significance Prior to Mitigation	Significance with Mitigation
Impact Hydrology-9: Would the proposed project 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?	Construction and Operation	Less than significant	–
Impact Hydrology-10: Would the proposed project expose people or structures to inundation by seiche, tsunami, or mudflow?	Operation	Less than significant	–

Impact Hydrology-1: Would the proposed project violate any water quality standards or waste discharge requirements? (Less than *Significant Impact with Mitigation*)

Construction

There are no streams or water bodies at or in close proximity to the Oak Grove Avenue or Douglas Avenue project sites. Storm drains in the streets in front of the properties drain to San Francisco Bay. Project construction activities have the potential to cause erosion and contribute sediment, soil, and hazardous materials (oil, solvents, and chemicals used in construction) to the storm drain system, and ultimately to the bay.

Approximately 0.36 acres of soil would be subject to excavation and grading during construction. Water quality standards for construction are regulated by the San Francisco Bay RWQCB through the NPDES General Permit for Construction Activities. The General Permit requires Applicants to submit a NOI and SWPPP for projects that disturb more than one acre of soil. The proposed project would not disturb more than 1 acre of soil and would not be required to prepare a NOI or SWPPP. The potential for erosion and sedimentation of the proposed project would be low because both project sites are located in flat areas; however, sedimentation could potentially occur during construction. Mitigation Measure HYDRO-1 requires the implementation of BMPs to minimize erosion and sedimentation, including the installation off silt fencing. Impacts would be less than significant after implementation of Mitigation Measure HYDRO-2.

The use of hazardous materials (oil, solvents, etc.) during construction activities has the potential to violate water quality standards if a hazardous materials are accidentally spilled and drain to a storm drain. This hazardous runoff would be a significant impact.

As discussed in Section 3.7 Hazards and Hazardous Materials, this impact would be mitigated through the implementation of Mitigation Measure HAZ-1, which requires the implementation of a SPCC Plan. The SPCC Plan would identify the best management practices (BMPs) to be implemented during construction in order to prevent spills and contaminated runoff. Impacts to water quality associated with the release of a hazardous material would be less than significant with implementation of Mitigation Measure HAZ-1.

Operation

The proposed project would result in the construction of impervious surfaces at the Douglas Avenue project site. A total of 12,801 square feet of impervious surfaces and 2,691 square feet of pervious surfaces would be installed. Of the 2,691 square feet of pervious surfaces, 2,522 square feet would be soft, landscaped areas and 169 square feet would be flow-through bioretention planters. The water quality impacts associated with the runoff resulting from impervious surfaces are addressed in Impacts Hydrology-3, Hydrology-4, and Hydrology-5, below. The proposed project would comply with applicable water quality regulations described in the RWQCB Municipal Regional Stormwater NPDES permit. Impacts to water quality would not violate any water quality standards and impacts would be less than significant.

The wastewater that would be generated in the residential units would be conveyed to the City of Burlingame Wastewater Treatment Facility. The wastewater that is discharged by the City of Burlingame Wastewater Treatment Facility must comply with the wastewater discharge requirements under the individual NPDES permit (Permit Number CA00037788). Wastewater generated by the proposed project would not violate any waste discharge requirements and impacts would be less than significant.

Mitigation: Mitigation Measures HYDRO-1 and HAZ-1

MM HYDRO-1: Stormwater Pollution Prevention Best Management Practices

The applicant will implement the following best management practices during construction of the proposed project:

- Preserve existing vegetation where feasible
- Limit disturbance to the work site
- Install silt fences around the perimeter of the project site

Significance after Mitigation: Less than Significant

Impact Hydrology-2: Would the proposed project 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 (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)? (*Less than Significant Impact)*

Construction

The proposed project would not use groundwater for construction of the proposed project. The proposed project would, therefore, not have an impact to groundwater levels from the direct use of groundwater.

There is the potential for groundwater to be encountered during excavation. The proposed project will require excavation of approximately 16 feet for an 11-foot high parking garage and a 5-foot concrete foundation. Groundwater may be encountered at depths between 8 and 16 feet (REF). Groundwater will most likely be encountered during excavation and temporary

dewatering would be necessary. Minor and temporary construction dewatering would be covered under the statewide NPDES Construction General Permit. If substantial construction dewatering is required, a Report of Waste Discharge (ROWD) must be filed with the RWQCB to obtain a Waste Discharge Requirement (WDR). The WDR would describe the specific treatment (e.g., desedimentation, filtration, flocculation, and others) and discharge (e.g., maximum rate and volume of discharge) requirements, as needed, to ensure discharges do not cause or contribute to water quality degradation. Impacts to groundwater from temporary construction dewatering would be less than significant because the Applicant would follow the provisions in the Construction General Permit.

Consistent with Condition of Approval 1 in the Downtown Specific Plan (see Table 3.8-1, above), the proposed project would not cause permanent groundwater dewatering. The residential units of the proposed project would be located above the seasonal high water table. The parking structure (non-residential use) would be located below the seasonal high water table and would be flood-proofed and anchored, in accordance with floodplain development requirements, to the design depth as recommended by the geotechnical engineer. No impact to groundwater would occur from permanent dewatering.

Operation

The proposed project would not use groundwater to supply the 29-unit apartment building. The proposed project would, therefore, not have an impact on groundwater levels from the direct use of groundwater.

Mitigation: None required

Impact Hydrology-3: Would the proposed project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site? (*Less than Significant Impact*)

Impact Hydrology-4: Would the proposed project substantially alter the existing drainage pattern of the site or area, including through the alteration of a 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? (*Less than Significant Impact*)

and

Impact Hydrology-5: Would the proposed project create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff? (*Less than Significant Impact*)

524 Oak Grove Avenue Project Site

The demolition and construction at 524 Oak Grove Avenue would take place on an established house lot bounded on two sides by curbs and gutters and would not change drainage patterns of streams or rivers. BMPs will avoid substantial increase in runoff. The impacts would be less than significant.

1128-1132 Douglas Avenue Project Site

The Douglas Avenue project site is located near Ralston Creek, which is a part of the City's stormwater drainage system. Construction of the proposed project would not impact the creek because the Douglas Avenue project site is not located adjacent to the creek and the creek is undergrounded or in engineered channels as it flows through the Downtown area and into San Francisco Bay.

The proposed project would increase the amount of impervious surface area at the Douglas Avenue project site. The proposed project would result in a total of 12,801 square feet of impervious surfaces and 2,691 square feet of pervious surfaces. Of the 2,691 square feet of pervious surfaces, 2,522 square feet would be soft, landscaped areas and 169 square feet would be flow-through bioretention planters.

Runoff is regulated by the San Francisco Bay RWQCB. The San Francisco Bay RWQCB Municipal Regional Stormwater NPDES permit regulates potential runoff from new development projects. The Applicant is required to comply with the regulations described in the NPDES General permit. Section C.3.d of the General Permit describes methodologies to calculate the area that would require stormwater treatment.

The proposed project would require stormwater treatment to an area that is 4 percent of the impervious area. This amount is based on runoff inflow from 0.2 inches of rainfall per hour and a soil infiltration rate of 5 inches per hour. A rain event of 0.2 inches per hour would be treated by using bioretention facilities in 4 percent of the impervious area (512 square feet). In addition, the proposed project qualifies for reductions in the area that requires treatment because it is considered a Special Project (Category C, Transit-Oriented Development) under the NPDES permit. The proposed project qualifies for a 70 percent reduction in the stormwater treatment area because it is located within a 0.25-mile radius of a transit hub (Caltrain station) and has a housing density greater than 60 dwelling units per acre (82 dwelling units per acre). Under the NPDES permit, the proposed project would be required to treat 154 square feet of the area. The proposed project includes 169 square feet of flow-through bioretention planters, which is more than required by the NPDES permit.

The proposed project would, therefore, be consistent with the regulations defined by the SFRWQCB to minimize runoff. Because the proposed project would incorporate bioretention planters and because the proposed project would be consistent with SFRWQCB regulations, impacts associated with project runoff, including erosion, siltation, flooding, exceeding the capacity of the stormwater drainage system, and increasing additional pollutant runoff would be less than significant.

Mitigation: None required

Impact Hydrology-6: Would the proposed project otherwise substantially degrade water quality? (Less than *Significant Impact with Mitigation*)

Impacts Hydrology-1 to Hydrology-5 summarize the potential impacts to water quality. Impacts to water quality would be significant as discussed in Impact Hydrology-1 and would be mitigated to less-than-significant levels after the implementation of Mitigation Measure HAZ-1.

Mitigation: Mitigation Measure HAZ-1

Significance after Mitigation: Less than Significant

Impact Hydrology-7: Would the proposed project 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? *(No Impact)*

and

Impact Hydrology-8: Would the proposed project place within a 100-year flood hazard area structures which would impede or redirect flood flows? *(No Impact)*

The proposed project would not be located within a 100-year flood hazard area (see Figure 3.8-2); therefore, the proposed project would not place housing or structures within a 100-year flood hazard area or impede or redirect flood flows. There would be no impact.

Impact Hydrology-9: Would the proposed project 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? *(Less than Significant Impact)*

There are dam failure inundation areas in the City; however, the proposed project is not located in one of these dam inundation areas. Because the proposed project location has not been identified as a dam failure inundation, the impacts associated with loss, injury or death involving flooding as a result dam failure would be less than significant.

There are no leveed areas within the City; therefore, there would be no impacts associated with loss, injury or death involving flooding as a result of a levee failure.

Mitigation: None required

Impact Hydrology-10: Would the proposed project expose people or structures to inundation by seiche, tsunami, or mudflow? *(Less than Significant Impact)*

Tsunamis or seiches are high-energy oceanic waves or similar waves usually created by undersea fault movements or coastal submerged landslides. A tsunami or seiche that would affect the San Francisco Bay area would originate from the Pacific Ocean. If there was a tsunami

or seiche in the San Francisco Bay area most of the energy of the tsunami or seiche would be lost through the San Francisco Bay and would be unlikely to affect the City of Burlingame. In addition, the Douglas Avenue project site and the Oak Grove Avenue project site are not shown as being within an inundation area on the State of California Tsunami Inundation Maps (State of California 2009). Furthermore, the Douglas Avenue project site is located at 19 feet above mean sea level (amsl) and the Oak Grove Avenue project site is located at 27 feet amsl. The potential for the proposed project to expose people or structures to inundation by tsunami or seiche would be low and impacts would be less than significant.

The proposed project is located in a flat area; therefore, the potential for mudflow to occur would be low and impacts would be less than significant. No mitigation would be required.

Mitigation: None required

3.8.6 Cumulative Hydrology and Water Quality Impacts

Cumulative Context

The geographic scope of cumulative impacts to hydrology and water quality is the City of Burlingame. This geographic scope is appropriate because the surface water runoff from the proposed project and other projects in the City would drain into the City's stormwater drainage system.

Cumulative Analysis

The cumulative projects could potentially impact water quality during construction and after construction, when residents would generate wastewater. All projects in the City, including the proposed project, would be regulated by the San Francisco Bay RWQCB through the NPDES General Permit for Construction Activities. The wastewater that is discharged by the City of Burlingame Wastewater Treatment Facility must comply with the wastewater discharge requirements under the individual NPDES permit. No cumulative impact to water quality would occur because all projects would be required to comply with water quality requirements established by the San Francisco Bay RWQCB.

The cumulative projects could create impervious surfaces that could potentially alter drainage patterns and increase runoff. All projects, including the proposed project, are required to comply with the San Francisco Bay RWQCB Municipal Regional Stormwater NPDES Permit. Under the NPDES permit, redevelopment projects are required to treat 100 percent post-construction runoff with LID treatment controls, such as biotreatment facilities, to reduce runoff, unless a full or partial exemption applies. Reducing runoff in compliance with the requirements of NPDES permit and the fact that the City's stormwater system as it flows through the Downtown area is contained in engineered channels and underground storm drains would ensure that cumulative impacts on stormwater runoff are less than significant, and the proposed project's contribution to the cumulative impact is less than significant.

3.8.7 References

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State of California. 2009. Tsunami Inundation Map for Emergency Planning, San Mateo Quadrangle, San Mateo County; produced by California Emergency Management Agency, California Geological Survey, and University of Southern California – Tsunami Research Center; dated June 15, 2009, mapped at 1:24,000 scale.

3.9 LAND USE AND PLANNING

This section analyzes the proposed project's consistency with applicable land use plans, policies, and regulations adopted for avoiding environmental effects. The potential for the proposed project to result in physical impacts as a result of a land use conflict is analyzed under other resource topics in this EIR.

Comments received during the EIR scoping process include the following topics related to land use:

- Consistency with the City's adopted General Plan and Downtown Specific Plan
- Consistency with City's Zoning ordinance

These topics are addressed in the impact analysis below.

3.9.1 Environmental Setting

The City of Burlingame encompasses a mix of land uses, including residential, commercial, institutions, and parks. The City has categorized sub-areas within Burlingame (such as the Downtown area, North Burlingame/Rollins Road area, and the Bayfront area east of US Highway 101) to address the unique features of these areas. The project sites are located in primarily residential areas of the City, though the 1128-1132 Douglas Avenue project site is also considered part of Downtown.

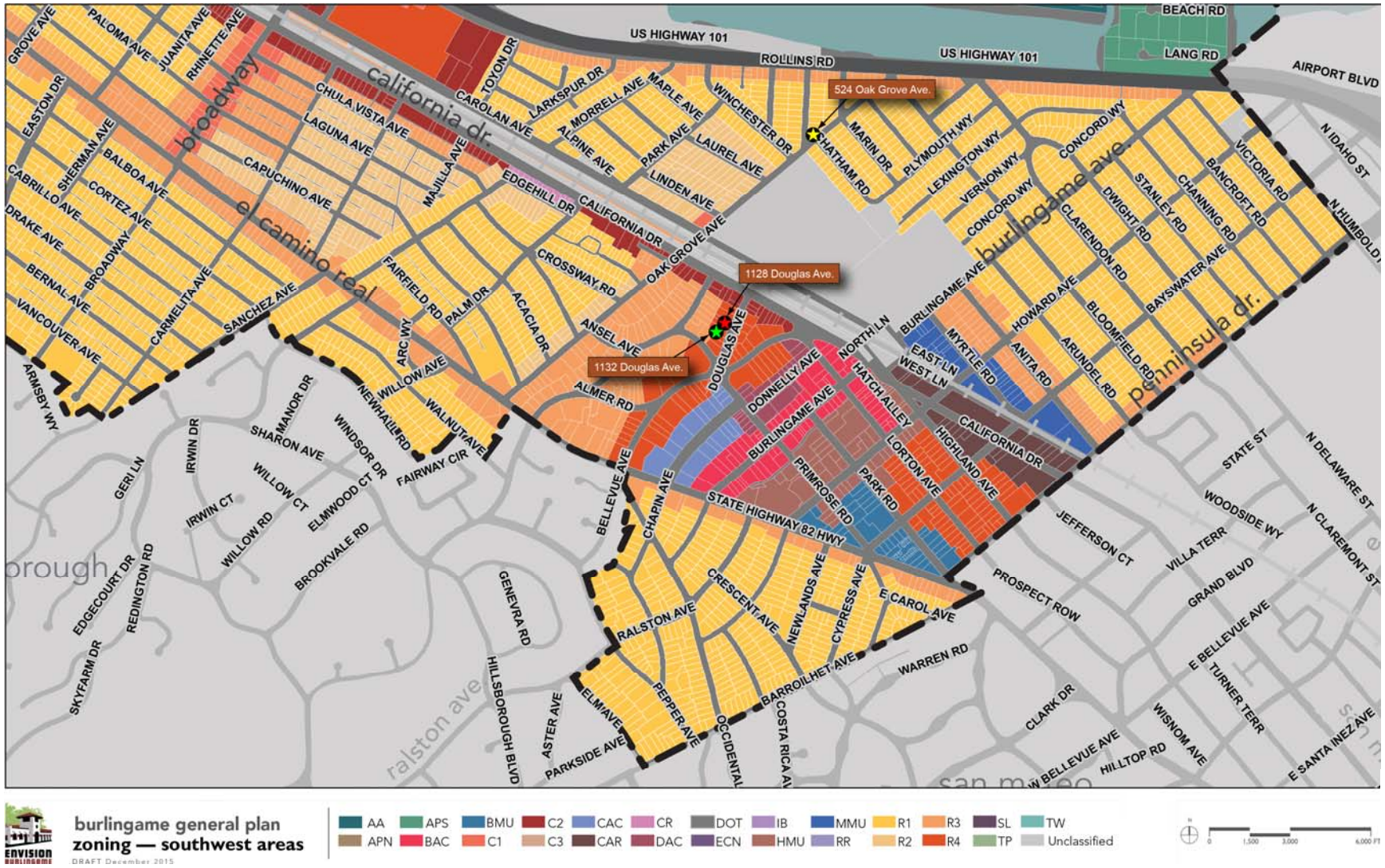
524 Oak Grove Avenue Project Site

The Oak Grove Avenue area consists of primarily single-family homes. The Oak Grove Avenue project site is zoned for low-density residential uses (R-1) (see Figure 3.9-1) and is located a block away from Rollins Road and US Highway 101. The site is also less than 0.25 mile from Washington Park and Burlingame High School, which are located south of the project site, and less than 1 mile from McKinley Elementary School and the Caltrain station. The site has a lot size of 8,787 square feet and has a single family home on the parcel.

1128-1132 Douglas Avenue Project Site

The Douglas Avenue area consists of a mix of single family homes and apartment complexes. The Douglas Avenue project site is zoned for high density residential uses (R-4) under the Downtown Specific Plan (see Figure 3.9-1). The Downtown Specific Plan Area is bounded by Oak Grove Avenue to the west, El Camino Real to the south, Peninsula Avenue to the east, and Anita Road and Railroad right-of-way to the north. This project site is located two blocks from Burlingame Avenue and half a block from California Drive, both of which are major commercial and business corridors in the City. City Hall and the Main Library are half a block from the site, with Washington Park and Burlingame High School about 0.25 mile to the northeast. McKinley Elementary School is 0.5 mile to the southwest of the site, and the Caltrain station is a little over quarter of a mile northeast.

Figure 3.9-1 Zoning Map



The Douglas Avenue project site encompasses two parcels at 1128 and 1132 Douglas Avenue for a lot area of 15,492 square feet. A single-family home and a separate 4-unit apartment complex are situated on the 1128 parcel. A single-family home and detached garage exist on the 1132 parcel.

3.9.2 Regulatory Setting

Federal

There are no federal laws related to land use that pertain to the proposed project.

State

There are no state regulations related to land use that pertain to the proposed project.

County

Comprehensive Airport Land Use Compatibility Plan for the Environs of San Francisco International Airport

The State legislature mandated that every county which has an airport served by a scheduled airline shall establish an airport land use commission. The Airport Land Use Commissions were given authority to:

- Specify how land near airports is to be used, based on safety and noise compatibility considerations
- Develop height restrictions for new development to protect airspace in the vicinity of the airport, and to
- Establish construction standards for new buildings near airports, including sound insulation requirements. (City/County Association of Governments of San Mateo County 2012)

To address these concerns, the Airport Land Use Commissions are required to review adopted plans and regulations of neighboring local agencies and airport operators and prepare and adopt an ALUCP for each airport within their jurisdiction. These ALUCPs apply only to new development or infill development.

SFO Airport is owned and operated by the City and County of San Francisco, and is located in San Mateo County. The City/County Association of Governments of San Mateo County serves as the Airport Land Use Commission for San Mateo County. The *Comprehensive Airport Land Use Compatibility Plan for the Environs of the San Francisco International Airport* (City/County Association of Governments of San Mateo County 2012) was prepared to guide development around the airport.

The City of Burlingame is adjacent to SFO Airport, and the proposed project sites are located within the SFO Airport Influence Area (AIA). New development in the AIA is subject to noise and vibration from airport operations, and height restrictions and construction standards for safety concerns.

The proposed project sites also are within the area of navigable airspace under Title 14, CFR, Part 77—Safe, Efficient Use, and Preservation of the Navigable Airspace. These regulations require that new structures that exceed the elevations specified in the regulations prepare an FAA Form 7460-1, Notice of Proposed Construction or Alteration, and submit the notice to the FAA for review. Notification for the proposed project would be required if any construction or alteration activity is more than 200 feet above ground level at the project sites, or if the activity is within the 100:1 surface from the nearest point of the nearest runway.

Local

City of Burlingame General Plan

The General Plan is a City-wide plan for future development typically looking forward 15 to 20 years. Its primary function is to provide a framework and guidance for decisions by the City. The General Plan was adopted on October 20, 1969 by Resolution 87-69 (City of Burlingame 1969 and as amended). The General Plan consists of nine elements that have individually been updated at various times in the past several years since the General Plan was adopted. The following General Plan goals and implementation objectives apply to the proposed project.

Community Development Goals:

I. To ensure that Burlingame will continue to be a "well-rounded" city with residences, schools, business, industry, and space and facilities for social, recreational and cultural activities.

Implementing Objectives

c. Encourage assembly of small lots in suitable locations to provide larger sites for apartments, office buildings, and commercial enterprises.

II. To maintain and enhance the identity of the City and encourage a maximum sense of identification by residents with the City.

Implementing Objectives

d. Create distinctive visual qualities—a Burlingame image (analyze existing visual qualities and build on the best of these).

f. Use trees of appropriate size and character as a design framework to enhance a sense of identity.

III. To maintain and strengthen local sources of revenue to enable the City to continue to provide services and facilities at present or improved levels without increasing local tax rates.

Implementing Objectives

b. Require quality and permanence in site improvements and land development projects to minimize depreciation.

c. Require forward-looking design to minimize obsolescence.

d. Encourage sound construction and good maintenance for all buildings.

e. Enhance land values and economic opportunity by providing efficient connections between functional parts of the City and good access to land to permit development of uses appropriate in type and intensity without undue congestion.

IV. To encourage mixed commercial uses to provide a transition between districts fully commercial or residential and to provide housing opportunities for those dependent on transit and desiring a pedestrian-oriented living environment

The General Plan and subsequent amendments contain policies, recommendations and actions to avoid land use impacts. The proposed project would be required to conform to the following policies:

Land Use Element

Policy L(A): In recognition of its special locational advantages of good access to all forms of transportation and proximity to the major downtown area high density, multi-story residential land use shall be encouraged.

Action L(1): High density residential uses shall be located in the area northwest of the Burlingame Avenue-Park Road shopping center.

Housing Element

Policy H(A-7): Consider neighborhood quality when approving new and remodeled residences.

Implementation Actions:

H(A-8) Residential design review: Continue implementation of residential design review and zoning regulations including setbacks, floor area ratio, declining height; continue implementation of single family design review guidelines adopted in 1998.

Policy H(B-2): Promote development of rental housing that is attractive to prospective residents.

Implementation Program H(B-3): Encourage the inclusion of communal amenities in new rental developments: (i.e., community rooms, play structures, laundry facilities) where feasible and provision of which does not impair achievement of maximum densities or the financial feasibility of developing housing affordable to lower-income households.

Policy H(E-1): Promote the use of energy conservation in residential construction.

Policy H(E-2): Encourage energy conservation measures in rehabilitation projects.

Implementation Programs:

H(E-1) Energy conservation for major residential construction: In all plan checking for new residential construction and major additions, apply Title 24 energy conservation requirements; where possible in planning developments, require structural and landscaping design to make use of natural heating and cooling.

H(E-3) Sustainable Development: Stringent California Green Building Standards (CalGreen) have been adopted. At the minimum, new construction will follow the requirements set by the mandatory portion of the CalGreen Code.

Policy H(F8): Maintain zero-net-loss of housing units by encouraging smaller sized units and modifying parking standards for smaller units close to transit hubs in the R-3 and R-4 residential zones.

Implementation Programs:

H(F-4) - Identify sites for affordable, mixed use residential, live-work and small one-bedroom or studio apartments.
b. Promote development within the new mixed use zoning districts within the Downtown Specific Plan area, which allow for mixed uses and high density residential uses, and include incentives to keep units affordable such as reduced parking requirements, increased heights and modified setbacks.

Burlingame Downtown Specific Plan

The City prepared the Downtown Specific Plan (City of Burlingame 2011) to continue the success of the downtown area by exploring opportunities and guiding future development in the Specific Plan area. The Specific Plan area has been divided into smaller planning areas. The 1128-1132 Douglas Avenue project site is located in the R-4 Base District:

> "The R-4 Base District consists of properties on either side of Bellevue Avenue. The land uses for the High Density Residential District are predominantly higher density multifamily residential. These areas will continue to be regulated by the R-4 zoning standards that apply to R-4 properties citywide."

The following goals and policies of the Downtown Specific Plan are applicable to the proposed project:

Goal LU-6: Promote diversity in housing type and affordability within the Downtown area.

Goal P-4: Re-examine Downtown Parking Requirements.

Policy P-4.1: Downtown parking requirements should promote more efficient use of land. For example, consider shared parking, proximity to transit, and walking distance.

Goal D-1: Protect and preserve historic character.

Policy D-1.1: Ensure that new construction fits into the context and scale of the existing downtown.

Policy D-1.2: Require design review for all new downtown buildings and for changes to existing downtown buildings, and integrate historic review into the design review process.

Goal D-2: Develop policies and provide incentives for the restoration, preservation, and adaptive re-use of historic structures.

Policy D-2.1: Inform property owners about historic preservation and how it can enhance the Downtown.

Policy D-3.2: Evaluate development in the Downtown Area that is proposed to be taller than surrounding structures (i.e., over 40 feet) for potential to create new shadows or shade on public and/or quasi-public open spaces and major pedestrian routes.

Goal D-5: Explore ways of promoting green design in the downtown area; promote design that decreases the carbon footprint.

Relevant policies and conditions from the Downtown Specific Plan have been identified and evaluated in respective sections (e.g., Aesthetics, Cultural Resources) of the EIR.

Burlingame Municipal Code

Title 25 of the Burlingame Municipal Code is the Zoning Ordinance for the City (City of Burlingame 2015b). The Zoning Ordinance regulates setbacks, height and contains measurements of mass and bulk.

R-1 Zoning District Standards

Single family homes are permitted uses in this district. The development standards for the R-1 District and corner lot are listed in Table 3.9-1 below.

Table 3.9-1 Development Standards for R-1 District

Development Standard	R-1 District Corner Lot
Frontage for lots of 7,000 to 9,999 square feet which face a curved street	Not less than 35 feet
Maximum height	2½ stories or 30 feet, whichever is less
Maximum lot coverage	40 percent
Floor area ratio	32 percent plus 900 square feet plus up to 350 square feet in a detached single or two car garage and other accessory structures
Front setback to first floor - Minimum	15 feet or the average of the block, whichever is greater
Front setback to second floor - Minimum	20 feet

Source: City of Burlingame 2015b

Development Standards for R-4 Base District

Multi-family residential uses are permitted in the R-4 Base District. The development standards for this district are presented in Table 3.9-2 below.

Table 3.9-2 Development Standards for R-4 Base District

Development Standard	R-4 Base District
Front Setback	15 feet
Front Build-to Line	No requirement
Side Setback – Minimum	10 feet
Rear Setback – Minimum	20 feet
Height Limit – Maximum	35 feet (75 feet with Conditional Use Permit)
Ground Floor Ceiling Height (Floor to Ceiling)	No requirement
Lot Coverage	50 percent
Architectural Encroachments	Certain encroachments (e.g., architectural features promoting good urban design) that extend beyond setbacks and maximum height limits may be permitted through a special Planning Commission design review process.
Maximum Average Residential Unit Size	1,250 square feet

Source: City of Burlingame 2015a

Parking Standards

The parking standards for residential development outside the downtown parking sector is shown in Table 3.9-3.

Table 3.9-3 Parking Standards outside the Downtown Parking Sector Area

Number of Bedrooms	Required Parking Spaces Residential uses outside the downtown parking sector
Studio	1 space per unit
1 Bedroom	1 space per unit
2 bedrooms	1.5 spaces/unit
3 or more bedroom units	2 spaces/unit
Guest Parking	No parking required

Source: City of Burlingame 2015

3.9.3 Thresholds of Significance

The proposed project would result in a significant impact on land use and planning if it would:

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

3.9.4 Approach to Analysis

This analysis is based on an evaluation of the proposed project's consistency with applicable plans and policies as outlined above. The analysis also evaluates the proposed project for compatibility with neighboring land uses and the potential for creating a physical barrier through the neighborhood. The consistency with any applicable habitat conservation plan or natural community conservation plan is evaluated.

3.9.5 Impacts and Mitigation

Table 3.9-4 provides a summary of impacts to land use and planning from construction and operation of the proposed project, including the significance of potential impacts prior to application of mitigation measures and after the implementation of mitigation measures.

Table 3.9-4 Summary of Land Use and Planning Impacts

Significance Criteria	Project Phase	Significance Prior to Mitigation	Significance with Mitigation
Impact Land Use-1: Would the proposed project physically divide an established community?	Construction and Operation	No Impact	–
Impact Land Use-2: Would the proposed project 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?	Construction and Operation	Significant	Less than Significant with MM TRAFFIC-2
Impact Land Use-3: Would the proposed project conflict with any applicable habitat conservation plan or natural community conservation plan?	Construction and Operation	No Impact	–

Impact Land Use-1: Would the proposed project physically divide an established community? *(No Impact)*

The proposed project would not divide an established community as explained below.

524 Oak Grove Avenue Project Site

The proposed project would replace the existing house at the 524 Oak Grove Avenue project site with the historic home relocated from 1128 Douglas Avenue. There would be no physical change to the boundary of the existing parcel. The proposed project activities at this site would not physically divide the community.

1128-1132 Douglas Avenue Project Site

The proposed project would replace the existing structures on the two existing Douglas Avenue parcels with a single apartment building. This new apartment building would be constructed within the confines of the existing lot boundaries. The proposed project activities at this site would not physically divide the community.

Mitigation: None required

Impact Land Use-2: Would the proposed project 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? *(Less than Significant Impact with Mitigation)*

Comprehensive Airport Land Use Compatibility Plan for the Environs of San Francisco International Airport

524 Oak Grove Avenue Project Site

The maximum elevation permitted under FAA notification requirements in this area is 110 feet above mean sea level (City/County Association of Governments of San Mateo County 2012). The elevation of the relocated house after setting at this location is 51 feet above mean sea level, which is below the threshold for FAA notification. The project would be consistent with the plan and the impact would be less than significant.

1128-1132 Douglas Avenue Project Site

The maximum elevation for a structure allowed under FAA notification requirements in this area is 130 feet above mean sea level (City/County Association of Governments of San Mateo County 2012). The elevation of the proposed apartment building at this location is 86 feet above mean sea level, which is below the threshold for FAA notification.

The proposed project would comply with the policies of the ALUCP after construction. The crane used to move and relocate the historic house would penetrate the 100:1 imaginary surface for SFO during construction. The imaginary surface safety zone is at a height of 110 feet for the 524 Oak Grove Avenue project site and 130 feet for the 1128 Douglas Avenue project site. The Applicant would be required to comply with Downtown Plan Condition of Approval 17 – Compliance with FAR Part 77 Height Limits and FAA Studies. The findings of all FAA aeronautical studies conducted by the FAA, per the federal notification process, shall be incorporated into the City's final approval of the project. Condition 17 would ensure compliance with FAA requirements. The impact would be less than significant.

Historic Home Relocation

A crane would be used to lift sections of the historic home from its current setting and place them on a flat-bed semi-trailer truck. A crane also would be used to set the historic house in its new location. Although the crane use would be for brief periods of time, the crane is likely to penetrate the 100:1 imaginary surface zone for SFO. The zone is at a height of 110 feet for the Oak Grove Avenue project site and 130 feet for the Douglas Avenue project site.

The project Applicant would be required to file an FAA Form 7460-1 and comply with Downtown Specific Plan Condition of Approval 17 and the City would incorporate FAA recommendations into the plan prior to issuance of a building permit. Condition 17 would ensure compliance with FAA requirements. The impact would be less than significant.

General Plan

The proposed project would reflect the goals of the General Plan by combining two smaller lots and building a large multi-family residential building in an area within a short distance of public transit and the downtown business district. The proposed project would also further the City's goals and policies by adhering to CalGreen building standards, for the new building as well as the renovations to the relocated house, for energy conservation. The apartment building constructed under the proposed project would provide attractive rental property by providing amenities such as a fitness center and community room for the building, in-unit washers/dryers in most units, and energy efficient fixtures. The proposed project would be consistent with the land use goals and policies in the City's General Plan. The impact would be less than significant.

Zoning Code

524 Oak Grove Avenue Project Site

The relocated house would be consistent with the R-1 District zoning as shown in Table 3.9-5 below. The impact would be less than significant.

Table 3.9-5 Proposed Project Consistency with Zoning Code for R-1 District

Development Standard	Permitted in R-1 District	Proposed Project square feet (sf)	Consistent
Lot Coverage	40 percent	2,448 sf / 8,788 sf = 27.8 percent	Yes
Floor Area Ratio	32 percent + 900 sf (0.32 × 8,788 sf) + 900 sf + 324 sf = 4,037 sf)	House = 3,689 sf Detached Garage = 324 sf Total = 4,013 sf	Yes
Building Height	2½ stories or 30 feet above average top of curb	26 feet, 8 inches above average top of curb	Yes

1128-1132 Douglas Avenue Project Site

The proposed new apartment building would require a conditional use permit (CUP) for height and a variance for the front setback. Other aspects of the proposed building are consistent with the R-4 District zoning as shown in Table 3.9-6 below.

If the variance and conditional use permit are approved, the project would be entirely consistent with City zoning. The physical impacts of reduced setback and increased height are addressed in Section 3.1: Aesthetics of this EIR.

Section 25.70.025 of the City's Municipal Code, Standards for parking aisles and driveways has established the minimum driveway width of 12 feet for parking areas with not more than 30 vehicles. The proposed project includes 12 parking spaces at ground level to the rear of the building. The driveway easement that accesses the rear parking area is 8 to 9 feet, which is less than the required 12-foot width. A variance for this driveway width was submitted to the City as part of the application package for the project. The driveway would be inconsistent with the City's Municipal Code, which would be a significant impact. Mitigation Measure TRAFFIC-2 Driveway Safety Enhancements and a variance would reduce the impact to less than significant.

Table 3.9-6 Proposed Project Consistency with Zoning Code for R-4 District

Development Standard	Permitted in R-4 District	Proposed Project	Consistent
Front Setback	Minimum 19.9 feet	18.4 feet	No[1]
Side Setback	Minimum 10 feet	11 feet	Yes
Rear Setback	20 feet	20 feet	Yes
Maximum Height	35 feet; 75 feet with CUP	56 feet, 10 inches[2]	Yes
Lot Coverage	50 percent	50 percent (7,746 sf/ 15,492 sf)[3]	Yes
Maximum Average Residential Unit Size	1,250 sf	900 sf	Yes
Allowed Stories	5	5	Yes

sf = square feet
[1]Requires variance for setback
[2]Requires conditional use permit for height in excess of 35 feet
[3]Adjusted to account for improvements which exceed 30 inches above grade

Mitigation: Mitigation Measure TRAFFIC-2

Significance after Mitigation: Less than Significant

Impact Land Use-3: Would the proposed project conflict with any applicable habitat conservation plan or natural community conservation plan *(No Impact)*

The proposed project sites are not located in an area included in an adopted habitat conservation plan or natural community conservation plan. There would be no impact.

3.9.6 Cumulative Land Use Impacts

Cumulative Context

The geographic context for land use and planning includes the proposed project sites and the planning areas in which they are situated. Since the Oak Grove Avenue project site is covered by the General Plan which includes the entire City, and the Douglas Avenue project site is in the Downtown Specific Plan area, the cumulative context for land use and planning includes all the projects listed in Table 3-1, List of Cumulative Projects.

Cumulative Analysis

Cumulative land use and planning impacts would occur if the proposed project in combination with the other project in the cumulative projects list were to divide an established community or be inconsistent with the goals and policies of the adopted plans for the City.

As analyzed above, the proposed project is consistent with the goals and policies of the General Plan and the Downtown Specific Plan. All approved development would have been subject to

the City's zoning, design review and permitting process. Any pending projects would be subject to the same level of review and permitting. These review processes would ensure that any approved or pending projects, including the proposed project, are consistent with the goals and policies of the applicable plans and compatible with surrounding land uses. The impact would be less than significant.

3.9.7 References

City/County Association of Governments of San Mateo County. 2012. Draft Final, *Comprehensive Airport Land Use Compatibility Plan for the Environs of San Francisco International Airport,* prepared for City/County Association of Governments of San Mateo County, Redwood City, California, prepared by Ricondo & Associates in association with Jacobs Consultancy and Clarion Associates, July 2012.

City of Burlingame. 1969. *General Plan,* Resolution 87-69, adopted October 20, 1969.

_____. 2011. *Burlingame Downtown Specific Plan,* Resolution No. 73-2010 adopted by the Burlingame City Council October 4, 2010; amended by Resolution No. 66-2011, adopted September 19, 2011.

_____. 2015a. *2015-2013 Housing Element*, Resolution 5-2015, adopted by the Burlingame City Council, January 5, 2015.

_____. 2015b. Title 25 Zoning Code, Chapter 25.26 *R-1 District Regulations* (annotated version). Accessed August 3, 2015 at https://www.burlingame.org/Modules/ShowDocument.aspx?documentid=115.

3.10 NOISE AND VIBRATION

This section presents an analysis of noise and vibration impacts from construction and operation of the proposed project when the new apartment building is occupied.

Comments received during the EIR scoping process included the following topic related to noise:

- Construction noise and vibration impacts
- Cumulative noise impacts

These topics are addressed in the impact analysis below.

3.10.1 Noise Definitions

Noise is generally defined as unwanted or objectionable sound. Noise is usually objectionable because it is disturbing or annoying. The objectionable nature of sound may be caused by its pitch or its loudness. Pitch is the degree of highness or lowness of a tone, depending on the relative rapidity of the vibrations by which it is produced. Humans hear high-pitched sounds as louder than low-pitched sounds. Most sounds heard in the environment do not consist of a single frequency, but a broad band of frequencies with each frequency differing in sound level. The intensities of each frequency add together to generate a sound.

Noise Quantification

The method commonly used to quantify environmental sounds consists of evaluating all frequencies of a sound in accordance with a filter that reflects the fact that human hearing is less sensitive at low and extremely high frequencies compared to mid-range frequencies. This quantification is called "A" weighting, and the decibel (dB) level measurement is called the A-weighted sound level (dBA). Expressed on a logarithmic (power of 10) scale, the units are depicted as dBA using a frequency-weighted pattern that duplicates the sensitivity of the human ear. A noise of 70 dBA is approximately twice as loud as a noise of 60 dBA and four times as loud as a noise of 50 dBA. Table 3.10-1 defines the various acoustical terms used in this analysis.

Table 3.10-1 Definition of Acoustical Terms

Term	Definition
Decibel (dB)	The standard unit of measurement for sound pressure level and vibration level. Technically, a decibel is the unit of level which denotes the ratio between two quantities that are proportional to power; the number of decibels is 10 times the logarithm of this ratio.
A-weighted sound level (dBA)	A standardized filter used to alter the sensitivity of a sound level meter with respect to frequency so that the instrument is less sensitive at low and high frequencies where the human ear is less sensitive.
Equivalent Noise Level (L_{eq})	The level of a steady sound which, in a stated time period and at a stated location, has the same sound energy as the time-varying sound.

Term	Definition
Day-Night Noise Level (L_{dn})	The sound exposure level for a 24-hour day calculated by adding the sound exposure level obtained during the daytime (7 a.m. to 10 p.m.) to 10 times the sound exposure level obtained during the nighttime (10 p.m. to 7 a.m.). This unit is used throughout the U.S. for environmental impact assessment.
Ambient Noise Level	The pre-project background noise or vibration level.

Source: FTA 2006

Since noise levels from various sources vary over time, they are frequently expressed as an equivalent noise level (L_{eq}), which is a computed steady noise level that represents the same energy transmission over a specified time. L_{eq} values are commonly expressed for one-hour periods, but different averaging times may be specified.

Noise Exposure and Community Noise

For the evaluation of environmental or community noise effects, it is customary to define a 24-hour-long noise level based on hourly L_{eq} values. An excess or "penalty" noise is applied during the nighttime hours to account for the added nuisance and to adjust for lower average ambient levels during that period. The resulting noise descriptor is either a Community Noise Equivalent Level (CNEL) or a Day-Night Average Noise Level (L_{dn}). If the sound energy does not vary with time, the L_{dn} level would be equal to the L_{eq} level plus 6.4 dB.

The method of predicting human reaction to new noise environment is the way it compares to existing environment to which one has adapted, the "ambient" noise level. In general, the more a new noise exceeds the previously existing ambient noise level, the more noticeable it is to people.

Noise Attenuation

Most noise sources can be classified as either point sources, such as stationary equipment, or line sources, such as a roadway. Sound generated by a point source nominally diminishes (attenuates) at an approximate rate of 6 dBA for each doubling of distance away from the source. Table 3.10-2 below shows the attenuation of an 80 dBA noise level measured at 50 feet from a point source, to a distance of 800 feet.

Table 3.10-2 Noise Attenuation of 80 dBA Measured at 50 feet from Source

Distance from Noise Source	Noise Level (dBA)
50 feet	80 dBA
100 feet	74 dBA
200 feet	68 dBA
400 feet	62 dBA
800 feet	56 dBA

At a distance of 800 feet, a noise level of 80 dBA (the maximum noise level generated by the construction equipment anticipated to be used at the project site) measured at 50 feet from the point source would have attenuated to 56 dBA which is below the 60-dBA CNEL for outdoor noise in residential areas recommended by the City's Noise Element.

Groundborne Vibration

Vibration is the physical manifestation of energy carried through the earth and structures. Groundborne vibration consists of rapidly fluctuating motions or waves. It has the potential to annoy people and damage buildings. Low-level vibrations can also cause irritating secondary vibration, such as a slight rattling of windows, doors, or stacked dishes. The rattling sound can give rise to exaggerated vibration complaints, even though there is little risk of actual structural damage.

Construction activities can produce varying degrees of ground vibration, depending on the equipment and methods employed. Ground vibrations from construction activities very rarely reach levels high enough to cause damage to structures, although special consideration must be made in cases where fragile historical buildings are located near the construction site. The most common measure used to quantify construction vibration amplitude in relation to impacts to structures is the peak particle velocity (PPV), defined as the maximum instantaneous peak velocity of the vibratory motion in inches per second. Typically, ground-borne vibration generated by man-made activities attenuates rapidly with distance from the source of the vibration. Table 3.10-3 presents the reaction of people and potential for damage to buildings from continuous or frequent intermittent vibration levels.

Sensitive Receptors

Sensitive receptors include individuals who are more susceptible to adverse effects of noise such as young children, the elderly, and the convalescing. Land uses associated with sensitive receptors include, but are not limited to residences, hospitals, schools, childcare facilities, and senior housing. Facilities that are places for quiet contemplation such as places of worship, libraries, and cemeteries are also considered sensitive receptors.

Table 3.10-3 Reactions of People and Damage to Buildings from Continuous or Frequent Intermittent Vibration Levels

Velocity Level PPV (in/sec)	Human Reaction	Effect on Buildings
0.01	Barely perceptible	No effect
0.04	Distinctly perceptible	Vibration unlikely to cause damage of any type to any structure
0.08	Distinctly perceptible to strongly perceptible	Recommended upper level of the vibration to which ruins and ancient monuments should be subjected
0.1	Strongly perceptible	Virtually no risk of damage to normal buildings

Velocity Level PPV (in/sec)	Human Reaction	Effect on Buildings
0.3	Strongly perceptible to severe	Threshold at which there is a risk of damage to older residential dwellings such as plastered walls or ceilings
0.5	Severe – vibrations considered unpleasant	Threshold at which there is a risk of damage to older residential dwellings such as plastered walls or ceilings

Source: Caltrans 2013

3.10.2 Environmental Setting

524 Oak Grove Avenue Project Site

The Oak Grove Avenue project site is approximately 300 feet south of US Highway 101, and is surrounded by residences. San Francisco International Airport is located 2 miles north-northwest of this project site, and the Caltrain tracks are located less than 0.5 mile to the south.

The existing noise environment at the Oak Grove Avenue project site is described based on a noise study conducted for Carolan Avenue/Rollins Road Residential Development Project (Illingworth & Rodkin 2014). That project is similarly located adjacent to Rollins Road and US Highway 101, the closest major source of noise to this project site. A long-term noise measurement was taken approximately 23 feet from the centerline of Rollins Road. The day-night average noise level at this measurement location from Tuesday, June 25, 2013 through Friday, June 28, 2013 was 78 dBA. Noise attenuates 6 dB for every doubling of distance. The Oak Grove project site is approximately 280 feet from the center of Rollins Road. The average ambient noise level is approximately 57 dBA.

1128-1132 Douglas Avenue Project Site

The Douglas Avenue project site location is approximately 500 feet south of the Caltrain tracks, and approximately 350 feet south of California Drive. This project site is in a residential area less than 1 mile from downtown Burlingame. The San Francisco Airport is a little over 2 miles north-northwest of this project site.

The existing noise environment at the Douglas Avenue project site was characterized from the traffic noise data in the Downtown Specific Plan (City of Burlingame 2011). California Drive is the closest major source of noise for the Douglas Avenue project site. The 24-hour CNEL for California Drive was determined to be 67 dBA at 50 feet. California Drive is approximately 360 feet from this project site. With noise attenuation, the average ambient noise level at the Douglas Avenue project site would be approximately 59 dBA.

Table 3.10-4 below lists the sensitive receptors located within 1,000 feet of the two project sites.

Table 3.10-4 Closest Sensitive Receptors to the Project Sites

Sensitive Receptor	Distance and Direction from Project Site (Approximate)
524 Oak Grove Avenue Project Site	
Neighborhood Residences	10 feet north
Burlingame High School	1,000 feet south
Trenton Park	1,000 feet east-northeast
1128-1132 Douglas Avenue Project Site	
Neighborhood Residences	10 feet north, south, and west
Burlingame Montessori Preschool and Kindergarten	300 feet north
Burlingame Library Foundation	500 feet south
Burlingame High School	1,000 feet northeast

3.10.3 Regulatory Setting

Federal

There are no federal regulations pertaining to noise and vibration that apply to the proposed project.

State

Title 24, Part 2 of the State of California Code of Regulations establishes uniform minimum noise insulation performance standards to protect persons within new multi-family residences. Title 24 mandates that interior noise levels attributable to exterior sources shall not exceed 45 dB Ldn or CNEL in any habitable room.

Local

Comprehensive Airport Land Use Compatibility Plan for the Environs of San Francisco International Airport

The City of Burlingame is adjacent to SFO Airport, and the proposed project sites are located within the SFO AIA. New development in the AIA is subject to noise and vibration from airport operations. The Douglas Avenue and Oak Grove Avenue project sites are located outside the 65 dBA CNEL aircraft noise contour for SFO Airport.

City of Burlingame General Plan

The Noise Element of the General Plan describes the five major sources of noise that affect the City:

1. Bayshore Freeway (US Highway 101)
2. Southern Pacific Railroad/Caltrain
3. California Drive
4. El Camino Real
5. Junipero Serra Freeway (Interstate 280)

The policy goals of city-wide noise control are to:

N(A): Preserve peaceful noise conditions in the City where they do exist.

N(B): Reduce annoying levels of noise for existing situations; aircraft, motor vehicle and domestic animal noise were identified by a Noise Questionnaire to be the most annoying at present (1975).

N(C): Achieve a peaceful acoustic environment in portions of the city to be developed.

The Noise Element of the General Plan states that a significant acoustic impact may arise and an EIR is required if the development requires construction activity for more than 30 elapsed days using any combination of sources of noise listed in Table 4-6 of the Noise Element, and reproduced as Table 3.10-5 below.

Maximum allowable noise levels for construction equipment, as specified in the Noise Element, are listed in Table 3.10-5 below.

Table 3.10-5 Maximum Allowable Noise Levels from Construction Equipment

Construction Equipment	Peak Noise Level in dBA at 50 feet
Earthmoving	
Front loader	75
Backhoes	75
Dozers	75
Tractors	75
Scrapers	80
Graders	75
Truck	75
Paver	80
Materials Handling	
Concrete Mixer	75
Concrete pump	75
Crane	75
Derrick	75
Stationary	
Pumps	75
Generators	75
Compressors	75

Construction Equipment	Peak Noise Level in dBA at 50 feet
Impact	
Pile drivers	95
Jackhammers	75
Rock drills	80
Pneumatic tools	80
Other	
Saws	75
Vibrator	75

Source: City of Burlingame 1975

The General Plan suggests that for land use planning criteria, a maximum outdoor noise level of 60 dBA should be targeted for public, quasi-public, and residential uses. The maximum outdoor noise levels recommended in the City's Noise Element for categorized land uses is shown in Table 3.10-6 below.

Table 3.10-6 City of Burlingame, Maximum Outdoor Noise Levels

Land Use Categories	CNEL
Public, Quasi-public and Residential: Schools, hospitals, libraries, auditoriums, intensively used parks and playgrounds, public buildings, single-family homes, multiple family apartments and condominiums, mobile home parks	60 dBA
Passively Used Open Space: wilderness-type parks, nature or contemplation areas of public parks	45 dBA
Commercial: shopping centers, self-generative business, commercial districts, offices, banks, clinics, hotels and motels	65 dBA
Industrial: non-manufacturing industry, transportation, communications, utilities, manufacturing	75 dBA

Source: City of Burlingame 1975

The General Plan Noise Element also states that:

> No person shall be allowed to cause any noise to be emitted past his/her property line in any manner so as to create any noise which would cause the ambient L .0 [*sic*] noise level to be increased by more than 5 dBA.

City of Burlingame Municipal Code

Section 18.07.110 of the City's Municipal Code limits the hours of construction to between 7:00 a.m. and 7:00 p.m. on weekdays, 9:00 a.m. to 6:00 p.m. on Saturdays, and 10:00 a.m. to 6:00 p.m. on Sundays and holidays.

Burlingame Downtown Specific Plan

The City of Burlingame adopted the Downtown Specific Plan in 2010. While the Downtown Specific Plan does not include specific goals or policies related to noise for the Downtown Specific Plan Area, the Implementation chapter of the plan includes standard conditions of approval for all projects that are intended to mitigate potential environmental impacts including noise and vibration. These conditions of approval apply to both project sites. The conditions for approval related to noise and vibration are listed in Table 3.10-7 below.

Table 3.10-7 Downtown Specific Plan Conditions of Approval

Condition of Approval	Description
Condition of Approval 19 – Implement Best Management Practices to Reduce Construction Noise	*Ongoing during project construction* The City shall incorporate the following practices into the construction documents to be implemented by the project contractor. • Maximize the physical separation between noise generators and noise receptors. Such separation includes, but is not limited to, the following measures: - Use heavy-duty mufflers for stationary equipment and barriers around particularly noisy areas of the site or around the entire site; - Use shields, impervious fences, or other physical sound barriers to inhibit transmission of noise to sensitive receptors; - Locate stationary equipment to minimize noise impacts on the community; and - Minimize backing movements of equipment. • Use quiet construction equipment whenever possible. • Impact equipment (e.g., jack hammers and pavement breakers) shall be hydraulically or electrically powered wherever possible to avoid noise associated with compressed air exhaust from pneumatically-powered tools. Compressed air exhaust silencers shall be used on other equipment. Other quieter procedures, such as drilling rather than using impact equipment, shall be used whenever feasible.
Condition of Approval 20 – Implement measures to Reduce Construction Vibration	*Ongoing during project construction* Project sponsors shall incorporate the following practice into the construction documents to be implemented by construction contractors: The project sponsors shall require that loaded trucks and other vibration-generating equipment avoid areas of the project site that are located near existing residential uses to the maximum extent compatible with project construction goals.

Source: City of Burlingame 2011

3.10.4 Thresholds of Significance

The proposed project would result in a significant noise impact if it would:

a) Expose persons to, or generate noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies
b) Expose persons to, or generate excessive groundborne vibration or groundborne noise levels
c) Result in substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project
d) Result in substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project
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, expose people residing or working in the project area to excessive noise levels
f) For a project within the vicinity of a private airstrip, expose people residing or working in the project area to excessive noise levels

3.10.5 Approach to Analysis

The existing noise conditions at the Oak Grove Avenue project site are based on measurements taken for the Carolan Avenue/Rollins Road Multi-Family Residential Development project noise study (Illingworth & Rodkin, Inc. 2014) for. That project site location was determined to be representative of the noise environment at the Oak Grove Avenue project site because it is the same general neighborhood and type of land uses, has similar proximity to US Highway 101, and is within 0.25 mile of the Oak Grove Avenue project site.

The noise environment for the Douglas Avenue project site was characterized using the levels identified in the Downtown Specific Plan Initial Study/Mitigated Negative Declaration (City of Burlingame 2011).

Noise impacts are analyzed based on a comparison of noise levels under existing conditions and noise levels resulting from the proposed project. Temporary construction noise analysis is based on typical construction phases and equipment noise levels (using the City-specified maximum noise levels for construction equipment shown in Table 3.10-5) and attenuation of noise between sensitive receptors and the proposed project sites. Typical construction equipment proposed for the project was used in the Federal Highway Administration's Roadway Construction Noise Model (RCNM) to estimate the maximum noise level generated by project construction. This model takes into consideration the typical usage of each piece of construction equipment as well as standard best management practices used to regulate the noise the equipment generates. Best management practices, such as the use of a noise barrier around the project sites and muffling of equipment, were considered to reduce noise levels by 8 dBA at a distance of 50 feet. A distance of 50 feet is an industry standard typically used to characterize the noise level in the general vicinity of the construction activity.

Vibration impact assessment for the construction equipment is based on Federal Transportation Administration (FTA) criteria.

The Douglas Avenue project site is located within the Downtown Specific Plan area. The construction activities at this site would be typical of the multi-family buildings proposed for this area under the Downtown Specific Plan. The Downtown Specific Plan includes best management practices to lower noise and vibration impacts to surrounding land uses, as a condition of approval for the project. These conditions of approval would be required for the proposed project as a whole, including the construction activities at the Oak Grove Avenue project site.

3.10.6 Impacts and Mitigation

Table 3.10-8 provides a summary of the significance of potential noise impacts of the proposed project prior to application of mitigation measures and after the implementation of mitigation measures.

Table 3.10-8 Summary of Noise Impacts

Significance Criteria	Project Phase	Significance Prior to Mitigation	Significance with Mitigation
Impact Noise-1: Would the proposed project expose persons to, or generate noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	Construction	Significant	Less than Significant MM NOISE-1
	Operation	Significant	MM NOISE-2
Impact Noise-2: Would the proposed project expose persons to, or generate excessive groundborne vibration or groundborne noise levels?	Construction	Less than Significant	Less than Significant
	Operation	No Impact	–
Impact Noise-3: Would the proposed project result in substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?	Construction	No Impact	–
	Operation	Less than Significant	
Impact Noise-4: Would the proposed project result in substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?	Construction	Significant	Less than Significant MM NOISE-1 MM NOISE-3 MM NOISE-4
	Operation	Less than Significant	

Significance Criteria	Project Phase	Significance Prior to Mitigation	Significance with Mitigation
Impact Noise-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 proposed project expose people residing or working in the project area to excessive noise levels?	Construction and Operation	No Impact	–
Impact Noise-6: For a project within the vicinity of a private airstrip, would the proposed project expose people residing or working in the project area to excessive noise levels?	Construction and Operation	No Impact	–

Impact Noise-1: Would the proposed project expose persons to, or generate noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies? (*Less than Significant Impact with Mitigation)*

Construction

Construction activities would result in short-term and intermittent noise impacts for the 14 months of construction. Both project locations are within 10 feet of adjacent residences. Construction activities would include truck traffic, demolition, dismantling and moving the historic house, excavation, grading, and building construction.

This impact discussion addresses the potential to exceed noise standards. See Impact Noise-4 for further discussion of the impacts of construction noise.

The Noise Element of the Burlingame General Plan does not specifically address construction noise or define construction noise standards other than specifying maximum construction equipment noise levels (Table 3.10-5). The Noise Element identifies the type of projects that may have a significant noise impact and require preparation of an EIR.

Construction activities would begin with demolition of the existing house at the Oak Grove Avenue project site. The demolition would take approximately 5 days, as shown in Table 3.10-9. Typical demolition and other construction equipment noise levels are shown in Table 3.10-10. Construction would also include truck traffic for removal of debris (to an offsite location for sorting and disposition for recycling or to a landfill) and delivery of materials. Typical truck noise is also shown in Table 3.10-10.

Table 3.10-9 Estimated Period for Exterior Construction Activities

Construction Activity	Estimated No. of Working Days
524 Oak Grove Avenue Project Site	
Demolition	5 days
Grading	5 days
Excavation and shoring	5 days
Foundation lay down	10 days
Other exterior building construction	15 days
1128-1132 Douglas Avenue Project Site	
Demolition	10 days
Grading	10 days
Excavation and shoring	40 days
Foundation lay down	30 days
Other exterior building construction	70 days

Source: Dreiling Terrones Architecture, Inc. 2016

Table 3.10-10 Construction Equipment Noise Levels

Construction Equipment Anticipated to be Used	Maximum Allowable Noise Level at 50 feet	Actual Maximum Sound Level at 50 feet	Exceeds Thresholds	Typical Usage[1]	L_{eq}[1] at 50 feet Adjusted for Usage[2] and Control Measures[3]	Exceeds Threshold
Throughout Construction						
Trucks (semis and dump trucks)	N/A	76.5 dBA	N/A	40%	64.5 dBA	N/A
Generators	75 dBA	80.6 dBA	Yes	50%	69.6 dBA	No
Compressors	75 dBA	77.7 dBA	Yes	40%	65.7 dBA	No
Pneumatic tools	80 dBA	85.2 dBA	Yes	50%	74.2 dBA	No
Concrete saw	75 dBA	89.6 dBA	Yes	20%	74.6 dBA	No
Chain saw	75 dBA	83.7 dBA	Yes	20%	68.7 dBA	No
Crane	75 dBA	80.6 dBA	Yes	16%	64.6 dBA	No
Demolition, Excavation, Shoring						
Front loader	75 dBA	79.1 dBA	Yes	40%	67.1 dBA	No
Backhoes	75 dBA	77.6 dBA	Yes	40%	65.6 dBA	No
Bulldozers	75 dBA	81.7 dBA	Yes	40%	69.7 dBA	No
Tractors	75 dBA	84.0 dBA[4]	Yes	40%	72 dBA	No

Construction Equipment Anticipated to be Used	Maximum Allowable Noise Level at 50 feet	Actual Maximum Sound Level at 50 feet	Exceeds Thresholds	Typical Usage[1]	L_{eq}[1] at 50 feet Adjusted for Usage[2] and Control Measures[3]	Exceeds Threshold
Scrapers	80 dBA	83.6 dBA	Yes	40%	71.6 dBA	No
Graders	75 dBA	85 dBA[4]	Yes	40%	73 dBA	No
Jackhammers	75 dBA	88.9 dBA	Yes	20%	73.9 dBA	No
Paver	80 dBA	77.2 dBA	Yes	50%	66.2 dBA	No
Foundations						
Concrete Mixer	75 dBA	78.8 dBA	Yes	40%	66.8 dBA	No
Concrete pump	75 dBA	81.4 dBA	Yes	20%	66.4 dBA	No
Rock drills	80 dBA	81.0 dBA	Yes	20%	66 dBA	No
Pneumatic tools	80 dBA	85.2 dBA	Yes	50%	74.2 dBA	No
Pumps	75 dBA	80.9 dBA	Yes	50%	69.9 dBA	No

[1] L_{eq} is the average A-weighted sound level during a 1-hour period.
[2] The usage factor is the percentage of time during a construction noise operation that a piece of construction equipment is operating at full power during a 1-hour period.
[3] Control measures includes the use of a noise barrier and other noise reduction measures required as a condition of approval of the project.
[4] Actual maximum noise level is not available, technical specification maximum is used.

Source: FHWA 2016

The Applicant is required to use equipment that meets the noise levels identified in the Noise Element. Table 3.10-10 above shows that with the incorporation of best management practices required by the Downtown Specific Plan Condition of Approval 19, and adjusted for typical usage, construction equipment noise would not exceed the City's standards. There is no other noise standard for construction. The impacts related to exceeding noise standards for construction would be less than significant. No mitigation is required.

The Applicant has requested approval from the City (under Municipal Code Section 18.07.110) to move the historic house from the Douglas Avenue project site to the Oak Grove project site outside of normal construction hours (between 7 p.m. and 7 a.m.). The move must take place at night because the power would be disconnected to allow for safe demolition. The dismantled house would be cut into four pieces, loaded on to semi-trucks, and delivered to the Oak Grove Avenue project site. The delivery and setting of the historic house after normal construction hours would require four semi tractor-trailers and a crane. Construction activity outside of the hours allowed by the Noise Ordinance would be a significant impact.

Mitigation Measure NOISE-1 would require that the Applicant prepare a Relocation Plan and obtain approval from the City under Municipal Code Section 18.07.110. The intent of the Plan is to ensure the least amount of disruption to neighbors. This mitigation measure would reduce to

a less than significant level the impact of construction activities occurring outside of hours allowed by the General Plan.

Mitigation: Mitigation Measure NOISE-1

MM NOISE-1: Prepare a Relocation Plan and Obtain Approval from the City for Historic House Relocation Outside of Permitted Construction Hours

The Applicant shall prepare a Relocation Plan and obtain approval from the City under Municipal Code Section 18.07.110 for historic house relocation. The Relocation Plan shall include:

1. Exact procedure for cutting and dismantling the historic house, and loading on trucks
2. Specific routes for movement of the historic house from its existing location to 524 Oak Grove Avenue
3. Exact procedure for setting the house in its new location
4. Estimated duration for the various activities involved in the cutting, dismantling, loading, and setting of the house
5. Coordination procedures with utilities, Caltrain, and appropriate City Departments
6. Advance Notice to residents at each project site and along the route regarding the start and duration of power interruption
7. Measures to reduce impacts of power outage on residents such as:
   a. Power interruption phasing to reduce amount of time houses are affected
   b. Offering affected parties dry ice for freezers and refrigerators
   c. Offering generators for life support equipment
   d. Security lighting

Approval from the City for relocating the historic house outside of permitted construction hours would be contingent on abiding by all the best management practices required under Condition of Approval 19, and the measures included in the Noise Management Plan for the project.

Significance after Mitigation: Less than Significant

Operation

The relocated historic house at the Oak Grove Avenue project site would replace the existing single-family residence. Conditions after construction would not be expected to change from the existing condition because the new house is similar in size and scale to the house that would be demolished.

After construction is complete and the new building at the Douglas Avenue project site is occupied, the proposed project would generate a maximum of 147 daily net new traffic trips,

including 11 net new trips during the AM peak hours, and 13 net new trips during the PM peak hours (see Section 3.13, Transportation and Traffic). These new trips would be distributed during the peak hours and throughout the day. Therefore, the noise generated by these new trips would not substantially exceed the existing noise levels in the area. The impact during project operation would be less than significant.

Interior Noise Impacts

The multi-family building proposed at the Douglas Avenue site would be located within 500 feet of California Drive and the Union Pacific/Caltrain tracks, which are major sources of noise in the City. The allowable outdoor noise level for residential areas is 60 dB. Noise levels at the proposed Douglas Avenue site could exceed 60 dB in the outdoor spaces due to the proximity of California Drive and the railway tracks. California Building Code (Title 24, Chapter 12, Section 1207.11.2) requires new multi-family housing to have interior noise levels of 45 dBA where the exterior noise level is greater than 60 dB. Interior noise levels greater than 45 dBA would be a significant impact.

The following mitigation measure will ensure that the proposed new building incorporates design and construction elements to ensure that interior noise levels do not exceed 45 dBA. With implementation of Mitigation Measure NOISE-2, the project would comply with Title 24 of the California Building Code and the interior noise impact would be less than significant.

Mitigation: Mitigation Measure NOISE-2

MM NOISE-2: Compliance with Title 24

Prior to issuance of a building permit, a qualified acoustical consultant shall review the final building plans to calculate expected interior noise levels. The building permit shall not be issued until the qualified acoustical consultant has reviewed the acoustical test report of all sound rated windows and doors and confirmed that the proposed building treatments will adequately reduce interior noise levels to 45 dBA or below.

Implementation of mitigation measures NOISE-1 and NOISE-2 would ensure that the proposed project would not expose persons to, or generate noise levels in excess of standards, and the impact would be less than significant.

Significance after Mitigation: Less than Significant

Impact Noise-2: Would the proposed project expose persons to, or generate excessive groundborne vibration or groundborne noise levels? *(Less than Significant Impact)*

Construction activities such as blasting, pile-driving, and heavy earth-moving equipment can cause ground vibration. Ground vibration effects cause annoyance to sensitive receptors and can cause damage to structures. Ground vibration effects vary in individuals and the distance from the source. Damage to structures can range from minor cosmetic damage such as cracks in

the exterior wall to foundation damage. Construction-induced vibration that can be detrimental to a building is rare and has only been observed in buildings adjacent to the construction activity that are in a state of substantial disrepair (Illingworth & Rodkin 2014). Table 3.10-11 presents typical vibration levels generated by construction equipment at a distance of 25 feet from the source.

Table 3.10-11 Vibration Source Levels for Construction Equipment

Equipment		PPV at 25 ft (in/sec)	Approximate L_v at 25 ft (VdB)
Pile Driver (Impact)	Upper range	1.158	112
	Typical	0.644	104
Pile Driver (Sonic)	Upper range	0.734	105
	Typical	0.170	93
Clam shovel drop		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

Source: FTA 2006

The proposed project would not use blasting or pile-driving equipment during construction. Construction equipment such as jackhammers, rock drills, and grading compactors may generate distinctly perceptible to strongly perceptible vibrations to persons in the immediate surroundings when they are in use during construction. These equipment types are used for specific tasks and would not be expected to be in constant use. As can be seen from the table above, these equipment types are below a PPV of 0.3, the threshold for which there is a risk of damage to older residential dwellings. The impact would be less than significant.

Groundborne noise occurs when vibrations generate audible sound such as rattling of windows, shaking of objects on shelves, or rumbling sounds. Groundborne noise is commonly associated with rail transit and heavily travelled major highways. The proposed project would not generate excessive amounts of vibration during construction that would result in groundborne noise. The impact would be less than significant.

The proposed project would construct an apartment building which would result in normal residential activities. No activities resulting in groundborne vibration and noise would occur during operation following completion of construction. The impact would be less than significant.

Mitigation: None required

Impact Noise-3: Would the proposed project result in substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project? *(Less than Significant Impact)*

The proposed project would result in residential development. The proposed project would replace a single-family house with another single-family house at the Oak Grove Avenue project site. There would be no change in the use and the proposed project would not result in a permanent increase in ambient noise levels.

The proposed project at the Douglas Avenue project site location would result in a 29-unit multi-family residential structure replacing two single-family houses and a four-unit apartment complex. The noise level generated by the residents in this building would be typical of residential areas and would not be expected to result in a substantial permanent increase in ambient noise levels.

The proposed project during operation would result in an increase in traffic with up to 147 net new daily trips (see Section 3.13, Transportation and Traffic) in addition to the existing 46 trips per day. The AM peak hour trips would increase by 11 trips and the PM peak hours trips would increase by 13 trips. These additional traffic trips would not be expected to happen simultaneously. The trips would be distributed throughout the day and during the peak hours. The small numbers of additional trips would not result in substantial permanent increase in ambient noise levels. The impact would be less than significant.

Mitigation: None required

Impact Noise-4: Would the proposed project result in substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project? (*Less than Significant Impact with Mitigation)*

Project construction will require large construction equipment and create construction noise over a 14-month period. The construction would be located within 10 feet of nearby homes. The proposed project would result in a substantial temporary increase in ambient noise levels during the construction period. The period during which these intermittent noise increases would occur would be less than 6 months as shown in Table 3.10-9, above. Exterior construction using heavy equipment would last 40 days at the Oak Grove Avenue project site and 160 days at the Douglas Avenue project site.

After the historic house is set at the Oak Grove Avenue project site, construction noise at this project site would be typical of single-family residential building construction.

Demolition would last for approximately 10 days at the Douglas Avenue project site (as shown in Table 3.10-9) and would include use of equipment such as backhoe loaders, bulldozers, dump trucks, and cranes. Table 3.10-10 shows the types of equipment, noise levels, and typical percentage of time used during construction and the impacts before and after application of noise control measures.

The grading phase of construction at the Douglas Avenue project site would last approximately 10 days and use graders and bulldozers. Excavation and shoring of the garage would begin after the site is cleared and last approximately 40 days. Excavation and shoring would require bulldozers, excavators, dump trucks, and rock drills and cause the highest noise levels.

Excavation would be followed by foundation laydown using concrete mixers, and pumpers. The equipment noise levels would not exceed those specified by the City in the Noise Element, as shown in Table 3.10-10.

Demolition and excavation noise levels would be higher than building construction noise. Construction of the apartment building would be similar to other residential construction in the area. Construction-related noise levels during building framing, finishing, and landscaping phases are normally lower than those produced during road building, site preparation and infrastructure installation.

The proposed project would be required to implement Downtown Specific Plan Condition of Approval 19, as described in the regulatory setting above (Table 3.10-7). Implementation of the best management practices included in this Condition of Approval would ensure that wherever feasible, construction equipment noise would be muffled, and that quieter impact tools and noise barriers would be used. These noise reduction measures are expected to reduce noise levels by approximately 8 dBA. The equipment with the highest noise levels would be used for specific tasks and would not be in constant use. Table 3.10-10 above shows the peak construction equipment noise levels at a distance of 50 feet from the source, taking into consideration best management practices and control measures and adjusted for usage.

The noise levels during construction would be 10 to 15 dBA higher than the 60 dBA CNEL specified in the General Plan Noise Element for residential areas. The temporary increase in noise levels would be a significant impact.

The following mitigation measures would reduce the noise impact. Mitigation Measure NOISE-1 would ensure that construction outside of allowed hours are conducted with the least amount of disruption to neighbors through approval obtained from the City. Mitigation Measure NOISE-3 would require the Applicant to control noise generated by workers, and to inform neighbors when loud construction noise is anticipated. Mitigation Measure NOISE-4 imposes stricter construction hours than what is allowed under the Municipal Code Section 18.07.110, and is included to reduce the overall noise impact to neighboring residents.

Mitigation Measures:

MM NOISE-1: Prepare a Relocation Plan and Approval from the City for Historic House Relocation Outside of Permitted Construction Hours

MM NOISE-3: Noise Management Plan

The applicant shall prepare a noise management plan that includes:

a. Identified routes for movement of construction-related vehicles and equipment developed in conjunction with the Burlingame Community Development Department so that noise-sensitive areas, including residences and schools, are avoided as much as possible.

b. A designated "Community Liaison" for construction activities. The Community Liaison would be responsible for responding to any local complaints regarding construction noise and vibration. The Community Liaison would determine the cause of the noise or vibration complaint and would implement reasonable measures to correct the problem.

c. Sending advance notice to neighborhood residents within 50 feet of the project site regarding the construction schedule and including the phone number for the disturbance coordinator. A notice with the name and phone number of the Community Liaison shall be posted at the project site.

In the event that construction noise complaints are not resolved by scheduling, the applicant shall install temporary sound absorption barriers, such as noise control blankets, in addition to the standard noise barriers around the construction site required under Condition of Approval 19, best management practices. These additional barriers would be specifically designed for exterior use and would reduce the noise level beyond the fence line by at least 3 dBA.

If noise complaints continue, the applicant shall install a temporary sound absorption barrier that would reduce the noise level beyond the fence line an additional 2 dBA, for a total noise reduction of 5 dBA beyond the fence line.

MM NOISE-4: Restricted Construction Hours

Construction hours for exterior construction activities shall be limited to the hours of 7:00 a.m. to 6:00 p.m. Monday through Friday, and the hours of 9:00 a.m. and 6:00 p.m. on Saturdays, unless a special permit is obtained in advance from the City for specified activities. No construction shall occur on Sundays or holidays.

This construction noise restriction shall not apply to work done within the building after it is fully enclosed.

Significance after Mitigation: Less than Significant

Impact Noise-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 proposed project expose people residing or working in the project area to excessive noise levels? *(No Impact)*

The Oak Grove Avenue and Douglas Avenue project sites are within the area of influence for the San Francisco International Airport Comprehensive Airport Land Use Plan. The 65 dB CNEL noise contour is considered to be the threshold of exposure to excessive noise levels. Both the Oak Grove Avenue and Douglas Avenue project sites are located outside the 65 dB CNEL noise contour for San Francisco International Airport, and are therefore compatible with the Comprehensive Airport Land Use Plan standards (City/County Association of Governments 2012). The proposed project would not expose the people residing in the area to excessive noise. There would be no impact.

Impact Noise-6: For a project within the vicinity of a private airstrip, would the proposed project expose people residing or working in the project area to excessive noise levels? *(No Impact)*

There are no private airstrips in the vicinity of either the Oak Grove Avenue or Douglas Avenue project sites. There would be no impact.

3.10.7 Cumulative Noise Impacts

Cumulative Context

The geographic area for cumulative noise analysis includes the proposed project sites and the immediate surroundings for construction noise and vibration, as well as the access roads examined in Section 3.13, Transportation and Traffic, for project-generated traffic noise during operation.

Cumulative Analysis

Construction Noise

Ten of the projects listed in Table 3-1, List of Cumulative Projects, are within 1 mile of the Douglas Avenue project site, where the bulk of the construction activities for the proposed project would take place. Construction noise and construction traffic noise generated by the proposed project in combination with construction activities of these other projects would substantially increase ambient noise levels in the project area. Similar to the proposed project, all other projects would be required to operate only during mandated construction hours, and incorporate best management practices to keep noise and vibration at acceptable levels. However, the proposed project will exceed the noise threshold during construction creating a significant and unavoidable impact. The proposed project's contribution to the cumulative impact would be significant and unavoidable.

Operational Noise

The relatively small number of daily new trips (147) generated by the proposed project during operation (see Section 3.10-13, Transportation and Traffic) would be spread out throughout the day, and are not be expected to substantially alter traffic noise. Traffic generated by the

proposed project and cumulative projects in the area would be expected to quickly disperse at major arterials such as California Drive and El Camino Real. It is reasonable to assume that some residents in the Downtown Specific Plan area which encompass the Douglas Avenue project site, would take advantage of the transit options available to further reduce the number of vehicle trips that would contribute to traffic noise. The proposed project's contribution to the cumulative impact would be less than significant.

3.10.8 References

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3.11 POPULATION AND HOUSING

This section analyzes the potential impacts of the proposed project on the population and housing in the City, including potential impacts from inducing substantial population growth, displacing housing, and displacing people.

Comments received during the EIR scoping process include the following topics related to population and housing:

- Increase in population from proposed project
- Displacement of housing by proposed project
- Displacement of people by proposed project
- Available housing and need for additional housing

These topics are addressed in the impact analysis below.

3.11.1 Environmental Setting

Regional Setting

Population

The proposed project is located entirely within the City of Burlingame. The population of the City of Burlingame was 28,806 in 2010 (U.S. Census Bureau 2015). The population of the City of Burlingame is expected to grow approximately 1 percent annually. Table 3.11-1 provides a summary of the City and County population estimates.

Table 3.11-1 Population Estimates and Projections

City or County	2010 Population[1]	Population Projections[2]					Growth Percentage
		2020	2025	2030	2035	2040	
San Mateo County	718,451	775,100	805,600	836,100	869,300	904,400	0.01%
City of Burlingame	28,806	31,700	33,200	34,800	36,600	38,400	1%

Source: [1]U.S. Census Bureau 2015 and [2]ABAG 2009

Housing

The number of available housing units in Burlingame in 2010 was 13,027 (U.S. Census Bureau 2015). The number of houses in the City is expected to grow approximately 0.5-0.8 percent annually. Table 3.11-2 provides a summary of the City and County housing estimates.

Table 3.11-2 Housing Estimates and Projections

City or County	2010 Housing	Housing Projections[1]					Growth Percentage	Vacancy[2] Rate
		2020	2025	2030	2035	2040		
San Mateo County	257,837[1]	277,200	286,790	296,280	305,390	315,100	0.01%	4.9%
City of Burlingame	13,027[3]	13,620	14,230	14,890	15,520	16,170	.05% – 0.8%	5.1%

Source: [1]ABAG 2009, [2]California Department of Finance 2015, and [3]U.S. Census Bureau 2015

Local Setting

The Oak Grove Avenue project site is located in a built-up area of single-family homes and is zoned as R-1, which permits single-family dwellings. There is an existing single-family house on this project site.

The Douglas Avenue project site is located in a built-up area of single-family homes and multi-family homes and is zoned as R-4, which permits multi-family residential uses. This project site comprises two parcels. The parcel at 1128 Douglas Avenue has a single family house and a 4-unit apartment complex with a total of 10 rooms. The parcel at 1132 Douglas Avenue has a single-family house with 3 bedrooms.

3.11.2 Regulatory Setting

Federal

There are no federal laws or regulations pertaining to population and housing.

State

Regional Housing Need Allocations

As mandated by California Government Code, §65580, local government agencies are required to implement a Housing Element with the purpose of fulfilling the State's housing goals. The California Department of Housing and Community Development identifies these housing goals for the State using the Regional Housing Need Allocation (RHNA) process. It is the responsibility of the Association of Bay Area Governments (ABAG) to distribute the housing needs to local governments. The City has a housing need obligation of 863 units for the 2015 to 2023 planning period (ABAG 2013).

Local

City of Burlingame 2015–2023 Housing Element

The Housing Element is the City's master plan for accommodating the housing needs of the City's current and future residents. It is a comprehensive document that addresses a range of housing issues such as affordability, design, housing types, density, and location. It includes a summary of past housing/population trends and future housing/population projections, the housing need obligation for the City (863 units), possible constraints for the creation of housing (including affordable housing), and opportunities for the development of new housing. The

City is tasked to provide the opportunity for the units to be built through land use and zoning regulations, but the actual construction of the units would be up to the housing construction market. The City of Burlingame updated their Housing Element in 2015 and adopted the 2015–2023 Housing Element on January 5, 2015.

3.11.3 Thresholds of Significance

The proposed project would have a significant impact on population and housing if it would:

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

3.11.4 Approach to Analysis

Impacts to population and housing were analyzed by identifying the number of people that the proposed project would add to the population and comparing that number to the existing and projected population. The number of people that would reside in the new 29-unit apartment building was calculated using a formula that assumes that the number of people that reside in a residential unit is equal to the number of bedrooms plus one for each unit. The existing population and population projections were identified from the U.S. Census Bureau (2015) and ABAG (2009) data.

3.11.5 Impacts and Mitigation

Table 3.11-4 provides a summary of the significance of potential population and housing impacts of the proposed project prior to application of mitigation measures and after implementation of mitigation measures.

Table 3.11-3 Summary of Population and Housing Impacts

Significance Criteria	Project Phase	Significance Prior to Mitigation	Significance with Mitigation
Impact Population-1: Would the proposed project 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)?	Operation	Less than significant	--
Impact Population-2: Would the proposed project displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?	Construction and Operation	Less than Significant	--

Significance Criteria	Project Phase	Significance Prior to Mitigation	Significance with Mitigation
Impact Population-3: Would the proposed project displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?	Construction and Operation	Less than Significant	--

Impact Population-1: Would the proposed project 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) *(Less than Significant Impact)*

The proposed project would include the construction of 29 apartments that would provide housing for approximately 67 people. This number of residents was calculated using a formula that assumes that the number of people that reside in a residential unit is equal to the number of bedrooms plus one per unit. There are 38 bedrooms in the 29 apartments; an average of 2.3 people would reside in one residential unit. The existing house (1 unit) and apartment building (4 units) at 1128 Douglas Avenue has a total of 10 bedrooms and the house at 1132 Douglas Avenue (1 unit) has 3 bedrooms. The existing population at these two addresses is 19 persons using the same formula as above.

The proposed project would have a net increase in the City's population of approximately 48 people. The addition of 48 people represents an approximately 0.2 percent increase in the City population. The City is projected to grow one percent annually (see Table 3.11-1). A 0.2 percent addition to the population is not substantial and is within the City's one percent annual growth rate. The proposed project's addition to the City's population is less than significant.

The proposed project would not induce population growth because the proposed project is an infill project with existing infrastructure. The proposed project would not create any new infrastructure such as roads or utility lines that could indirectly generate population growth. In addition, the 29 apartments that would be constructed at the Douglas Avenue project site is consistent with the population density of the area, which is zoned for multi-family residential dwellings and is identified as a high density residential area in the General Plan and in the Downtown Specific Plan. Furthermore, the replacement of one single-family house with another single-family house at the Oak Grove Avenue project site is consistent with the population density of the area, which is zoned for single-family homes and is identified as medium density residential in the General Plan. The proposed project would not indirectly induce population growth. There would be no impact from indirect population growth.

Mitigation: None required

Impact Population-2: Would the proposed project displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere? (*Less than Significant Impact)*

and

Impact Population-3: Would the proposed project displace substantial numbers of people, necessitating the construction of replacement housing elsewhere? *(Less than Significant Impact)*

The 524 Oak Grove Avenue project site is currently occupied by a single-family house with two bedrooms. Demolition of this single-family house would displace an estimated three people.

The 1128 Douglas Avenue parcel is currently occupied by a single-family house of historical significance and a 4-unit apartment building. The single-family house would be moved to the Oak Grove Avenue project site and the 4-unit apartment building would be demolished. It is estimated that approximately 15 people would be displaced by the moving of the historical single-family house and from the demolition of the 4-unit apartment building. This number of existing residents was calculated using the same formula that was used to calculate the number of people that would live in the new 29-unit apartment building. An average of 3 people would reside in one residential unit at the 1128 Douglas Avenue parcel.

The 1132 Douglas Avenue parcel is currently occupied by a single-family house with three bedrooms. Demolition of this single-family house would displace an estimated four people.

The demolition activities and the movement of the historical home would result in the displacement of the current occupants, which are estimated to be 22 people (19 on Douglas Avenue and 3 on Oak Grove Avenue). There is existing housing in the City that could accommodate this small number of displaced persons. The City has a vacancy rate of 5.1 percent, which is sufficient to accommodate persons displaced by the proposed project (California Department of Finance 2015). The proposed project would ultimately create more housing through the construction of 29 apartments that could house up to 67 people. The proposed project would add 29 units in the City and would help the City fulfill its housing needs obligation of 863 units for the 2015 to 2023 planning period. The proposed project would not displace substantial numbers of existing housing units or people and would not necessitate the construction of replacement housing. The impact would be less than significant.

Mitigation Measures: None required

3.11.6 Cumulative Population and Housing Impacts

Cumulative Context

The geographic scope of cumulative impacts to population and housing includes the entire City. This geographic scope is appropriate because it accounts for the area that would be affected by increases in population and/or housing. All the residential development projects in Table 3-1 could potentially contribute to a cumulative population and housing impact. A cumulative

population and housing impact would occur if many development projects were constructed in the City, such that a significant amount of people or housing units were displaced, or a significant population increase would occur.

Cumulative Analysis

The proposed and approved residential development projects in the City (see Table 3-1) could demolish a total of 41 residential units and construct a total of 594 residential units, including condominiums, apartments, townhomes, and assisted living facilities. The addition of a maximum of 594 residential units to the City assumes that all proposed projects are approved. With the addition of the 29 units of the proposed project, the total cumulative number of houses that would potentially be constructed is 623. The City is required under State law to fulfill its housing needs obligation of 863 units for the 2015 to 2023 planning period. The cumulative number of residential units proposed is less than the housing need obligation for the City.

Housing development projects in the City are in varying stages, and new housing is constructed as some older units are demolished. In the Downtown Specific Plan area, multi-family housing units are replacing single-family houses and thereby providing more housing units to meet the City's projected housing needs. The City currently has an overall vacancy rate of 5.1 percent which is adequate to accommodate displaced residents from the proposed project and other projects that may displace residents at the same time.

The increase in the City's population would be consistent with the projected growth for the City and the additional housing units would serve to meet the City's RHNA needs. Substantial numbers of people and housing units would not be displaced. The cumulative impact on population and housing would be less than significant.

3.11.7 References

ABAG (Association of Bay Area Governments). 2009. Projections 2009.

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California Department of Finance. 2015. Report E-5 Population and housing Estimates for Cities, Counties, and the State, January 1, 2011-2015, with 2010 Benchmark.

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3.12 PUBLIC SERVICES AND RECREATION

This section analyzes the potential impacts to fire protection facilities, police protection facilities, schools, parks, recreational facilities, and other public facilities. No comments related to public services or recreation were received during the EIR scoping process.

3.12.1 Environmental Setting

Fire Protection Services

The Central County Fire Department (CCFD) provides fire protection services for the City, as well as other emergency services, including responding to medical emergencies. The CCFD services the City of Burlingame, Town of Hillsborough, and Town of Millbrae with six fire stations, six fire trucks, and one ladder truck. There are two active CCFD stations located in the City, including CCFD Fire Station 34 and CCFD Fire Station 35. An additional fire station is located in the City (CCFD Fire Station 36) but was closed in August 2010 due to budget reductions. Fire Station 34 is located closest to the project site, approximately 0.40 mile from the Douglas Avenue project site and 0.55 mile from the Oak Grove Avenue project site. Fire Station 35 is located approximately 1.9 miles from the Douglas Avenue project site and 2.1 miles from the Oak Grove Avenue project site.

The CCFD responds to approximately 5,000 calls annually, with 6,544 calls received in the 2011-2012 fiscal year. The CCFD has a 6:59 minute response time standard for emergency medical services, consistent with standards set by San Mateo County (R. Ellam, personal communication, July 27, 2015). The average response time for the Douglas Avenue project site and the Oak Grove Avenue project site was less than 4 minutes in 2014 (R. Ellam, personal communication, July 27, 2015).

Police Protection Services

The Burlingame Police Department provides police protection services for the City. There is one police station in the City of Burlingame, located approximately 2 miles east of the Douglas Avenue and Oak Grove Avenue project sites. The Burlingame Police Department consists of 37 police officers and 25 professional staff and includes three divisions: the operations division that patrols the City and includes select members of the Burlingame Police Department that belong to a regional Special Operations Unit, the support services division that handles administrative tasks, and the traffic division that handles the enforcement of traffic laws. The City's General Plan does not identify a service ratio goal, response time goal, or other performance standard for police services.

Schools

The proposed project site is located in the Burlingame Elementary School District and the San Mateo Union High School District. Students in the project area attend McKinley Elementary School, Burlingame Intermediate School, and Burlingame High School. McKinley Elementary School is located approximately 0.4 mile southwest from the Douglas Avenue project site and

0.75 mile southwest from the Oak Grove Avenue project site. Burlingame Intermediate School is located approximately 2 miles east of the Douglas Avenue project site and 2.15 miles east of the Oak Grove Avenue project site. Burlingame High School is located approximately 0.2 mile north from the Douglas Avenue project site and 0.2 mile south from the Oak Grove Avenue project site. Table 3.12-1 shows enrollment at these three schools in the past 5 years and the capacity of two schools.

Table 3.12-1 Enrollment Rates and Capacities for Schools Serving the Proposed Project

School	Capacity	Student Enrollment During the School Year[1]				
		2010-2011	2011-2012	2012-2013	2013-2014	2014-2015
McKinley Elementary School	583[2]	342	384	386	482	522
Burlingame Intermediate School	1,176[3]	837	889	922	953	1,004
Burlingame High School	1,350[4]	1,360	1,314	1,352	1,306	1,316

Source: [1]California Department of Education 2015, [2]G. Hellier, personal communication, Planning Division, personal communication, [4]P. Chavez, personal communication

Parks

Residents of the City of Burlingame are served by both regional and local community park facilities. There are 17 local parks, playgrounds, and recreational facilities within the City of Burlingame that are managed by the City Parks and Recreation Department. The closest local parks to the project sites are Trenton Playground, Alpine Playground, Washington Park, J Lot Playground, and the Paloma Playground.

There are parks, open space, preserves, and wildlife refuges in the San Francisco Bay Region that residents in the City could use. The County of San Mateo Parks Department manages and operates several parks throughout San Mateo County. The Coyote Point Recreation Area and Junipero Serra County Park are the closes to the project site. The City's General Plan does not identify a service ratio goal, response time goal, or other performance standard for park facilities.

Libraries

There are two libraries located within the City of Burlingame. The main library is located closest to the project site, approximately 0.05 mile from the Douglas Avenue project site and 0.50 mile from the Oak Grove Avenue project site. The Easton branch library is located approximately 1.2 miles from the Douglas Avenue project site and 1.4 miles from the Oak Grove Avenue project site. The City library offers cultural and learning services, including access to books, information, conference spaces, and various other cultural services.

The City's General Plan does not identify a service ratio goal, response time goal, or other performance standard for library services.

3.12.2 Regulatory Setting

State

California State Law gives the governing board of any school district the authority to levy a fee, charge, dedication, or other requirement against any construction, including residential construction within the boundaries of the district, for the purpose of funding the construction or reconstruction of school facilities (Education Code Section 17620). California Government Code Section 65995 establishes a method for calculating the maximum fee that can be incurred by a residential development project. California Government Code Section 65996 considers the payment of fees as mitigation for impacts on school facilities that could occur as a result of the development of a property. Furthermore, Section 65996(b) state that the payment of fees are "deemed to provider full and complete school facilities mitigation" of "state or local law," including CEQA.

3.12.3 Thresholds of Significance

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

a) Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:
   - Fire protection
   - Police protection
   - Schools
   - Parks
   - Other public facilities

b) Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated; or

c) Include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment

3.12.4 Approach to Analysis

Impacts to public services and recreation were analyzed by identifying the response times, capacity, and extent of services for the existing public services and recreational facilities within the City. Information about the response times for the CCFD and capacities of local schools was obtained from personal communication with personnel at the CCFD and the Burlingame School District (R. Ellam, personal communication, July 27, 2015 and G. Hellier, personal communication, August 04, 2015). Information about the other public services was obtained from the City website: https://www.burlingame.org/.

3.12.5 Impacts and Mitigation

Table 3.12-2 provides a summary of the significance of potential public services and recreation impacts of the proposed project prior to application of mitigation measures and after the implementation of mitigation measures.

Table 3.12-2 Summary of Public Services and Recreation Impacts

Significance Criteria	Project Phase	Significance Prior to Mitigation	Significance with Mitigation
Impact Public Services-1: Would the proposed project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services: Fire protection; Police protection; Schools; Parks; or Other public facilities?	Operation	Less than significant	–
Impact Recreation-1: Would the proposed project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	Operation	Less than significant	–
Impact Recreation-2: Would the proposed project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?	Operation	No impact	–

Impact Public Services-1: Would the proposed project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services: fire protection; police protection; schools; parks; or other public facilities? *(Less than Significant Impact)*

Fire Protection Services

The proposed project would increase the City population by 48 people taking into consideration the roughly 19 people accommodated in the existing housing. There would be an incremental increase in the demand for fire protection services. The proposed project would be located in an area that is currently being served by the CCFD; therefore, there would not be a need for the provision of additional fire protection facilities.

In addition, the proposed project would not significantly impact the response time for fire protections services. The response time for the proposed project area is currently less than 4 minutes, which is far below the standard 6:59 minute response time. The addition of

48 additional people to the area would not push the response times of the standard response time. Impacts to fire protection services would be less than significant.

Police Protection Services

The proposed project would slightly increase the demand for police protection services from the addition of 48 people to the population. The proposed project is located in an area that is currently being serviced by the Burlingame Police Department; therefore, there is no need for expanded or new police protection facilities. Furthermore, the addition of 48 people to the population is minimal (0.2 percent of the population in 2010) and would therefore not significantly impact response times. Impact to police protection services would be less than significant.

Schools

The construction of 29 housing units could add students to the City population. The State of California has determined that housing units yield approximately 0.5 students per dwelling unit for the Elementary School District and 0.2 students per dwelling unit for the High School District (California Department of General Services 2009). The proposed project is therefore projected to add approximately 15 elementary school-aged children and 6 high school-aged children to the school system.

McKinley Elementary School and Burlingame Intermediate School have not yet reached their capacity; however, both are approaching capacity. The addition of 15 students to McKinley Elementary School and Burlingame Intermediate School would not cause the schools to reach their capacity, according to the number of students enrolled in the 2014-2015 school year. It is the policy of the Burlingame School District to accommodate students in nearby schools when the local school that they have been assigned to has reached its capacity (G. Hellier, personal communication, August 04, 2015). Impacts to McKinley Elementary School and Burlingame Intermediate School would be less than significant because 15 additional students added to one school is not a large number of students, Burlingame School Districts would accommodate students if their local school reaches capacity, and the Applicant would pay fees to the Burlingame School District according to California Government Code Section 65995.

Burlingame High School has been over its capacity for half of the past ten years (P. Chavez, personal communication, August 18, 2015). The addition of six high school students to Burlingame High School is not a substantial number of students. However, because of the uncertainty of the future enrollments at Burlingame High School, it is unclear whether Burlingame High School would be over capacity when the proposed project is built. The San Mateo Union High School District makes the effort to keep students in their appointed schools, but if Burlingame High School is over capacity, students may be assigned to another school in the San Mateo Union High School District. Impacts to Burlingame High School would be less than significant because the addition of six high-school students is not a significant number, accommodations would be made if Burlingame High School is over capacity, and the Applicant would be required to pay fees to the San Mateo Union High School District according to California Government Code Section 65995.

Parks

The proposed project would not directly impact any parks; however, there would be a slight increase in use of parks in the area from the addition of 48 people to the population, if the residents were not already living in Burlingame. The residents of the new 29-unit apartment building would use local parks serviced by the City of Burlingame Parks and Recreation Department and regional parks serviced by the County of San Mateo Parks Department. The additional 48 residents would represent an increase in population of 0.2 percent (if all new residents came from out of the City) and would not create a need to expand or create new parks because there are many local and regional parks in the vicinity of the proposed project site. Impacts to parks would be less than significant.

Libraries

There are two City libraries that would serve the residents of the new apartment building. The additional 48 residents located near the existing library would not cause a need for expanded or new library facilities. The proposed project would increase the population by approximately 0.2 percent, which is not a substantial amount to significantly increase the demand for library services. Impacts to library services would be less than significant.

Mitigation: None required.

Impact Recreation-1: Would the proposed project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated? *(Less than Significant Impact)*

As described in Impact Public Services-1 the project could slightly increase the use of existing local and regional parks and recreational facilities but would not substantially deteriorate those recreational facilities. Impacts to parks and recreational facilities would be less than significant.

Mitigation: None required.

Impact Recreation-2: Would the proposed project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment? *(No Impact)*

The proposed project would not include recreational facilities or require the construction or expansion of recreation facilities; therefore, no impact to the environment would occur.

3.12.6 Cumulative Public Services and Recreation Impacts

Cumulative Context

The geographic scope of cumulative impacts to public services and recreation is the entire City. This geographic scope is appropriate because public services, including the recreational facilities that serve the proposed project, also serve other areas within the City. All the cumulative projects in Table 3-1 could potentially contribute to a cumulative impact to public services and recreation. A cumulative impact to public services and recreation would occur if

the cumulative projects would increase the population such that it would impact use of public recreational facilities and the level of service provided by public services.

Cumulative Analysis

The proposed and approved residential development projects in the City (see Table 3-1) could potentially result in the construction a total of 594 residential units, 203 of which are assisted living facilities. The addition of a maximum of 594 residential units to the City assumes that all proposed projects are approved.

Assuming an average of 2.37 persons per household, the cumulative projects could potentially add approximately 1,408 people to the City's population (California Department of Finance 2015). The proposed project would add 48 people to the population; therefore, a total of 1,456 people could potentially be added to the City from the cumulative projects and the proposed project.

Police and Fire Protection Services

The cumulative projects are located in areas currently being served by the Burlingame Police Department and the CCFD. The addition of an estimated 1,456 people would be an increase of 5 percent in the population (if all residents are new to Burlingame) and would increase the demand on the Burlingame Police Department and the CCFD.

The increased population would not significantly impact police and fire protection services. The Burlingame Police Department and the CCFD would be able to service the additional people added to the population by the cumulative projects. The Burlingame Police Department has one police station in the City with 37 police officers and 25 professional staff. The CCFD has two fire stations in the City and has an average response time that is well below the required response time. The CCFD would be able to accommodate the additional population without a decrease in the level of service (R. Yballa, personal communication, August 25, 2015). Cumulative impacts to police and fire protection services would be less than significant.

Schools

Elementary and Intermediate School

The cumulative projects throughout the City would add school-aged children to the population. Additional school-aged children could be expected to attend local schools as a result of the construction of 391 of the 594 new residential units; 203 of the units are assisted living facilities and would not add school-aged children to the community. Cumulative projects could add 196 elementary school-aged children to the City schools (California Department of General Services 2009), based on the estimate of 0.5 students per dwelling unit for the Elementary School District. The number of elementary school-aged children includes both students in elementary school and in intermediate school.

Only four of the cumulative projects would be served by McKinley Elementary School, the same elementary school that would serve the proposed project. These four cumulative projects (1225 Floribunda Avenue, 1433 Floribunda Avenue, 1491-1493 Oak Grove Avenue, 556 El Camino Real) would add 52 units, which corresponds to 26 elementary school-aged children. It

is anticipated that the proposed project would add 15 elementary school-aged children to McKinley School. The proposed project and the cumulative projects could potentially add 41 elementary school-aged children to McKinley Elementary School. This number may be larger than the actual number of children that would attend McKinley Elementary School because some of the 41 students would attend Burlingame Intermediate School and some students may already be in the school. The cumulative number of students added to McKinley Elementary School is not significant. The additional 41 students would not cause the school to reach its capacity based on the number of students enrolled in 2014-2015. If McKinley Elementary School does reach its capacity in the future, Burlingame Elementary School District would be required to accommodate additional students, which could be accomplished by sending students to other schools that do have capacity. In addition, payments to the Burlingame School District would be made by the developers, according to California Government Code Section 65995, to compensate for impacts associated with additional students using the schools. Cumulative impacts to McKinley Elementary School would be less than significant.

Burlingame Intermediate School would serve the students from all of the cumulative projects. Of the 196 elementary school-aged children that could be added to the City, some would attend schools with grades K-5. It is estimated that one third of the added elementary school-aged children would attend Burlingame Intermediate School because students in three (6th–8th) of the nine grades (K–8th) would attend Burlingame Intermediate School. It is estimated that a total of 65 students would be added to Burlingame Intermediate School from the cumulative projects and 5 students from the proposed project (30 percent of the projected 15 K-8th grade students). A total of 70 students could potentially be added to Burlingame Intermediate School. This addition is not a significant impact because there is additional space at Burlingame Intermediate School for portable classrooms (G. Hellier, personal communication, August 04, 2015). In addition, payments to the Burlingame School District would be made by the developers according to California Government Code Section 65995, to compensate for impacts associated with additional students using the schools. Cumulative impacts to Burlingame Intermediate School are less than significant.

High School

Burlingame High School would serve the students from all of the cumulative projects and the proposed project. Using the estimation of 0.2 students per dwelling unit for the High School District, cumulative projects would add 78 high school-aged children to the City schools (California Department of General Services 2009). The proposed project would add six high school-aged children to Burlingame High School. A total of 84 high school students could be added to the Burlingame High School from cumulative projects and the proposed project.

The addition of 84 high school students would increase the student population to 1,400 individuals based on 2014-2015 enrollment numbers and result in the attendance to exceed the designated capacity. San Mateo Union High School District would accommodate the increase in students by sending students to other high schools within the San Mateo Union High School District. In addition, payments to the San Mateo Union High School District would be made by the developers according to California Government Code Section 65995, to

compensate for impacts associated with additional students using the school. Because accommodations would be made for additional high school students and because the San Mateo Union High School District would be compensated for the impacts associated with additional students in the schools, the cumulative impact would be less than significant.

Parks and Recreation Facilities

The addition of 1,456 people to the City as a result of construction of the cumulative projects and the proposed project would not significantly impact parks or the quality of recreational facilities. There are sufficient local parks within the City and regional parks to accommodate the additional inhabitants of the City. Cumulative impacts would be less than significant.

3.12.7 References

California Department of Education. 2015. K-12 Pubic School Enrollment for McKinley Elementary School, Burlingame Intermediate School, and Burlingame High School. Accessed July 28, 2015 at http://dq.cde.ca.gov/dataquest/dataquest.asp.

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3.13 TRANSPORTATION AND TRAFFIC

This section presents an analysis of the proposed project's consistency with applicable plans, and its impact on the project area related to all modes of transportation and relevant components of the circulation system such as intersections, roads, freeways, transit routes, and bike and pedestrian paths. This section also considers design-related hazards and the adequacy of emergency access.

Comments received during the EIR scoping process include the following topics related to transportation and traffic:

- Impact of traffic volumes on Douglas Avenue
- Traffic generated by the proposed project
- Increase in deliveries with the proposed project
- Feasibility of one-way drive between properties
- Traffic counts
- Required parking for the proposed project
- Impact of parking on Douglas Avenue with the proposed project
- Impact on parking during construction activities

These topics are addressed in the impact analysis below.

3.13.1 Environmental Setting

Transportation Routes

US Highway 101 is a north-south highway that runs through California and provides regional access to the City of Burlingame. Peninsula Avenue and Broadway Avenue provide access to US Highway 101 from Burlingame.

State Route 82 (SR 82), also known as El Camino Real, provides access to cities to the north and south along the San Francisco peninsula. El Camino Real has four lanes of traffic through most of the City.

California Drive is a north-south arterial for the City. It is a two-lane road that extends from Millbrae Avenue down to Broadway where it widens to four lanes and continues down to Peninsula Avenue. California Drive becomes North San Mateo Drive at the San Mateo boundary on the south side of Peninsula Avenue.

Oak Grove Avenue is a two-lane east-west arterial in the City that provides access to Rollins Road to the east and California Drive, El Camino Real, and the downtown area to the west.

Public Transit Services

The San Mateo County Transit District is the administrative body for the principal public transit and transportation programs in San Mateo County: SamTrans bus service (including Redi-

Wheels paratransit service), Caltrain commuter rail, and the San Mateo County Transportation Authority.

SamTrans Bus Service
SamTrans runs three bus routes through the City of Burlingame. Route 46 operates on school-days only and runs from Arundel and Howard close to the downtown area to Burlingame Intermediate School on Trousdale Drive. Route 292 starts at Hillsdale in San Mateo and travels north to the San Francisco Transbay Terminal, stopping at the Burlingame Caltrain Station, San Francisco International Airport, and other points along the way. Route 397 runs north on El Camino Real starting at the Palo Alto Transit Center and stops at the Millbrae Transit Center Bay Area Rapid Transit (BART)-Caltrain station and the San Francisco International Airport BART station and terminates in downtown San Francisco.

Redi-Wheels Paratransit Service
The San Mateo County Transit District's Redi-Wheels Paratransit provides curb-to-curb service for people with disabilities who cannot use regular bus service. Redi-Wheels operates in San Mateo County, including Burlingame.

Caltrain
Caltrain provides commuter rail service along the San Francisco Peninsula and down to San Jose and Gilroy. Caltrain has two stations in Burlingame: Broadway and Burlingame. Trains stop at the Broadway station on weekends only. Limited Express trains stop at Burlingame during the commute hours for a 12-minute trip to San Francisco and a 50-minute trip to San Jose.

Free Shuttles
Three free shuttles serve the City. The Peninsula Traffic Congestion Relief Alliance manages the Burlingame Bayside Area Shuttle and the Burlingame-North-BART/Caltrain shuttles. The Burlingame Trolley is managed by participating hotels and run by Gateway Limousines Worldwide.

The Burlingame Bayside Area Shuttle carries commuters from the Millbrae Intermodal Station to Burlingame businesses in the morning and evening commute hours during the week. The shuttle stops curbside along Rollins Road, Bayshore Highway, and Airport Boulevard.

The Burlingame-North-BART/Caltrain Shuttle runs between the Millbrae Intermodal Station, Mills-Peninsula Health Services, Sisters of Mercy, and the residents of the Easton-Burlingame neighborhood during commute hours, Monday through Friday.

The Burlingame Trolley runs seven days a week serving the Burlingame Avenue and Broadway shopping areas and the Airport hotels.

San Mateo County Transportation Authority
The Transportation Authority (TA) was formed in 1988 with the passage of the voter-approved half-cent sales tax for countywide transportation projects and programs known as Measure A.

The TA administers the proceeds from Measure A to fund a wide variety of transportation-related projects and programs. Among its current projects is the US Highway 101/Broadway Interchange in Burlingame. This project will improve traffic movements and access around the interchange, accommodate future traffic increases at adjacent intersections, improve operations at the southbound US Highway 101 ramps, and increase bicyclist and pedestrian access. The project is currently in progress and is anticipated to be completed by fall of 2017.

Bicycle Routes

Burlingame maintains a network of bicycle routes throughout the City. Howard Avenue from Highland Avenue to Humboldt Road is the closest well-traveled arterial to the proposed project sites with a designated bike lane. Winchester Drive and the portion of Oak Grove Avenue from Winchester Drive to Acacia Drive are bicycle routes closest to The Oak Grove Avenue site.

Proximity to Major Roads and Highways and Existing Trips

524 Oak Grove Avenue Project Site

The Peninsula Avenue interchange with US Highway 101 is about 1 mile south of this project site. The Caltrain station and El Camino Real are approximately 0.7 mile to the west of the project site.

Existing Trip Generation

The ITE daily and peak hour trip generation rates for a single-family detached residence is estimated at 1 peak hour trip during each of the AM and PM hours, and a total of 9 daily trips (OmniMeans 2015).

1128-1132 Douglas Avenue Project Site

The Peninsula Avenue interchange with US Highway 101 is about 1.5 miles southeast of this project site. California Drive is half a block to the east, and El Camino Real is less than 0.5 mile to the west of the project site. The Caltrain station is about 0.3 mile south of the project site. Primrose Road and California Drive, on each end of Douglas Avenue, are bicycle routes.

Existing Trip Generation

Existing trip generation is shown in Table 3.13-1, based on ITE daily and peak hour trip generation rates for single-family detached and multi-family residences currently on-site. The existing residential units on the two adjacent parcels at 1128-1132 Douglas Avenue are currently generating an estimated 46 daily trips with 4 AM peak hour trips and 5 PM peak hour trips. Relative to specific residence type, this would equate to 27 daily trips for existing apartment uses with 2 AM peak hour trips and 3 PM peak hour trips. Single-family units are generating 2 peak hour trips (each) during the AM and the PM peak hours (OmniMeans 2015).

Table 3.13-1 Typical Trip Generation for Residences

		Daily Trip	AM Peak Hour Trip Rate/Unit			PM Peak Hour Trip Rate/Unit		
Land Use Category	**Unit**	**Rate**	**Total**	**In %**	**Out %**	**Total**	**In %**	**Out %**
Apartment	du	6.65	0.51	20	80	0.62	65	35
Single-Family	du	9.52	0.75	25	75	1.00	63	37
du = dwelling unit								

Source: Institute of Transportation Engineers (ITE), Trip Generation, 9th Edition, Single-Family Detached Housing (#210) and Apartment (#220), 2012.

Table 3.13-2 Existing Site Daily and Peak Hour Trip Generation at 1128-1132 Douglas Avenue

	Size	Daily	AM Peak Hour Trips			PM Peak Hour Trips		
Existing Uses		**Trips**	**Total**	**In**	**Out**	**Total**	**In**	**Out**
Apartment	4	27	2	0	2	3	2	1
Single-Family	2	19	2	0	2	2	1	1
Existing Project Trips		**46**	**4**	**0**	**4**	**5**	**3**	**2**

Source: Based on Institute of Transportation Engineers (ITE), Trip Generation, 9th Edition, Single-Family Detached Housing (#210) and Apartment (#220), 2012.

3.13.2 Regulatory Setting

Federal

There are no federal regulations regarding transportation and traffic that pertain to the proposed project.

State

There are no state regulations regarding transportation and traffic that pertain to the proposed project.

Local

San Mateo County Congestion Management Program

The City/County Association of Governments of San Mateo County is the Congestion Management Agency for San Mateo County. This agency is required to prepare and adopt a Congestion Management Program (CMP) on a biennial schedule to identify strategies to respond to future transportation needs, develop procedures to alleviate and control congestion, and provide countywide solutions.

The roadways and intersections that are specified in the CMP that run through the City of Burlingame are:

- SR 35, SR 82 (El Camino Real), US Highway 101, I-280
- SR 82 and Broadway
- SR 82 and Peninsula Avenue

None of the above roadways and intersections were determined to currently exceed the level-of-service (LOS) standard, a qualitative term that is used to describe a roadway's operating condition. The LOS for a road or intersections is designated by a letter grade ranging from A to F, with LOS A representing free flow conditions with little or no delay, and LOS F representing forced flow with excessive delays.

The 2013 CMP indicates that travel times for single-occupancy auto and carpools decreased by up to 7 minutes in the southbound direction in the AM and PM peak periods and increased by up to 7 minutes in the northbound direction in the PM peak period compared to 2011 data. The 2013 transit ridership data indicated that SamTrans ridership decreased 9 percent, Caltrain ridership increased by 23 percent, and BART SFO Extension stations ridership increased by 15 percent.

City of Burlingame Municipal Code

Title 25, Chapter 25.70, Off-Street Parking, specifies the following requirements for single-family dwellings and multi-family dwellings:

25.70.030 Requirements for single-family dwellings.

(a) Parking Space Requirements. Each single-family dwelling shall provide off-street parking spaces for at least two (2) vehicles, one of which must be covered by a garage or carport. The following further requirements apply to certain additions and to new single-family dwellings:

  (1) An existing single-family dwelling increased in size to three (3) or four (4) bedrooms and a new single-family dwelling with up to four (4) bedrooms shall provide off-street parking spaces to current code dimensions for at least two (2) vehicles, one of which must be covered by a garage or carport;

  (2) A single-family dwelling hereafter increased in size to five (5) or more bedrooms and a new single-family dwelling with five (5) or more bedrooms shall provide off-street parking to current code dimensions for at least three (3) vehicles, two (2) of which must be covered by a garage or carport;

  (3) For the purposes of subsections (a)(1) and (2) of this section, an existing garage not less than eighteen (18) feet wide and twenty (20) feet deep interior dimension shall be considered to provide two (2) covered off-street parking places;

  (4) For additions to existing single-family dwellings, an existing garage with an eighteen (18) foot depth interior dimension shall be considered to meet the dimensional requirements for a parking space.

(b) Parking Aisles and Driveways. Covered parking spaces shall have a twenty-four (24) foot back-up area or be designed to be entered or exited in no more than three (3) maneuvers. All spaces must allow entry in three (3) maneuvers in the forward direction.

(c) Parking Limitations.

(4) For an addition to an existing single-family dwelling, required uncovered spaces may be provided in tandem configuration and may extend:

(A) In areas with sidewalks, to the inner edge of the sidewalk.

25.70.032 Requirements for duplexes, apartment hotels and condominium.

(a) Except as specified below for properties within certain portions of downtown Burlingame as identified in Figure 3-4 of the Burlingame Downtown Specific Plan, the following are parking requirements for duplexes, apartments, apartment hotels and condominiums:

(1) There shall be at least one and one-half (1 1/2) permanently maintained parking spaces on the same lot with the building for each studio or one-bedroom dwelling unit in the building.

(2) For each dwelling unit containing two (2) bedrooms, or two (2) potential bedrooms, there shall be provided at least two (2) parking spaces.

(3) For each dwelling unit containing three (3) or more bedrooms, there shall be provided at least two and one-half (2 1/2) parking spaces.

(b) For properties within the area identified in Figure 3-4 of the Burlingame Downtown Specific Plan, the following are parking requirements for duplexes, apartments, apartment hotels and condominiums:

(1) There shall be at least one permanently maintained parking space on the same lot with the building for each studio or one-bedroom dwelling unit in the building.

(2) For each dwelling unit containing two (2) bedrooms, or two (2) potential bedrooms, there shall be provided at least one and one-half (1 1/2) permanently maintained parking spaces.

(3) For each dwelling unit containing three (3) or more bedrooms, there shall be provided at least two (2) permanently maintained parking spaces.

Burlingame Downtown Specific Plan

The Circulation and Parking chapter of the Downtown Specific Plan describes the proposed circulation and parking improvements for the Downtown Specific Plan area.

The following goals and policies apply to the proposed project:

Goal C-3: Create links and connections, both to Downtown and within Downtown

Policy C-3.3 Develop strong links and connections that would reduce the need to rely on the automobile to get into and around Downtown.

Goal D-4: Promote a pedestrian-friendly downtown that encourages people to walk

Goal P-4: Re-examine Downtown parking requirements

Policy P-4.1: Downtown parking requirements should promote more efficient use of land. For example, consider shared parking, proximity to transit, and walking distance.

Section 7.0, Circulation and Parking, of the Downtown Specific Plan includes enhancing the desirability and effectiveness of bicycles to serve Downtown by incorporating the following guideline:

7.4.2.3 Bicycle Accommodations in New Developments: New development should provide safe, secure facilities for bicycles. Where possible, secured, indoor parking space (i.e., lockable, caged space) for bikes should be provided in all new residential and commercial buildings.

The Downtown Specific Plan has conditions of approval related to transportation as listed in Table 3.13-3 below, that are applicable to the proposed project. However, Conditions of Approval 5, 6, 11, and 12 would not apply to the Oak Grove Avenue project site because they are specifically for multi-family residential and commercial buildings, and the relocated residence on Oak Grove Avenue is a single-family house.

Table 3.13-3 Downtown Specific Plan Conditions of Approval

Condition of Approval	Description
5. Project Sponsors Shall Provide Adequate Secure Bicycle Parking in the Plan Area at a Minimum Ratio of 1 Bicycle Spot for Every 20 Vehicle Spots	*Prior to issuance of a Building Permit*
6. Employers and Apartment Management Shall Post and Update Information on Alternate Modes of Transportation for the Area (i.e., Bus/Shuttle Schedules and Stop Locations, Maps)	*On-going and during project operation*
11. California Drive/Lorton Avenue Intersection - Impact Assessment	*Prior to issuance of a demolition, grading, or other construction-related permit* All development proposals in the Downtown Specific Plan Area that require a traffic study shall evaluate trip contribution to the California Drive/Lorton Avenue intersection. For projects that are determined to contribute trips to the California Drive/Lorton Avenue intersection, Standard Condition of Approval #12 shall apply
12. California Drive/Lorton Avenue Intersection Signalization – Fee Collection	*Prior to issuance of a demolition, grading, building, or other construction-related permit* In order to fund the installation of a new traffic signal, the City of Burlingame shall collect a fair share fee from each project sponsor identified under Standard Condition of Approval #11. The fair share fee shall be determined in consultation with the City Engineer.

Source: City of Burlingame 2011

3.13.3 Thresholds of Significance

The proposed project would result in a significant impact if it would:

a) 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
b) 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
c) 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
d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)
e) Result in inadequate emergency access
f) Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities

3.13.4 Approach to Analysis

This section was based on a Focused Transportation and Parking Analysis (Omni Means 2015) conducted for the proposed project (see Appendix D). That analysis used trip generation estimates provided by the Institute of Transportation Engineers (ITE) guidelines and other recent studies performed for similar residential projects in the area, as well as analysis performed for the Downtown Specific Plan.

Existing and proposed project trip generation has been based on the ITE trip research on single and multi-family residences (ITE 2012). The Douglas Avenue project site is located within 0.5 mile of the Burlingame Caltrain Station. This train station is located just to the south adjacent to the Burlingame Avenue/California Drive intersection. It is likely that a portion of the residents (10 to 15 percent) would use this Caltrain Station for commuting. However, as a conservative measure, no credit in project trip generation has been given for transit use.

Project parking demand was determined based on City parking code requirements and parking studies performed for other multi-family residential projects. The estimate of potential construction traffic has been based on discussions with and information provided by the project Applicant, regarding expected truck/employee traffic, and hours of operation.

The existing house at 524 Oak Grove Avenue project site would be demolished and would be replaced with the relocated historic house from 1128 Douglas Avenue. Since there will be a direct replacement of a single family home with another single family home, no net new trips would be generated. The trips associated with relocation of the historic house would be a permitted activity and would not generate additional long-term project trips. Therefore, post

construction trip impacts from the 524 Oak Grove Avenue project site is not evaluated in this section.

3.13.5 Impacts and Mitigation

Table 3.13-4 provides a summary of the significance of potential transportation and traffic impacts of the proposed project prior to application of mitigation measures and after the implementation of mitigation measures.

Table 3.13-4 Summary of Transportation and Traffic Impacts

Significance Criteria	Project Phase	Significance Prior to Mitigation	Significance with Mitigation
Impact Transportation-1: Would the project 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?	Construction and Operation	Significant	Less than Significant with MM TRAFFIC-1 MM HAZ-3
Impact Transportation-2: Would the project 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?	Operation	Less than Significant	–
Impact Transportation-3: Would the project 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?	Construction and Operation	No Impact	–
Impact Transportation-4: Would the project substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	Operation	Significant	Less than Significant with MM TRAFFIC-2
Impact Transportation-5: Would the project result in inadequate emergency access?	Construction	Significant	Less than Significant with MM HAZ-3
	Operation	No Impact	

Significance Criteria	Project Phase	Significance Prior to Mitigation	Significance with Mitigation
Impact Transportation-6: Would the project conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?	Operation	No Impact	–

Impact Transportation-1: Would the project 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? (*Less than Significant Impact with Mitigation)*

Construction Traffic

524 Oak Grove Avenue Project Site

A flatbed trailer would transport the historic house from 1128 Douglas Avenue to 524 Oak Grove Avenue. The logistics of moving the house could require intermittent blockage of Douglas Avenue and Oak Grove Avenue. Transport of the house would occur in the early morning hours (prior to peak hour traffic) or overnight to reduce overall impacts to neighborhood traffic. Emergency access to the home could also be impacted. This is a significant impact. Mitigation Measure HAZ-3 (see Section 3.7 Hazards and Hazardous Materials) would be required to minimize the impacts of this construction event on emergency access and neighbors.

1128-1132 Douglas Avenue Project Site

The majority of the equipment and material staging for this site is proposed to occur on the street directly in front of the project site, with some staging that would occur on the project site as well. It is estimated that there would be up to 10 pickup trucks, 4 semi-trailers, and dump trucks at the project site at various times during the construction period. The extensive work and equipment required at this site over the course of the 14-month construction period could result in congestion on Douglas Avenue and nearby intersections and could exacerbate parking problems in the vicinity, if not properly managed. This impact would be significant. Mitigation Measure TRAFFIC-1 would be required to minimize the impacts of construction traffic, parking, and staging on the street system and on neighbors.

Mitigation: Mitigation Measure TRAFFIC-1

MM TRAFFIC-1: Construction Management Plan

The project applicant and its construction contractor(s) shall develop a construction management plan for review and approval by the City of Burlingame. The plan must

include at least the following items and requirements to reduce, to the maximum extent feasible, traffic and parking congestion during construction:

a. A set of comprehensive traffic control measures, including scheduling of major truck trips and deliveries to avoid peak traffic hours, detour signs if required, lane closure procedures, signs, cones for drivers, and designated construction access routes;
b. Identification of haul routes for movement of construction vehicles that would minimize impacts on motor vehicular, bicycle and pedestrian traffic, circulation and safety, and specifically to minimize impacts to the greatest extent possible on streets in the project area;
c. Notification procedures for adjacent property owners and public safety personnel regarding when major deliveries, detours, and lane closures would occur;
d. Provisions for monitoring surface streets used for haul routes so that any damage and debris attributable to the haul trucks can be identified and corrected by the project applicant.;
e. A construction parking plan to provide worker parking off site and generally off neighborhood streets, with shuttles or other transportation as needed to transport workers to the site; and
f. Designation of a readily available contact person for construction activities who would be responsible for responding to any local complaints regarding traffic or parking. This coordinator would determine the cause of the complaint and, where necessary, would implement reasonable measures to correct the problem.

The impact to the neighbors from construction traffic would be less than significant with implementation of Mitigation Measure TRAFFIC-1.

The existing single-family residence at 1128 Douglas Avenue would be relocated to 524 Oak Grove Avenue. The house would be disassembled into four components. Each of the house components would then be lifted by a crane onto a flatbed trailer and transported to 524 Oak Grove Avenue. The logistics of moving the house would require intermittent closures of Douglas Avenue. Transport of the house would occur in the early morning hours (prior to peak hour traffic) or overnight to reduce overall impacts to neighborhood traffic. Emergency access to the nearby homes could also be impacted, which would be a significant impact. Mitigation Measure HAZ-3 (see Section 3.7 Hazards and Hazardous Materials) would be required to minimize the impacts of this construction event on emergency access and neighbors.

Operation

Proposed Project Trip Generation

The proposed project at the 524 Oak Grove Avenue site would generate traffic (and parking) impacts similar to those for the existing house at the site and therefore no permanent traffic impacts are expected. Construction traffic impacts for the relocation of the house to that site are discussed in a later paragraph in this section.

The proposed project at 1128-1132 Douglas Avenue would consist of 29 apartment units. Based on ITE daily and peak hour trip generation for multi-family (apartment) units, the project would be expected to generate 193 daily trips with 15 AM peak hour trips and 18 PM peak hour trips as shown in Table 3.13-4.

The net increase in proposed project trips would represent the difference between existing residential uses on-site and proposed project trip generation. As shown in Table 3.13-5, this net increase in site vehicle trips would amount to 147 daily trips with 11 AM peak hour trips (3 in, 8 out) and 13 PM peak hour trips (9 in, 4 out) for proposed project uses.

Table 3.13-5 Proposed and Net New Project Daily and Peak Hour Trip Generation 1128-1132 Douglas Avenue Residential Project

		Daily Trip		AM Peak Hour Trip Rate/Unit		PM Peak Hour Trip Rate/Unit		
Land Use Category	**Unit**	**Rate**	**Total**	**In %**	**Out %**	**Total**	**In %**	**Out %**
Apartment	du	6.65	0.51	20	80	0.62	65	35
	Size	**Daily**	**AM Peak Hour Trips**			**PM Peak Hour Trips**		
Project Uses		**Trips**	**Total**	**In**	**Out**	**Total**	**In**	**Out**
Apartment	29	193	15	3	12	18	12	6
Proposed Project Trips		**193**	**15**	**3**	**12**	**18**	**12**	**6**
Existing Project Trips		(46)	(4)	(0)	(4)	(5)	(3)	(2)
Net New Project Trips		**147**	**11**	**3**	**8**	**13**	**9**	**4**

Source: Institute of Transportation Engineers (ITE), Trip Generation, 9th Edition, Single-Family Detached Housing (#210) and Apartment (#220), 2012.

Effects of Proposed Project Traffic on Downtown Specific Plan Circulation

Based on the City of Burlingame's Downtown Specific Plan's Circulation and Parking element (Chapter 7.0), network improvements have been recommended for key intersections and roadways in the downtown area (City of Burlingame 2010). The Plan indicates that, with respect to the downtown area, "the majority of project-traffic would occur along California Drive heading towards Burlingame Avenue and Howard Avenue from the north and south. Additional project traffic would occur along Howard Avenue, Burlingame Avenue, Peninsula Avenue, and Primrose Road."

Downtown Specific Plan Traffic Analysis

Specific quantitative traffic analyses were conducted as part of the Downtown Specific Plan Circulation and Parking element (Wilbur Smith & Associates 2009). The traffic analysis for this EIR used the existing and future traffic volumes (and intersection levels-of-service) from the traffic analysis conducted for the Downtown Specific Plan. City Planning staff specified this approach for this EIR to maintain consistency with land use projections and comparisons of existing and future intersection operations. An intersection with a LOS of D or better would be

considered acceptable operation. An intersection LOS of E-F would be considered a significant impact (Wilbur Smith & Associates 2009).

The Downtown Specific Plan traffic analysis evaluated nine intersections in the Downtown area for operating conditions with/without the Downtown Specific Plan. The intersections closest to the project site include Primrose/Chapin, Primrose/Bellevue, and Primrose/Douglas Avenue (directly west of the project site). Under Year 2030 plus Project (Downtown Specific Plan Build Options #1 and #2) conditions, these intersections are all projected to operate at the PM peak hour LOS as shown in Table 3.13-6 below.

Table 3.13-6 Intersection Operations Year 2030

Intersection	Option #1 PM Delay/LOS	Option #2 PM Delay/LOS
Primrose Road/Chapin Avenue	30.9/C	20.6/C
Primrose Road/Bellevue Avenue	29.3/D	31.0/D
Primrose Road/Douglas Avenue	11.7/B	11.7/B

Source: Wilbur Smith & Associates 2009

As shown above, the adjacent study intersections located off of Primrose Road would be operating at LOS D or better during the PM peak hour under Year 2030 plus Downtown Specific Plan conditions (Options #1 or #2). The Downtown Specific Plan assumed 1,232 residential units would be developed within the various "focus areas" of the Downtown (Wilbur Smith & Associates 2009).

It is reasonable to assume that the net increase in residential uses (23 units) as a result of the proposed project have been included in these land use projections and would not cause a significant effect on Downtown circulation (Omni Means 2015).

1128-1132 Douglas Avenue Project Site

The proposed project would add of 11 AM peak hour trips and 13 PM peak hour trips from proposed project uses. These additional trips would not be considered significant because they would not diminish level of service at any of the identified intersections.

Based on the project site location, it is estimated that approximately 50-75 percent of the project trips would be to/from the east via California Drive. This would equate to approximately 5-6 AM peak hour trips and 6-7 PM peak hour trips. The remaining project trips (5 AM peak and 6 PM peak) would use Primrose Road to the west to access downtown areas both north and south of the project site. This number of project trips, spread throughout the day, would not change projected LOS conditions at these intersections. However, these three intersections operate in a complex manner. The Plan states that:

> "The intersection of Primrose Road, Bellevue Avenue, and Douglas Avenue between the Library and City Hall currently is complex, inefficient, and confusing. The existing divided traffic islands could be replaced with a single traffic circle, with crosswalks

> connecting each corner of the streets leading to the circle. The circle could provide a small open space, as described in Chapter 4: Streetscapes and Open Space. This reconfiguration would improve the function of the intersection and provide an additional open space amenity."

In addition to intersections on Primrose Road, the Downtown Specific Plan traffic analysis also evaluated the California Drive/Lorton Avenue intersection which is located one block south of the California Drive/Douglas Avenue intersection. Under both build options for Year 2030 plus Downtown Specific Plan conditions, the intersection is projected to operate at LOS F (>50 seconds of delay). Based on recent City actions, a roundabout design concept is currently being evaluated for this intersection and would be installed with future funding. Downtown Specific Plan Condition of Approval 12 may require the project to contribute fees toward the areawide improvements at that intersection. No significant impacts are anticipated from this project for the study intersections.

Deliveries to 1128-1132 Douglas Avenue

There would likely be slight increases in deliveries to the site (UPS, FedEx, Google, Amazon, etc.) with proposed project apartment building, as compared to deliveries to the existing units. Empirical data for residential deliveries is very sparse for residential uses. However, ITE indicates that delivery vehicle trip generation is inherently included in the overall trip rates for residential uses. Therefore, the increase in vehicle trip generation as a result of proposed project uses includes some delivery traffic. While increased deliveries may be observed as a trend due to the more extensive use of online business transactions, no empirical data has been developed to indicate the extent of such increases and they would apply to all of the residences of downtown (and elsewhere), not just to those associated with this project.

Parking

Proposed project parking for 1128-1132 Douglas Avenue would be provided by 34 standard size parking spaces located on site. Specifically, 12 parking spaces would be accessed on the first floor level via a shared driveway off Douglas Avenue (eastern-most driveway) through a shared easement with the adjacent 1124 Douglas Avenue parcel. The remaining 22 parking spaces would be provided for in a lower garage level via a new driveway (western-most) off Douglas Avenue (Figure 3.13-1).

Proposed project parking requirements have been based on the City of Burlingame's off-street parking requirements for duplexes, apartments, hotels, and condominiums (City of Burlingame 2015). In accordance with the Downtown Specific Plan, no guest parking is required. The proposed project would provide 34 parking spaces as shown in Table 3.13-7 below.

Table 3.13-7 Proposed Project Residential Components/Parking Rates

Parking Per Unit	Total No. of Spaces
3 studio units @ 1 space/unit	3
18 1-bedroom units @ 1 space/unit	18
7 2-bedroom units @ 1.5 spaces/unit	10.5
1 3-bedroom unit@ 2 spaces/unit	2
29 units	**33.5 = 34**

As calculated in Table 3.13-7 above, the proposed project would require 34 off-street parking spaces, which would exactly match the proposed parking supply.

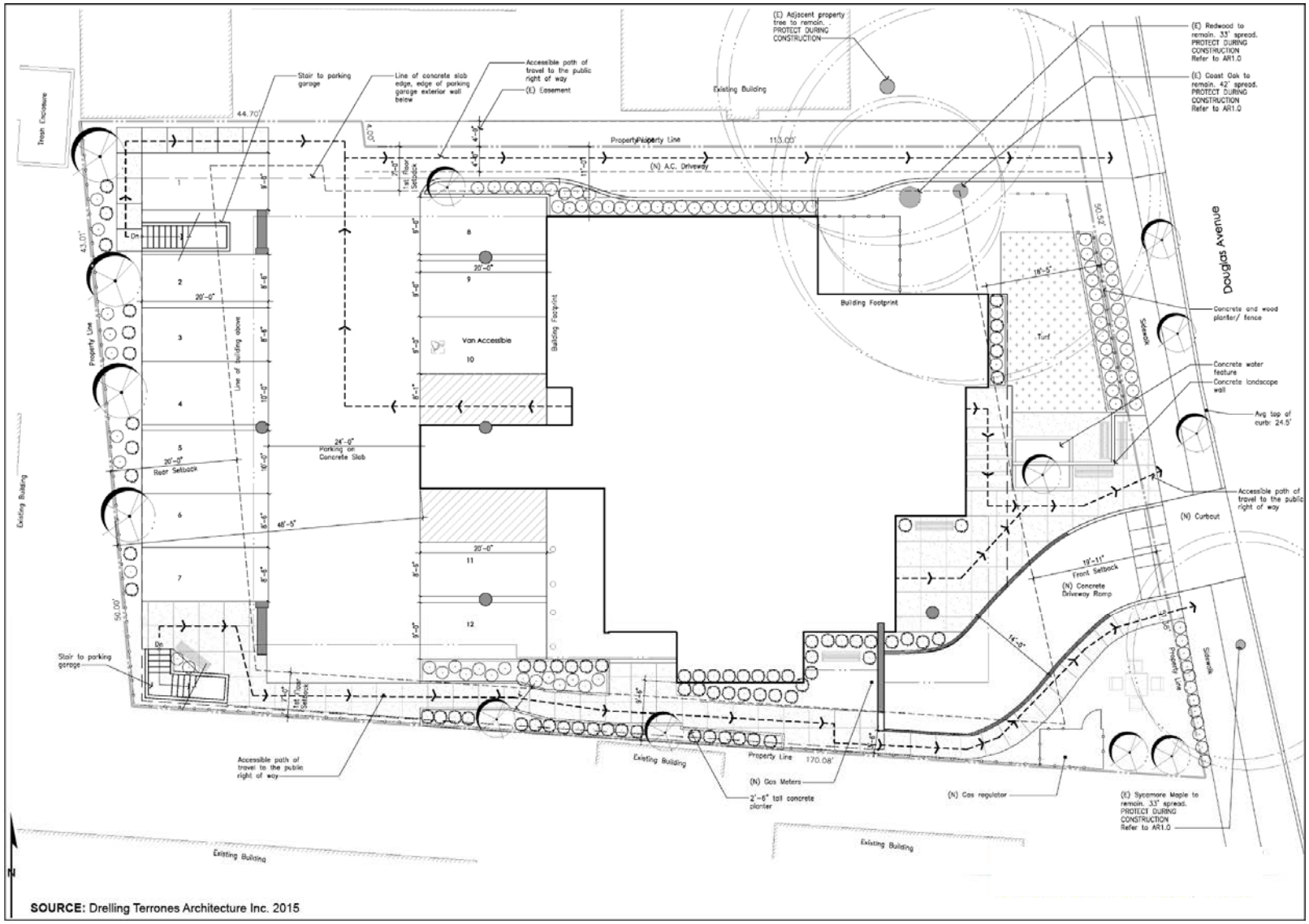
Published/Surveyed Parking Demand Data

In addition to City parking code requirements, the proposed project parking was evaluated against established parking rates data published by ITE (2010). The ITE rates are based on the number of dwelling units. The ITE peak parking demand rate for high-rise apartments (5-story or more) is 1.37 parking spaces per unit.

Parking demand research based on other similar multi-unit housing developments was also reviewed. This research included parking demand based on previous residential surveys in San Mateo County conducted for the City in 2014 (Hexagon Transportation Consultants, Inc. 2014). Specifically, the parking surveys were conducted at apartment complexes to determine the typical peak ratio of parked cars per unit and parked cars per bedroom. The surveys identified demand based on the number of units and the number of bedrooms. The surveys identified an average demand of 1.34 spaces per unit. On a per bedroom basis, the surveys identified an average demand of 0.80 spaces per bedroom. It is noted that parking surveys conducted for that study do not reflect close proximity to transit uses (i.e., Caltrain and bus routes) and ease of walking to shopping, restaurants, and other amenities. Therefore, surveyed parking rates are likely conservative in nature.

Based on both published and surveyed parking demand data for multi-housing units, the total parking demand per unit would equate to 1.37-1.40 spaces per unit. This parking demand rate would result in a 40–41 space demand for the proposed project based on 29 apartment units. If parking demand for the proposed project was based on just the surveyed rate per bedroom, overall demand would equal 29 spaces, based on a project description of 38 bedrooms (total). The City's Downtown Specific Plan rates appear consistent with these estimates, as they fall between the unit and bedroom projections, and reflect proximity to transit and a high degree of walkability. The surveyed rate also included guest parking, which the Downtown Specific Plan does not require for the Douglas Avenue project.

Figure 3.13-1 Site Plan



SOURCE: Drelling Terrones Architecture Inc. 2015

Downtown Specific Plan Parking

The City parking code requirements for the Downtown Specific Plan area indicate the proposed project would require 34 off-street parking spaces, with no requirement for guest parking. The proposed project would therefore meet City parking code requirements, but there could be a "spillover" demand of 5–6 guest vehicles per day onto public street parking. The Downtown Specific Plan excluded the need for guest parking because of the availability of nearby public parking lots within the Specific Plan area that could be used by guests and the potential to use transit or other forms of transportation. The proposed project development is designed to allow residents and guests to take full advantage of public transit opportunities, and overall City code requirements for the Downtown area reflect this trend. Residents living in downtown areas typically walk to many destinations.

Similar to proposed project trip generation, the proximity to the Burlingame Caltrain Station could lower the overall parking demand. This train station is located just to the south adjacent to the Burlingame Avenue/California Drive intersection. It is likely that a portion of the residents would use the Caltrain Station or other transit mode for commuting (10–15 percent). The most recent transportation analyses of parking and circulation in the Burlingame Downtown area indicate that 16 percent of commuters use some form of transit mode (Wilbur Smith & Associates 2009), including carpool, bus, railroad (Caltrain), and walk modes. Overall use of Caltrain made up 5 percent of the overall 16 percent transit modes. Therefore, it is likely that overall parking demand could be reduced by at least 1–2 parking spaces, allowing for surveyed Caltrain transit uses.

Currently, 2-hour on-street parking is available on both sides of Douglas Avenue (8:00 am – 6:00 pm). On-street parking is generally in-demand during most time periods due to the residential mix of single and multi-family housing along the street; however, parking demand for 4–5 vehicles could likely be accommodated within the overall neighborhood or at the Caltrain station on California Drive if not on Douglas Avenue or parking lot A-1 next to the library.

Bicycle Parking

The Downtown Specific Plan requires new developments to provide secured indoor parking spaces for bicycles prior to issuance of a Building Permit, as a condition of approval of the project. The plan requires adequate secure bicycle parking at a minimum ratio of one bicycle spot for every 20 vehicle spots.

Conclusion

The proposed project would not generate large numbers of trips that would cause a significant impact the level of service at intersections in the project area. The proposed project's impact on intersection LOS would not be significant.

There is no data available to determine how many additional delivery stops a 29-unit apartment building would generate. However, it is reasonable to assume that the addition of 29 units would not cause delivery services to substantially increase the current number of trucks in the

project area. Further, all delivery trucks would make a single stop to serve all the 29 units in the proposed new building and perhaps other residential dwellings on this block. The proposed project's delivery trips would not be significant.

The parking spaces provided by the proposed project are adequate as described above to meet City codes, in concert with Downtown Specific Plan goals and requirements. Parking is relevant under CEQA analysis only to the extent that deficiencies would create levels of congestion that would lead to significant deterioration of air quality or other adverse physical impacts. Therefore, no significant impacts are anticipated given compliance with the City's standards.

The proposed project would have a significant impact on the overall effectiveness of the circulation system and on neighbors during construction. Implementation of Mitigation Measure TRAFFIC-1, Construction Management Plan, and Mitigation Measure HAZ-3, Project-Specific Emergency Access Plan, would reduce that impact to a less than significant level.

Mitigation: Mitigation Measures TRAFFIC-1 and HAZ-3

Significance after Mitigation: Less than Significant

Impact Transportation-2: Would the project 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?*(Less than Significant Impact)*

The proposed project would not conflict with the 2013 San Mateo County Congestion Management Program (CMP). The closest designated roadway to the 1128-1132 Douglas Avenue project site in the CMP is SR-82, El Camino Real. The other designated roadways and the two intersections in Burlingame (SR 35, US 101 and I-280; SR 82/Peninsula Avenue and SR-82/Broadway) are at distances far enough away from the Douglas Avenue project site not to have a significant impact.

The net new increase of 11 AM peak hour trips and the 15 PM peak hour trips generated by the proposed project would rapidly disperse from the project site and would not adversely impact those roadways and intersections. This net increase in the network traffic from the proposed project would be less than 1 percent of the projected increase in traffic and is not measurable for daily estimation of traffic flow. The impact would be less than significant.

Mitigation: None required

Impact Transportation-3: Would the project 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? *(No Impact)*

The proposed project is a relatively small residential apartment complex and would not include aircraft use for construction or in any aspect of operation. There would be no impact.

Impact Transportation-4: Would the project substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)? *(Less than Significant Impact with Mitigation)*

524 Oak Grove Avenue Project Site

The proposed project would replace a single-family house with another single family house. The driveway design would be consistent with City policies and guidelines. There would be no impact related to increased hazard or incompatible uses.

1128-1132 Douglas Avenue Project Site

East Driveway and Ground-Level Parking Access

Vehicle access to the proposed project site would be gained directly from Douglas Avenue. As shown in the Project Site Plan (Figure 3.13-1), two driveways would serve the site. The eastern-most driveway would be a shared driveway with the adjacent 1124 Douglas Avenue parcel directly east of the project site. There is an 8-foot wide ingress/egress easement located along the east side property line; an extra 1 foot is provided for the driveway width for a total of 9 feet. A portion of the driveway widens to 12 feet at approximately midway to the parking area. The existing driveway easement would provide access to 12 ground-level parking spaces at the rear of the proposed apartment building. The driveway would extend for approximately 120 feet from Douglas Avenue to the rear parking area.

The shared driveway easement would allow for a 9-foot wide drive with a portion widening to 12 feet. City code for parking areas of not more than 30 parking spaces require a minimum 12-foot driveway. The 9-foot wide driveway could be a design hazard and result in a significant impact. Based on City plan review comments, a request for a parking variance has been submitted for this driveway as part of the overall project application. The variance would be considered as part of the project review. Mitigation Measure TRAFFIC-2 includes installation of flashing lights, signage, and widening the driveway to reduce the safety impact to less than significant level.

The ground level parking spaces would have seven spaces against the rear property frontage and five spaces against the building proper. A 24-foot wide east-west driveway aisle would provide access to the parking spaces. The 24-foot aisle would allow for adequate parking access and circulation (backing vehicles). This design would not cause a hazard and the impact would be less than significant.

West Driveway and Lower-Level Parking Access

The second project driveway would be located approximately 60 feet west of the first project driveway off Douglas Avenue. This driveway would serve 22 parking spaces located in a lower garage level. Overall driveway width for this access would meet City code requirements at 12 feet (14 feet proposed width) and would not be a hazard; the impact would be less than significant.

The west driveway would meet the minimum City code requirements for driveway width (12 feet). The 12-foot driveway width is still minimal but would not be a hazard; the impact would be less than significant.

Parking Access Trips
Based on PM peak hour trip generation (worst case), there would be 13 total trips (9 inbound vehicle trips and 4 outbound trips). On a proportional driveway basis, this would equate to 5 project trips (4 in, 1 out) at the eastern-most driveway and 8 project trips (5 in, 3 out) at the project's western driveway.

Implementation of Mitigation Measure TRAFFIC-2, combined with low peak hour driveway volumes, would ensure that impacts to overall driveway operations would then be less than significant.

As part of the overall project description, the western driveway would be a "shared access driveway" with the existing 1124 Douglas Avenue parcel. Currently, there is one multi-family home on-site with five bedrooms on this property. During the PM peak hour, this existing unit would be expected to generate two vehicle trips. Combined with the proposed project trips, the resulting total number of trips would not change the level of significance of the potential impact. The impact will be less than significant with implementation of Mitigation Measure TRAFFIC-2.

Mitigation: Mitigation Measure TRAFFIC-2

MM Traffic-2: Driveway Safety Enhancements

The project applicant and its construction contractor(s) shall implement the following safety enhancements:

a. Flashing light sensors shall be placed within the project parking garage and rear surface parking areas to alert motorists outbound from the project parking areas that vehicles are inbound from Douglas Avenue (these sensors could be video or loop detected);
b. Signs shall be placed at the proposed project's Douglas Avenue entrances that indicate: "Caution—Watch For Outbound Vehicles"; and
c. The project design shall be modified to allow for 12-foot access on the eastern-most driveway, except as necessary to avoid impact to the two significant trees. Toward the rear of the lot, that would require either loss of landscaping, further setback for the building (at least on the first floor), and/or loss of a parking space.

Significance after Mitigation: Less than Significant

Impact Transportation-5: Would the project result in inadequate emergency access? *(Less than Significant Impact with Mitigation)*

The proposed project would be designed and constructed to comply with the City's regulations regarding emergency access. Relocation of the home from 1128 Douglas Avenue to 524 Oak Grove Avenue, however, will require road closures and movement of heavy equipment and the house on City streets, which could impede emergency access. Impeding emergency access would result in a significant impact. Mitigation Measure HAZ-3, Project Specific Emergency Access Plan, would be required (see 3.7 Hazards and Hazardous Materials) to ensure emergency access is adequate during the relocation of the house. The resultant impact would be less than significant.

Mitigation: Mitigation Measure HAZ-3

Significance after Mitigation: Less than Significant

Impact Transportation-6: Would the project conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities? *(No Impact)*

The proposed project would not conflict with adopted plans or programs regarding public transit. The proposed project is located on a residential street that is not on a public transit bus route or a designated bicycle route. The proposed project includes tree protection and new tree plantings in the median strip to enhance the aesthetics of the existing sidewalk. There would be no impact.

3.13.6 Cumulative Transportation and Traffic Impacts

Cumulative Context

The cumulative analysis includes all the approved and proposed projects for the City as listed in Table 3.05-1, Cumulative Projects List.

Cumulative Analysis

The proposed project together with the other approved and proposed projects could contribute to a cumulative impact on transportation and traffic if it generates a significant amount of traffic or congestion that caused a significant reduction in the level of service of roads in the project area. The proposed project would generate a net increase of 11 AM peak hour trips and 13 PM peak hour trips. This number of trips, spread throughout the day, would have a less than significant impact on neighboring roadways and intersections as analyzed above.

The proposed Project Applicant would be required to prepare a Construction Management Plan as a mitigation measure and have it approved by the City before construction can begin. Other projects proposed in the project area would be subject to the same or a similar mitigation measure. The Construction Management Plans prepared for each project would take into account other projects, their respective project areas, as well as common construction vehicle

routes used by more than one project. Coordination between the projects would reduce the potential for an aggregation of traffic impacts from construction vehicles.

The proposed project's contribution to the cumulative transportation and traffic impact would be less than significant.

3.13.7 References

City of Burlingame. 2011. *Burlingame Downtown Specific Plan*, Chapter 7.0, Circulation and Parking, amended September 2011.

_____. 2015. Title 25 Zoning, Chapter 25.70, Off-Street Parking, Duplexes, apartment, hotels, condominiums, 2015 (adjusted for Downtown Specific Plan).

Hexagon Transportation Consultants, Inc. 2014. Letter report: Results of Parking Study for Apartments in Burlingame, California, October 24, 2014.

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Omni-Means Engineers & Planners. 2006. "Focused Parking Study for the Proposed Palm Terrace Condominium Project", July 2006.

_____. 2015. "Focused Transportation and Parking Analysis; Douglas Avenue Multi-Family Residential Development Project", August 7, 2015.

Wilbur Smith Associates. 2009. Burlingame Downtown Specific Plan: Traffic Impact Analysis Technical Memorandum, March 27, 2009.

3.14 UTILITIES AND SERVICE SYSTEMS

This section analyzes water, wastewater treatment, solid waste disposal, and stormwater drainage services that serve the proposed project site and area. It discusses the potential impact of the proposed project on these services. In addition, this section discussed the potential impacts associated with power shutoff during deconstruction and setting of the historic home at the Douglas Avenue project site. Although, power shutoff is not a CEQA issue it is included in this section because it may be of interest to residents that would be affected by this action.

Comments received during the EIR scoping process include the following topics related to utilities and service systems:

- Impact of the proposed project on water supply
- Water conservation
- Impact of the proposed project on wastewater treatment facilities

These topics are addressed in the impact analysis below.

3.14.1 Environmental Setting

Water Service

Regional Setting

The City purchases its potable water from the San Francisco Public Utilities Commission (SFPUC) and services businesses and residential customers within city limits, the unincorporated Burlingame Hills, and San Mateo County's Coyote Point Park. The City water supplies are made available through pipeline connections with SFPUC pipelines. The City's water system facilities include six pumping stations, seven water storage tanks, and buried pipes of varying compositions, ages, and sizes. Water is stored in the City's seven water storage tanks, which have a total water storage volume of 2.94 million gallons (mg).

The SFPUC Regional System water supply originates predominantly from the Sierra Nevada and is delivered through the Hetch-Hetchy aqueducts, but also includes treated water produced by the SFPUC from its local watersheds and facilities in Alameda and San Mateo Counties.

The business relationship between San Francisco and its wholesale customers, including the City of Burlingame is largely defined by the Water Supply Agreement between the City and County of San Francisco and Wholesale Customers in Alameda County, San Mateo County and Santa Clara County (Agreement) entered into in July 2009. The Agreement, which has a 25-year term, addresses water supply availability for the Regional System as well as the methodology used by the SFPUC in setting wholesale water rates. This agreement succeeds an earlier 25-year agreement signed in 1984.

The Agreement provides 184 million gallons per day (mgd) to the wholesale customers during normal water years. This volume, referred to as the "Supply Assurance", is subject to reduction

during periods of water shortage due to drought, emergencies, or other scenarios resulting in a water shortage. Each wholesale customer's share of the 184 mgd is referred to as their Individual Supply Guarantee (ISG). Burlingame's ISG is 5.23 mgd (or approximately 5,857 acre-feet per year). Although the Agreement expires in 2034, the Supply Assurance and ISG continue in perpetuity. The Agreement also recognizes the SFPUC's decision made in October 2008 to

a. Defer any consideration of an increase to the 184 mgd Supply Assurance until 2018,
b. Place an interim limit on sales of 184 mgd for all wholesale customers, including San Jose and Santa Clara, (i.e., who do not have ISGs),
c. Establish interim supply allocations (ISAs) for each wholesale customer through 2018, and
d. Develop an environmental enhancement surcharge to be applied to wholesale agencies that exceed their ISA, if total use by SFPUC's retail customers and wholesale customers exceeds 265 mgd.

However, these ISAs are entirely distinct from the permanent ISGs as they will last only until 2018 and will solely be used to determine when the surcharge will apply. Therefore, although the establishment of such ISA's may potentially increase the cost of water supplied by SFPUC to the City of Burlingame (i.e., if it exceeds its ISA at a time when collective deliveries from the Regional System exceed 265 mgd) it will not affect the City's ISG of 5.23 mgd. Therefore, projected water supplies to the City of Burlingame from SFPUC that are identified in the 2010 Urban Water Management Plan and rely on the City's ISG have not been modified based upon the provisions of the new Agreement.

Table 3.14-1 provides a summary of the historical and projected water use for the City. Approximately 43 percent of historical water use was for residential areas and it is projected that approximately 34 percent of water will be used in residential areas in the future (City of Burlingame 2011). Table 3.14-1 includes historical water use up to the year 2010. The year 2010 was the latest year that water use data was available during the preparation of the Urban Water Management Plan. Table 3.14-1 also includes projections of water use, which shows the increased water demand that will occur over time. The table shows that projections of water use will not exceed supply until after 2035.

Table 3.14-1 Historical and Projected Water Use

	Historical Water Use[1]					Projections of Water Use				
Water Use	2005-2006	2006-2007	2007-2008	2008-2009	2009-2010	2014-2015	2019-2020	2024-2025	2029-2030	2034-2035
Total Water Use (mgd)	4.65	4.83	4.80	4.58	4.24	4.90	4.97	5.07	5.19	5.22

[1] Historical water use includes potable and recycled water.

Source: City of Burlingame 2011

Wastewater Treatment/Sanitary Sewer System

The sewage systems within the City boundaries are managed by the City and consist of sewage pipelines. In addition, the City's wastewater treatment facilities are managed by a contractor, and include the Burlingame Waste Water Treatment Plant (WWTP), a lift station located in the industrial section of the City, landfill gas collection and treatment, a 1.6 million gallon stormwater retention basin that attenuates influent flow surges, and a co-generation system that provides a large percentage of the WWTP's electrical needs. For the most part, the sewer system is gravity fed to lift stations and then to the WWTP. In addition to treating the sewage and wastewater of the City, the WWTP treats sewage and wastewater from the Town of Hillsborough and the Burlingame Hills Sewer Maintenance District.

The wastewater treatment processes consist of influent screening, grit removal, primary clarification, activated sludge biological treatment, secondary clarification, and disinfection using sodium hypochlorite. The treatment process then continues through the North Bayside System Unit (NBSU). The WWTP is part of the NBSU, a joint powers authority that includes the cities of Burlingame, Millbrae, South San Francisco and San Bruno, and the San Francisco International Airport. Based on the joint use agreement, the WWTP may discharge up to 16 mgd of treated and disinfected effluent through the NBSU forcemain to the South San Francisco and San Bruno Water Quality Control Plant, where the effluent is dechlorinated before being discharged into the NBSU deepwater diffuser in the Lower San Francisco Bay.

The WWTP has a designed capacity to treat 5.5 million gallons per day (mgd) of wastewater per day and 16 mgd during wet weather. In 2012, the average dry weather inflow was 3.2 mgd and from September 2014 to November 2014 the average dry weather inflow was 2.7 mgd (SWRCB 2012 and SFRWQCB 2015).

Storm Drainage System

The runoff from stormwater at the proposed project sites would drain to the storm drain system that is shown in Figure 3.8-1 in Section 3.8: Hydrology and Water Quality. Stormwater or runoff from the Douglas Avenue project site would flow to a fluvial ditch that runs parallel to Caltrain. Stormwater then eventually drains directly to the San Francisco Bay through a 90-inch subsurface drainage underneath Oak Grove Avenue. Stormwater from the Oak Grove Avenue project site would flow directly to the subsurface drainage on Oak Grove Avenue and drain into the San Francisco Bay.

Solid Waste System

The City is within the service area for Rethink Waste, also known as the South Bayside Waste Management Authority. The City of Burlingame, along with the cities of Atherton, Belmont, East Palo Alto, Foster City, Hillsborough, Menlo Park, Redwood City, San Carlos, San Mateo, the County of San Mateo, and West Bay Sanitary District form the joint powers authority of Rethink Waste.

Residents within the Rethink Waste service area receive solid waste, recycling, and organic materials collection services from Recology San Mateo (Recology). Recyclables and organic solid waste is taken by Recology trucks to the Shoreway Environmental Center in San Carlos for

sorting. The Shoreway Environmental Center is owned by Rethink Waste and operated by South Bay Recycling on behalf of Rethink Waste. The solid waste and recyclables received at the Shoreway Environmental Center are processed and sent to the appropriate facility. Recyclables are shipped to facilities to be re-manufactured into new products, organic waste is sent to the Grover Compost Facility near Tracy, CA where it will be processed into compost, and solid waste is sent to the Corrida Los Trancos Landfill, also known as the Ox Mountain Landfill in Half Moon Bay, CA.

The Ox Mountain Landfill has a maximum permitted capacity of 69,000,000 cubic yards and as of 2011 has a remaining capacity of 26,898,089 cubic yards (CalRecycle 2015). Rethink Waste has a contract with Ox Mountain Landfill for the disposal of solid waste. This contract is set to expire in 2019 and it is currently unknown whether Rethink Waste will renew its contract with Ox Mountain Landfill (H. Gans, personal communication, August 10, 2015). Rethink Waste would use other landfills in the event that the contract with Ox Mountain Landfill is not renewed (H. Gans, personal communication, August 10, 2015). There are other landfills in the vicinity including, the Newby Island Sanitary Landfill and Zanker Material Processing Facility in the City of San José.

Currently, Newby Island Sanitary Landfill has approximately 21,200,000 cubic yards of capacity remaining with an expected closure date of 2041 (CalRecycle 2015). Zanker Material Processing Facility has approximately 640,000 cubic yards of capacity remaining with an expected closure date of 2025 (CalRecyle 2015). Table 3.14-2 summarizes the total amount of residential solid waste generated in the City from 2011 to 2014. From 2011 to 2014, the City has reduced the amount of solid waste sent to Ox Mountain landfill.

Table 3.14-2 Tons of Residential Solid Waste Generated in the City

Type of Solid Waste	Tons of Solid Waste Disposed During Given Year			
	2011	2012	2013	2014
Residential Solid Waste	3,913.73	3,764.78	3,709.81	3,688.84
Residential Recycling	2,982.53	3,047.44	3,033.72	3,003.18
Residential Organics	5,128.51	5,268.69	5,172.85	4,994.50
All Waste (Total)	8,111.04	8,316.13	8,206.57	7,997.68

Source: Recology 2015

Other Utility Services

There are overhead electrical lines located at the proposed project sites. Electrical lines are maintained by Pacific Gas and Electric (PG&E).

3.14.2 Regulatory Setting

Federal

There are no federal laws or regulations pertaining to utilities and service systems or public services that are applicable to the Proposed Project.

State

Assembly Bill 939

The Integrated Waste Management Act of 1989 (PRC section 40050 et seq. or AB 939, codified in PRC section 40000), administered by the California Department of Resources Recycling and Recovery, requires all local and county governments to adopt a Source Reduction and Recycling Element in general plans to identify means of reducing the amount of solid waste sent to landfills. This law sets reduction targets at 25 percent by 1995 and 50 percent by 2000. Senate Bill 1016 (2007) built on AB 939 by implementing simplified performance measures for meeting solid waste reduction goals.

Assembly Bill 341

California's Commercial Recycling Bill (AB 341) went into effect on July 1, 2012, and set a recycling goal of 75 percent diversion by 2020. The bill is intended to: (1) reduce GHG emissions by diverting recyclable materials, and (2) expand the opportunity for increased economic activity and green industry job creation. All businesses that generate four or more cubic yards of garbage per week and multi-family dwellings with five or more units in California are required to recycle. Multi-family dwellings include: apartments, townhouses, and condominiums.

Local

Burlingame Municipal Code

Demolition, new construction projects, and alterations over $50,000 are subject to the City of Burlingame's Construction and Demolition Ordinance. The Construction and Demolition Ordinance requires applicable projects to recycle at least 60 percent of total waste during demolition or construction (see Chapter 8.17 of the City of Burlingame Municipal Code).

Burlingame Downtown Specific Plan

The City of Burlingame adopted the Downtown Specific Plan in 2010. The Downtown Specific Plan includes goals and policies for the development of areas within the Downtown Specific Plan Area. The conditions for approval would be required for the proposed project. The conditions of approval pertinent to utilities and service systems are listed in Table 3.14-3 below. Conditions of Approval 9 and 22 would not apply to the Oak Grove project site because construction would result in a single-family house, and these conditions are specifically for multi-family residential buildings and commercial buildings.

Table 3.14-3 Downtown Specific Plan Conditions of Approval

Condition of Approval	Description
Condition of Approval 9 – Incorporate recycling measures and incentives such that a solid waste diversion rate of 75% is achieved upon occupation of each phase of plan development	Ongoing during project construction.
Condition of Approval 10 – Incorporation of residential and commercial water efficiency measures such that water consumption is decreased by a minimum of 10 percent over current water demand factors	Ongoing during project construction.
Condition of Approval 22 – Sanitary sewer infrastructure improvements – project sponsor coordination plan and contributions	Prior to issuance of a building permit, project sponsors shall develop a plan to facilitate sanitary sewer improvements. The plan shall include a schedule for implementing sanitary sewer upgrades that would occur within the development site and/or contribution of a fair share fee toward those improvements, as determined by the City Engineer. The plan shall be reviewed by the City Engineer.

Source: City of Burlingame 2011

3.14.3 Thresholds of Significance

For the purposes of this EIR, a utilities and service systems impact is considered significant if the project would:

a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board;
b) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects;
c) Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects;
d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed;
e) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments;
f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs; or
g) Comply with federal, state, and local statutes and regulations related to solid waste.

3.14.4 Approach to Analysis

Impacts to utilities and service systems were analyzed by comparing the projected demand of the new 29-unit apartment building with the existing demand and capacity of utilities and service systems. The existing demand and capacity of water services were identified in the agreement between the City and the SFPUC and in the Urban Water Management Plan (City of Burlingame 2011). The existing demand and capacity of wastewater treatment was identified in evaluation documents prepared by the State Water Resources Control Board (SWRCB) and SFRWQCB for the WWTP (SWRCB 2012 and SFRWQCB 2015). The existing demand and capacity of the solid waste management system was identified by personal communication with Rethink Waste, the CalRecycle database of landfills, and the Recology annual report (H. Gans, personal communication, August 10, 2015, CalRecycle 2015, Recology 2015).

The projected demand of water, wastewater management, and solid waste management, for the new 29-unit apartment was estimated using averages of water use and wastewater and solid waste generation. The net increase in demand is a result of the addition of 67 people living in the 29-unit apartment building minus the 19 people who currently occupy the proposed project buildings that will be demolished or moved.

3.14.5 Impacts and Mitigation

Table 3.14-4 provides a summary of the significance of potential utilities and service system impacts of the proposed project prior to application of mitigation measures and after the implementation of mitigation measures.

Table 3.14-4 Summary of Utilities and Service Systems Impacts

Significance Criteria	Project Phase	Significance Prior to Mitigation	Significance with Mitigation
Impact Utilities-1: Would the proposed project exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?	Construction and Operation	Less than Significant	–
Impact Utilities-2: Would the proposed project require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	Operation	Less than Significant	--
Impact Utilities-3: Would the proposed project require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	Operation	No Impact	--
Impact Utilities-4: Would the proposed project have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?	Operation	Less than Significant	--

Significance Criteria	Project Phase	Significance Prior to Mitigation	Significance with Mitigation
Impact Utilities-5: Would the proposed project result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	Operation	Less than Significant	--
Impact Utilities-6: Would the proposed project be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?	Construction and Operation	Less than Significant	--
Impact Utilities-7: Would the proposed project comply with federal, state, and local statutes and regulations related to solid waste?	Construction and Operation	No Impact	--
Impact Utilities-8: Would the proposed project impact residents through shutoff of electrical utilities?	Construction	Significant	Less than Significant with MM NOISE-1

Impact Utilities-1: Would the proposed project exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board? (*Less than Significant Impact*)

Construction

Wastewater from portable restrooms would be generated during construction of the proposed project. Portable restrooms would be provided in accordance with applicable sanitation regulations established by OSHA, which generally require one portable restroom for every ten workers. There would be up to 25 workers on site per day and three portable restrooms. Waste would be transported off site and disposed of at the WWTP a sewage treatment plant in compliance with RWQCB standards and regulations. Impacts to wastewater treatment requirements would therefore be less than significant. No mitigation is required.

Mitigation: None required

Operation

The relocated house at 524 Oak Grove Avenue would have similar wastewater requirements as the existing condition.

The wastewater generated by the proposed apartments would be conveyed to the Burlingame WWTP. The RWQCB regulates wastewater discharge into the San Francisco Bay, through the NPDES program, pursuant to the Federal Clean Water Act and California's Porter-Cologne Water Quality Control Act. As required by the WWTP's NPDES permit, the wastewater generated by the apartments of the proposed project would be treated by the WWTP in accordance with the existing NPDES permit. It is not anticipated that the wastewater generated

by the project would exceed wastewater treatment requirements of the RWQCB. Impacts would be less than significant and no mitigation is required.

Mitigation: None required

Impact Utilities-2: Would the proposed project require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects? (*Less than Significant Impact*)

Construction

Water Facilities

Water use during construction would be minimal. Water would be required for dust control, soil compaction, and irrigation for revegetation. Construction crews would require a small amount of potable water for consumption. Water would be required during the 14-15-month construction period. Water for project construction activities would be obtained from the City. The City has a water supply of 5.23 mgd and used 4.24 mgd from 2009-2010 and was projected to use 4.90 mgd for 2014-2015. Due to the temporary nature of water usage during construction and of water availability, the proposed project would not require the construction or expansion of new water facilities. There would be no impact and no mitigation is required.

Wastewater Treatment Facilities

The project would require up to 25 workers to be on site each day. The small amount of wastewater generated by the portable restrooms provided for workers would be transported off site and disposed of at the WWTP. The amount of effluent generated by construction crews would not cause area wastewater treatment plants to exceed treatment capacity because there is sufficient capacity at the WWTP. In 2012, the average dry weather inflow was 3.2 mgd, from September 2014 to November 2014 the average dry weather inflow was 2.7 mgd, and the WWTP has a designed capacity to treat 5.5 mgd. (SWRCB 2012 and SFRWQCB 2015). The proposed project would, therefore, not require the construction or expansion of a wastewater treatment facility. There would be no impact and no mitigation is required.

Mitigation: None required

Operation

Water Facilities

The project would replace an existing house with the historic house from Douglas Avenue. There would be no change in the water use and no impact and no mitigation is required.

The new 29-unit apartment building is anticipated to use approximately 3,024 gpd of water (63 gallons per person per day, for 48 people). Gallons per person per day estimate is identified as representative of per capita water use in the City of San Francisco in the 2030 System Sewer Master Plan (SFPUC 2011).

The existing amount of water use is 1,008 gpd (63 gallons per person per day, for 16 people); therefore, the proposed project would result in a net increase of 3,213 gpd of water compared to

existing conditions. This increase is equivalent to 0.003 mgd. The City's water demand was projected to be 4.90 mgd for 2014-2015 and with the implementation of the proposed project, the City's water demand would increase to approximately 4.903 mgd. This new level of water demand would be less than the City's 5.23 mgd water supply. The City has sufficient water supplies available to serve the project from existing entitlements and no new or expanded entitlements are needed. There would be no impact and no mitigation is required.

An existing 8-inch sanitary water line serves the existing project site. The new building would tie-in to this existing line. The project would increase water demand because the square footage and number of residential units of the building would increase from the existing site. Water infrastructure serving the project site is anticipated to continue to have capacity to handle the project and would not require construction of additional facilities. However, the applicant will need to prepare a report to determine if the water main requires upsizing. This analysis will be reviewed by the City and if required, the applicant will be required to pay for their pro-rata share of the upsizing or a designated run of the line, the details of which would be determined by the Department of Public Works prior to building permit approval. Environmental review of this line would take place prior to approval and construction, if the line is required. The line would be constructed in City streets and would likely be categorically exempt from CEQA review.

Wastewater Treatment Facilities

The proposed project is estimated to generate approximately 2,880 gallons of sewage per day (60 gallons per person per day, for 48 people). The gallons per person per day estimate is identified as representative of per capita sewage generation in the City of San Francisco in the 2030 System Sewer Master Plan (SFPUC 2011).

The existing amount of generated sewage is 960 gallons per day (60 gallons per person per day, for 16 people); therefore, the proposed project would result in a net increase of 3,060 gallons per day of sewage compared to existing conditions. This increase is equivalent to 0.003 mgd. In 2012 the average dry weather inflow was 3.2 mgd and with the implementation of the proposed project, the wastewater generated would increase to approximately 3.203. This increased water demand would be less than the 5.5 mgd capacity of the WWTP. The WWTP has sufficient capacity to treat the wastewater generated by the apartments of the proposed project. There would be no impact and no mitigation is required.

An existing 10-inch sanitary sewer line serves the existing project site. The new building would tie-in to this existing line. The project would increase wastewater generation because the square footage and number of residential units of the building would increase from the existing site. Wastewater infrastructure serving the project site is anticipated to continue to have capacity to handle the project and would not require construction of additional facilities. However, the applicant will need to prepare a report to determine if the sewer main requires upsizing. This analysis will be reviewed by the City and if required, the applicant will be required to pay for their pro-rata share of the upsizing or a designated run of the line, the details of which would be determined by the Department of Public Works prior to building permit approval.

Environmental review of this line would take place prior to approval and construction, if the line is required. The line would be constructed in City streets and would likely be categorically exempt from CEQA review.

Mitigation: None required

Impact Utilities-3: Would the proposed project require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects? (*No impact*)

Water use during construction would be minimal and would not require the construction of new storm water drainage facilities or expansion of existing facilities. There would be no impact associated with the construction of new storm water drainage facilities or expansion of existing facilities.

Furthermore, as discussed in Impacts Hydrology-3, Hydrology-4, and Hydrology-5, operation of the proposed project would be consistent with the regulations defined by the SFRWQCB to minimize runoff. The proposed project design would incorporate bioretention planters to minimize runoff and to be consistent with the regulations defined by SFRWQCB. Because the proposed project would minimize runoff, the proposed project would not require or result in the construction of new storm water drainage facilities or expansion of existing facilities. There would be no impact associated with the construction of new storm water drainage facilities or expansion of existing facilities. No mitigation would be required.

Mitigation: None required

Impact Utilities-4: Would the proposed project have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed? (*Less than Significant Impact*)

Construction

As discussed in Impact Utilities-2, the proposed project would temporarily use water during construction and the City would have sufficient water supply for these activities. Impacts would be less than significant.

Operation

As discussed in Impact Utilities-2, the proposed project would increase the water demand by 0.003 million gallons per day (mgd). The City has sufficient water supply (5.23 mgs) to serve the proposed project. The impact would be less than significant.

Mitigation: None required

Impact Utilities-5: Would the proposed project result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments? (*Less than Significant Impact*)

Construction

As discussed in Impact Utilities-2, wastewater would be generated during construction from the potable restrooms that would be used by the 25 workers. There is sufficient capacity at the WWTP to treat wastewater. In 2012 the average dry weather inflow was 3.2 mgd and the WWTP has a designed capacity to treat 5.5 mgd. (SWRCB 2012). Impacts to wastewater treatment would therefore be less than significant and no mitigation is required.

Mitigation: None required

Operation

As discussed in Impact Utilities-2, the proposed project would result in a net increase of 0.003 mgd. The average dry weather inflow was 3.2 mgd; therefore, the proposed project would increase the total amount of wastewater generated to 3.203. This increased water demand would be less than the 5.5 mgd capacity of the WWTP. The WWTP, therefore, has adequate capacity to serve the proposed project. Impacts to wastewater treatment would therefore be less than significant and no mitigation is required.

Mitigation: None required

Impact Utilities-6: Would the proposed project be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs? (*Less than Significant Impact*)

Construction

The proposed project would generate approximately 2,222 cubic yards of solid waste during construction. The solid waste generated by the proposed project would be served by Ox Mountain Landfill (remaining capacity of 26,898,089 cubic yards) through ReThink Waste's contract with the landfill, which has no contractual limit on disposal. The City currently generates 104,072 cubic yards per year. Given the proposed project's minimal increase in the amount of solid waste generated by the City, there is sufficient capacity at Ox Mountain Landfill to serve the proposed project. In addition, there is sufficient capacity at Newby Island Sanitary Landfill (21,200,000 cubic yards) and Zanker Material Processing Facility (640,000 cubic yards) to accommodate solid waste in the scenario that Rethink Waste does not renew its contact with Ox Mountain Landfill (CalRecyle 2015). Impacts to landfills would be less than significant and no mitigation is required.

Mitigation: None required

Operation

The single family home that would be demolished at the Oak Grove Avenue project site would be replaced by another single-family home; therefore, there would be no change in solid waste generation at this location. The proposed project apartment building is anticipated to generate approximately 148 pounds of solid waste per day (5.1 pounds of solid waste per unit per day for 29 new residences) once the proposed project has been constructed. The 5.1 pounds of solid waste per unit per day is calculated by averaging the generation rates for multifamily homes provided by CalRecyle (CalRecycle 2013).

The existing solid waste generation at the existing 4-unit apartment building and single-family house on 1132 Douglas Avenue that would be demolished is 25.5 pounds of solid waste per day (5.1 pounds of solid waste per unit per day for 5 units); therefore, the proposed project would result in a net increase in solid waste generation of approximately 122.5 pounds of solid waste per day. This number is equivalent to 44,713 pounds per year or 89 cubic yards per year, using a common conversion factors of 500 pounds per cubic yard. The amount of solid waste generated by operation of the proposed project (89 cubic yards per year) represents a less than 0.01 percent increase in solid waste generation.

Mitigation: None required

Impact Utilities-7: Would the proposed project comply with federal, state, and local statutes and regulations related to solid waste? (*No Impact*)

Construction and operation of the proposed project would comply with applicable federal, state, and local regulations related to appropriate disposal of solid waste, including the City of Burlingame's Construction and Demolition Ordinance requiring the recycling of 60 percent of total waste during demolition and construction and the Downtown Specific Plan's Condition of Approval requiring a waste diversion rate of 75 percent. No impact would occur and no mitigation is required.

Mitigation: None required

Impact Utilities-8: Would the proposed project impact residents through shutoff of electrical utilities? *(Less than Significant with Mitigation)*

The proposed project would require a temporary shutoff of power in order to load the historic home at the Douglas Avenue project site, transport the house to Oak Grove Avenue, and set the home at the Oak Grove Avenue project site. Power would be shut off along the Douglas Avenue block for 8 hours one day and power would be shut off on an additional day on the Oak Grove Avenue block for another 8 hours. Potential impacts from power shutoff include food spoilage, health and safety issues (such as life-supporting equipment not available), effects to the Oak Grove railroad crossing gates, and any other impacts associated with not having power for 8 hours. The City would address these issues through the approval process of the proposed project. The City requires the Applicant to obtain a permit to relocate the house. Mitigation

measure NOISE-1 would require the Applicant to prepare and implement a Relocation Plan that includes measures to reduce the impacts of moving the historic house. The measures shall include requiring that the power shutoff be during a time that is least disruptive for the residents, notification to residents, providing generators for life-support equipment and implementation of security lighting.

Mitigation: Mitigation Measure NOISE-1: Relocation Plan

Significance after mitigation: Less than Significant

3.14.6 Cumulative Utilities and Services Systems Impacts

Cumulative Context

The geographic scope of cumulative impacts to utilities and service systems is the entire City. This geographic scope is appropriate because the utilities and service systems that serve the proposed project also serve other areas within the City. All the cumulative projects in Table 3.05-1 could potentially contribute to a cumulative impact to utilities and service systems. A cumulative impact to utilities and services would occur if the cumulative projects exceeded the capacities of utilities and service systems or if the projects combined to significantly impact the quality of utilities and service systems.

Cumulative Analysis

The proposed project in combination with other approved residential development projects in the City (see Table 3-1) could potentially result in construction of a total of 594 residential units, 203 of which are assisted living facilities. The addition of a maximum of 594 residential units to the City assumes that all proposed projects are approved. Assuming an average of 2.37 persons per household, the cumulative projects could potentially add approximately 1,408 people to the City population (California Department of Finance 2015). The proposed project would generate a net increase of 48 people to the population; therefore, a total of 1,456 people could potentially be added to the City from the cumulative projects and the proposed project.

The cumulative projects would have potential wastewater impacts from the addition of new residents to the City. Like the wastewater generated by the proposed project, the wastewater generated by the proposed project would be conveyed to the Burlingame WWTP. Wastewater generated by the cumulative projects would be treated by the WWTP in accordance with the existing NPDES permit. Cumulative impacts to wastewater would be less than significant because the wastewater generated by the cumulative projects would be treated consistent with RWQCB requirements, under the existing NPDES permit.

The addition of new residents to the City would increase the water demand by less than 0.1 mgd (assuming 63 gallons are used per person). The City's water demand was projected to be 4.90 mgd for 2014-2015 and the City's water supply is 5.23 mgd. The additional water demand from the cumulative projects would not exceed the existing water supply; therefore, the cumulative impact would be less than significant.

The addition of new residents to the City would increase the amount of wastewater to be treated by 0.1 mgd (assuming 60 gallons are treated per person). The City's capacity in 2012 was 5.5 mgd and the City's average wastewater treatment in 2013 was 3.2 mgd. The additional wastewater to be treated would not exceed the capacity at the City WWTP; therefore, the cumulative impact would be less than significant.

The addition of new residents to the City would increase the amount of solid waste that is generated by 2,200 cubic yards per year (assuming 5.1 pounds of solid waste is generated per unit and the conversion factor of 500 pounds per cubic yard). The increase in solid waste is equivalent to an approximately 2 percent increase in the amount of solid waste generated by the City. A 2 percent increase is not significant and there is sufficient capacity at the Ox Mountain Landfill (remaining capacity of 26,898,089 cubic yards). The cumulative impact would be less than significant.

3.14.7 References

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Recology. 2015. Annual report to the SBWMA for year 2014. Recology San Mateo County. February 14, 2015.

SFRWQCB (San Francisco Regional Water Quality Control Board). 2015. City of Burlingame Wastewater Treatment Facility (NPDES No. CA0037788) Compliance Evaluation Inspection Report. March 11, 2015.

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3.15 ENERGY USE

This section describes energy resources that could be affected by the proposed project. Background information, known resources, applicable regulations, environmental impacts, and mitigation measures to reduce or avoid significant effects are presented here.

The EIR scoping identified the following issues related to energy use:

- Electric usage
- Green building practices

These topics are addressed in the impact analysis below.

3.15.1 Environmental Setting

Electricity

The production of electricity requires the consumption or conversion of energy resources, including water, wind, oil, gas, coal, solar, geothermal, and nuclear. Table 3.15-1 summarizes the sources for the electricity used in California in 2014. Most of the energy consumed in California in 2014 (64.5 percent) was generated from nonrenewable sources (coal, large hydroelectric, natural gas, and nuclear). Approximately 20.1 percent of the energy consumed in California in 2014 was generated from renewable resources, including biomass, geothermal, small hydroelectric, solar, and wind (CEC 2015).

Of the electricity consumed in California in 2014, 67 percent was generated by California. The other 33 percent of the electricity was imported from the northwest (12.6 percent) and the southwest (20.4 percent) (CEC 2015).

Pacific Gas & Electric (PG&E) is the local electricity and natural gas supplier for the City of Burlingame. PG&E serves approximately 16 million people in a 70,000-square-mile service area in Northern California, including residential, commercial, and industrial users (PG&E 2016). PG&E produces electricity from PG&E-owned generators, purchases electricity from independent generators in California and out-of-state generators, and distributes electricity to its customers. The electricity comes from a combination of renewable and nonrenewable resources, with power derived from fossil fuels, nuclear sources, and hydroelectric sources (PG&E 2016). PG&E offers residents a variety of programs that encourage energy conservation, including programs for low-income households.

Table 3.15-1 California Total Electricity System Power in 2014

Fuel Type	California Power Mix (Gigawatt/ hour)[1]	Percent California Power Mix (Gigawatt/ hour)
Nonrenewable Sources of Electricity		
Coal	18,888	6.4%
Large Hydro	16,350	5.5%
Natural Gas	132,087	44.5%
Nuclear	25,220	8.5%
Oil	46	0.0%
Other	16	0.0%
Subtotal	*192,607*	*64.5%*
Renewable Sources of Electricity		
Biomass	7,507	2.5%
Geothermal	13,030	4.4%
Small Hydro	2,787	0.9%
Solar	12,566	4.2%
Wind	23,913	8.1%
Subtotal	*59,803*	*20.1%*
Unspecified Sources of Power		
Unspecified Sources of Power	44,433	15.0%
Grand Total		
All fuel types	296,843	100.0%[2]

[1] The total California Power Mix includes both energy generated in-state and imported electricity.
[2] Note that the percentages do not add up exactly to 100% due to rounding

Source: CEC 2015

Natural Gas

Table 3.15-2 shows the total amount of natural gas used in California in 2014. Most of the natural gas used in California is imported from outside of the state (southwest, Rocky Mountains, and Canada) with a small amount (12 percent) generated within the state. Natural gas is used in the residential, commercial, and industrial sectors to generate electricity or for heating and cooling buildings and heating or cooling water. Most of the natural gas in California is used to generate electric power and for commercial and residential users. Only a small amount of natural gas is used for industrial purposes and natural gas vehicles. Table 3.15-3 summarizes the amount of natural gas consumed for different uses.

Table 3.15-2 California Natural Gas Supply in 2014

Region of Production	California Natural Gas Supply (Million cubic feet/ day)	California Natural Gas Supply (Percentage)
California	791	12%
Canada	1,173	18%
Southwest	2,217	34%
Rocky Mountains	2,324	36%
Total	6,505	100%

Source: California Gas and Electric Utilities 2015

Table 3.15-3 Natural Gas Consumption in California by End Use

End Use	Natural Gas Consumption in 2014 (Billion cubic feet/ year)	Percentage of Natural Gas Consumption in 2014
Residential	397	17.5%
Commercial	238	10.5%
Industrial	789	34.8%
Natural Gas Vehicle	17	0.7%
Electric Power	824	36.4%
Total Natural Gas Demand	2,265	100%

Source: California Gas and Electric Utilities 2015

Petroleum

The petroleum used in California originates both within and outside of the state. Table 3.15-4 summarizes the sources for crude oil received in California in 2014. Most of the crude oil that California receives originates from foreign sources; however, California does produce a substantial amount of the crude oil consumed within the state. California's oil fields represent the 4th-largest petroleum producing area in the US, behind federal off-shore production, Texas, and Alaska. The crude oil consumed by California is transported to refineries through a network of oil pipelines and oil tankers that transport oil over sea. Crude oil is refined in California at 1 of the 21 refineries located in the San Francisco Bay Area, the Los Angeles area, and the Central Valley (CEC 2008).

Most petroleum, or crude oil, produced in California is used in on-road motor vehicles and is refined within California to meet state-specific formulations required by the CARB. The major categories of petroleum fuels are gasoline and diesel for passenger vehicles, transit, rail vehicles, and construction equipment; and fuel oil for industry and electrical power generation. Other liquid petroleum fuels include kerosene, jet fuel, and residual fuel oil for marine vessels.

Table 3.15-4 Crude Oil Received in California in 2014

Source of Crude Oil	Volume (Barrels)	Percentage
California	240,108,000	38
Alaska	67,359,000	11
Foreign sources	328,222,000	52
Total	635,688,000	100[1]

[1] Note that the percentages do not add up exactly to 100% due to rounding

Source: CEC 2016

3.15.2 Regulatory Setting

Federal

Energy Policy and Conservation Act

The Energy Policy Act of 1975 was established in response to the oil crisis of 1973, which increased oil prices due to a shortage of reserves. The Energy Policy Act requires that all vehicles sold in the US meet certain fuel economy goals. The Energy Policy Act of 1975 established the corporate average fuel economy (CAFE) standard with the purpose of reducing energy consumption by increasing the duel economy of cars and light trucks. The CAFE requires cars and light trucks to have a minimum fuel economy (i.e., miles per gallon). The CAFE standards have steadily increased year after year (NHTSA 2016). Heavy-duty vehicles (i.e., vehicles and trucks over 8,500 pounds gross vehicle weight) are not subject to CAFE standards.

State

State of California Energy Action Plan

The California Public Utilities Commission (CPUC) and the California Energy Commission (CEC) adopted the Energy Action Plan I in 2003 and the Energy Action Plan II in 2005 and published a status update for the 2005 plan in 2008 (CPUC and CEC 2008). The agencies' goals in adopting the Energy Action Plans are to "ensure that adequate, reliable, and reasonably-priced electrical power and natural gas supplies, including prudent reserves, are achieved and provided through policies, strategies, and actions that are cost-effective and environmentally sound for California's consumers and taxpayers." The plans identify that the agencies' goals will be achieved in part by 1) optimizing energy conservation and resource efficiency, 2) building new generation, 3) upgrading and expanding the electricity transmission and distribution infrastructure and reducing the time to bring facilities on-line, and 4) promoting customer- and utility-owned distributed generation. The plan also establishes a "loading order" prioritizing preferred resources for managing both supply and demand.

The top 4 action areas called out in the Energy Action Plan include (1) energy efficiency, (2) demand response, (3) renewable energy sources, and (4) electricity adequacy, reliability, and infrastructure. Other major action areas identified in the 2008 Energy Action Plan Update

include electricity market structure; natural gas supply, demand and infrastructure; transportation fuels supply, demand and infrastructure; research, development, and demonstration; and climate change. Energy efficiency includes programs that require buildings and appliances to be constructed in a manner that uses less energy, that provide incentives for purchasing energy efficient equipment, and that provide information and education to encourage people to save energy. Demand response is a rate-based strategy that varies electricity prices throughout the day to encourage lower consumption during peak hours of use, when demand is high and reserves are low. Renewable energy sources include electricity generation using wind, solar, small hydroelectric, geothermal, and biomass technologies. Distributed generation is electricity that is produced by the customer or utility very near the point of use, reducing the demand on the transmission and distribution system. Distributed generation may include fuel cells, rooftop solar systems, or cogeneration systems that simultaneously produce both electricity and heat or steam for on-site use. However, investments in conventional power plants and transmission and distribution infrastructure will still be needed.

By prioritizing load management strategies, the Energy Action Plan seeks to implement the lowest-cost and lowest-impact measures first, followed by less cost-effective and less environmentally beneficial or neutral measures, in order to reduce and meet growing energy demand in the state. Of the four action areas, all but new renewable energy generation would also reduce the demand for transmission and distribution system capacity.

Title 24, Energy Efficiency Standards

CCR Title 24, Part 6 requires the CEC to adopt, and implement energy efficiency standards for both residential and nonresidential buildings. California's Building Efficiency Standards are updated on an approximately three-year cycle to ensure that building construction, system design, and installation achieve energy efficiency and preserve outdoor and indoor environmental quality. The standards establish a minimum level of building energy efficiency; a building can be designed to a higher efficiency level, resulting in additional energy savings (CEC 2013).

Energy efficiency contributes to energy savings, electricity reliability and demand, comfortable homes, affordable home ownership, safer environment, and reduction in greenhouse gas and other emissions. Buildings are one of the major contributors to electricity demand. The 2013 Standards reduce electric demand by 138.7 MW each year and 35 MW are attributable to low-rise residential buildings.

California Green Building Standards Code

CCR Title 24, Part 11 contains the state-mandated green building code. California Green Building Standards Code (CALGreen) is not an isolated code and is used in conjunction with other parts of Title 24 to achieve code compliance and ensure minimum standards for public

health and safety. CALGreen was adopted to address the five divisions of building construction:

- Planning and design
- Energy efficiency
- Water efficiency and conservation
- Material conservation and resource efficiency
- Environmental quality

CALGreen applies to the planning, design, operation, construction, use and occupancy of every newly constructed building or structure on a statewide basis unless otherwise indicated. Additions and alternations to existing building which increase the building's conditioned area, interior volume or size are also covered by the scope of CALGreen.

Local

City of Burlingame General Plan

Housing Element

The 2015 Housing Element of the City of Burlingame General Plan includes energy conservation measures for new residential development. These measures include compliance with Title 24 Standards, and encouragement of solar energy systems and other natural heating and cooling systems. The City also enforces a tree preservation and reforestation ordinance, and requires the recycling and salvaging of construction and demolition materials which reduces the amount of materials going into landfills and conserves energy through the reuse and recycling of those materials.

City of Burlingame Climate Action Plan

Adopted in 2009, the City of Burlingame's Climate Action Plan (2009) serves as a guide to identify methods that the City and community can implement to significantly reduce GHG emissions. The Climate Action Plan is a first step toward meeting the requirements mandated by AB 32 and provides a statement of intent for long- and short-term GHG reduction priorities and policies. In addition, it provides baseline emissions; sets emissions reduction targets stipulated by AB 32; and recommends steps to be taken to reduce emissions, increase sustainability, and improve quality of life. Implementation of the Climate Action Plan includes adopting a Green Building Ordinance for residential new construction/major remodel projects.

City of Burlingame Municipal Code

Chapter 18.30 of the Burlingame Municipal Code requires all residential projects with a construction value of $50,000 or more to exceed the 2008 Building Energy Efficiency Standards (California Building Code Title 24, Part 6) by 15 percent. Compliance with the Green Building Code requires the submittal of a GreenPoint checklist, or equivalent, with a minimum rating of 50 points to the Planning Division or Building Division, depending on whether Planning Commission approval is required. Projects must show verification of energy savings which exceed the 2008 Building Energy Efficiency Standards by 15 percent.

Burlingame Downtown Specific Plan

The City of Burlingame adopted the Downtown Specific Plan in 2010, which includes goals and policies for the development of areas within Downtown Burlingame (City of Burlingame 2011). The Downtown Specific Plan also includes conditions that the Applicant must fulfill in order to receive approval for the construction of the proposed project. These conditions of approval apply to both project sites. The conditions for approval relevant to energy use are listed in Table 3.15-5 below. However, Conditions of Approval 5, 6, and 9 do not apply to the Oak Grove Avenue project site because these conditions are specifically for multi-family residential and commercial developments.

Table 3.15-5 Downtown Specific Plan Condition of Approval

Condition of Approval	Description
Condition of Approval 2: Implement Construction Period Reduction Measures	*Ongoing during project construction:* The project sponsor shall implement the following GHG reduction measures during construction activities: Alternative-Fueled (e.g., biodiesel, electric) construction vehicles/equipment shall make up at least 15 percent of the fleet; Use at least 10 percent local building materials; and Recycle at least 50 percent of construction waste or demolition materials.
Condition of Approval 5: Project Sponsors Shall Provide Adequate Secure Bicycle Parking in the Plan Area at a Minimum Ratio of 1 Bicycle Spot for Every 20 Vehicle Spots	*Prior to Issuance of a Building Permit*
Condition of Approval 6. Employers and Apartment Management Shall Post and Update Information on Alternate Modes of Transportation for the Area (I.E. Bus/Shuttle Schedules and Stop Locations, Maps)	*Ongoing during project operation*
Condition of Approval 8. Incorporation Of Residential And Commercial Energy Efficiency Measures such that Energy Efficiency is Increased to 15% Beyond 2008 Title 24 Standards for Electricity and Natural Gas	*Ongoing during project operation*
Condition of Approval 9. Incorporate Recycling Measures and Incentives Such That a Solid Waste Diversion Rate of 75% is Achieved upon Occupation of Each Phase of Plan Development	*Ongoing during project operation*
Condition of Approval 10. Incorporation of Residential and Commercial Water Efficiency Measures such that Water Consumption is Decreased by a Minimum of 10 Percent over Current Standard Water Demand Factors.	*Ongoing during project construction and operation*

Optional Standard Conditions of Approval—implemented by the City on a project-by-project basis.	
Condition of Approval 28. Water Efficiency for Residential Units	*Ongoing during project construction and operation* In the residential units, the installation of high-efficiency clothes washers and dishwashers would achieve significant water use savings as compared to conventional models. The incorporation of sub-metering, in which each multi-family unit would have its own smart water meter with leak detection capability, would reduce water use by maintaining price signals to the consumer and by minimizing water loss due to leaking toilets and other fixtures. Together, these measures may offer further reductions in overall potable water demand. The adoption of the advanced indoor conservation measures would reduce per capita residential indoor use to approximately 45 gpd [gallons per day], as documented in studies by the American Water Works Association (AWWA). This is per capita reduction of approximately 12 gpd compared to baseline levels. The incorporation of these advanced conservation measures would reduce indoor potable water demands in new residential developments by approximately 20 percent.
Condition of Approval 29. Landscaping and Irrigation	*Ongoing during project operation* Recycled water could be used for landscape irrigation within the Plan Area, per recommendations in the City's 2009 Climate Action Plan. This measure assumes that the City has access to recycled water supplies and has or would construct recycled water transmission and distribution facilities to serve the Plan Area.

Source: City of Burlingame 2011

3.15.3 Thresholds of Significance

Appendix F of the CEQA Guidelines provides guidance for assessing energy impacts of projects. The appendix provides three goals:

1. Decreasing overall per capita energy consumption
2. Decreasing reliance on natural gas and oil
3. Increasing reliance on renewable energy sources

Consistent with Appendix F, environmental impacts analyzed that are associated with energy use include:

1. The proposed project's energy requirements and its energy use efficiencies by amount and fuel type for each stage of the proposed project
2. The effects of the proposed project on local and regional energy supplies and on requirements for additional capacity
3. The effects of the proposed project on peak and base period demands for electricity and other forms of energy
4. The degree to which the proposed project complies with existing energy standards
5. The effects of the proposed project on energy resources

6. The proposed project's transportation energy use requirements and its overall use of efficient transportation alternatives

The proposed project would result in a significant impact if it would:

a) Result in a wasteful, inefficient, and unnecessary consumption of energy
b) Result in a substantial increase in demand upon energy resources in relation to projected supplies
c) Result in longer overall distances between jobs and housing

3.15.4 Approach to Analysis

A qualitative assessment of the energy used for construction and operation of the proposed project was performed based on duration and type of construction activities, and the features of the proposed project during operation.

3.15.5 Impacts and Mitigation

Table 3.15-6 provides a summary of the significance of energy use impacts of the proposed project prior to application of mitigation measures and after the implementation of mitigation measures.

Table 3.15-6 Summary of Energy Use Impacts

Significance Criteria	Project Phase	Significance Prior to Mitigation	Significance with Mitigation
Impact Energy Use-1: Would the proposed project result in a wasteful, inefficient, and unnecessary consumption of energy?	Construction and Operation	Less than Significant	–
Impact Energy Use-2: Would the proposed project result in a substantial increase in demand upon energy resources in relation to projected supplies?	Construction and Operation	Less than Significant	–
Impact Energy Use-3: Would the proposed project result in longer overall distances between jobs and housing?	Construction and Operation	Less than Significant	–

Impact Energy Use-1: Would the proposed project result in a wasteful, inefficient, and unnecessary consumption of energy? (*Less than Significant*)

Construction

The machinery and vehicles that would be used for construction would consume energy via combustion of petroleum products, including gas, diesel, and motor oil. Consumption of energy during construction would be temporary, lasting between 11 to 14 months, and would cease after the proposed project is completed. In addition to direct construction-related energy

consumption, indirect energy use would be required to make the materials and components used in construction. Indirect energy use includes energy used for extraction of raw materials, manufacturing, and transportation associated with manufacturing.

Fuel use would be consistent with typical construction and manufacturing practices and would not require excessive or wasteful use of energy. Construction activities would not reduce or interrupt existing fuel or electricity delivery systems due to insufficient supply.

Operation

The proposed project would reconstruct and renovate a single-family house at 524 Oak Grove Avenue and construct 29-apartment building with an underground garage at Douglas Avenue. Occupancy of the house and apartments would result in the consumption of electricity and natural gas for building heating and cooling, lighting, cooking, water heating, and use of appliances. Vehicle trips taken by the residents would consume fuel.

The reconstruction and renovation of the single-family house at the Oak Grove Avenue project site would be required to adhere to the City's Green Building Code, and Urban Reforestation Management Plan.

The proposed apartment building at the Douglas Avenue project site would be required to exceed the 2008 Building Energy Efficiency Standards (California Building Code Title 24, Park 6) by at least 15 percent pursuant to the Burlingame Municipal Code. Features would include energy efficient windows and doors, cooling and heating systems, lighting, and appliances. In addition, the proposed project would include one electric vehicle charging station, planting of trees, spaces for bicycle parking, and energy efficiency measures for water consumption in compliance with the Conditions of Approval for construction within the Downtown Specific Plan area. The proposed project is located within walking distance (0.5 mile) of the downtown core, El Camino Real, and the Caltrain station. The close proximity to shops, banks, and other residential retail in the downtown area has the potential to reduce the number of vehicle trips of future residents and trip length, minimizing energy consumption. The energy efficient features of the Douglas Avenue project site as well as proximity to public transit and amenities would minimize consumption of energy.

Conclusion

The proposed project would consume energy during construction and operation; however, the project would adhere to all the energy efficiency regulations for the City and State. Therefore, the proposed project would not result in a wasteful, inefficient, and unnecessary consumption of energy during construction or operation. The impact would be less than significant.

Mitigation: None required

Impact Energy Use-2: Would the proposed project result in a substantial increase in demand upon energy resources in relation to projected supplies? (*Less than significant)*

The proposed project would result in an increase in demand upon existing energy resources. The City's energy efficiency regulations would ensure that energy resources are conserved by minimizing use of fuel and generation of waste.

The small net increase in population (48 additional residents) projected to occur as part of the proposed project would not substantially increase demand for energy resources. Furthermore, the proposed project would comply with all applicable regulations and City policies related to conserving energy and water and reducing fuel consumption and waste generation. The energy efficiency standards incorporated into construction of the proposed apartment complex would minimize energy consumption. The demand for energy would not be substantial; the impact would be less than significant.

Mitigation: None required

Impact Energy Use-3: Would the proposed project result in longer overall distances between jobs and housing? (*Less than Significant)*

The City of Burlingame is within the San Francisco Peninsula, a dense and diverse urban area offering job opportunities in every field including technology, academia, entertainment, culinary arts, and retail. The City of Burlingame provides 4.8 percent of jobs for San Mateo County residents. Approximately 13.6 percent of City of Burlingame residents work within the city which is the highest percentage as compared to other San Mateo County cities. Burlingame has the lowest number of residents commuting to other counties to work as compared to other San Mateo County cities (Bay Area Council Economic Institute 2012).

The proposed apartment complex is an infill project located in close proximity to the City's downtown area with commercial and retail businesses which has the potential to provide future residents with jobs. The Douglas Avenue project site is also located in close proximity to potential jobs within the downtown core. In addition, the project sites are within 0.5 mile of existing transit routes, bicycle routes, Caltrain, and El Camino Real. The proximity of the Caltrain route allows residents the choice of taking the train to destinations north to San Francisco or south to San Jose. The proximity of El Camino Real, a major thoroughfare for Samtrans buses, gives future residents the option of taking the bus to other destinations along the Peninsula including the San Francisco International Airport, and the Millbrae transit center which is the southern terminal for the Bay Area Rapid Transit system, which provides access to the East Bay. The available alternative modes of transport greatly reduces the need for future residents to use single-occupancy vehicle trips and number of commute vehicle miles, thereby reducing fuel consumption. The proposed project would not be located a substantial distance away from potential jobs. Therefore, the impact would be less than significant. No mitigation is required.

Mitigation: None required

3.15.6 Cumulative Energy Use Impacts

Cumulative Context

The geographic extent for cumulative energy consumption and conservation impacts is the local electricity distribution grid for peak period electricity consumption, the service area of PG&E for overall electricity consumption, and the San Francisco Bay Area and state for consumption of petroleum fuels.

Cumulative Analysis

Construction and operation of the proposed project would require the use of energy. All projects in California are subject to federal and state mandates (Title 24) for conserving energy in construction and building practices. The past, current, and probable future projects in the City would also be required to comply with the City's green building code. The cumulative projects would not consume energy in a manner that is wasteful, inefficient, or unnecessary.

The proposed project is located in an area with a variety of job opportunities available in the City and the adjoining cities, as well as along the San Francisco Peninsula. Furthermore, the area is served by a variety of alternate modes of transportation which reduces the need for single-occupancy vehicle travel and reduces vehicles miles traveled. The proposed project would not contribute to a cumulative impact of increasing overall distances between jobs and housing. The cumulative impact on energy use would be less than significant.

3.15.7 References

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4 ALTERNATIVES

4.1 SELECTION CRITERIA FOR ALTERNATIVES

CEQA Guidelines Section 15126.6 requires that an EIR "describe a range of reasonable alternatives to the project or the location of a project, which would feasibly attain most of the basic objectives of the project but would avoid or substantially lessen any of the significant effects of the project and evaluate the comparative merits of the alternatives."

The alternatives developed for analysis in this EIR were based on avoiding or having a lesser significant impact than the proposed project while still meeting the project objectives, and being feasible.

4.2 SIGNIFICANT IMPACTS OF THE PROPOSED PROJECT

The aesthetics impacts of the project on the visual character of the surroundings are related to the bulk and mass of the proposed new building at the Douglas Avenue project site. Several scoping comments expressed concern about the bulk and mass in relation to the existing neighborhood.

Three reduced development alternatives were designed to address the aesthetic impacts of the proposed project. These alternatives reduce the mass and bulk of the proposed new building at the Douglas Avenue project site location, and because these alternatives are smaller projects compared to the proposed project, they reduce the extent of the construction period and thereby lessen the noise and traffic impacts.

The alternatives may also reduce other significant impacts of the project, reducing the need for or extent of mitigation. Those reduced impacts are noted in the discussion, though they do not of themselves require analysis of alternatives, as other mitigation measures could reduce their impacts to a less than significant level.

4.3 ALTERNATIVES SELECTED FOR CONSIDERATION

Three development alternatives were selected for the proposed project. As required by CEQA, the no project alternative is also included in the analysis.

- Alternative 1: Reduced Height with No Change in Density
- Alternative 2: Reduced Density and Stepped-back Façade
- Alternative 3: Reduced Height and Reduced Density
- Alternative 4: No Project Alternative

The alternatives above are considered to reflect a reasonable range of feasible alternatives in that they include reduced development scenarios that would lessen and/or avoid significant (prior to mitigation) impacts of the proposed project.

Table 4.2-1 describes the proposed development at the Douglas Avenue project site location under the proposed project and each of the alternatives.

Table 4.2-1 Proposed Development for Proposed Project and Alternatives

	Proposed Project	Alternative 1	Alternative 2	Alternative 3
No. of Stories	5	4	5	4
Height to top of the parapet	56 feet 10 inches	46 feet 10 inches	56 feet 10 inches and approximately 33 feet for the stepped-back	46 feet 10 inches
Unit Count	29	29	26	21
Studio	3	12	4	0
One-bedroom	18	14	16	15
Two-bedroom	7	3	6	6
Three-bedroom	1	0	0	0
Total Building Square Footage	29,554	23,600	25,200	23,600[1]
Parking Spaces	34	31	29	24

[1] The square footage was estimated based on the Alternative 1, with the unit mix estimated to match the lesser number of parking spaces provided; however, units would be larger.

4.4 ALTERNATIVES ANALYSIS

The alternatives are discussed below at a level of detail to provide the City's decision-makers with adequate information to evaluate the alternatives. For any alternative that would cause one or more significant impacts in addition to those caused by the proposed project, the significant impacts of the alternative will be discussed at a lesser level of detail than for the proposed project, as allowed by CEQA Guidelines Section 15126.6(d). The No Project Alternative is provided to allow decision makers to compare the impacts of approving the proposed project with the impacts of not approving the proposed project. The No Project Alternative discusses the existing conditions at the time the Notice of Preparation for this EIR was published (June 2015), as well as what may reasonably be expected to occur in the foreseeable future if the proposed project were not approved.

The alternatives focus on reduced development at the Douglas Avenue project site to reduce the mass and inconsistencies with the visual character of the neighborhood.

The demolition activities at both the Oak Grove Avenue and the Douglas Avenue project sites, and the activities related to moving the historic house to 524 Oak Grove Avenue would remain the same as for the proposed project. The plan for removing, replacing, and protecting trees, and the design of the access driveways would remain unchanged from the proposed project, though they may provide flexibility to address some of those issues as well. The construction schedule and activity under all three development alternatives are expected to be of shorter duration than for the proposed project, because of the reduced amount of development and smaller buildings.

4.4.1 Alternative 1: Reduced Height with No Change in Density

Description

Alternative 1 would allow the Applicant to construct a building with 4 stories and 29 units in a different mix of apartment sizes. Table 4.4-1 above outlines the breakdown of units. The overall height of the building to the top of parapet would be 46 feet and 10 inches. The building would have one less story and a height reduction of roughly 10 feet, when compared to the proposed project. The reduced height would also reduce the building size by approximately 6,000 square feet. This alternative would include 31 parking spaces, 3 less than for the proposed project. The building footprint and the exterior finishes would remain the same as for the proposed project.

Comparison of Alternative 1 Impacts to the Proposed Project Impacts

Aesthetics Resources

Figures 4.4-1 and 4.4-2 present simulations of Alternative 1 after the building is complete. The views are from the same KOPs used for the proposed project.

This Alternative would lessen the aesthetics impacts as compared to the proposed project. As with the proposed project, the impacts would be limited to the new construction at Douglas Avenue. The apartment building under Alternative 1 would have one less floor than the proposed project, as can be seen from the photo-simulations in Figures 4.4-1 and 4.4-2. The approximately 10-foot reduction in height is noticeable, such that the building mass of the upper stories as seen from the street (KOP#1 in particular) would be substantially screened by existing off-site trees, as compared to the proposed project.

This alternative, however, still has the potential to substantially degrade the existing visual character or quality of the site and its surroundings, given its stark vertical treatment and height in excess of most of the buildings in the vicinity. Mitigation Measure AES-1, Design Review of the Proposed Project would be required to lessen the visual impact for Alternative 1. Implementation of these mitigation measures would reduce the overall massing and appearance of height of the structure, such that Alternative 1 would have a less than significant impact when viewed from a scenic roadway, and would then be consistent with the visual character envisioned in the Downtown Specific Plan.

Figure 4.4-1 KOP #1: Photo-simulation of view looking northeast from Bellevue Avenue along Douglas Avenue after Alternative 1 construction

Figure 4.4-2 KOP #2: Photo-simulation of view looking southwest from Douglas Avenue along Douglas Avenue after Alternative 1 construction

The building under this alternative would also have similar impacts related to light and glare as for the proposed project. The building under Alternative 1 would be shorter compared to the proposed project, so the impacts would be slightly less than for the proposed project. Mitigation Measures AES-2, Exterior Lighting Plan and AES-3, Use of Non-reflective Exterior Paint would be required to lessen the light and glare impact for Alternative 1. Alternative 1 would have a less than significant impact on light and glare with implementation of mitigation measures.

Alternative 1 would reduce the aesthetic impacts of the proposed project.

Air Quality

Construction emissions under Alternative 1 would be similar to the proposed project. Although this alternative includes a smaller building at the Douglas Avenue project site location, the demolition, footprint, and excavation and other earth-moving construction activities would remain unchanged. The air quality impacts would be similar because demolition and earth-moving activities generate the most air pollutants from construction equipment and generate the most amount of construction dust. There would be a slight decrease in the amount of construction dust generated by this alternative because the new building would have one less floor, and the exterior finishes would be less than for the proposed project.

The impact from TAC emissions from proximity to Highway 101 to the relocated house at 524 Oak Grove Avenue would remain the same as for the proposed project.

Mitigation Measures AIR-1 and AIR-2 would apply to this alternative. Impacts to air quality under Alternative 1 would be less than significant with mitigation.

Biological Resources

Impacts to biological resources under Alternative 1 would be the same as for the proposed project. The biological resources impacts of the proposed project are related to demolition of structures, the potential for bats to roost in trees, and the preservation of historic trees. Alternative 1 does not include any changes to the demolition activities or the tree plan. With the reduction in parking, however, there may be some flexibility to modify the design slightly to provide added distance from the garage excavation to the trunks and roots of the historic oak and redwood trees. Therefore, as with the proposed project, Mitigation Measures BIO-1, Pre-construction Bay Surveys and BIO-2, Tree Protection Measures would apply to this alternative. Impacts to biological resources under Alternative 1 would be less than significant with mitigation.

Cultural Resources

Impacts to cultural resources under Alternative 1 would be the same as for the proposed project. The excavation activities would be the same as for the proposed project and the potential for unearthing previously unknown archaeological and paleontological resources or human remains remain the same. This alternative does not propose any changes to the design of the relocated historic house; it will remain the same as for the proposed project. Therefore, Mitigation Measure CUL-1, Compatible Cladding for Historic House, would apply to this

alternative to ensure that the exterior finish of the historic house retains its historic integrity. Impacts to cultural resources under Alternative 1 would be less than significant with mitigation.

Geology and Soils

Impacts related to geology and soils pertain to the project site locations. Alternative 1 does not change either of the project site locations. Therefore, this alternative would have the same geology and soils impacts as the proposed project. Mitigation Measure GEO-1, Implementation of Geotechnical Recommendations, would be required for this alternative to ensure that construction methods are structurally sound. Impacts from geology and soils under Alternative 1 would be less than significant with mitigation.

Greenhouse Gas Emissions

Impacts to greenhouse gas emissions under Alternative 1 would be similar to the proposed project. The impacts of the proposed project are related to tree removal, demolition, grading, excavation, traffic, equipment and material transport, paving, and architectural coatings. All of these activities would take place under this alternative. Because this building would have a smaller exterior surface, there would be a slight decrease in the amount of emissions generated during construction compared to the proposed project. Impacts to greenhouse gas emissions under Alternative 1 would be less than significant.

Hazards and Hazardous Materials

Impacts to hazardous materials under Alternative 1 would be similar to the proposed project. This alternative would have the same impacts related to hazards to air traffic, and emergency response routes as for the proposed project because these activities are related to relocating the historic house to 524 Oak Grove Avenue, which would remain unchanged from the proposed project. Under this alternative there will be a slight decrease in the amount of hazardous materials that would be transported because the size of the new building is smaller than for the proposed project. Mitigation Measures HAZ-1, Preparation of a Site-specific Spill Prevention Control and Countermeasure Plan, HAZ-2, Soils Test, and HAZ-3, Project-specific Emergency Access Plan would be required to lessen the impact for this alternative. Impacts from hazards and hazardous materials under Alternative 1 would be less than significant with mitigation.

Hydrology and Water Quality

Impacts to hydrology and water quality under Alternative 1 would be the same as the proposed project. Under this alternative, the amount of ground disturbance during construction and the amount of impervious surfaces created would be the same as the proposed project. Therefore, the impacts would be the same as for the proposed project. Mitigation Measures HYDRO-1, Stormwater Pollution Prevention Best Management Practices, and HAZ-1, Preparation of a Site-specific Spill Prevention Control and Countermeasure Plan, would be required to lessen the impact for this alternative. Impacts to hydrology and water quality under Alternative 1 would be less than significant with mitigation.

Land Use and Planning

Impacts to land use and planning under Alternative 1 would be the same as for the proposed project. FAA approval would be required to use a crane for moving the historic house to the 524 Oak Grove Avenue project site location, and variances would be required for the front setback intrusion and driveway width. A conditional use permit would be required because the height of the building under this alternative would be greater than the 35 feet specified in the Downtown Specific Plan, although under this alternative the building would have one less floor than the proposed project. Mitigation Measure TRAFFIC-2, Driveway Safety Enhancements, would be required to ensure consistency with the City's policies for driveway width. Impacts on land use and planning under Alternative 1 would be less than significant with mitigation.

Noise

Relocation of the historic house under Alternative 1, as with the proposed project, would require Mitigation Measure NOISE-1, Prepare a Relocation Plan and Obtain Approval from the City for Historic House Relocation Outside of Permitted Construction Hours. Implementation of Mitigation Measure NOISE-1 would ensure that significant impact related to after-hours construction is less than significant.

Mitigation Measure NOISE-2, Compliance with Title 24, would also be required for Alternative 1, as with the proposed project, to comply with Title 24 requirements for interior noise for new multi-family residential buildings. Implementation of Mitigation Measure NOISE-2 would ensure that interior noise for the new building is at or below the 45 dBA threshold for new multi-family residences.

Construction noise impacts under this alternative would be similar to but of shorter duration than the proposed project. The building that would be constructed under this alternative would be smaller than that for the proposed project. Construction under this alternative would include similar activities and use the same construction equipment as for the proposed project. Mitigation Measures NOISE-3, Noise Management Plan, and NOISE-4, Restricted Construction Hours, would be required for this alternative. Construction noise under Alternative 1 would be less than significant with implementation of Mitigation Measures NOISE-3 and NOISE-4.

As with the proposed project during operation, increased traffic would generate new traffic noise. Traffic generated under this alternative would be slightly less than the 147 traffic trips for the proposed project because of fewer numbers of people expected to occupy the new building. Although this alternative would have the same number of units as the proposed project, the mix of apartment sizes would have 61 occupants compared to the 67 occupants under the proposed project. These occupants would be expected to generate fewer traffic trips than the 147 net new trips under the proposed project. Because of the relatively small number of traffic trips, which would be distributed during the day and peak hours similar to the proposed project, traffic noise impact during operation of Alternative 1 would be less than significant.

Population and Housing
Impacts to population and housing under Alternative 1 would be similar as for the proposed project. Under this alternative the number of units would be the same, but the unit breakdown would be different. This alternative would be expected to add a total of 61 persons. Taking into consideration the 19 existing residents, this alternative would result in a net increase of 41 individuals, which is a very small percentage of the City's projected one percent annual growth rate. This alternative would not induce substantial population growth in the City. Impacts on population and housing under Alternative 1 would be less than significant.

Public Services and Recreation
Impacts to public services and recreation under Alternative 1 would be similar as for the proposed project. Under this alternative, a total of 41 additional residents would be added to the existing population. Similar to the project, the City's services, schools, and parks would accommodate the additional residents without an adverse impact on services. Impacts to public services and recreation under Alternative 1 would be less than significant.

Transportation and Traffic
Impacts to transportation and traffic under Alternative 1 would be similar as for the proposed project. This alternative would have fewer units than the proposed project, so there would be a slight decrease in the net new number of trips that would be generated by this alternative. The project site locations would not change and therefore, the intersections that could be impacted would be the same as for the proposed project.

Construction traffic under Alternative 1 would be similar to the proposed project. There may be a shorter construction period because of the smaller building being constructed compared to the project, which would result in a slight decrease in construction traffic. The construction impacts associated with moving the historic house to the Oak Grove Avenue location would remain the same as for the proposed project. Mitigation Measures TRAFFIC-1, Construction Management Plan, and HAZ-3, Project-specific Emergency Access Plan would be required to lessen the impacts for this alternative.

The design of the driveways would not change under this alternative. Thus, as with the proposed project, the shared driveway width of 9 feet could be a design hazard and may have a significant impact. With the reduction in parking, however, there may be some flexibility to modify the design slightly to provide added width for that driveway to at least approach the 12-foot minimum width, other than where necessary to avoid the large trees. Mitigation Measure TRAFFIC-2, Driveway Safety Enhancements, would be required for this alternative.

Alternative 1 would have a less than significant impact on transportation and traffic with mitigation.

Utilities and Service Systems
Similar to the proposed project, Alternative 1 would increase the new population into the project area. This Alternative would add 42 new residents, 6 less than for the proposed project. Therefore, Alternative 1 would have slightly lower utilities and service systems impacts than

the proposed project. This alternative, as with the proposed project, would require Mitigation Measure NOISE-1 Relocation Plan, to ensure that there is minimal disruption to neighbors during relocation of the historic house. Alternative 1 would have less than significant utilities and service systems impacts.

Energy Use

Similar to the proposed project, Alternative 1 would consume fuel and use electricity and natural gas during the construction and operation of the proposed project. The building under this alternative would be constructed to all the energy efficient standards and regulations for conserving resources as the proposed project. Similar to the proposed project, this alternative would not substantially exceed the projected demand for energy resources. Because this alternative is a smaller project and would result in fewer new residents compared to the proposed project, it would result in less consumption of fuel, electricity and natural gas than the proposed project. As with the proposed project, existing residents would be located within easy walking distance to the downtown core, and would have transit options within 0.5 mile of the project sites. Jobs are available in the City and the surrounding cities. Alternative 1 would have less than significant energy use impacts.

4.4.2 Alternative 2: Reduced Density and Stepped-back Façade

Description

Under Alternative 2, the proposed apartment building would have five stories, similar to the proposed project, but with the two upper floors setback by about 10 to 12 feet from the front façade facing Douglas Avenue and 10 feet from the south side of the building visible from Bellevue Avenue. The overall height of the building to the parapet would be 56 feet 10 inches, the same as the proposed project. This alternative would have three fewer units (26 total) than the proposed project and a somewhat different mix of unit types. A total of 29 parking spaces would be provided, 5 less than the proposed project. The square footage for this alternative would be 25,200 square feet, a reduction of 4,354 square feet. Alternative 2 would have the same footprint and exterior finishes as for the proposed project.

Comparison of Alternative 2 Impacts to the Proposed Project Impacts

Aesthetics Resources

Figures 4.4-3 and 4.4-4 present simulations of Alternative 2 after completion from the same KOPs used for the proposed project.

Alternative 2 would reduce the aesthetics impacts of the proposed project. The apartment building under this alternative would have five floors, but the two upper floors would be stepped back from the façade. As can be seen from Figures 4.4-3 and 4.4-4, this stepped-back design reduces the perception of height impact of the new building considerably compared to the proposed project. The setbacks allow for a greater portion of the 5th floor to be screened by existing trees and for most of the upper floor to be screened almost entirely from KOP #2. This alternative, however, still has the potential to degrade the existing visual character or quality of the site and its surroundings, given its overall height and lack of articulation and design details.

Figure 4.4-3 KOP #1: Photo-simulation of view looking northeast from Bellevue Avenue along Douglas Avenue after Alternative 2 construction

Figure 4.4-4 KOP #2: Photo-simulation of view looking southwest from Douglas Avenue along Douglas Avenue after Alternative 2 construction

Mitigation Measure AES-1, Design Review of the Proposed Project, would be required to further lessen the impact for Alternative 2. Implementation of these mitigation measures would break up the overall mass of the structure and refine architectural details, such that Alternative 2 would have a lesser impact when viewed from a scenic roadway; the impact of Alternative 2 would be less than significant with mitigation.

The building under this alternative would have similar but lesser impacts from light and glare as for the proposed project. The stepped-back floors would create more distance between the viewer and the building, so the impacts would be less than for the proposed project. Mitigation Measures AES-2, Exterior Lighting Plan and AES-3, Use of Non-reflective Exterior Paint, would be required to lessen the light and glare impact. Alternative 2 would have a less than significant impact on light and glare with implementation of mitigation measures.

Air Quality

Construction emissions under Alternative 2 would be similar to the proposed project. The amount of demolition, the footprint of the new building, and the amount of excavation and other earth-moving construction activities would remain unchanged, although this alternative includes a less dense building at the Douglas Avenue project site location. Since demolition and earth-moving activities generate the most amount of air pollutants from construction equipment and generate the most amount of construction dust, the air quality impact analysis remains mostly the same. There would be a slight decrease in the amount of construction dust generated by this alternative because the new building would have less square footage, and the amount of exterior finishes would be less than for the proposed project.

The impact from TAC emissions from proximity to Highway 101 to the relocated house at 524 Oak Grove Avenue would remain the same as for the proposed project.

Mitigation Measures AIR-1, Construction Equipment, and AIR-2, Air Filtration, would apply to this alternative. Impacts to air quality under Alternative 2 would be less than significant with mitigation.

Biological Resources

Impacts to biological resources under Alternative 2 would be the same as for the proposed project. The biological resources impacts of the proposed project are related to demolition of structures, the potential for bats to roost in trees, and the preservation of historic trees. Alternative 2 does not include any changes to the demolition activities or the tree plan. With the reduction in parking, however, there may be some flexibility to modify the design slightly to provide added distance from the garage excavation to the trunks and roots of the historic oak and redwood trees. Therefore, as with the proposed project, Mitigation Measures BIO-1, Pre-construction Bat Surveys, and BIO-2, Tree Protection Measures, would apply to this alternative to lessen impacts to biological resources. Impacts to biological resources under Alternative 2 would be less than significant with mitigation.

Cultural Resources

Impacts to cultural resources under Alternative 2 would be the same as for the proposed project. The excavation activities would be the same as for the proposed project and the potential for unearthing previously unknown archaeological and paleontological resources or human remains remain the same. This alternative does not propose any changes to the design of the relocated historic house. It will remain the same as for the proposed project. Therefore, Mitigation Measure CUL-1, Compatible Cladding for Historic House, would apply to this alternative to ensure that the exterior finish of the historic house retains its historic integrity. Impacts to cultural resources under Alternative 2 would be less than significant with mitigation.

Geology and Soils

Impacts related to geology and soils pertain to the project site locations. Alternative 2 does not change either of the project site locations. Therefore, this alternative would have the same geology and soils impacts as the proposed project. Mitigation Measure GEO-1, Implementation of Geotechnical Recommendations, would be required for this alternative to ensure that construction methods are structurally sound. Impacts from geology and soils under Alternative 2 would be less than significant with mitigation.

Greenhouse Gas Emissions

Impacts to greenhouse gas emissions under Alternative 2 would be similar to the proposed project. The impacts of the proposed project are related to tree removal, demolition, grading, excavation, traffic, equipment and material transport, paving, and architectural coatings. All of these activities would take place under this alternative. Because this building would have a reduced exterior surface, there would be a slight decrease in the amount of emissions generated during construction compared to the proposed project. Impacts to greenhouse gas emissions under Alternative 2 would be less than significant.

Hazards and Hazardous Materials

Impacts to hazardous materials under Alternative 2 would be similar to the proposed project. This alternative would have the same impacts related to hazards to air traffic, and emergency response routes as for the proposed project because these activities are related to relocating the historic house to 524 Oak Grove Avenue, which would remain unchanged from the proposed project. Under this alternative there will be a slight decrease in the amount of hazardous materials that would be transported because the size of the new apartment building on Douglas Avenue smaller than for the proposed project. Mitigation Measures HAZ-1, Preparation of a Site-specific Spill Prevention Control and Countermeasure Plan, HAZ-2, Soils Test, and HAZ-3, Project-specific Emergency Access Plan, would be required to lessen impacts for this alternative. Impacts from hazards and hazardous materials under Alternative 2 would be less than significant with mitigation.

Hydrology and Water Quality

Impacts to hydrology and water quality under Alternative 2 would be the same as the proposed project. Under this alternative, the amount of ground disturbance during construction and the amount of impervious surfaces created would be the same as the proposed project. Therefore,

the impacts would be the same as for the proposed project. Mitigation Measures HYDRO-1, Stormwater Pollution Prevention Best Management Practices, and HAZ-1, Preparation of a Site-specific Spill Prevention Control and Countermeasure Plan, would be required to lessen impacts for this alternative. Impacts to hydrology and water quality under Alternative 2 would be less than significant with mitigation.

Land Use and Planning

Impacts to land use and planning under Alternative 2 would be the same as for the proposed project. FAA approval would be required to use a crane for moving the historic house to the 524 Oak Grove Avenue project site location. A conditional use permit would be required for height because, similar to the proposed project, this alternative has five floors and would be greater than the 35 feet specified in the Downtown Specific Plan. Variances would still be required for the front setback intrusion and the driveway width. Mitigation Measure TRAFFIC-2, Driveway Safety Enhancements, would be required to ensure consistency with the City's policies for driveway width. Impacts on land use and planning under Alternative 2 would be less than significant with mitigation.

Noise

Relocation of the historic house under Alternative 2, as with the proposed project, would require Mitigation Measure NOISE-1, Prepare a Relocation Plan and Obtain Approval from the City for Historic House Relocation Outside of Permitted Construction Hours. Implementation of Mitigation Measure NOISE-1 would ensure that significant impact related to after-hours construction is less than significant.

Mitigation Measure NOISE-2, Noise Management Plan, would also be required for Alternative 1 in order to comply with Title 24 requirements for interior noise for new multi-family residential buildings. Implementation of Mitigation Measure NOISE-2 would ensure that interior noise for the new building is at or below the 45 dBA threshold for new multi-family residences. This impact would be less than significant with mitigation.

Construction noise impacts under Alternative 2 would be similar to the proposed project. The building constructed under this alternative would be less dense and have fewer units than the proposed project. Construction under this alternative would include similar activities and use the same construction equipment as for the proposed project. The slightly smaller project would reduce the construction period and therefore have a reduced noise impact, when compared to the proposed project. Mitigation Measures NOISE-3, Noise Management Plan, and NOISE-4, Restricted Construction Hours, would be required for this alternative. Construction noise under Alternative 2 would be less than significant with implementation of Mitigation Measures NOISE-3 and NOISE-4.

As with the proposed project during operation, increased traffic would generate new traffic noise. Traffic generated under this alternative would be less than the 147 traffic trips for the proposed project because of fewer numbers of residents expected to occupy the new building. Although this alternative would have the same number of units as the proposed project, the mix

of apartment sizes would have 58 occupants compared to the 67 occupants under the proposed project. These occupants would be expected to generate fewer traffic trips than the 147 net new trips under the proposed project. Because of the relatively small number of traffic trips, which would be distributed during the day and peak hours similar to the proposed project, traffic noise impact during operation of Alternative 2 would be less than significant.

Population and Housing

Impacts to population and housing under Alternative 2 would be similar as for the proposed project. The apartment building would have 26 units under this alternative and would be expected to add a total of 58 persons. Taking into consideration the 19 existing residents, this alternative would result in a net increase of 39 individuals, which is a very small percentage of the City's projected one percent annual growth rate. This alternative would not induce substantial population growth in the City. Impacts on population and housing under Alternative 2 would be less than significant.

Public Services and Recreation

Impacts to public services and recreation under Alternative 2 would be similar as for the proposed project. Under this alternative, a total of 39 additional residents would be added to the existing population. Similar to the proposed project, the City's services, schools, and parks would accommodate the additional persons without an adverse impact on services. Impacts to public services and recreation under Alternative 2 would be less than significant.

Transportation and Traffic

Impacts to transportation and traffic under Alternative 2 would be similar as for the proposed project. This alternative would have three fewer units than the proposed project, so there would be a slight decrease in the net new number of trips that would be generated by this alternative. The project site locations would not change and therefore, the intersections that could be impacted would be the same as for the proposed project.

Construction traffic under Alternative 2 would be similar to the proposed project. There may be a shorter construction period because of the smaller building being constructed compared to the project, which would result in a slight reduction in the duration of construction traffic. The construction impacts associated with moving the historic house to the Oak Grove Avenue location would remain the same as for the proposed project. Mitigation Measures TRAFFIC-1, Construction Management Plan, and HAZ-3, Project-specific Emergency Access Plan, would be required to lessen impacts for this alternative.

The design of the driveways would not change under this alternative. Thus, as with the proposed project, the shared driveway width of 9 feet could be a design hazard and may have a significant impact. With the reduction in parking, however, there may be some flexibility to modify the design slightly to provide added width for that driveway to at least approach the 12-foot minimum width, other than where necessary to avoid the large trees. Mitigation Measure TRAFFIC-2, Driveway Safety Enhancements, would be required for this alternative.

Alternative 2 would have a less than significant impact on transportation and traffic with mitigation.

Utilities and Service Systems
Similar to the proposed project, Alternative 2 would increase the new population into the project area. This Alternative would add 39 new residents, 9 less than for the proposed project. Therefore, Alternative 2 would have slightly reduced utilities and service systems impacts than the proposed project. This alternative, as with the proposed project, would require Mitigation Measure NOISE-1, Relocation Plan, to ensure that there is minimal disruption to neighbors during relocation of the historic house. Alternative 2 would have less than significant utilities and service systems impacts.

Energy Use
Similar to the proposed project, Alternative 2 would consume fuel and use electricity and natural gas during the construction and operation of the proposed project. The building under this alternative would be constructed to all the energy efficient standards and regulations for conserving resources as the proposed project. Similar to the proposed project, this alternative would not substantially exceed the projected demand for energy resources. Because this alternative is a smaller project and would result in fewer new residents compared to the proposed project, it would result in less consumption of fuel, electricity and natural gas than the proposed project. As with the proposed project, existing residents would be located within easy walking distance to the downtown core, and would have transit options within 0.5 mile of the project sites. Jobs are available in the City and the surrounding cities. Alternative 2 would have less than significant energy use impacts.

4.4.1 Alternative 3: Reduced Height and Reduced Density

Description
Alternative 3 has the same site layout as the proposed project without the proposed 5th floor, similar to Alternative 1. The building under this alternative would have 4 stories and 21 units, 8 units less than the proposed project. The units would be larger, however, than for the other alternatives, with no studio units. A total of 24 parking spaces would be provided, 10 less than for the proposed project. The overall height of the building to the parapet would be 46 feet 10 inches. The square footage would be 26,300 for this alternative, the same as for Alternative 1, about 6,000 square feet less than for the proposed project. Alternative 3 would have the same footprint and exterior finishes as for the proposed project.

Comparison of Alternative 3 Impacts to the Proposed Project Impacts

Aesthetics Resources
Alternative 3 would lessen the aesthetics impacts as compared to the proposed project. As with the proposed project, the impacts would be limited to the new construction at Douglas Avenue. The apartment building under this alternative would have one less floor than the proposed project, as depicted in the photo-simulations in Figures 4.4-1 and 4.4-2. The approximately 10-foot reduction in height is noticeable, such that the building mass of the upper stories as seen

from the street (KOP#1) would be substantially screened by existing off-site trees, as compared to the proposed project.

This alternative, however, still has the potential to substantially degrade the existing visual character or quality of the site and its surroundings, given its stark vertical treatment and height in excess of most of the buildings in the vicinity. Mitigation Measures AES-1, Design Review of the Proposed Project, would be required to lessen the impact for Alternative 3. Implementation of these mitigation measures would reduce the overall massing and appearance of height of the structure and architectural detailing, such that Alternative 3 would have a less than significant impact when viewed from a scenic roadway, and would then be consistent with the visual character envisioned in the Downtown Specific Plan.

The building under this alternative would also have similar impacts from light and glare as for the proposed project. The building under Alternative 3 would be shorter compared to the proposed project, so the impacts would be slightly less than for the proposed project. Mitigation Measures AES-2, Exterior Lighting Plan, and AES-3, Use of Non-reflective Exterior Paint, would be required to lessen the light and glare impact for Alternative 3. Alternative 3 would have a less than significant impact on light and glare with implementation of mitigation measures.

Air Quality

Construction emissions under Alternative 3 would be similar to the proposed project. Although this alternative includes a smaller building at the Douglas Avenue project site location, the amount of demolition, the footprint of the new building, and the amount of excavation and other earth-moving construction activities would remain unchanged. Since demolition and earth-moving activities generate the most amount of air pollutants from construction equipment and generate the most amount of construction dust, the air quality impact analysis remains mostly the same. There would be a slight decrease in the amount of construction dust generated by this alternative because the new building would have one less floor, and the exterior finishes would be less than for the proposed project.

The impact from TAC emissions from proximity to Highway 101 to the relocated house at 524 Oak Grove Avenue would remain the same as for the proposed project.

Mitigation Measures AIR-1, Construction Equipment Emissions Reduction, and AIR-2, Air Filtration, would apply to this alternative. Impacts to air quality under Alternative 3 would be less than significant with mitigation.

Biological Resources

Impacts to biological resources under Alternative 3 would be the same as for the proposed project. The biological resources impacts of the proposed project are related to demolition of structures, the potential for bats to roost in trees, and the preservation of historic trees. Alternative 3 does not include any changes to the demolition activities or the tree plan. With the reduction in parking, however, there may be some flexibility to modify the design slightly to provide added distance from the garage excavation to the trunks and roots of the historic oak and redwood trees. Therefore, as with the proposed project, Mitigation Measures BIO-1,

Preconstruction Bat Surveys, and BIO-2, Tree Protection Measures, would apply to this alternative. Impacts to biological resources under Alternative 3 would be less than significant with mitigation.

Cultural Resources

Impacts to cultural resources under Alternative 3 would be the same as for the proposed project. The excavation activities would be the same as for the proposed project and the potential for unearthing previously unknown archaeological and paleontological resources or human remains remain the same. This alternative does not propose any changes to the design of the relocated historic house. It will remain the same as for the proposed project. Therefore, Mitigation Measure CUL-1, Compatible Cladding for Historic House, would apply to this alternative to ensure that the exterior finish of the historic house retains its historic integrity. Impacts to cultural resources under Alternative 3 would be less than significant with mitigation.

Geology and Soils

Impacts related to geology and soils pertain to the project site locations. Alternative 3 does not change either of the project site locations. Therefore, this alternative would have the same geology and soils impacts as the proposed project. Mitigation Measure GEO-1, Implementation of Geotechnical Recommendations, would be required for this alternative to ensure that construction methods are structurally sound. Impacts from geology and soils under Alternative 3 would be less than significant with mitigation.

Greenhouse Gas Emissions

Impacts to greenhouse gas emissions under Alternative 3 would be similar to the proposed project. The impacts of the proposed project are related to tree removal, demolition, grading, excavation, traffic, equipment and material transport, paving, and architectural coatings. All of these activities would take place under this alternative. Because this building would have a smaller exterior surface, there would be a slight decrease in the amount of emissions generated during construction compared to the proposed project. Impacts to greenhouse gas emissions under Alternative 3 would be less than significant.

Hazards and Hazardous Materials

Impacts to hazardous materials under Alternative 3 would be similar to the proposed project. This alternative would have the same impacts related to hazards to air traffic, and emergency response routes as for the proposed project because these activities are related to relocating the historic house to 524 Oak Grove Avenue, which would remain unchanged from the proposed project. Under this alternative there will be a slight decrease in the amount of hazardous materials that would be transported because the size of the new building is smaller than for the proposed project. Mitigation Measures HAZ-1, Preparation of a Site-specific Spill Prevention, Control and Countermeasure Plan, HAZ-2, Soils Test, and HAZ-3, Project-specific Emergency Access Plan, would be required to lessen the impact for this alternative. Impacts from hazards and hazardous materials under Alternative 3 would be less than significant with mitigation.

Hydrology and Water Quality

Impacts to hydrology and water quality under Alternative 3 would be the same as the proposed project. Under this alternative, the amount of ground disturbance during construction and the amount of impervious surfaces created would be the same as the proposed project. Therefore, the impacts would be the same as for the proposed project. Mitigation Measures HYDRO-1, Stormwater Pollution Prevention Best Management Practices, and HAZ-1, Preparation of a Site-specific Spill Prevention, Control and Countermeasure Plan, would be required to lessen the impact for this alternative. Impacts to hydrology and water quality under Alternative 3 would be less than significant with mitigation.

Land Use and Planning

Impacts to land use and planning under Alternative 3 would be the same as for the proposed project. FAA approval would be required to use a crane for moving the historic house to the 524 Oak Grove Avenue project site location, a variance would be required for the front setback intrusion, and a conditional use permit would be required for height because this alternative would be greater than the 35 feet specified in the Downtown Specific Plan even though it has one less floor than the proposed project. Mitigation Measure TRAFFIC-2, Driveway Safety Enhancements, would be required to ensure consistency with the City's policies for driveway width. Impacts on land use and planning under Alternative 3 would be less than significant with mitigation.

Noise

Relocation of the historic house under Alternative 3, as with the proposed project, would require Mitigation Measure NOISE-1, Prepare a Relocation Plan and Obtain Approval from the City for Historic House Relocation Outside of Permitted Construction Hours. Implementation of Mitigation Measure NOISE-1 would ensure that the significant impact related to after-hours construction is less than significant.

Mitigation Measure NOISE-2, Compliance with Title 24, would also be required for Alternative 3 to comply with Title 24 requirements for interior noise for new multi-family residential buildings. Implementation of Mitigation Measure NOISE-2 would ensure that interior noise for the new building is at or below the 45 dBA threshold for new multi-family residences.

Impacts to noise under Alternative 3 would be similar to the proposed project, but of shorter duration because the apartment building would be smaller than that for the proposed project. Construction under this alternative would include similar activities and use the same construction equipment as for the proposed project. Mitigation Measures NOISE-3, Noise Management Plan, and NOISE-4, Restricted Construction Hours, would be required for this alternative. Construction noise under Alternative 3 would be less than significant with mitigation.

As with the proposed project during operation, increased traffic would generate new traffic noise. Traffic generated under this alternative would be slightly less than the 147 net new traffic trips for the proposed project because of fewer resident expected to occupy the new building.

This alternative would have 21 units, 8 fewer than the proposed project. The mix of apartment sizes would be expected to have 48 occupants compared to the 67 occupants under the proposed project. These occupants would be expected to generate fewer traffic trips than the proposed project. Because of the relatively small number of traffic trips, which would be distributed during the day and peak hours similar to the proposed project, traffic noise impact during operation of Alternative 3 would be less than significant.

Population and Housing

Impacts to population and housing under Alternative 3 would be less than for the proposed project. Under this alternative there would be 21 units. This alternative would be expected to add a total of 48 residents. Taking into consideration the approximately 19 existing residents, this alternative would result in a net increase of 29 individuals, which is a very small percentage of the City's projected one percent annual growth rate. This alternative would not induce substantial population growth in the City. Impacts on population and housing under Alternative 3 would be less than significant.

Public Services and Recreation

Impacts to public services and recreation under Alternative 3 would be less than for the proposed project. Under this alternative, a total of 29 new residents would be added to the existing population. Similar to the project, the City's services, schools, and parks would be able to accommodate the additional residents without an adverse impact on services. Impacts to public services and recreation under Alternative 3 would be less than significant.

Transportation and Traffic

Impacts to transportation and traffic under Alternative 3 would be less than for the proposed project. This alternative would have fewer units than the proposed project, so there would be a decrease in the net new number of trips that would be generated by this alternative. The project site locations would not change and therefore, the intersections that could be impacted would be the same as for the proposed project.

Construction traffic under Alternative 3 would be less than the proposed project. There may be a shorter construction period because of the smaller building being constructed compared to the project, which would result in a slight decrease in construction traffic. The construction impacts associated with moving the historic house to the Oak Grove Avenue location would remain the same as for the proposed project. Mitigation Measures TRAFFIC-1, Construction Management Plan, and HAZ-3, Project-specific Emergency Access Plan, would be required to lessen the impact for this alternative.

The design of the driveways would not change under this alternative. Thus, as with the proposed project, the shared driveway width of 9 feet could be a design hazard and may have a significant impact. With the reduction in parking, however, there may be some flexibility to modify the design slightly to provide added width for that driveway to at least approach the 12-foot minimum width, other than where necessary to avoid the large trees. Mitigation Measure TRAFFIC-2, Driveway Safety Enhancements, would be required for this alternative.

Alternative 3 would have a less than significant impact on transportation and traffic with mitigation.

Utilities and Service Systems
Similar to the proposed project, Alternative 3 would increase the population in the project area. This Alternative would add 29 new residents, 19 less than for the proposed project. Therefore, Alternative 3 would have lower utilities and service systems impacts than the proposed project. This alternative, as with the proposed project, would require Mitigation Measure NOISE-1, Relocation Plan, to ensure that there is minimal disruption to neighbors during relocation of the historic house. Alternative 3 would have less than significant utilities and service systems impacts.

Energy Use
Similar to the proposed project, Alternative 3 would consume fuel and use electricity and natural gas during the construction and operation of the proposed project. The building under this alternative would be constructed to all the energy efficient standards and regulations for conserving resources as the proposed project. Similar to the proposed project, this alternative would not substantially exceed the projected demand for energy resources. Because this alternative is a smaller project and would result in fewer new residents compared to the proposed project, it would result in less consumption of fuel, electricity and natural gas than the proposed project. As with the proposed project, existing residents would be located within easy walking distance to the downtown core, and would have transit options within 0.5 mile of the project sites. Jobs are available in the City and the surrounding cities. Alternative 3 would have less than significant energy use impacts.

4.4.2 Alternative 4: No Project Alternative

Description
CEQA Guidelines Section 15126.6 defines the No Project Alternative as the "circumstance under which the project does not proceed." In the event that the proposed project is not approved, it can be assumed that the existing conditions at the time of the Notice of Preparation for this EIR was published would remain. Because three feasible reduced development options have been discussed, the No Project Alternative assumes existing conditions would remain indefinitely with minor exterior and interior renovations. The house at 524 Oak Grove Avenue and the houses and 4-unit apartment building at 1128-1132 Douglas Avenue would not be demolished and would continue to be occupied at the current capacity. Construction activities would be limited to internal, façade, and landscape improvements as appropriate for single-family homes and for the 4-unit apartment building. There would be no new construction of buildings or structures.

Comparison of Alternative 4 Impacts to the Proposed Project Impacts

Aesthetics Resources
Under the No Project Alternative the existing houses would not be demolished and the proposed new apartment building would not be constructed. It is reasonable to assume that the

existing houses and 4-unit apartment complex could undergo exterior cosmetic or interior renovations if the proposed project was not constructed. These changes would not change the exterior to the extent that it would be visible from scenic roadways, or impact the visual character of the project area. Any other construction that would result in a substantial change to the existing structures would have to go through the City's design review process similar to the proposed project. The No Project Alternative would not impact views from scenic roadways and would not change the existing visual character of the area. No new sources of light and glare would be introduced to the project area.

Compared to the proposed project, the No Project Alternative would have no impact on views from scenic roadways and would have less than significant aesthetics impact.

Air Quality

Excavation and earth-moving activities, in addition to generating dust, also generate particulate emissions from the use of heavy construction equipment. These activities would not be expected to occur under the No Project Alternative. However, it is reasonable to assume that some exterior and interior renovations to the existing houses and 4-unit apartment complex may occur. These construction activities would generate significantly less emissions than the proposed project because earth-moving activities would not occur and heavy construction equipment would not be used. Further, the construction period of these renovations would be expected to be shorter than for the proposed project. Impacts to air quality during construction under the No Project Alternative would be less than significant and no mitigation measures would be required.

Because a new house at the 524 Oak Grove Avenue location would not be expected to be constructed under the No Project Alternative, a TAC impact would not occur.

Biological Resources

The biological resources impacts of the proposed project are related to demolition of structures, the potential for bats to roost in trees, and the preservation of historic trees. Under the No Project Alternative it is reasonable to expect that there would be no demolition of the existing structures, and mature existing trees would not be removed. The No Project Alternative would have no impact on biological resources.

Cultural Resources

The historic house currently located at 1128 Douglas Avenue would not be moved under the No Project Alternative. It is reasonable to assume that some exterior and interior renovations may occur. The Downtown Specific Plan has established a design review process that considers historic character and features of each individual historic building, and encourages property owners to preserve buildings and features. Any significant renovations that would be proposed for this historic house would be required to go through the design review process.

The No Project Alternative would not be expected to result in excavation and earth-moving activities. Any cultural or paleontological resources that are buried on the proposed project sites would remain undisturbed. The historic house would remain in its current location, as would

the historic trees. No mitigation measures would be required. No impacts to cultural resources would occur under the No Project Alternative.

Geology and Soils
Under the No Project Alternative any exterior or interior renovations that may reasonably be expected to occur would not change the foundations of the existing buildings. The No Project Alternative would not construct new structures that would expose people or property to impacts from seismic hazards. There would be no geology and soils impacts under the No Project Alternative.

Greenhouse Gas Emissions
The impacts of the proposed project are related to tree removal, demolition, grading, excavation, traffic, equipment and material transport, paving, and architectural coatings. Since it is reasonable to assume that exterior or interior renovations of the existing houses and/or 4-unit apartment complex may occur under the No Project Alternative, some of these activities could take place. However, compared to the proposed project, these activities would be much smaller in scale and the construction period would be shorter. No mitigation measures would be needed. The greenhouse gas emissions impact under the No Project Alternative would be less than significant.

There would be no appreciable change in the number of residents occupying the existing houses and 4-unit apartment complex. The amount of organic waste generated under No Project Alternative would not be expected to change from the existing conditions. There would be no impact.

Hazards and Hazardous Materials
Under the No Project Alternative there would be no activities that would result in impacts related to hazards. Compared to the proposed project, the exterior and interior renovations that could take place at the existing houses and 4-unit apartment complex would not involve the transportation of large amounts of hazardous materials, excessively tall construction equipment, or road closures. There would be reduced impacts related to hazards and hazardous materials under the No Project Alternative.

Hydrology and Water Quality
It is reasonable to assume that under the No Project Alternative exterior and interior renovations could take place and some amount of impervious surfaces may be created. However, compared to the mass of the building under the proposed project, these small new impervious areas created would be significantly less. The impact to hydrology and water quality under the No Project Alternative would be less than significant.

Land Use and Planning
There would be no changes to the existing land use under the No Project Alternative. The existing houses and 4-unit apartment complex are consistent with the General Plan and Downtown Specific Plan zoning designations. The No Project Alternative would have no impact to land use and planning.

Noise

Under the No Project Alternative the demolition and construction activities under the proposed project would not occur. It is reasonable to assume that the existing houses and 4-unit apartment complex could undergo exterior cosmetic or interior renovations if the proposed project is not constructed. These construction activities would not be expected to use the extent of heavy construction equipment required for the proposed project. While pneumatic tools and jackhammers may be used, the period of use would be expected to be much shorter compared to the proposed project. However when in use, similar to the proposed project, the No Project Alternative would result in an increase in the ambient sound levels in the neighborhood, which would be a significant impact. However, because heavy construction equipment would not be used, the measures included in the Downtown Specific Plan Conditions of Approval 19 and 20 would reduce the noise to a less than significant level. The No Project Alternative would have less than significant noise impacts from construction.

The population at the project sites would not be expected to change substantially and the traffic noise generated by the activities on the project site parcels would not be expected to change to appreciable levels. The No Project Alternative would not result in a long term increase in traffic noise.

Population and Housing

No new residential units would be constructed under the No Project Alternative and no new population would be added. The existing houses and 4-unit apartment complex would remain in place. These existing units would not be expected to add new population to the project area. The No Project Alternative would have no impact on population and housing.

Public Services and Recreation

No new residential units would be constructed under the No Project Alternative and no new population would be added. The existing houses and 4-unit apartment complex would not be expected to add new population to the project area. The No Project Alternative would have no impact on public services and recreation.

Transportation and Traffic

The construction impacts associated with moving the historic house to the Oak Grove Avenue location and the proposed project's driveways designs would not occur under the No Project Alternative. It is reasonable to assume that without the proposed project, exterior and interior renovations of the existing houses and 4-unit apartment complex could occur. These activities would be at a much smaller scale with fewer trips and shorter construction periods compared to the proposed project. The amount of construction traffic would be minimal and no mitigation measures would be required.

The No Project Alternative would not add new population and would not add any new traffic trips to the project area.

The No Project Alternative would have less than significant impacts on transportation and traffic.

Utilities and Service Systems
No new residential units would be constructed under the No Project Alternative and no new population would be added. The existing historic house would not be moved and power shut off would not be needed. The existing houses and 4-unit apartment complex would not be expected to add new population to the project area. The No Project Alternative would have no impact on utilities and Service Systems.

Energy Use
No new residential units would be constructed under the No Project Alternative and no new population would be added. Electricity and natural gas will continue to be used by existing residents as it is currently. The existing residents would consume fuel for vehicle trips. The existing buildings were constructed before the federal, State, and City energy conservation regulations were in place and these structures are not expected to be as energy efficient as newer buildings. The No Project Alternative would result in inefficient use of energy resources; however, this alternative would not result in a substantial increase over projected energy use compared to the proposed project.

As with the proposed project, existing residents are located within easy walking distance to the downtown core, and have transit options within 0.5 mile of the project sites. Jobs are available in the City and the surrounding cities. The No Project Alternative would have less than significant impacts on energy use.

4.5 ENVIRONMENTALLY SUPERIOR ALTERNATIVE

CEQA Guidelines Section 15126.6 requires that an EIR identify an environmentally superior alternative from the selected alternatives to the proposed project. The environmentally superior alternative reduces to the greatest extent the impacts of the proposed project. If the environmentally superior alternative is the no project alternative, the discussion will also identify an environmentally superior alternative among the other selected alternatives.

Alternative 4, the No Project Alternative, has the fewest significant impacts and reduces impacts Aesthetics-2 and Aesthetics-3 of the proposed project. Similar to the proposed project, the No Project Alternative would result in noise impacts during construction because of construction equipment used at the project sites. The no project alternative would also have no impact on cultural resources, because there would be no ground disturbance and there would be no impact on unknown archaeological and paleontological resources.

CEQA Guidelines 15126.6(e)(2) requires that if the No Project Alternative is identified as the environmentally superior alternative, then the EIR shall identify another alternative as the environmentally superior alternative.

Alternative 3, the reduced height (4-story) and reduced density option, is considered the environmentally superior alternative because it would reduce the impacts of the proposed project to the greatest extent compared to the other development alternatives. The reduced

height of Alternative 3 would reduce Aesthetics-2 and Aesthetics-3 impacts related to visibility from scenic roadways and the visual character of the project area. Alternative 3 would have many similar impacts to the proposed project, but because it is smaller in square footage and would result in a smaller new population because of the mix of apartment types, the less-than-significant impacts identified for other impact areas would occur to a lesser degree. Alternative 3 would require a conditional use permit for height and variances for the setback encroachment and for driveway width. It would be consistent with the goals of the Downtown Specific Plan by preserving a historic resource and providing multi-family housing close to the Downtown core and transit options, as would the proposed project.

Table 4.5-1 Summary Comparison of Impacts: Proposed Project and Alternatives

Impact	Proposed Project	Alternative 1	Alternative 2	Alternative 3	No Project Alternative
3.1 Aesthetics					
Impact Aesthetics-1: Would the proposed project have a substantial adverse effect on a scenic vista?	N	N	N	N	N
Impact Aesthetics-2: Would the proposed project substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway or scenic route as designated by the City of Burlingame?	LSM	LSM	LSM	LSM	N
Impact Aesthetics-3: Would the proposed project substantially degrade the existing visual character or quality of the site and its surroundings?	LSM	LSM	LSM	LSM	N
Impact Aesthetics-4: Would the proposed project create a new source of substantial light or glare that would adversely affect day or nighttime views in the area?	LSM	LSM↓	LSM↓	LSM↓	N
3.2 Air Quality					
Impact Air-1: Violate any air quality standard or contribute substantially to an existing or projected air quality violation—*Construction*	LS	LS↓	LS↓	LS↓	LS↓
Impact Air-1: Violate any air quality standard or contribute substantially to an existing or projected air quality violation—*Operation*	LS	LS↓	LS↓	LS↓	N

KEY:
LS = less than significant
LSM = less than significant with mitigation
N = no impact
↑ = impact is greater than for the proposed project
↓ = impact is less than for the proposed project

Impact	Proposed Project	Alternative 1	Alternative 2	Alternative 3	No Project Alternative
Impact Air-2: Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)—*Construction*	LS	LS↓	LS↓	LS↓	LS↓
Impact Air-2: Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)—*Operation*	LS	LS↓	LS↓	LS↓	N
Impact Air-3: Expose sensitive receptors to substantial pollutant concentrations—*Construction*	LSM	LSM↓	LSM↓	LSM↓	LS
Impact Air-3: Expose sensitive receptors to substantial pollutant concentrations—*Operation*	LSM	LSM↓	LSM↓	LSM↓	LS
Impact Air-4: Conflict with or obstruct implementation of the applicable air quality plan—*Construction*	LSM	LSM↓	LSM↓	LSM↓	LS
Impact Air-4: Conflict with or obstruct implementation of the applicable air quality plan--*Operation*	LSM	LSM↓	LSM↓	LSM↓	N
Impact Air-5: Create objectionable odors affecting a substantial number of people--*Construction*	LS	LS↓	LS↓	LS↓	LS
Impact Air-5: Create objectionable odors affecting a substantial number of people—*Operation*	LS	LS↓	LS↓	LS↓	N
3.3 Biological Resources					
Impact Biology-1: Would the proposed project 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?	LSM	LSM↓	LSM↓	LSM↓	N

Impact	Proposed Project	Alternative 1	Alternative 2	Alternative 3	No Project Alternative
Impact Biology-2: Would the proposed project have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?	N	N	N	N	N
Impact Biology-3: Would the proposed project have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	N	N	N	N	N
Impact Biology-4: Would the proposed project 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?	N	N	N	N	N
Impact Biology-5: Would the proposed project conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	LSM	LSM↓	LSM↓	LSM↓	N
I**mpact Biology-6:** Would the proposed project conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	N	N	N	N	N
3.4 Cultural Resources					
Impact Cultural-1: Would the project cause a substantial adverse change in the significance of a historical resource as defined in Section 15064.5?	LSM	LSM	LSM	LSM	N
Impact Cultural-2: Would the proposed project cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5?	LS	LS	LS	LS	N
Impact Cultural-3: Would the proposed project directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	LS	LS	LS	LS	N

Impact	Proposed Project	Alternative 1	Alternative 2	Alternative 3	No Project Alternative
Impact Cultural-4: Would the proposed project disturb any human remains, including those interred outside of formal cemeteries?	LS	LS	LS	LS	N
3.5 Geology and Soils					
Impact Geology-1: Would the project expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:					
(i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault (refer to Division of Mines and Geology Special Publication 42)	N	N	N	N	N
(ii) Strong seismic ground shaking?	LS	LS↓	LS↓	LS↓	N
(iii) Seismic-related ground failure, including liquefaction?	LS	LS↓	LS↓	LS↓	N
(iv) Landslides?	N	N	N	N	N
Impact Geology-2: Would the project result in substantial soil erosion or the loss of topsoil?	LS	LS	LS	LS	N
Impact Geology-3: Would the project be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?	LSM	LSM↓	LSM↓	LSM↓	N
Impact Geology-4: Would the project be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?	LSM	LSM↓	LSM↓	LSM↓	N
Impact Geology-5: Would the project have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?	N	N	N	N	N

Impact	Proposed Project	Alternative 1	Alternative 2	Alternative 3	No Project Alternative
3.6 Greenhouse Gas Emissions					
Impact GHG-1: Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment	LS	LS↓	LS↓	LS↓	LS
Impact GHG-2: Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases	LS	LS↓	LS↓	LS↓	N
3.7 Hazards and Hazardous Materials					
Impact Hazards-1: Would the proposed project create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	LSM	LSM↓	LSM↓	LSM↓	LS
Impact Hazards-2: Would the proposed project create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	LSM	LSM↓	LSM↓	LSM↓	N
Impact Hazards-3: Would the proposed project emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	LSM	LSM↓	LSM↓	LSM↓	N
Impact Hazards-4: Would the proposed project 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?	LS	LS↓	LS↓	LS↓	N
Impact Hazards-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?	LS	LS↓	LS↓	LS↓	N

Impact	Proposed Project	Alternative 1	Alternative 2	Alternative 3	No Project Alternative
Impact Hazards-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?	N	N	N	N	N
Impact Hazards-7: Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	LSM	LSM↓	LSM↓	LSM↓	N
Impact Hazards-8: 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?	N	N	N	N	N
3.8 Hydrology and Water Quality					
Impact Hydrology-1: Would the proposed project violate any water quality standards or waste discharge requirements?	LSM	LSM↓	LSM↓	LSM↓	N
Impact Hydrology-2: Would the proposed project 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 (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?	LS	LS↓	LS↓	LS↓	N
Impact Hydrology-3: Would the proposed project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site?	LS	LS↓	LS↓	LS↓	N
Impact Hydrology-4: Would the proposed project substantially alter the existing drainage pattern of the site or area, including through the alteration of a 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?	LS	LS↓	LS↓	LS↓	N

Impact	Proposed Project	Alternative 1	Alternative 2	Alternative 3	No Project Alternative
Impact Hydrology-5: Would the proposed project create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?	LS	LS↓	LS↓	LS↓	N
Impact Hydrology-6: Would the proposed project otherwise substantially degrade water quality?	LSM	LSM↓	LSM↓	LSM↓	N
Impact Hydrology-7: Would the proposed project 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?	N	N	N	N	N
Impact Hydrology-8: Would the proposed project place within a 100-year flood hazard area structures which would impede or redirect flood flows?	N	N	N	N	N
Impact Hydrology-9: Would the proposed project 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?	LS	LS↓	LS↓	LS↓	N
Impact Hydrology-10: Would the proposed project expose people or structures to inundation by seiche, tsunami, or mudflow?	LS	LS↓	LS↓	LS↓	N
3.9 Land Use and Planning					
Impact Land Use-1: Would the proposed project physically divide an established community?	N	N	N	N	N
Impact Land Use-2: Would the proposed project 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?	LSM	LSM	LSM	LSM	N

Impact	Proposed Project	Alternative 1	Alternative 2	Alternative 3	No Project Alternative
Impact Land Use-3: Would the proposed project conflict with any applicable habitat conservation plan or natural community conservation plan?	N	N	N	N	N
3.10 Noise					
Impact Noise-1: Would the proposed project expose persons to, or generate noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	LSM	LSM↓	LSM↓	LSM↓	N↓
Impact Noise-2: Would the proposed project expose persons to, or generate excessive groundborne vibration or groundborne noise levels?	LS	LS↓	LS↓	LS↓	LS↓
Impact Noise-3: Would the proposed project result in substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?	LS	LS↓	LS↓	LS↓	N
Impact Noise-4: Would the proposed project result in substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?	LSM	LSM↓	LSM↓	LSM↓	LS↓
Impact Noise-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 proposed project expose people residing or working in the project area to excessive noise levels?	N	N	N	N	N
Impact Noise-6: For a project within the vicinity of a private airstrip, would the proposed project expose people residing or working in the project area to excessive noise levels?	N	N	N	N	N
3.11 Population and Housing					
Impact Population-1: Would the proposed project 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)?	LS	LS↓	LS↓	LS↓	N

Impact	Proposed Project	Alternative 1	Alternative 2	Alternative 3	No Project Alternative
Impact Population-2: Would the proposed project displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?	N	N	N	N	N
Impact Population-3: Would the proposed project displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?	N	N	N	N	N
3.12 Public Services and Recreation					
Impact Public Services-1: Would the proposed project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services: Fire protection; Police protection; Schools; Parks; or Other public facilities?	LS	LS↓	LS↓	LS↓	N
Impact Recreation-1: Would the proposed project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	LS	LS↓	LS↓	LS↓	N
Impact Recreation-2: Would the proposed project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?	N	N	N	N	N
3.13 Transportation and Traffic					
Impact Transportation-1: Would the project 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?	LSM	LSM↓	LSM↓	LSM↓	N

Impact	Proposed Project	Alternative 1	Alternative 2	Alternative 3	No Project Alternative
Impact Transportation-2: Would the project 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?	LS	LS↓	LS↓	LS↓	N
Impact Transportation-3: Would the project 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?	N	N	N	N	N
Impact Transportation-4: Would the project substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	LSM	LSM↓	LSM↓	LSM↓	N
Impact Transportation-5: Would the project result in inadequate emergency access?	LSM	LSM	LSM	LSM	N
Impact Transportation-6: Would the project conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?	N	N	N	N	N
3.14 Utilities and Service Systems					
Impact Utilities-1: Would the proposed project exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?	LS	LS↓	LS↓	LS↓	N
Impact Utilities-2: Would the proposed project require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	N	N	N	N	N
Impact Utilities-3: Would the proposed project require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	N	N	N	N	N

Impact	Proposed Project	Alternative 1	Alternative 2	Alternative 3	No Project Alternative
Impact Utilities-4: Would the proposed project have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?	LS	LS↓	LS↓	LS↓	N
Impact Utilities-5: Would the proposed project result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	LS	LS↓	LS↓	LS↓	N
Impact Utilities-6: Would the proposed project be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?	LS	LS↓	LS↓	LS↓	N
Impact Utilities-7: Would the proposed project comply with federal, state, and local statutes and regulations related to solid waste?	N	N	N	N	N
Impact Utilities-8: Would the proposed project impact residents through shutoff of electrical utilities?	LSM	LSM	LSM	LSM	N
3.15 Energy Use					
Impact Energy Use-1: Would the proposed project result in a wasteful, inefficient, and unnecessary consumption of energy?	LS	LS↓	LS↓	LS↓	LS↓
Impact Energy Use-2: Would the proposed project result in a substantial increase in demand upon energy resources in relation to projected supplies?	LS	LS↓	LS↓	LS↓	LS↓
Impact Energy Use-3: Would the proposed project result in longer overall distances between jobs and housing?	LS	LS↓	LS↓	LS↓	LS↓

KEY:
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LSM = less than significant with mitigation
N = no impact
↑ = impact is greater than for the proposed project
↓ = impact is less than for the proposed project

5 OTHER CEQA TOPICS

5.1 SIGNIFICANT IMPACTS

The proposed project would result in significant impacts in the following resource topics:

- Aesthetics
- Air Quality
- Biology
- Cultural Resources
- Geology and Soils
- Hazards and Hazardous Materials
- Hydrology and Water Quality
- Land Use and Planning
- Noise
- Transportation and Traffic
- Utilities and Service Systems

The impacts would be significant if the proposed project is implemented. Mitigation measures identified in Chapter 3 would lessen the degree of the impacts to less than significant levels.

5.2 SIGNIFICANT AND IRREVERSIBLE ENVIRONMENTAL CHANGES

5.2.1 Changes in Land Use which would Commit Future Generations

The proposed project is an allowable use in an area zoned for high-density residential uses by the City. The proposed project would not commit future generations to significant changes in land use.

5.2.2 Irreversible Changes from Environmental Accidents

The proposed project is a relatively small project requiring the transportation of small amounts of hazardous materials. The proposed project would adhere to all federal, state, and local regulations including mitigation measures regarding the safe handling and transportation of hazardous materials, as described in Section 3.7 Hazards and Hazardous Materials. These regulations are designed to prevent environmental accidents such as explosions or spills that result in irreversible changes. Thus, the potential for irreversible changes as a result of an environmental accident from implementation of the proposed project is low.

5.2.3 Consumption of Non-renewable Resources

Non-renewable resources include mineral resources, fossil fuels, and groundwater. The proposed project is in an urban area and does not contain mineral resources or other non-renewable resources at the site.

The project site is currently served by existing utility services. The proposed project would use energy during construction as well as operation, some of which may be produced from non-renewable resources such as fossil fuels. The proposed project would conform to California's Green Building Code (Part 11 of Title 24) which saves water and promotes sustainable construction methods and building standards. The relatively small size of the proposed project and adherence to California's sustainable practices would ensure that the proposed project would not consume significant quantities of non-renewable resources.

5.3 EFFECTS FOUND NOT TO BE SIGNIFICANT

Agriculture and Forestry Resources and Mineral Resources were found not to be significant because the project sites are located in highly developed suburban/urban areas that do not have agriculture, forestry, or mineral resources. As allowed by CEQA Guidelines Section 15128, these effects are discussed briefly below, and are not discussed further in this EIR.

5.3.1 Agriculture and Forestry Resources

The project sites are currently occupied by single-family homes and a four-unit residence. There are no agricultural uses at the project sites or in the immediate vicinity of the project sites. The project sites are not included in a Williamson Act contract. The California Department of Conservation's Farmland Mapping and Monitoring Program (FMMP) has designated the 524 Oak Grove Avenue and 1128-1132 Douglas Avenue project sites, and the majority of the City of Burlingame, as Urban and Built-Up Land (State of California 2015). The proposed project would not convert prime farmland, unique farmland, or farmland of Statewide importance to non-agricultural use, and would not conflict with existing zoning for agricultural use or a Williamson Act contract, and would not involve other changes in the existing environment which due to their location or nature, could result in conversion of farmland to non-agricultural use. The proposed project would not have an impact on agricultural resources.

The proposed project sites are in urban areas zoned for residential development. There are no forest lands or timberland in the City of Burlingame. The proposed project would redevelop existing residential parcels. The proposed project would not conflict with existing zoning for, or cause rezoning of, forest land, timberland, or timberland zoned for timberland production. The proposed project would not result in the loss of forest land or convert forest land to non-forest use; or involve other changes in the existing environment which, due to their location or nature, could result in conversion of farmland to non-agricultural use or conversion of forest land to non-forest use.

The proposed project would have no impact on agriculture or forestry resources.

5.3.2 Mineral Resources

The 1975 Surface Mining and Reclamation Act (SMARA) regulates mining activities in California. The California Geological Survey classifies areas, referred to as Mineral Resource Zones (MRZs), based on the presence or absence of significant mineral deposits. The Downtown Specific Plan area, including the proposed project site, is classified as MRZ-1, an area where no significant mineral deposits are present (City of Burlingame 2010). The San Mateo County General Plan does not identify any significant mineral resource areas in the City of Burlingame (County of San Mateo 1986). Based on the above, implementation of the proposed project would not result in the loss of a known mineral resource that would be of value to the region and residents of the State; and the proposed project would not 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.

The proposed project would have no impact on mineral resources.

5.4 GROWTH-INDUCING IMPACTS

The proposed project would replace a single-family house with another single-family house at the Oak Grove Avenue project site. That relocated house would not contribute to growth-inducing impacts.

The proposed project would replace two single-family houses and a quadruplex with an apartment building at the Douglas Avenue project site. These additional housing units would result in growth that is consistent with the R-4 Base District sub-plan area of the Downtown Specific Plan. This sub-plan area is designated for predominantly higher density multifamily residential uses. The proposed project would be consistent with the R-4 Base District use in providing 29 units of multi-family housing in an area that has already been set aside for high-density housing and therefore, more growth. No new infrastructure that could potentially induce growth in the area that is greater than has been planned would be needed to accommodate the proposed project.

The Douglas Avenue project site is less than 0.5 mile west of the Burlingame Caltrain station, which is the commuter rail line that serves the San Francisco Peninsula and the Santa Clara Valley; and less than 0.5 mile northeast of El Camino Real, which is a high capacity urban road that is a spinal arterial road of the San Francisco peninsula and is served by public transport agencies such as the San Mateo County Transit District. Downtown Burlingame with its businesses and thriving retail and restaurant corridor is less than a quarter mile from the proposed project site. As envisioned in the Downtown Specific Plan, the additional population generated by the proposed project would benefit by the walkable location and would likely use the existing transit systems. The reduction of automobile use would result in less traffic, air pollution, and noise. The growth generated by the proposed project would be consistent with the planned projections for the City. The proposed project would not result in growth-inducing impacts.

5.5 REFERENCES

State of California 2015. Department of Conservation, Farmland Mapping and Monitoring Program, California Important Farmland Finder, available at http://maps.conservation.ca.gov/ciff/ciff.html, accessed July 21, 2015.

City of Burlingame 2010. Burlingame Downtown Specific Plan *Draft Initial Study/Mitigated Negative Declaration*, prepared by PBS&J, May 27, 2010.

County of San Mateo 1986. *General Plan, Overview Background & Issues (Chapters 1-16)*, Mineral Resources Map, November 1986, available online at https://planning.smcgov.org/sites/planning.smcgov.org/files/SMC-GP%201986.pdf, accessed July 23, 2015.

City of Burlingame. 2011. *Burlingame Downtown Specific Plan.* Adopted October 4, 2010, amended September 19, 2011.

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